Collaborative Testing Services, Inc
FORENSIC TESTING PROGRAM

P.O. Box 650820
Sterling, VA 20165-0820
e-mail: forensics@cts-interlab.com
Telephone: +1-571-434-1925
Web site: www.cts-forensics.com

Latent Print Processing - Varied Surfaces
Test No. 21-5191 Summary Report

Each sample pack contained three pieces of simulated crime scene evidence. Participants were asked to process each piece for latent prints and report their findings. Data were returned from 265 participants 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 labeled sections or pieces and contained one latent fingerprint. The items consisted of a piece of aluminum foil (Item 1), electrical tape (Item 2), and a piece of colored copy paper (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-

The nonporous aluminum foil was cleaned with water and a paper towel before the latent print was applied. New, sealed rolls of electrical tape and sealed packs of copy paper were used for the samples that could not be cleaned. Each item was divided into sections or pieces and labeled A, B, C, and D using a chemical-safe marker or manufactured by a printing process. For each item, either an acid or oil enhancer was applied to the individual's finger prior to deposition to assist in the longevity of the print.

SAMPLE PACK ASSEMBLY-

Each item was packed into its pre-labeled item envelope or heat seal packet with necessary protective materials. Following predistribution testing, each item envelope was sealed with evidence tape and initialed with "CTS" while each heat seal was closed using a heat sealer. These were then placed into a sample pack box with bubble wrap and sealed with packaging tape.

VERIFICATION-

A random selection of prepared test items was processed in-house for latent prints to verify their durability and proper latent print location. Predistribution examiners were able to recover ridge detail in the expected section on all three items.

Item No.	Test Material	Enhancer	Print Location	Pattern
1	Aluminum foil	Oil	D	Loop
2	Electrical tape	Oil	B	Arch
3	Colored copy paper	Acid	A	Loop

Summary Comments

Each sample pack contained three items of evidence to be processed for latent prints: a piece of aluminum foil (Item 1), several pieces of electrical tape (Item 2), and a half sheet of blue copy paper (Item 3). Each item was divided into four sections or pieces, which were labeled with the letters A-D. Participants were asked to determine in which of the four sections or pieces of each evidence item a latent print was contained (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.

Of the 265 responding participants, 229 (86.4%) were able to successfully recover a print in the expected section for all three items. Twenty-three participants did not recover latent ridge detail on one or more of the items, nine participants did not test one or more of the items, and two participants left one or more responses blank. Two participants reported ridge detail located in sections other than that established by the consensus and expected results, which are marked as outliers.

The following breakdown does not include participants who reported "Not Tested" or left the answer space blank for an item. For Item 1, all 258 participants developed a print in section “D.” For Item 2, 240 of 255 participants (94.1%) reported ridge detail on piece “B.” Thirteen participants recovered no ridge detail. Two participants reported ridge detail in section “A” and were marked as outliers. For Item 3, 239 of 253 participants (94.5%) recovered ridge detail in section “A” of the paper, and fourteen participants recovered no ridge detail.

Summary statistics for the reported development and preservation methods were calculated for each item at the end of each methods table. The summary totals are cumulative for each item; therefore, each occurrence of a reported method is added into the final total. Additionally, the summary statistics only include those methods that are explicitly identified as the generic methodology found in the dropdown menu.

A visual examination was the predominant starting point of the latent print development process for participants with all three items. Photography was the preferred preservation method, although some participants also elected to lift recovered ridge detail on Item 1 and scan ridge detail on Item 3.

For the aluminum foil (Item 1), cyanoacrylate fuming (reported 194 times) was the prevalent method of development, also commonly used with a follow-up of a dye stain (119) or powder dusting (86) to enhance recovered ridge detail. For the electrical tape (Item 2), some form of wet powder suspension was most commonly used to process the adhesive side of the tape (reported 152 times). Some participants also used cyanoacrylate fuming (96) as a means of ridge detail recovery. Finally, the blue copy paper (Item 3) was processed using a variety of porous development procedures, most commonly ninhydrin (reported 196 times). This was used either alone or in combination with another porous method, such as 1,2-Indanedione (71), DFO (46), or Physical Developer (13). An alternate light source (59) was also commonly used in conjunction with these processes as needed to visualize ridge detail.

The First Level Detail section allows participants to report the potential pattern type(s) of each recovered latent

Summary Comments, continued

print. Some participants do not perform print pattern analysis in their routine casework and reported "N/A" to the pattern type question; therefore, no consensus is established for any of the items. For those who identified pattern types, the most common responses for each item were: Item 1 - Loop; Item 2 - Arch; Item 3 - Loop. 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
262U3Q	D	3NR9BN	D	6HBQLJ	D
26G34E	D	3TKCX2	D	6PTZCZ	D
2BNEEU	D	3W2QH2	D	6Q42XY	D
2HNXFP	D	4KMYJJ	D	6QVFVT	D
2L3LY2	D	4KPMZX	D	6WEU9X	D
2MXADP	D	4QCL9X	D	6X8N73	D
2NTRC7	D	4R3RM3	D	6YKFZ6	D
2PQZMB	D	4TYZW8	D	72323Q	D
2PUDGY	D	4UBYRG	D	74QFQZ	D
2TJ8YR	D	4V266L	D	7BTH2T	D
2UJ6EU	Not Tested	4Y42X2	D	7DVDKV	D
2W8LN2	D	4ZYKY3	D	7LU6Q6	D
338KCW	D	63KN6E	D	7MNKNV	D
3B3FFM	D	676NBM	D	7QLC8R	D
3BGRC7	D	6A26V4	D	7ULF2Z	D
3E3QCM	D	6A6PMD	D	7YVLVK	D
3FVHL8	D	6DJJ3A	D	87CMFF	D
3HQNEK	D	6FNYR2	D	87VHXG	D

TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location
8ATWMR	D	9G79DX	D	C3V2P4	D
8CXMP2	D	9G8CKU	D	CC4BEG	Not Tested
8FMP2G	D	9QD3EH	D	CCMEN3	D
8H7Q3U	D	A2WW8Q	D	CGFFT3	D
8HJKEN	D	A69XYN	D	CGURNM	D
8JZJRL	D	A6V84Q	D	CPT8FF	D
8NAUQ8	D	A74A44	D	CQ64M6	D
8PP4V2	D	AA4LY4	D	CQJDUK	D
8UZ8RV	D	ADJXVK	D	CW8FJ3	D
92UUUF	D	ADMHMU	D	D38YDK	D
93MK4Z	D	APX84A	D	D6FAAN	D
93QCUV	D	AT4JAC	D	D7VD2V	D
96G9MV	D	AVHA6L	D	DB28WQ	D
9B6VFF	D	AWJW9D	D	DEREBL	D
9BJKEL	Not Tested	AZXJWQ	D	DFGHAU	D
9D82NU	D	BKG7DW	D	DKCAHR	D
9D8WHX	D	BW9VBG	D	DMY7PH	D
9EFBKX	D	C2J72Q	D	DNQ7MT	D
9FBUHT	D	C3J2UU	D	DVBZ6K	D

TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location
DZ8MZT	D	FMVZLT	D	JNTMP8	D
E36MCA	D	FNQRL7	D	JX4TUB	D
E4KVHP	D	FRMAVQ	D	K3R27G	D
E4YE3M	D	FRNBLJ	D	K4H8KL	D
EAM3ZD	D	FWKQ9K	D	K6FFVQ	D
EBZMRN	D	G97H9F	D	K9HCM7	D
ECVB8D	D	GAGH8V	D	KCCF7C	D
EDAGNN	D	GBWQCP	D	KFBQ2C	D
EL3RYJ	D	GDKDTJ	D	KLH64G	D
ET2K2B	D	GEW7TD	D	KMC7PY	D
ET46YL	D	GV32FR	D	KMRAEK	D
EV66YJ	D	GZTQHG	D	KVPWDC	D
EW2LD2	D	H3FR2B	Not Tested	KXUMG7	D
EZ4GYP	D	H3UYK7	D	L69Q7J	D
F2CZED	D	HBQW7N	D	LM9MK9	D
F32JYB	D	HLVQV9	D	LMBJXD	D
F4EYMK	D	HRYQYH	D	LPDDP3	D
F6RPDF	D	HZF9NC	D	LQQZ8G	D
FFVNLP	D	J2LY7R	D	M4BZDA	D

TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location
M97T9Q	D	PNARN8	D	TQ46G2	D
M9QCBC	D	PPPZ22	D	TTA8M7	D
MA2CAR	D	PUVZRX	D	U7FXN6	D
MEAKTG	D	Q44UK6	D	UAGN8D	D
MF8QAB	D	QCEV77	D	UB868D	D
MJ9U74	D	QCVA9A	D	UBRNCK	D
MJMH24	D	QN9A8N	D	UDH3KU	D
MY46Z2	D	QY862C	D	UDUJVM	D
N3WVEC	D	R4JD43	D	UGT6GX	D
N3XFCD	D	RAP7ZJ	D	UGWP98	D
N4B4J7	D	RL2EY6	D	UHA27C	D
NLPN72	D	RQUHN3	D	ULT67V	D
NP9NGB	D	RUXZBX	D	UM7UBT	D
P49RHV	D	TA28E6	D	UNC9NZ	D
P6YXVZ	D	TBXFQV	D	UQ668T	D
P8CDKZ	D	TFACLW	D	UQGXQA	D
PARYZZ	D	TFNVBV	D	UXMGKU	D
PAXHRX	D	TJ3V73	D	V6GZYU	D
PH4BYJ	D	TNZ6KA	D	VF273Z	D

TABLE 1 - Item 1

WebCode	Location	WebCode	Location	WebCode	Location
VH6WDL	D	XHKX9M	D	ZX89W2	D
VJF7W7	D	XPEAZA	D		
VLLJKY	Not Tested	XQCLRW	D		
VNBQA3	D	XWEM4J	D		
VVVQPF	D	Y284UH	D		
VYAL6C	D	Y7LU8Q	D		
VZL67A	D	Y8FE4X	D		
W7L4XB	D	YEC6RT	D		
W7PNPK	D	YFT8NU	D		
WBF7X4	D	YRJ8U3	D		
WCWZZY	D	YUBYDZ	D		
WGRR9V	D	YWAP48	D		
WQAJG7	D	YWU4WQ	D		
WUC7CV	D	YWU7NG	D		
WUFQ46	D	ZCH3WP	D		
WUFZZV	D	ZCJR6T	Not Tested		
WXGUVR	D	ZHA692	D		
XFACZD	D	ZU2WPY	D		
XGNJLU	D	ZX79XL	D		

Response Summary - Item 1

Total Participants: 265

Location	Total
A	0
B	0
C	0
D	258
None	0
Not Tested	6

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location
262U3Q	B	3TKCX2	B	6Q42XY	B
26G34E	B	3W2QH2	B	6QVFVT	B
2BNEEU	B	4KMYJJ	B	6WEU9X	B
2HNXFP	B	4KPMZX	B	6X8N73	B
2L3LY2	None	4QCL9X	B	6YKFZ6	B
2MXADP	B	4R3RM3	B	72323Q	B
2NTRC7	B	4TYZW8	B	74QFQZ	None
2PQZMB	B	4UBYRG	B	7BTH2T	B
2PUDGY	None	4V266L	B	7DVDKV	B
2TJ8YR	B	4Y42X2	B	7LU6Q6	B
2UJ6EU	Not Tested	4ZYKY3	B	7MNKNV	B
2W8LN2	B	63KN6E	B	7QLC8R	A
338KCW	B	676NBM	B	7ULF2Z	B
3B3FFM	B	6A26V4	B	7YVLVK	B
3BGRC7	B	6A6PMD	B	87CMFF	B
3E3QCM	B	6DJJ3A	B	87VHXG	B
3FVHL8	B	6FNYR2	B	8ATWMR	B
3HQNEK	B	6HBQLJ	B	8CXMP2	B
3NR9BN	B	6PTZCZ	B	8FMP2G	B

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location
8H7Q3U	B	A2WW8Q	B	CGFFT3	B
8HJKEN	B	A69XYN	B	CGURNM	B
8JZJRL	B	A6V84Q	B	CPT8FF	B
8NAUQ8	B	A74A44	B	CQ64M6	B
8PP4V2	B	AA4LY4	B	CQJDUK	B
8UZ8RV	B	ADJXVK	B	CW8FJ3	B
92UUUF	B	ADMHMU	B	D38YDK	B
93MK4Z	B	APX84A	B	D6FAAN	B
93QCUV	None	AT4JAC	B	D7VD2V	B
96G9MV	B	AVHA6L	B	DB28WQ	B
9B6VFF	B	AWJW9D	B	DEREBL	B
9BJKEL	Not Tested	AZXJWQ	B	DFGHAU	B
9D82NU	B	BKG7DW	B	DKCAHR	B
9D8WHX	B	BW9VBG	B	DMY7PH	B
9EFBKX	B	C2J72Q	B	DNQ7MT	B
9FBUHT	B	C3J2UU	B	DVBZ6K	B
9G79DX	B	C3V2P4	B	DZ8MZT	B
9G8CKU	B	CC4BEG	Not Tested	E36MCA	None
9QD3EH	B	CCMEN3	B	E4KVHP	B

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location
E4YE3M	B	FRNBLJ	B	K4H8KL	B
EAM3ZD	B	FWKQ9K	B	K6FFVQ	None
EBZMRN	None	G97H9F	None	K9HCM7	B
ECVB8D	B	GAGH8V	B	KCCF7C	B
EDAGNN	A	GBWQCP	B	KFBQ2C	B
EL3RYJ	B	GDKDTJ	B	KLH64G	B
ET2K2B	B	GEW7TD	B	KMC7PY	B
ET46YL	B	GV32FR	B	KMRAEK	None
EV66YJ	B	GZTQHG	B	KVPWDC	B
EW2LD2	B	H3FR2B	Not Tested	KXUMG7	B
EZ4GYP	B	H3UYK7	B	L69Q7J	B
F2CZED	B	HBQW7N	B	LM9MK9	B
F32JYB	B	HLVQV9	B	LMBJXD	B
F4EYMK	B	HRYQYH	B	LPDDP3	B
F6RPDF	B	HZF9NC	B	LQQZ8G	B
FFVNLP	B	J2LY7R	B	M4BZDA	B
FMVZLT	B	JNTMP8	B	M97T9Q	B
FNQRL7	None	JX4TUB	B	M9QCBC	B
FRMAVQ	B	K3R27G	B	MA2CAR	B

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location
MEAKTG	B	Q44UK6	B	UB868D	B
MF8QAB	B	QCEV77	B	UBRNCK	B
MJ9U74	B	QCVA9A	B	UDH3KU	B
MJMH24	B	QN9A8N	B	UDUJVM	B
MY46Z2	B	QY862C	Not Tested	UGT6GX	B
N3WVEC	B	R4JD43	B	UGWP98	B
N3XFCD	B	RAP7ZJ	B	UHA27C	B
N4B4J7	B	RL2EY6	B	ULT67V	B
NLPN72	B	RUXZBX	B	UM7UBT	Not Tested
NP9NGB	B	TA28E6	B	UNC9NZ	B
P49RHV	B	TBXFQV	B	UQ668T	B
P6YXVZ	B	TFACLW	B	UQGXQA	B
P8CDKZ	B	TFNVBV	B	UXMGKU	B
PARYZZ	B	TJ3V73	B	V6GZYU	B
PAXHRX	B	TNZ6KA	B	VF273Z	B
PH4BYJ	B	TQ46G2	B	VH6WDL	B
PNARN8	B	TTA8M7	B	VJF7W7	B
PPPZ22	B	U7FXN6	B	VLLJKY	Not Tested
PUVZRX	B	UAGN8D	None	VNBQA3	B

TABLE 1 - Item 2

WebCode	Location	WebCode	Location	WebCode	Location
VVVQPF	B	Y284UH	B		
VYAL6C	None	Y7LU8Q	B		
VZL67A	B	Y8FE4X	B		
W7L4XB	B	YEC6RT	B		
W7PNPK	None	YFT8NU	B		
WBF7X4	B	YRJ8U3	B		
WCWZZY	B	YUBYDZ	B		
WGRR9V	B	YWAP48	B		
WQAJG7	B	YWU4WQ	B		
WUC7CV	B	YWU7NG	B		
WUFQ46	B	ZCH3WP	B		
WUFZZV	B	ZCJR6T	Not Tested		
WXGUVR	B	ZHA692	B		
XFACZD	B	ZU2WPY	B		
XGNJLU	B	ZX79XL	B		
XHKX9M	B	ZX89W2	B		
XPEAZA	B				
XQCLRW	B				
XWEM4J	B				

Response Summary - Item 2

Total Participants: 265

Location	Total
A	2
B	240
C	0
D	0
None	13
Not Tested	8

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location
262U3Q	A	3TKCX2	A	6Q42XY	A
26G34E	A	3W2QH2	A	6QVFVT	None
2BNEEU	A	4KMYJJ	A	6WEU9X	A
2HNXFP	A	4KPMZX	A	6X8N73	A
2L3LY2	None	4QCL9X	None	6YKFZ6	A
2MXADP	A	4R3RM3	A	72323Q	A
2NTRC7	A	4TYZW8	A	74QFQZ	Not Tested
2PQZMB	A	4UBYRG	A	7BTH2T	A
2PUDGY	A	4V266L	A	7DVDKV	A
2TJ8YR	A	4Y42X2	A	7LU6Q6	A
2UJ6EU	Not Tested	4ZYKY3	A	7MNKNV	A
2W8LN2	A	63KN6E	A	7QLC8R	None
338KCW	A	676NBM	A	7ULF2Z	A
3B3FFM	A	6A26V4	A	7YVLVK	A
3BGRC7	A	6A6PMD	A	87CMFF	A
3E3QCM	A	6DJJ3A	A	87VHXG	A
3FVHL8	A	6FNYR2	A	8ATWMR	A
3HQNEK	A	6HBQLJ	A	8CXMP2	A
3NR9BN	A	6PTZCZ	A	8FMP2G	A

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location
8H7Q3U	None	A2WW8Q	A	CGFFT3	A
8HJKEN	A	A69XYN	A	CGURNM	A
8JZJRL	A	A6V84Q	A	CPT8FF	A
8NAUQ8	A	A74A44	A	CQ64M6	A
8PP4V2	A	AA4LY4	A	CQJDUK	A
8UZ8RV	Not Tested	ADJXVK	A	CW8FJ3	A
92UUUF	A	ADMHMU	A	D38YDK	A
93MK4Z	A	APX84A	A	D6FAAN	A
93QCUV	A	AT4JAC	A	D7VD2V	A
96G9MV	A	AVHA6L	A	DB28WQ	A
9B6VFF	A	AWJW9D	A	DEREBL	A
9BJKEL	Not Tested	AZXJWQ	A	DFGHAU	A
9D82NU	A	BKG7DW	A	DKCAHR	A
9D8WHX	A	BW9VBG	A	DMY7PH	A
9EFBKX	A	C2J72Q	A	DNQ7MT	None
9FBUHT	A	C3J2UU	A	DVBZ6K	A
9G79DX	A	C3V2P4	A	DZ8MZT	A
9G8CKU	A	CC4BEG	Not Tested	E36MCA	None
9QD3EH	A	CCMEN3	A	E4KVHP	A

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location
E4YE3M	A	FRNBLJ	A	K4H8KL	A
EAM3ZD	A	FWKQ9K	A	K6FFVQ	A
EBZMRN	None	G97H9F	A	K9HCM7	A
ECVB8D	A	GAGH8V	A	KCCF7C	A
EDAGNN	A	GBWQCP	A	KFBQ2C	A
EL3RYJ	A	GDKDTJ	A	KLH64G	A
ET2K2B	A	GEW7TD	A	KMC7PY	A
ET46YL	A	GV32FR	A	KMRAEK	A
EV66YJ	A	GZTQHG	A	KVPWDC	A
EW2LD2	A	H3FR2B	Not Tested	KXUMG7	A
EZ4GYP	A	H3UYK7	A	L69Q7J	A
F2CZED	A	HBQW7N	A	LM9MK9	A
F32JYB	A	HLVQV9	A	LMBJXD	A
F4EYMK	A	HRYQYH	A	LPDDP3	A
F6RPDF	A	HZF9NC	A	LQQZ8G	A
FFVNLP	A	J2LY7R	A	M4BZDA	A
FMVZLT	A	JNTMP8	A	M97T9Q	A
FNQRL7	A	JX4TUB	A	M9QCBC	A
FRMAVQ	A	K3R27G	None	MA2CAR	A

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location
MEAKTG	A	Q44UK6	A	UB868D	A
MF8QAB	A	QCEV77	A	UBRNCK	A
MJ9U74	A	QCVA9A	None	UDH3KU	A
MJMH24	A	QN9A8N	A	UDUJVM	A
MY46Z2	A	QY862C	Not Tested	UGT6GX	A
N3WVEC	None	R4JD43	A	UGWP98	A
N3XFCD	A	RAP7ZJ	A	UHA27C	A
N4B4J7	A	RL2EY6	A	ULT67V	A
NLPN72	A	RUXZBX	A	UM7UBT	A
NP9NGB	A	TA28E6	A	UNC9NZ	A
P49RHV	A	TBXFQV	A	UQ668T	A
P6YXVZ	A	TFACLW	A	UQGXQA	None
P8CDKZ	A	TFNVBV	A	UXMGKU	A
PARYZZ	A	TJ3V73	A	V6GZYU	None
PAXHRX	A	TNZ6KA	A	VF273Z	A
PH4BYJ	A	TQ46G2	A	VH6WDL	A
PNARN8	A	TTA8M7	A	VJF7W7	A
PPPZ22	A	U7FXN6	A	VLLJKY	Not Tested
PUVZRX	A	UAGN8D	Not Tested	VNBQA3	A

TABLE 1 - Item 3

WebCode	Location	WebCode	Location	WebCode	Location
VVVQPF	A	Y284UH	A		
VYAL6C	A	Y7LU8Q	A		
VZL67A	A	Y8FE4X	A		
W7L4XB	A	YEC6RT	A		
W7PNPK	A	YFT8NU	A		
WBF7X4	A	YRJ8U3	A		
WCWZZY	A	YUBYDZ	A		
WGRR9V	A	YWAP48	A		
WQAJG7	A	YWU4WQ	A		
WUC7CV	A	YWU7NG	A		
WUFQ46	A	ZCH3WP	A		
WUFZZV	A	ZCJR6T	Not Tested		
WXGUVR	A	ZHA692	A		
XFACZD	A	ZU2WPY	A		
XGNJLU	A	ZX79XL	A		
XHKX9M	None	ZX89W2	A		
XPEAZA	A				
XQCLRW	A				
XWEM4J	A				

Response Summary - Item 3

Location	Total	Total Participants: 265
A	239	
B	0	
C	0	
D	0	
None	14	
Not Tested	10	

Development Methods

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
262U3Q	Visual Examination	ambient light
26G34E	Cyanoacrylate Fuming	MVC-5000
	Dye Stain	Rhodamine 6G
2BNEEU	Visual Examination	Item examined under natural light and a white Crime-Lite. With the white Crime-Lite at an oblique angle, ridge detail was observed in box D of the piece of foil. Under live casework circumstances, the visible ridge detail would be captured and recorded using the Digital Capture System (DCS).
	Alternate Light Source	Quaser examination carried out with blue, green, blue/green, orange, violet, UV light sources. Ridge detail visible in box D under all light sources except green. Most detail was visible under blue light and was improved further than under white light. Under live casework circumstances, the ridge detail would be captured and recorded using the DCS with blue light at an oblique angle.
	Cyanoacrylate Fuming	Mason Vactron MVC5000 Cabinet #4 used. SG Batch SURLOC #092877, 3.99g SG used. Treated using the Auto Cycle function which undergoes a 15 minute fuming cycle at 120°C and a RH range of 75-90%. Control sample was positive. Ridge detail visible, under normal circumstances this would not be captured at this stage and would go straight for BY40 dye.
	Dye Stain	Basic Yellow 40 Dye Stain applied to item after cyanoacrylate fuming. The stain contains Ethanol 96% and Basic Yellow stain. Item immersed in the BY40 to ensure all of item is evenly covered and then rinsed off with cold running tap water. BY40 batch #20AA262, Dye Tank #1. Control sample was positive.
	Solvent Black	Solvent Black (SB3) applied post SG/DYE treatment. The solution contains Solvent Black 3, Methoxy-2-Propanol (PGME) and water. Item immersed in SB3 for up to a minute and then rinsed off with cold running tap water. SB3 batch #20AA263. Control sample was positive. Solvent Black does not appear to have reacted with mark on item, only very small area at edge of mark has reacted. Under normal circumstances the mark would not be captured again at this stage.
2HNXFP	Visual Examination	11/3/21 - Item 1, Visual exam using white light and laser. Latent print detected in section labeled D
	Cyanoacrylate Fuming	11/30/21 - Item 1 processed with CAE, placed in the foster + freeman MVC 1000 Superglue Fuming Cabinet for 20 minutes. Visual exam using white light - latent print detected in section labeled D
2L3LY2	Visual Examination	
	Powder Dusting	Bichromatic and black magnetic

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
2MXADP	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	R6G MeOH. Used laser 532 nm with OB filter for visualization.
2NTRC7	Visual Examination	
	Cyanoacrylate Fuming	Fuming in Glass Chamber with 70% Humidity. 90C Hot Plate Temperature. 10 Drop of Cyano Acrylate for 15 Mints
	Dye Stain	Rhodamine 6G Staining
2PQZMB	Visual Examination	Use a flashlight with white light and ambient light in room, latent print visible.
	Cyanoacrylate Fuming	It was place in a steam chamber with cyanoacrylate for 15 minute.
	Powder Dusting	Developing the latent print with black graphite powder.
2PUDGY	Cyanoacrylate Fuming	
	Powder Dusting	White powder
2TJ8YR	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120°C +/- 5°, 75% +/- 15% relative humidity
	Dye Stain	R.A.M., yellow filter, 395 nm
2W8LN2	Visual Examination	Used bright white light and oblique lighting.
	Alternate Light Source	Used three light sources; 450nm (blue light), 365nm (UV light) and 532nm (laser).
	Cyanoacrylate Fuming	Used a superglue chamber then examined item with oblique lighting and 254nm (FSIS)
	Dye Stain	Processed item with RAM and used three light sources; 450nm (blue light), 365nm (UV light) and 532nm (laser).
338KCW	Visual Examination	Performed visual exam utilizing oblique lighting.
	Alternate Light Source	Utilized 532nm Laser, 450nm blue light and 365nm UV light.
	Cyanoacrylate Fuming	Performed visual exam utilizing oblique lighting then FSIS with 254nm.
	Dye Stain	Applied RAM then utilized 532nm Laser, 45nm blue light, and 365nm UV light.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
3B3FFM	Visual Examination	Visually inspected under ambient light.
	Cyanoacrylate Fuming	Approximatel 20 drops of arrowhead forensics cyanoacrylate, +control (lot WATA21419, exp 04/2022). Used Mystaire CA-6000 fuming chamber: 70% humidity, 10mins fuming, 10mins purging.
	Powder Dusting	Black powder
	Dye Stain	Sprayed w/RAY (Rhodamine 6G, Ardrox, Basic Yellow 40), +control (PF301043082001, exp 11/03/2021). After 10 seconds, rinsed with cool water. Secured in evidence locker for approximately 2 days.
	Alternate Light Source	Used Crimescope 16 at 515nm
3BGRC7	Cyanoacrylate Fuming	40 min, white stain.
	Magnetic black powder	After cyanocrylate fuming the enhacement it was used the magnetic black powder, black stain.
3E3QCM	Visual Examination	Oblique lighting used
	Alternate Light Source	420-470nm used
	Cyanoacrylate Fuming	Superglue chamber used
	Dye Stain	Basic yellow dye stain used
3FVHL8	Visual Examination	Examined in the white light and the daylight.
	Cyanoacrylate Fuming	Processed in the cyanoacrylate chamber "MVC 3000" for 20 min., t-120 C, RH-80 %. Examined in the white light and the daylight.
	Dye Stain	Processed in Basic Yellow 40 (0,2 % ethanol based solution), exposure time - 5 sec. Dried item examined at 420-470nm (CrimeLite 82S) with the filter OG550.
3HQNEK	Visual Examination	Fluorescent desk light
	Cyanoacrylate Fuming	Air Science chamber ~30 min cycle. 70 degrees, 80% humidity
	Dye Stain	MStar - wash bottle application. No rinse. Allow air dry. View with Crime Scope 495nm
	Powder Dusting	White powder, brush application, fume hood
3NR9BN	Visual Examination	
	Cyanoacrylate Fuming	
	Powder Dusting	

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
3TKCX2	Visual Examination	Photography of the fingerprint using white light and no filter
	Cyanoacrylate Fuming	Humidity: 80%, Processing time: 8min, temperature of the heating plate: 120°C. Photography of the fingerprint using white light and no filter
	Dye Stain	Dye Stain: Ardrox. Photography of the fingerprint: Excitation filter: 380nm, Observation filter: 500nm
3W2QH2	Visual Examination	Visually looked at the item for any prints
	Alternate Light Source	Used 532nm Laser, 450nm Blue light, and 365nm UV
	Cyanoacrylate Fuming	Performed a visual examination and then used the RUVIS (254nm)
	Dye Stain	Used RAM on the item and used the 532nm Laser, 450nm blue light, and 365nm UV to visualize
4KMYJJ	Visual Examination	Visible prints observed.
	Cyanoacrylate Fuming	Sheet of foil was placed in the super glue chamber for a 20 minute cycle.
	Powder Dusting	Application of magnetic powder.
4KPMZX	Cyanoacrylate Fuming	BY40/FLS
4QCL9X	Visual Examination	A visual examination was completed of the item in its entirety and a general description was notated on the processing worksheet.
	Lumicyano Fuming	A Lumicyano solution was utilized in the fuming chamber together with molecular grade water in order to go through the evaporation, saturation, absorption, and polymerization process. To go through these steps the fuming chamber enters three steps; the humidity cycle for 15 minutes at 80% relative humidity, the glue cycle for 25 minutes at 80% relative humidity and 120 degrees Celsius, and the purge cycle for 20 minutes at roughly 80% humidity. The item was processed together with a QC. The QC showed the process worked correctly and ridge detail was observed on the item.
	Alternate Light Source	A laser in the green wavelength setting was used to observe ridge detail in addition to the white light utilized.
4R3RM3	Cyanoacrylate Fuming	Before applying any evidence enhancement method, the evidence is photographically fixed and then placed in the cyanoacrylate chamber. Once it is developed, a black volcanic powder is applied and it is again fixed with photography.
4TYZW8	Powder Dusting	Item was processed using black latent fingerprint powder and cleaned with a feather duster until development.
4UBYRG	Cyanoacrylate Fuming	Processed in superglue chamber starting at 0947hrs, stayed in chamber for 23 minutes

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
4V266L	Visual Examination	Ambient and white lighting utilized.
	Cyanoacrylate Fuming	White light and RUVIS utilized to view RD development.
	Dye Stain	Rhodamine 6G utilized. LASER ALS utilized to view RD development.
4Y42X2	Cyanoacrylate Fuming	fumed with cyanoacrylate at 80% relative humidity for 14 minutes
4ZYKY3	Powder Dusting	Item removed from packaging using Dept issued protective equipment. Item was photographed prior to processing. Item was processed with black powder.
63KN6E	Visual Examination	Brief visual examination. Ridge detail observed in quadrant "D".
	Cyanoacrylate Fuming	Processed for approximately 30 minutes. Ridge detail developed in quadrant "D".
	Powder Dusting	Standard black powder. Ridge detail further developed in quadrant "D".
676NBM	Cyanoacrylate Fuming	
	Powder Dusting	
6A26V4	Lumicyano	Humidity held for 20 mins, fumed for 15 mins, print visible in section D. Second fuming 45 mins, no new prints visible. Images taken with microscope with various lights, i.e. UV
6A6PMD	Visual Examination	White light exam for patent prints - none observed
	Cyanoacrylate Fuming	Cyanoacrylate fuming in CA6000 fume chamber. 10 minutes fume time at 80% RH.
	Powder Dusting	Dusted applicable surfaces of item with Black Powder.
	Dye Stain	Following powder processing, Rhodamine 6G dye stain was applied via spray bottle. The item was allowed to dry thoroughly and was viewed using the Coherent TracER laser light with orange goggles/filters.
6DJJ3A	Visual Examination	Mark search was done by following ways: 1. White Light/Naked eye. 2. Blue Light (445 nm) using Goggle (495 nm). 3. Green Light (532 nm) using Goggle (550 nm). Print found on Section D by White Light.
	Polycyano UV	Processing Time: 20 mins, which includes Humidifying, Fuming and Purging. After 20 mins, Mark search was done using White Light. No additional mark found. Mark on Section D, enhanced.
6FNYR2	Black volcanic powder	Black volcanic powder was applied to the four divisions of the sheet, revealing a lofoscopic fragment in section D, it is documented in writing and through photography.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
6HBQLJ	Visual Examination	White light at an oblique angle - print visible in section D.
	Cyanoacrylate Fuming	30-minute fuming time at 70% humidity - print visible in section D.
	Dye Stain	MBD applied, then visualized with ALS and orange barrier filter (goggles) - print visible in section D.
6PTZCZ	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	BY 40
6Q42XY	Cyanoacrylate Fuming	Enhancement in fingerprint quality after 15 minutes CA fuming.
6QVFVT	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	Rhodamine 6G
	[No Methods Reported.]	LASER for visualization of dye stain (R6G)
6WEU9X	Visual Examination	ambient light
	Alternate Light Source	CrimeLite 4x4, blue, cyan, green light, white light
	Cyanoacrylate Fuming	Fuming cabinet MVC 3000 Foster + Freeman, 15 min humidifying in 80% RH, 5 min fuming 120C
	Dye Stain	Ardrox ready concentrate
6X8N73	Black volcanic powder	Black volcanic powder was applied to the four divisions of the sheet, revealing a lofoscopic fragment in section D, it is documented in writing and through photography.
6YKFZ6	Visual Examination	and the print was photographed
	Cyanoacrylate Fuming	print was photographed after
	Dye Stain	Ardrox was used to develop the print further
72323Q	Visual Examination	Under the ambient light, a latent mark was clear in section D
	Powder Dusting	Black powder was applied to the item, and the mark is clear
74QFQZ	Cyanoacrylate Fuming	Visual inspection is carried out with the support of a white light lamp and magnifying glass, item 1 is placed in a portable camera applying cyanoacrylate vapors with a cyanowand gun until the positive control is visible, item 1 is removed and black silk powder latent printing reagent is applied. on the surface of the aluminum foil, revealing friction ridges in quadrant D

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
7BTH2T	Visual Examination	
	Alternate Light Source	365nm, 495nm
	Cyanoacrylate Fuming	15min fuming time, 80% relative humidity
	Dye Stain	MBD, 445nm-510nm
7DVDKV	Visual Examination	white light, fluorescent
	Alternate Light Source	365 nm, 495 nm, 535 nm, orange and red filters
	Laser	445 nm, 532 nm, orange filter
	Cyanoacrylate Fuming	About 15 minutes, RH 80%, white light
	Dye Stain	Ardrox, 365 nm
7LU6Q6	Powder Dusting	Item was processed in about five minutes using black latent fingerprint powder and a feather duster
7MNKNV	Visual Examination	Perform visual exam first to see if there are any friction ridge detail visible before processing
	Cyanoacrylate Fuming	Second, sample places in CA fuming chamber for ~45 minutes
	Dye Stain	Third, dye stain (rhodamine 6G) squirted on sample
	Alternate Light Source	Last, sample looked under a laser using orange filter goggles and the laser set at 515nm
7QLC8R	Visual Examination	
	Cyanoacrylate Fuming	approximately 30 minutes
	Dye Stain	Ardrox, approximate drying time 1 hour 30 minutes, RUVIS at 365 nm
7ULF2Z	Cyanoacrylate Fuming	Cyanoacrylate fuming in temperature and humidity controlled chamber
	Powder Dusting	Black powder
7YVLVK	Visual Examination	White Light
	Cyanoacrylate Fuming	VIS: White Light, RUVIS
	Dye Stain	Dye Stain: R6G. VIS: LASER, Orange Filter
87CMFF	Visual Examination	White light was used for visual examination.
	Cyanoacrylate Fuming	Item was CAE fumed for 15 minutes. Hot water was placed in the chamber for humidity. Control was used during processing and was placed on the glass. White ridges were visible after processing.
	Powder Dusting	Item was powdered with black fingerprint powder.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
87VHXG	Visual Examination	oblique light
	Cyanoacrylate Fuming	6 minute fuming cycle
	Dye Stain	Rhodamine 6G - petroleum ether based; spray
	Alternate Light Source	@ 495nm with orange goggles
8ATWMR	Visual Examination	lights, ALS (530, 505, 450), magnification
	Cyanoacrylate Fuming	SafeFume chamber, 69.1 F, 80% humidity, 20 minutes
	Powder Dusting	Black magnetic powder
8CXMP2	Visual Examination	Photo document the piece where it is packed by the front and back opens the pieces is taken out and again this process is photographed is repeat in the analysis.
	Cyanoacrylate Fuming	the procedure for analyzing and developing this piece is approximately 15 minute in the sealed glass chamber after observing alternating light and magnifying glass.
	Powder Dusting	Proceeds to photo document is used Vulcan graphite powder Hi Fi black for the development of the same photo is taken proceeds to place the place the transparent plastic patch or transparent cover
8FMP2G	Visual Examination	Visual examination of item with oblique lighting. No ridge detail visualized on the foil.
	Cyanoacrylate Fuming	A known print, that was used as a control, and hot water, that was used for humidity, was placed into a fuming chamber. The control developed white ridge detail. The evidence item was in the fuming chamber for approximately 20 minutes before removal. Visible white ridge detail developed on the item.
	Powder Dusting	Ridge detail recovered on section D was enhanced with black powder dusting and lifted with lifting tape. Tape was placed onto a latent print card and documented.
8H7Q3U	Visual Examination	ambient light
	Cyanoacrylate Fuming	Lumicyano fuming. Auto cycle settings F&F fuming chamber
	Alternate Light Source	Brightbeam Laser, green wavelength

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
8HJKEN	Visual Examination	Visual exam of Item #1 with and without oblique lighting, approximately 5 minutes, print observed and documented within Section D.
	Alternate Light Source	Item #1 viewed under Forensic Light (Laser) Source, approximately 5 minutes, no print observed.
	Cyanoacrylate Fuming	Item #1 fumed in chamber with Cyanoacrylate, after fuming Item #1 examined with and without oblique lighting, approximately 15 minutes, print observed and documented in Section D. Positive control completed concurrent to processing with Cyanoacrylate.
	Dye Stain	After fuming with Cyanoacrylate, Item #1 processed with Rhodamine 6G Dye Stain and viewed with Forensic Light (Laser) Source, approximately 15 minutes, print observed and documented within Section D. Positive control completed prior to processing.
	Powder Dusting	Final processing method for Item #1 was dusting with black powder. Print observed and lifted from Section D, print preserved on latent print lift card, approximately 5 minutes.
8JZJRL	Powder Dusting	Dual-toned fiberglass brushed powders
8NAUQ8	Visual Examination	Natural light, white light, optical instruments.
	Cyanoacrylate Fuming	Processing time: 10 min, humidity: 80%
	Visual Examination	White light /angle light, optical instruments.
8PP4V2	Visual Examination	Daylight examination, coaxial lighting to photograph the impression
	Cyanoacrylate Fuming	Standard glue time 15 minutes in Foster+Freeman MVC3000 cabinet.
8UZ8RV	Powder Dusting	Bichromatic powder was used, took the fingerprint brush into the powder. knock off any of the excess powder and swirl the brush over the print. Once the powder was applied the print would be ready to lift.
	Visual Examination	Used my flashlight to see if I could see any potential prints before using the powder
92UUUF	Visual Examination	with white light
	Alternate Light Source	
	Cyanoacrylate Fuming	15 min cycle with 80% RH
	Dye Stain	Methanol based Rhodamine 6G viewed under 515nm light with orange filter
	Powder Dusting	Black powder
93MK4Z	Visual Examination	A white light was used to examine the piece of evidence by detecting the print in the D-space.
	Powder Dusting	Conventional black powder was used for the development of the fingerprint.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
93QCUV	Physical Developer (PD)	se utilizo la tecnica de barrido con polvo de color negro Silk/black y se revelo una huella lofoscopica. [Requested translation was not received prior to CTS report publication.]
96G9MV	Visual Examination	PRINT VISIBLE UNDER OBLIQUE LIGHT - AFFIXED WITH CYANOACRYLATE FUM (250DEG/80HUM) - BLACK MAG POWDER MAG WAND
	Cyanoacrylate Fuming	
	Powder Dusting	
9B6VFF	Visual Examination	
	Cyanoacrylate Fuming	
	Powder Dusting	
	Rhodamine 6G	
	Alternate Light Source	
9D82NU	Visual Examination	While light and ambient lighting used to visually examine Item 1
	Alternate Light Source	Examined Item 1 using: 254nm RUVIS lamp, 365nm UV light source, 455nm blue light source, 532nm laser light source
	Cyanoacrylate Fuming	Vaporization of cyanoacrylate glue to develop latent fingerprints on Item 1 of evidence. Total fume time is 1.5 min. Visually examined evidence with white light and ambient lighting, then used 254nm RUVIS lamp for additional examinations
	Dye Stain	Applied RAM dye stain to Item 1, allowed to dry, and examined with following light sources: 365nm UV light source, 455nm blue light source, 532nm laser light source
9D8WHX	Visual Examination	Visually examined all four sections of aluminum foil. Possible latent print observed on section D.
9EFBKX	Powder Dusting	A LATENT LOPHOSCOPIC PRINT SEARCH WAS MADE ON ITEM 1 CORRESPONDING TO ALUMINUM PAPER SHEET, FINDING A POSITIVE RESULT IN SECTOR D OF THE ITEM. VOLCANIC POWDERS WERE USED ON THE SURFACE
9FBUHT	Visual Examination	White light.
	Cyanoacrylate Fuming	Cyanoacrylate fumming chamber "Air Science Safefume 48C" cyanoacrylate B83000, BVDA. Humidity 80,1%. Target temperature 85C. Procesing time 25 min.. Room temperature 19.5C.
	Physical Developer (PD)	Small particle reagent SPR Black, B-86000, BVDA. Items was spread for 5-6 seconds.
9G79DX	Cyanoacrylate Fuming	Processed for 28 min at 65% humidity using a cyanoacrylate fuming chamber.
	Powder Dusting	Black magnetic powder.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
9G8CKU	Visual Examination	
	Alternate Light Source	(LASER, Blue Light, UV)
	Cyanoacrylate Fuming	(Visual, RUVIS)
	Dye Stain	RAM (LASER, Blue Light, UV)
9QD3EH	Visual Examination	
	Cyanoacrylate Fuming	
	Powder Dusting	Black powder
A2WW8Q	Visual Examination	Item 1 was visually examined with direct and oblique lighting. Friction ridge detail was observed in the section labeled "D" and was photographed.
	Cyanoacrylate Fuming	Item 1 was fumed in a Foster + Freeman cabinet with approximately 10 drops TurboFuse cyanoacrylate using the Auto Glue Cycle (15 minutes humidifying, 18 minutes fuming at 120 degrees Celsius and 79% relative humidity, and 16 minutes purging). Friction ridge detail was observed in the section labeled "D" and was photographed. A positive control was fumed simultaneously with Item #1 and yielded expected results.
	Dye Stain	Item 1 was sprayed with Rhodamine 6G (R6G) and then examined with laser and filter. Friction ridge detail was observed in the section labeled "D" and was photographed. A positive control was also sprayed with R6G and examined with laser and filter and yielded expected results.
	Alternate Light Source	After Item 1 was stained with R6G, it was examined under a 532nm laser with orange filter glasses. Friction ridge detail was observed in the section labeled "D" and was photographed. A positive control was also stained with R6G and examined with laser and filter and yielded expected results.
A69XYN	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	Basic Yellow 40
A6V84Q	Visual Examination	Visual exam, 10 minutes
	Cyanoacrylate Fuming	Cyanoacrylate fuming for 15 minutes
	Dye Stain	R6G
	Alternate Light Source	Laser
A74A44	Visual Examination	oblique lighting
	Cyanoacrylate Fuming	used air science fuming chamber with evident microburst CAE at ~68*F, ~70% RH with 15 min fume time and 5 min purge time
	Dye Stain	evident RAM dye stain visualized with ALS at CSS and 515 nm wavelengths and with orange barrier filters

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
AA4LY4	Cyanoacrylate Fuming	On visual examination a possible latent print was visible in section "D". ALS/UV was used next and this same latent was visible with the light source. CA was then used and followed by a blk. powder with photography and lifting.
ADJXVK	Visual Examination	
	Cyanoacrylate Fuming	120°C +/- 5°, 75% +/- 15% relative humidity
	Dye Stain	R.A.M., 365 nm
ADMHMU	Visual Examination	ambient light
	Cyanoacrylate Fuming	12 min.
	Dye Stain	R6G in Pet Ether , laser 8W @ 532nm, orange goggles
APX84A	Cyanoacrylate Fuming	Processed the foil sheet in cyanoacrylate chamber for 10 minutes. Negative and positive controls were performed. Latent prints developed in section D of foil.
AT4JAC	Visual Examination	Visual examination with direct and indirect lighting.
	Cyanoacrylate Fuming	Placed item into Mystaire Cyanoacrylate fuming chamber for a total of 20 minutes with a humidity level at 70%.
	Powder Dusting	Bichromatic powder.
AVHA6L	Visual Examination	Visual examination with white light.
	Cyanoacrylate Fuming	CA fuming for 3 minutes at 70% Humidity.
	Dye Stain	Rinsed with fluorescent dye stain (R.A.M.)
AWJW9D	Visual Examination	Ridge detail was present before processing.
	Alternate Light Source	Used a white light source to illuminate and photograph the ridge detail.
	Cyanoacrylate Fuming	Processed the item in the CA chamber after photographing the item with no processing. The item was left in the CA chamber at 75% humidity for 15 minutes.
	Dye Stain	Applied MRM-10 to the item and allowed it to dry.
AZXJWQ	Visual Examination	
	Cyanoacrylate Fuming	15 min processing time
BKG7DW	Cyanoacrylate Fuming	
BW9VBG	Visual Examination	light white, UV, 415 nm - 550 nm
	Cyanoacrylate Fuming	light white
	Basic Yellow 40	light UV, 415 nm, 450 nm

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
C2J72Q	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	Rhodamine 6G
	Laser	
	Powder Dusting	Black fingerprint powder
C3J2UU	Cyanoacrylate Fuming	Processed by cyanoacrylate ester (superglue) under a vacuum for over 1 hour, allowed to cure then dye stained with R6G and viewed using a 530nm/green forensic laser
C3V2P4	Visual Examination	magnifier and light
	Cyanoacrylate Fuming	small chamber, 15 min, 73 degrees F, 80% humidity
	Dye Stain	R6G (H2O), used water-based opposed to methanol-based so permanent marker would not run
CCMEN3	Visual Examination	in natural light and light from forensic illuminator print was observed in section D
	Cyanoacrylate Fuming	time - 15 min; RH - 80%; glue - 2g; disovered fingerprint has improved
	Dye Stain	Basic Yellow 40 - to achive even better contrast - positive result
CGFFT3	Cyanoacrylate Fuming	contrasting method - Basic Yellow 40.
CGURNM	Visual Examination	Examination with an alternate forensic light source with appropriate filters (light source – POLILIGHT PL 500)
	Cyanoacrylate Fuming	20 min exposure, 120° C, 80% humidity, viewing in white light and with POLILIGHT PL 500 in 505-530 nm range + appropriate filters
	Dye Stain	Spraying item with Basic Yellow 40 working solution, after 1 min the excess of reagent was rinsed under running tap water, viewing with POLILIGHT PL 500 in 415-495 nm range + appropriate filters
CPT8FF	Powder Dusting	Processed with black magnetic powder, print developed and collected.
CQ64M6	Visual Examination	Observed item under Ambient light. Ridge detail of possible value was observed. Photographs were taken of ridge detail.
	Full Spectrum Imaging System	Item was viewed with the Full Spectrum Imaging System (FSIS) with Ultra Violet light at 254nm and InfraRed at 850nm. Photographs were taken of ridge detail of possible value.
	Cyanoacrylate Fuming	Item was placed into a fuming chamber with heated superglue. Ridge detail of possible value was observed and photographed.
	Full Spectrum Imaging System	Item was viewed with the Full Spectrum Imaging System (FSIS) with Ultra Violet light at 254nm and InfraRed at 850nm. Photographs were taken of ridge detail of possible value.
	Powder Dusting	Black powder processing was done and ridge detail was observed and lifted.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
CQJDUK	Cyanoacrylate Fuming	21C - temperature, 80% - humidity, 3 hours
	Visual Examination	white light
CW8FJ3	Cyanoacrylate Fuming	Processed item in fuming chamber 20 mins at 80% humidity, latent stained with basic yellow and observed under ALS at 495 manometers.
D38YDK	Visual Examination	Oblique white light
	Cyanoacrylate Fuming	Processing time 3 hours in fish tank
	Visual Examination	White light observation
	Dye Stain	R6G dye
	Alternate Light Source	Polilight PL500 at 505 nm
D6FAAN	Visual Examination	Visible print observed with oblique white light in quadrant D
	Cyanoacrylate Fuming	Automated chamber used (same print visualized)
	Dye Stain	R6G (petroleum ether based formula)
	Alternate Light Source	Visualized with ALS at 515nm (same print visualized)
D7VD2V	Cyanoacrylate Fuming	
DB28WQ	Black volcanic powder	Black volcanic powder was applied to the four divisions of the sheet, revealing a lofoscopic fragment in section D, it is documented in writing and through photography.
DEREBL	Cyanoacrylate Fuming	
DFGHAU	Visual Examination	The trace was visually visible without retrieval methods. Used white light (Rofin polilight).
	Powder Dusting	Magnetic powder.
DKCAHR	Black volcanic powder	Black volcanic powder was applied in the four divisions of the sheet, revealing a lofoscopic fragment in section D, it is documented in writing and through photography.
DMY7PH	Visual Examination	Latent print observed within Quadrant "D" of aluminum foil utilizing oblique lighting.
	Alternate Light Source	Latent print observed within Quadrant "D" of the aluminum foil utilizing forensic light source.
	Cyanoacrylate Fuming	Latent print observed within Quadrant "D" of the aluminum foil utilizing CA fuming.
	Dye Stain	Latent print observed within Quadrant "D" of the aluminum foil utilizing Rhodamine 6G dye stain and forensic light source.
	Powder Dusting	Latent print obtained within Quadrant "D" of the aluminum foil utilizing magnetic powder.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
DNQ7MT	Cyanoacrylate Fuming	1.- Observación de fragmento lofoscópico en el cuadrante D 2.- Control positivo. 3.- Vaporización por cianoacrilato. 4.- Barrido de polvos convencionales color negro. Tiempo de procesamiento: 1 hora 15 minutos. [Requested translation was not received prior to CTS report publication.]
DVBZ6K	Cyanoacrylate Fuming	6 minutes in small chamber
	Dye Stain	R6G \ 495/orange
DZ8MZT	Cyanoacrylate Fuming	"CyAc fume under vacuum". CyAc under vacuum 1 hour
	Dye Stain	"Dye stain with R6G". Saturate with R6G, allow to dry, visualize with laser (R6G Batch #11082021), Test print +
E36MCA	Powder Dusting	Visual examination was conducted first. Black magnetic powder was used for processing.
E4KVHP	Visual Examination	
	Alternate Light Source	365nm, 450nm, 532nm used
	Cyanoacrylate Fuming	visual, RUVIS
	Dye Stain	RAM (365nm, 450nm, 532nm used)

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
E4YE3M	Visual Examination	White light examination of exhibit as received using ambient laboratory lighting and 'Tiablo' High Power LED Flashlight at varying angles. Ridge detail was seen in section 'B'. This was exhibited as 'BAC/1' and photographed.
	Alternate Light Source	Sequential initial High Intensity Light Source (HILS) examination carried out, following dark adaptation, using Green Crime Lite 480nm-560nm with 571nm viewing filter followed by Blue Crime Lite 420nm-470nm with 476nm viewing filter and UV Crime Lite 350nm - 380nm with 408nm viewing filter. QA adhered to and control test pieces passed. BAC/1 in section 'D' was further enhanced using the UV and Blue light. These were exhibited as 'BAC/1A0' & 'BAC/1B0' and photographed.
	Cyanoacrylate Fuming	Item 1 was treated with Cyanoacrylate Fuming. Carried out as per [Laboratory] validated/internally verified procedure (Foster & Freeman MVC5000 Cabinet, Relative Humidity 80%, Glue time 13 minutes & 3 g of superglue used). Following treatment, examined using 'Tiablo' High Power LED Flashlight (white light) at varying angles. QA adhered to and control test piece passed. Ridge detail was seen in section B and was enhanced ('BAC/1C0') and a photograph was taken.
	Dye Stain	Item 1 was treated with ethanol-based BY40 dye used, carried out as per [Laboratory] validated/ internally verified procedure. BY40 dye applied and left for ~20 seconds. Rinsed with water and left to dry. Examined when dry using blue Crime Lite 420-470nm with 476nm viewing filter, following dark adaptation. QA adhered to and control test piece passed. 'BAC/1' in section 'D' was further enhanced, exhibited as 'BAC/1D0' and photographed.
	Wet Powder Suspension	Item 1 was treated with carbon-based powder suspension used, carried out as per [Laboratory] validated/internally verified procedure. Pre-rinsed with water. Powder Suspension applied with soft squirrel hair brush and left for ~20 seconds. Powder Suspension rinsed off gently using running water until maximum contrast obtained and then allowed to dry. When dry, examined using 'Tiablo' High Power LED Flashlight (white light) at varying angles and magnifying eyeglass used where required. QA adhered to and control test piece passed. 'BAC/1' wasn't further enhanced, therefore no photographs taken. No other ridge detail was seen.
	Powder Dusting	JBMP & ALI not suitable for FOIL. No other suitable powders are validated for FEL.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
EAM3ZD	Visual Examination	Visually inspected the item and located a latent print in quadrant "D"
	Cyanoacrylate Fuming	Item processed in the Foster & Freeman MVC1000 chamber. Humidity set at: 80%, Humidity time: 10 minutes, Glue temperature: 120 Celsius, Glue Time: 11 minutes, with 9 drops of "Cyanobloom" LOT#042621-02 Exp date: 04-26-22 in the tray. A plastic test strip was placed in the chamber as a control test. A control test of the Cyanoacrylate chemical (LOT 042621-01) and Ninhydrin (LOT 070721-1) was conducted and was positive. Negative control yielded appropriate result. One latent print was developed in quadrant "D"
	Powder Dusting	The item was processed with black powder LOT# 070721-01. Latent print in quadrant "D" was developed.
EBZMRN	Visual Examination	
	Powder Dusting	Black Magnetic Powder
ECVB8D	Visual Examination	White light/flashlight
	Cyanoacrylate Fuming	Approx. 70% humidity, between 6-7 min fuming time. Visual exam utilized white light/flashlight
	Dye Stain	R6G, methanol based. Light source exam: Laser at 532nm using orange barrier filter
EDAGNN	Cyanoacrylate Fuming	La hoja de Papel aluminio se introdujo en la cámara portátil de cianoacrilato. por un tiempo de 5 a 10 minutos, adicional se coloco una huella de control, dentro de un círculo, en la parte interna de la bolsa que recubre la cámara. Esta huella nos permitirá determinar el momento en que las huellas latentes pueden estar plastificadas, posteriormente se le aplico los reactivos físicos (polvos negro humo), obteniendo rastros papilares en el cuadrante D. [Requested translation was not received prior to CTS report publication.]
EL3RYJ	Non-Porous	Visual, Lumicyano High heat fuming chamber (17 minutes)
ET2K2B	Visual Examination	Visual examination with direct light
	Visual Examination	Visual examination with the Full Spectrum Imaging System
	Cyanoacrylate Fuming	Processed with Cyanoacrylate Ester using a fuming chamber for 30 minutes
	Visual Examination	Visual examination with the Full Spectrum Imaging System
	Dye Stain	M Star dye stain
	Powder Dusting	Fingerprint powder

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
ET46YL	Visual Examination	The item was visually examined using ambient and oblique lighting. A latent print was observed in section D.
	Cyanoacrylate Fuming	The item was placed in the cyanoacrylate chamber for 12 minutes at an 80% humidity, with superglue on a heat plate. A test print was ran at the same time.
	Dye Stain	The item was dye stained with MBD and dried by hanging. The test print was dyed prior.
	Alternate Light Source	The item was observed under an alternate light source (blue) with a yellow filter. The test print was observed prior.
	Powder Dusting	The item was powder processed with black fingerprint powder and a brush. The test print was powder processed prior.
EV66YJ	Visual Examination	Visual exam, latent print seen and photographed.
	Cyanoacrylate Fuming	Fumed for 3-4 minutes in RH80 humid fuming cabinet.
	Dye Stain	Rhodamine 6G stain applied with squirt bottle, air dried.
	Alternate Light Source	Examined with ALS at 495 nm with orange goggles.
EW2LD2	Visual Examination	WHITE LIGHT
	Alternate Light Source	BLUE 0023282S, GREEN 0020282S, UV 0020042S
	Cyanoacrylate Fuming	CYCLE ~10 MINS, 80% RH
	Dye Stain	ETHANOL BASED BY40
EZ4GYP	Visual Examination	
	Alternate Light Source	Krimesight Scope
	Cyanoacrylate Fuming	
	Powder Dusting	Black powder
F2CZED	Visual Examination	Item was visually examined prior to further processing.
	Cyanoacrylate Fuming	Item was placed into MVC 1000 cyanoacrylate fuming chamber. Seven (7) drops of cyanoacrylate were used. Settings of MVC 1000 were as follows: 80 RH, 120 Celsius, 10 minutes humidify time and 11 minutes glue time. Total time processing in chamber 40 minutes. Positive and negative controls yielded appropriate results.
	Powder Dusting	Upon completion of cyanoacrylate processing, item was processed using black powder and fiberglass brush.
F32JYB	Powder Dusting	Used magnetic powder on all sections and section D was positive.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
F4EYMK	Visual Examination	Examined with bright white light and magnifier
	Alternate Light Source	Examined using 3 light sources at the following wavelengths: 365nm, 450nm, and 532nm
	Cyanoacrylate Fuming	Processed using cyanoacrylate fuming chamber. Examined using white light and RUVIS
	Dye Stain	Processed using RAM dye stain. Examined using the 3 light sources listed above.
F6RPDF	Visual Examination	Latent evidence was visible using oblique lighting.
	Powder Dusting	Performance check was completed using fingerprint powder. Silver/Black (for contrast) fingerprint powder was applied using a brush.
FFVNLP	Visual Examination	Episcopic coaxial illumination, Direct white light
	Cyanoacrylate Fuming	Relative humidity 80% ; Temperature= 118-123 °C ; Cyano glue= 0.65 g; Exposure time= 3 min 45 s
	Powder Dusting	Black powder
FMVZLT	Latent print powder indestructible white	PHOTOGRAPHY STARTS AT 11:30 TO 12:50.
FNQRL7	Cyanoacrylate Fuming	Approximately 10 seconds of cyanoacrylate fuming using the Cyanowand was used to enhance the apparent print.
	Powder Dusting	Black fingerprint powder, single application following cyanoacrylate fuming.
FRMAVQ	polvo magnético color café	Before applying any evidence enhancement method, the evidence is photographically fixed and then a brown magnetic powder is applied and once the lophoscopic fragment is developed, it is fixed again with photography.
FRNBLJ	Cyanoacrylate Fuming	
FWKQ9K	Visual Examination	White light. Coaxial episcopy. Luminescence (from 315nm to 570 nm)
	Cyanoacrylate Fuming	10% of lumicyano powder in lumicyano solution. Observation in UV
	Dye Stain	BY40 (by spraying). Observation at 415nm

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
G97H9F	Visual Examination	Oblique lighting, latent print observed in Quadrant D, photographed, 10 minutes
	Alternate Light Source	Alternate light source, latent print did not fluoresce but was visible in Quadrant D, photographed, 15 minutes
	Cyanoacrylate Fuming	Utilized manufactured CA, CA chamber. CA control with latent print on foil performed, latent print successfully developed. CA fumed Item 1 in chamber, developed latent print in Quadrant D, photographed, 25 minutes
	Dye Stain	Utilized pre-mixed Rhodamine 6G solution. Dye stained CA control print with Rhodamine 6G successfully fluoresced under ALS. Dye stained the developed CA print with Rhodamine 6G, 15 minutes
	Alternate Light Source	Used alternate light source on dye stained CA print, latent print fluoresced in Quadrant D, photographed, 15 minutes
	Powder Dusting	Dusted CA print in Quadrant D with black powder, nothing observed or obtained, 5 minutes
GAGH8V	Visual Examination	cyanoacrylate in a heat sealed box where gases reveal the latent print
GBWQCP	Physical Developer (PD)	sirchie brand black reagent applied with a fiberglass brush
GDKDTJ	Visual Examination	Visually observed, naked eye
	Lumicyano	Lumicyano Powder Lot #O*021121 Expiration date 07/22. Lumicyano solution Lot #08073L Expiration date 01/23. Chamber run on auto cycle parameters
GEW7TD	Visual Examination	Crime lite and TracER Laser
	Cyanoacrylate Fuming	Cyanoacrylate fumed with control in F+F MVC 5000 for 70 minutes
	Dye Stain	Enhanced any print development with control by using Rhodamine 6G dye stain
	Powder Dusting	dusted by black powder
GKY3QR	Visual Examination	The piece of evidence was verified using a white light by detecting a fingerprint in the D-space.
	Powder Dusting	After visualizing the fingerprint in space D, the fingerprint was developed with conventional black powder.
GV32FR	Visual Examination	Examination under white light and print was observed on D, but need to make it more clear shap
	Cyanoacrylate Fuming	The fuming was initiated in the fuming chamber at least 15 minutes with 80% humidity, after that we could see a latent print under natural light observed on D more clear shap. Latent print will fix by cyanoacrylate fuming.
GZTQHG	Visual Examination	
	Cyanoacrylate Fuming	40 mins
	Dye Stain	Ardrox, UV light

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
H3UYK7	LPPM	Visual Examination and RUVIS examination
HBQW7N	Cyanoacrylate Fuming	before applying any evidence enhancement mothod, the evidence is photografhically fixed abd then palced in the cyanocrylate chamber. nce it is devoloped, a black volcanic powder is applied and it is again fixed with photografhy
HLVQV9	Visual Examination	
	Cyanoacrylate Fuming	
	Powder Dusting	
HRYQYH	Visual Examination	Fingerprint was so visible, that we take without any treatment photo with oblique light (Rofin Polylight white).
	Powder Dusting	There was no need, but we treated sample with magnetic powder.
HZF9NC	Visual Examination	oblique lighting
	Cyanoacrylate Fuming	Humidified chamber with vaporized cyanoacrylate
	Visual Examination	oblique lighting
	Powder Dusting	magnetic black powder
J2LY7R	Visual Examination	Visual inspection D, loop
	Alternate Light Source	UV light D, loop
	Alternate Light Source	Blue light, orange filter D, loop
JNTMP8	Visual Examination	White light - 1 latent print (L001) visible in quadrant D - 1D sent to photo unit; others - no lats
	Cyanoacrylate Fuming	Fumed (MVC1000) then examined with RUVIS and oblique light – no additional lats of value
	Dye Stain	Sprayed with RAM (Rhodamine 6G/Ardrox/MBD mixture), dried, and examined with laser/orange filter – no additional lats of value
JX4TUB	Visual Examination	Visual Examination performed using an alternate light source and examined with white light.
	Cyanoacrylate Fuming	Placed Item 1 in an Air Science superglue chamber and included a test print placed on clear acetate. The chamber was set to process for 10 minutes introducing optimal humidity and cyanoacrylate vaporization. The test print resulted in a positive control.
	Dye Stain	Applied RAY on the control used for the cyanoacrylate fuming. Following a positive result on the control, Ray was applied to Item 1. Application Process: Ray was sprayed on both surfaces, rinsed with water and blotted dry.
	Alternate Light Source	Both items were viewed under a Laser using orange googles at 532nm and 445nm. The dye stain control resulted a positive reaction.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
K3R27G	Visual Examination	Naked eye
	Lumicyano	8% lumicyano solution was used in the cyanoacrylate fuming chamber. The chamber was run using the autocycle parameters.
	Alternate Light Source	The laser was used to visualize the ridge detail using the green wavelength.
K4H8KL	Physical Developer (PD)	sirchie brand black reagent applied with a fiberglass brush
K6FFVQ	Magnetic Fingerprint powder.	I put the powder on the fingerprint, then I proceed to use the magnetic brush to clean the fingerprint. Finally, using a print lifter, I lift the fingerprint.
K9HCM7	Cyanoacrylate Fuming	During the visual examination (prior to chemical processing) ridge detail was found within quadrant D. Once documented the ridge detail was exposed to CA fume. With the CA process completed, the ridge detail was treated with MRM10. Standard testing performed on all developing agents prior to, or concurrent to use.
KCCF7C	Cyanoacrylate Fuming	Item was fumed with superglue in chamber at 80% humidity, approximate time for processing was 20 min.
	Dye Stain	Dye stained with Rhodamines 6G and rinsed with methanol.
	Alternate Light Source	Viewed item under 495-515nm light with orange filter.
KFBQ2C	Powder Dusting	Black magnetic powder
KLH64G	Alternate Light Source	Visual inspection, photographed
	Cyanoacrylate Fuming	Test print +, small CA tank, visual exam, photographed using side lighting
	Dye Stain	Test print +, Rhodamine 6G Lot#:LS102221-1, exp: 4-22-22, visual exam, photographed using ALS
KMC7PY	Powder Dusting	Evidence dusted with black powder
KMRAEK	Visual Examination	White light
	Cyanoacrylate Fuming	
	Dye Stain	MRM10
KVPWDC	Visual Examination	
	Cyanoacrylate Fuming	
	Visual Examination	
	Dye Stain	MBD
	Alternate Light Source	450 nm wavelength

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
KXUMG7	Visual Examination	Using white/ambient light – FRD is observed in quadrant D. No FRD is observed in the other three (3) quadrants, or the other side of the foil. The FRD is not suitable for comparison and will not be captured at this time.
	Alternate Light Source	Using Crimescope between 350 – 515 nm wavelengths with yellow, orange and red filters – FRD is observed in quadrant D at all wavelengths. The FRD does not fluoresce. The foil is reflective and the matrix of the FRD is not reflective, allowing for visibility. No FRD is observed in the other three (3) quadrants, or the other side of the foil. The FRD is not suitable for comparison and will not be captured at this time.
	Cyanoacrylate Fuming	Foil placed in the CA-6000 with 65% relative humidity for approximately 30 minutes.
	Visual Examination	Post-CAE processing, using white/ambient light – FRD observed in quadrant D. FRD will be captured. No additional FRD observed in the remaining quadrants, or the other side of the aluminum foil.
L69Q7J	Cyanoacrylate Fuming	Atmospheric Pressure
LM9MK9	Cyanoacrylate Fuming	120 degree celcius, 8 minutes glue time, MVC3000 cabinet
LMBJXD	Visual Examination	White light
LPDDP3	LPPM - Non-pourous	Item 1 was fumed with cyanoacrylate in the environmental safe fume chamber at 75% relative humidity for 15 minutes and dye stained with basic yellow. The item was then used under forensic laser.
LQQZ8G	Visual Examination	Visual examination with and without oblique lighting revealed a friction ridge impression present in section D.
	Powder Dusting	Magnetic powder was applied which enhanced the friction ridge impression in section D.
M4BZDA	Vis, ALS, CA, Ardrox	

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
M97T9Q	Visual Examination	1) Observation with the nake eye of the surface of the sheet of aluminium foil, under different inclinations. We observe a papillary trace in the "D" box. We do not see any other traces elsewhere.
	Alternate Light Source	2) We illuminate the support with the Crimescope MCS-400 at different frequencies with the appropriate colored glasses and at different inclinations. The same papillary trace is observed in box "D". We do not see other traces elsewhere.
	Cyanoacrylate Fuming	3) In view of non porous support, we place the sheet of aluminium foil in the fumigation tank. Autocyle for 2g of solution of Lumicyano 8% during 1 hour. A contrôle trace is placed in the tank.
	Visual Examination	4) We observe with naked eye a white deposit of Lumicyano on the sheet of aluminium oil in case "D". We don't observe other traces elsewhere on the object.
	Alternate Light Source	5) We illuminate the object using the Crimescope MCS-400 at different wavelengths and wearing glasses of appropriate colors. The fingerprint in the "D" box is even more visibly illuminated in white light or in CSS luminescent manner. We do not observe other papillary traces elsewhere on the object.
M9QCBC	Visual Examination	Lighting
	Cyanoacrylate Fuming	70% humidity, 30 minute fume time, lighting
	Dye Stain	Rhodamine 6G, laser 520 nm, orange filter
MA2CAR	Visual Examination	
	Cyanoacrylate Fuming	temp. 21°C, humidity 80%, time 15 min
	Dye Stain	light 350-505 nm
MEAKTG	Visual Examination	
	Alternate Light Source	Dual77-UV
	Cyanoacrylate Fuming	
	Dye Stain	RAM
MF8QAB	Visual Examination	white, green and blue forensic light.
	Cyanoacrylate Fuming	120°C and 80% RH, 7 min gluetime (develope time)
	Dye Stain	Basic yellow 40
MJ9U74	Visual Examination	ambient light, ridge detail observed in D
	Alternate Light Source	no fluorescence or additional RD observed using crime lite
	Powder Dusting	item processed with black powder, ridge detail in D only

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
MJMH24	Cyanoacrylate Fuming	MVC1000, 7 drops of Cyanobloom, 120° C, 80% Relative Humidity, 10 minute processing time (Lot# 042621-02, Exp: 4/26/22)
	Powder Dusting	Magnetic powder (Lot# 112719-02, Exp: 11/27/24)
	Visual Examination	
MY46Z2	Visual Examination	Examined for any patent prints and found none.
	Cyanoacrylate Fuming	I used a quality control on glass inside the super glue fuming tank while processing the sheet of aluminum foil. I placed approximately a quarter size amount of super glue in an aluminum dish, hot water in a beaker for humidity, and fumed the sheet of aluminum foil for approximately 30 minutes.
	Powder Dusting	I used black powder to process the foil after Cyanoacrylate Fuming and located a print on the sheet of foil, section "D".
N3WVEC	Visual Examination	visually examined sheet of aluminum foil divided into sections/boxes A-D.
	Lumicyano	placed foil sheet and glass slide with known print (QC) into MVC 3000 chamber, mixed fluorophore(5.5 heaping scoops) with liquid super glue (90 drops) into a foil pan and placed foil pan on heating port, added molecular grade water into water port to start the auto cycle (humidity cycle-15mins, glue cycle 25mins, purge cycle 20mins) once the fuming process ended, I visually examined the glass slide and foil sheet under a green laser and observed a white film in section/box D.
	Powder Dusting	the foil sheet was placed at the downdraft station, fingerprint powder was applied to a fingerprint brush and twirled in a circular motion in section/box D.
N3XFCD	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	BY40
	Alternate Light Source	Laser
N4B4J7	Cyanoacrylate Fuming	120° / 80% 8 min 1,5 g Cyanobloom
	Dye Stain	Basic yellow 40. apply BY40 solution (2g BY40/l ethanol), rinse with water
NLPN72	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	~10 MINUTES FUMED
	Dye Stain	MRM-10
	Dye Stain	RED-DROX

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
NP9NGB	Visual Examination	
	Alternate Light Source	365nm, 495nm
	Laser	532nm
	Cyanoacrylate Fuming	Fuming chamber C1, CA lot #19-25, processed for 15 minutes at 80% Relative Humidity.
	Dye Stain	Ardrox, 365nm
P49RHV	Cyanoacrylate Fuming	The item was fumed for 10 min in a fuming chamber. The cyanoacrylate was allowed to harden for 5 min.
	Powder Dusting	The item was processed with regular black latent print powder.
P6YXVZ	Visual Examination	Visual examination with white light.
	Cyanoacrylate Fuming	CAE in Foster and Freeman MVC 1000 chamber. Visualized with white light and ALS.
	Dye Stain	R6G with tracer laser.
P8CDKZ	Visual Examination	White light was used and there were no visible prints.
	Cyanoacrylate Fuming	The item was placed inside of the superglue chamber, along with hot water (for humidity) and superglue (placed on the hot plate). I made sure to put my print on the interior of the glass to use as a Quality Control (QC). The chamber was then closed and the item fumed for approximately 15 minutes. Once the QC had visible prints, the item was taken out of the chamber and visually examined once again.
	Powder Dusting	Using a brush, black powder was lightly dusted across the surface. A print was visible.
PARYZZ	LPPM	The foil had a clear print in Quadrant D under natural light.
PAXHRX	Visual Examination	Crimelite and TracER Laser
	Cyanoacrylate Fuming	70 minutes in F+F MVC 5000 chamber
	Dye Stain	Rhodamine 6G
	Powder Dusting	black powder

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
PH4BYJ	Visual Examination	An ocular inspection was made to piece of evidence # 1. Black graphite powder (Black Latent Finger Print Podwer) was used to develop the impression, after observing the development, it was observed in section D. It was documented and preserved by photography, using a photographic camera, proceeded to photograph the piece, in addition a white plastic patch was used to lift the impression. An ocular inspection was made to piece of evidence # 1, then using alternating white light, it was located where the fingerprint was. Black graphite powder (Black Latent Finger Print Podwer) was used to develop the impression, after observing the development, it was observed in section D. It was documented and preserved by photography, using a photographic camera, proceeded to photograph the piece, in addition a white plastic patch was used to lift the impression. An ocular inspection was made to piece of evidence # 1, then using alternating white light, it was located where the fingerprint was. Black graphite powder (Black Latent Finger Print Podwer) was used to develop the impression, after observing the development, it was observed in section D. It was documented and preserved by photography, using a photographic camera, proceeded to photograph the piece, in addition a white plastic patch was used to lift the impression. An ocular inspection was made to piece of evidence # 1,
	Alternate Light Source	then using alternating white light, it was located where the fingerprint was.
	Powder Dusting	Black graphite powder (Black Latent Finger Print Podwer) was used to develop the impression, after observing the development, it was observed in section D. photograph the piece, in addition a white plastic patch was used to lift the impression. Black graphite powder (Black Latent Finger Print Podwer) was used to develop the impression, after observing the development, it was observed in section D. It was documented and preserved by photography, using a photographic camera, proceeded to photograph the piece, in addition a white plastic patch was used to lift the impression. Black graphite powder (Black Latent Finger Print Podwer) was used to develop the impression, after observing the development, it was observed in section D. It was documented and preserved by photography, using a photographic camera, proceeded to photograph the piece, in addition a white plastic patch was used to lift the impression. Black graphite powder (Black Latent Finger Print Podwer) was used to develop the impression, after observing the development, it was observed in section D.
PNARN8	Visual Examination	Made visible examination.
	Cyanoacrylate Fuming	CAE fuming chamber, Item in chamber for 3 minutes.
	Dye Stain	RAM dye stain. Applied RAM Dye Stain to item.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
PPPZ22	Visual Examination	Magnifying lamp.
	Cyanoacrylate Fuming	Magnifying lamp.
	Dye Stain	MRM-10
	Dye Stain	Basic Yellow
	[No Methods Reported.]	Methanol rinse
PUVZRX	Visual Examination	White, low angle light. Positive Quadrant D.
	Cyanoacrylate Fuming	30 minute fume time at 70% humidity. Positive Quadrant D.
	Dye Stain	MBD applied to item. Item then viewed under an ALS with orange barrier filter (goggles). Positive Quadrant D.
Q44UK6	Visual Examination	Item visually examined with white light and magnification on 10/8/21. An impression was observed in section D.
	Cyanoacrylate Fuming	Item was processed in the Misonix CA-3000 superglue chamber on 10/8/21. Test print positive. An impression was observed in section D.
	Dye Stain	Item was treated with Rhodamine 6G methanol base on 10/28/21. Post treatment ALS exam with Foster+Freeman Crime-lite 82S blue-green (450-510nm) and orange glasses. An impression was observed in section D.
	Powder Dusting	Bichromatic powder was applied to item on 10/28/21. Impression was observed in section D.
QCEV77	Powder Dusting	Used black magnetic powder
QCVA9A	Visual Examination	Visually observed
	Lumicyano fuming	8% solution of Lumicyano Solution and Lumicyano powder used. Humidity cycle- 80% RH 15 mins, Glue cycle- 80% RH 120 degrees Celsius 25 mins, Purge Cycle- <80% RH 20 mins
	Alternate Light Source	Brightbeam Laser Green light 525nm wavelength
QN9A8N	Cyanoacrylate Fuming	
	Dye Stain	ETHANOL BASE BY40 DYE STAIN USED
QY862C	Powder Dusting	Barrido por capas / Layered sweep.
R4JD43	Cyanoacrylate Fuming	1 hour processing time.
	Powder Dusting	Black magnetic powder
RAP7ZJ	Powder Dusting	Item was processed using black latent fingerprint powder and a feather duster.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
RL2EY6	Visual Examination	Viewed item under white light, TracER laser, and CrimeScope CS-16-500 ALS.
	Cyanoacrylate Fuming	Item placed in Misonix CA-6000 superglue chamber for 9 minutes and viewed under white light.
	Dye Stain	Item sprayed with methanol based Rhodamine-6G and viewed under TracER laser.
RQUHN3	Visual Examination	Vis – white light (foster and freeman crime-lite 2 400-700nm- Ridge detail seen in quadrant D 2.11.21
	Alternate Light Source	Vis examination using High intensity light sources (Foster and Freeman crime-lite 82s UV (350-380nm), violet (395-425nm), blue (420-470nm), blue/green (445-510nm), green (490-560nm), orange (570-610nm)), blue and green lights were checked that they are working using the depletion standards as per sop, dark adaption completed before using orange hils as per sop – ridge detail seen in quadrant D under UV, violet, blue and blue/green Hils 2.11.21
	Cyanoacrylate Fuming	Cyanoacrylate fuming using Foster and Freeman MVC5000 cabinet. Auto glue function used (humidify to 78%RH and then glue fume for 15min). SG BATCH # 202951, CAB # 3, +ve in quadrant D at SG, control sample +ve and peer reviewed. 9.11.21
	Dye Stain	Ethanol based BY40 dye used DYE BATCH # 20AA261 SINK # 2. Visualised using high intensity light source Foster and Freeman Crimelite 82s blue light (420-470nm) +ve in quadrant D at SGdye , control sample positive and peer reviewed 9.11.21
	Solvent black 3	SB3 treatment, batch # 20AA263 (mixed in house using DSTL configuration - SB3, PGME, water). Peer review of +ve control. –ve result. 24.11.21
RUXZBX	Visual Examination	Visual Exam. Area 2.L1 (from aluminum foil, item 1) was preserved through digital imaging.
	Cyanoacrylate Fuming	Cyanoacrylate Fuming (11 min, Control Positive).No additional ridge detail observed. Area 2.L1 was re-photographed.
	RUVIS	Visual Exam with RUVIS Imager, Control Positive. No additional areas of ridge detail observed. Area 2.L1 was not re-photographed.
	Dye Stain	R6G with Laser (532nm, Control Positive, Orange Filter). No additional areas of ridge detail observed. Area 2.L1 was re-photographed.
TA28E6	Visual Examination	A fingermark was visible in square D, with blue and white light (green light was also used, but no fingermarks were visible with green light).
	Cyanoacrylate Fuming	A fingermark was visible in square D. Processing time: 5 minutes.
	Dye Stain	Basic Yellow 40. A fingermark was visible in square D.

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
TBXFQV	Visual Examination	One (1) impression visualized in section D - insufficient contrast to photograph
	FSIS & UV Light@ 254nm	One (1) impression visualized and photographed in section D
	Cyanoacrylate Fuming	15 minute fume cycle @ 75% humidity; 5 minute purge cycle; re-photographed the same impression in section D
	FSIS & UV Light@ 254nm	No better contrast - did not re-photograph the one impression in section D
	Dye Stain	Rhodamine R6G - sprayed item and allowed to item to dry; Visualized with the Laser + orange goggles - The same impression was re-photographed in section D; One (1) of value (OV) latent labeled L1
TFACLW	Visual Examination	desk lamp
	Alternate Light Source	Full Spectrum Imaging System
	Cyanoacrylate Fuming	Air Science Safe Fume 30 min
	Dye Stain	M-star
	Alternate Light Source	Crimescope
	Powder Dusting	fingeprint powder
TFNVBV	LPPM	Item 1 viewed with RUVIS. It was fumed with CA in the environmental chamber, dyed stained w/ R6G.
TJ3V73	Visual Examination	1 minute - Visual inspection with flashlight.
	Cyanoacrylate Fuming	20 minutes - Superglue chamber with heating pad, distilled water, hygrometer, electronic timer, aluminum dish, fan, and test print.
	Dye Stain	10 minutes (includes dry time) - Applied Fluorescence dye stain (R.A.M.) using squirt method to Quadrants a-d.
TNZ6KA	Powder Dusting	I used black powder and a brush to develop the print.
TQ46G2	Visual Examination	under natural and white light
	Cyanoacrylate Fuming	processed for 18 mins
	Dye Stain	R6G
	Alternate Light Source	laser

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
TTA8M7	Visual Examination	Examined item with ambient white light and an LED flashlight from all angles. One latent print could be seen in section D with the white light and was photographed and marked 1.1.
	Alternate Light Source	Examined item with the Ultralite ALS, BMT head and orange filter. No additional latent prints were located.
	Cyanoacrylate Fuming	Processed item with cyanoacrylate esters using the Air Science SameFume Cabinet #1.3 for 15 minutes. A control print on foil was processed simultaneously.
	Visual Examination	Item was re-examined with white light. Latent print 1.1 was photographed again. No additional prints were located.
U7FXN6	Dye Stain	"R6G Dye Stain". Item was fumed for an hour in a vacuum chamber at 37C and vapor pressure at 82C using Omega-Print fuming compound. The item was dye-stained, dried, and viewed under forensic laser
UAGN8D	Cyanoacrylate Fuming	Visual inspection is carried out with the support of a white light lamp and magnifying glass, item 1 is placed in a portable camera applying cyanoacrylate vapors with a cyanowand gun until the positive control is visible, item 1 is removed and black silk powder latent printing reagent is applied. on the surface of the aluminum foil, revealing friction ridges in quadrant D
UB868D	oblique lighting	Visible light
UBRNCK	Cyanoacrylate Fuming	
	Dye Stain	Rhodamine 6G
	Alternate Light Source	
UDH3KU	Alternate Light Source	
UDUJVM	Cyanoacrylate Fuming	
	Dye Stain	BY40
UGT6GX	LPPM	Visible search; Cyanoacrylate fuming 1:20min; Basic yellow stain; forensic laser.
UGWP98	Visual Examination	1 latent print suitable for documentation in Section D visible with ambient light
	Cyanoacrylate Fuming	69.8 degrees F. 46% humidity. processing time of approximately 7 minutes. 1 latent print suitable for documentation in Section D (improved)
UHA27C	Powder Dusting	BLACK VOLCANIC POWDERS WERE APPLIED ON THE WHOLE SURFACE OF ITEM # 1 (ALUMINUM PAPER SHEET) USING FIBERGLASS BRUSH, REVEALING LOPHOSCOPIC FRAGMENT IN SECTOR D

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
ULT67V	Visual Examination	White light, blue forensic light with yellow filter, green light with red filter.
	Cyanoacrylate Fuming	90 seconds, 120 degrees celcius, 80% RH.
	Dye Stain	Basic Yellow 40
UM7UBT	Visual Examination	CrimeLite & Laser
	Cyanoacrylate Fuming	F+F MVC 5000
	Dye Stain	Rhodamine 6G
UNC9NZ	Visual Examination	Fluorescence examination
	Cyanoacrylate Fuming	Temperature of the heating plate: 100 C, Humidity: 80%, Time: 35 minute
	Dye Stain	Basic Yellow 40
UQ668T	Visual Examination	Visual with flashlight (Crimelite)
	Alternate Light Source	Alternate light source at 530nm
	Cyanoacrylate Fuming	70 minutes.
	Dye Stain	Rhodamine 6G and methanol rinse
	Powder Dusting	Black powder
UQGXQA	Physical Developer (PD)	Se realiza la apertura del embalaje; se documenta fotográficamente, se observan características de la superficie que será sujeta al procesamiento, se realiza una prueba control del reactivo a utilizar para verificar su funcionamiento, posteriormente se realiza el procesamiento del item con el reactivo pulverizado en color negro. [Requested translation was not received prior to CTS report publication.]
	Alternate Light Source	Posterior a la aplicación de la técnica de revelado, con el reactivo pulverizado en color negro, se procede a utilizar una fuente de luz blanca, para la observación de la superficie así como de la huella latente visible. [Requested translation was not received prior to CTS report publication.]
UXMGKU	Visual Examination	Crime-lite, LASER
	Cyanoacrylate Fuming	Crime-lite
	Dye Stain	Rhodamine 6G, LASER
	Powder Dusting	Black powder
V6GZYU	Cyanoacrylate Fuming	
	Powder Dusting	

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
VF273Z	Alternate Light Source	white light source, 340-587 nm, UV, coaxially reflected
	Cyanoacrylate Fuming	humidity cycle 80 %, during 15 min, glue cycle 15 min, purge cycle 40 min
	Alternate Light Source	White light source
	Dye Stain	staining with Basic Yellow 40
	Alternate Light Source	fluorescence examination with polylight (400-469 nm)
VH6WDL	Cyanoacrylate Fuming	Processed for 15 minutes in chamber.
	Powder Dusting	
VJF7W7	Visual Examination	Natural light, white light.
	Cyanoacrylate Fuming	The latent print was developed 25 minutes (80% - humidity)on a sheet of aliuminum foil. The latent print was recovered in section "D".
VNBQA3	Visual Examination	
	Alternate Light Source	350-380 nm ALS, 445-510 nm ALS
	Cyanoacrylate Fuming	Fume for 15 minutes at approximately 80% humidity
	Dye Stain	Ardrox (examined with 350-380 nm ALS)
VWQPF	Visual Examination	A print was observed upon visual examination. Photography was conducted before chemical processing.
	Cyanoacrylate Fuming	9 minutes in fume tank. White colored print observed.
	Powder Dusting	Black powder. Black colored print observed.
VYAL6C	Magnetic Fingerprint powder	I drop the magnetic powder to the fingerprint with the magnetic brush. Then I proceed to remove the excess of magnetic powder with the magnetic brush. Then I proceed to define the latent print.
VZL67A	Cyanoacrylate Fuming	contrasting with soot powder
W7L4XB	Visual Examination	White, blue and green light were used to examine the material.
	Cyanoacrylate Fuming	Process time 5.20 min.
	Dye Stain	Basic Yellow 40 was used.
W7PNPK	Cyanoacrylate Fuming	Processing time : 40 min. Dye stain : superglue and MBD solution. The reaction needs 75-80 percent humidity
WBF7X4	Visual Examination	Positive Results - LP1 - "D"
	Cyanoacrylate Fuming	Positive Results - LP1 - "D"
	Dye Stain	Rhodamine 6G with Laser. Positive Results - LP1 - "D"
	Powder Dusting	Positive Results - LP1 - "D"

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
WCWZZY	Visual Examination	PERFORMED VISUAL EXAMINATION.
	Cyanoacrylate Fuming	SUPERGLUED IN CHAMBER FOR 3 MINUTES.
	Dye Stain	DYE STAINED WITH RAM AND LET IT DRIED FOR 10 MINUTES.
WGRR9V	Alternate Light Source	visible friction ridge detail (patent print) in section D photographed.
	Cyanoacrylate Fuming	18 minutes at 80% humidity
	Dye Stain	Crystal Violet applied for 2 minutes and rinsed.
WQAJG7	Cyanoacrylate Fuming	Cyanoacrylate chamber 2 was used with humidity set at 70 degrees for 15 minutes.
	Powder Dusting	Black powder was used with a brush.
WUC7CV	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 11 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 - 505 nm under yellow or orange color barrier filters)
WUFQ46	Visual Examination	
	Cyanoacrylate Fuming	30 min @ 70% humidity
	Dye Stain	RAM
WUFZZV	Cyanoacrylate Fuming	Introduced to super glue tank for 22 minutes. Rhodamine was applied and then viewed under the ALS.
WXGUVR	Visual Examination	Print visible in Section "D"
	Cyanoacrylate Fuming	Fuming chamber. Positive results in Section "D" only.
	Dye Stain	MBD stain. Positive results in Section "D" viewed under alternate light source.
XFACZD	Powder Dusting	Using fingerprint powder, the fingerprint developed
XGNJLU	Visual Examination	
	Cyanoacrylate Fuming	~20 minutes @ ~60% humidity
	Dye Stain	Rhodamin 6G
	Alternate Light Source	viewed with LASER @ 532 nm and orange barrier
XHKX9M	Powder Dusting	Magnetic black powder

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
XPEAZA	Visual Examination	Fingerprint was visible in white light. Not any chemical threament required.
XQCLRW	Visual Examination	Applied oblique lighting, then a Coherent TracER LASER with a KV550 lens filter to image the observed latent print.
	Cyanoacrylate Fuming	Using a Foster & Freeman MVC-5000 superglue chamber 3 grams of cyanobloom (superglue), 70 minutes of the autocycle was ran.
	Dye Stain	Using a dispenser bottle, Rhodamine 6G was applied to the entire surface of the aluminum foil (Item 1). A Coherent TracER LASER and KV550 lens filter was used to image latent prints.
	Powder Dusting	Black powder was used for the dusting process. Both oblique lighting and incandescent lighting was used for imaging.
XWEM4J	Visual Examination	WHT Light
	Alternate Light Source	FSIS
	Cyanoacrylate Fuming	
	Dye Stain	R6G with Laser
Y284UH	Visual Examination	White light
	Cyanoacrylate Fuming	Processing time 15 min
	Dye Stain	Basic Yellow 40
Y7LU8Q	Visual Examination	Ambient lighting
	Alternate Light Source	Full spectrum Imaging System (short-wave UV)
	Cyanoacrylate Fuming	Cyanoacrylate Ester in superglue chamber for 30 minute fume cycle
	Dye Stain	M-star
	Powder Dusting	Black regular powder
Y8FE4X	Visual Examination	Oblique light
	Cyanoacrylate Fuming	
	Dye Stain	Basic Yellow 40
YEC6RT	Visual Examination	Ridge detail observed in quadrant D
	Cyanoacrylate Fuming	Cyanoacrylate fuming for 12 minutes in chamber using Microburst cyanoacrylate
YFT8NU	Cyanoacrylate Fuming	22 min in chamber
	Powder Dusting	BLACK POWDER
YRJ8U3	CYANOACRYLATE+BASIC YELLOW	Visual examination (000, 350 a 495 nm); photography; basic yellow; humidity 78,7%; temperature 130°c

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
YUBYDZ	Cyanoacrylate Fuming	MVC 1000 15 MINUTE FUME
	Dye Stain	BASIC YELLOW ON IMPRESSION
YWAP48	Cyanoacrylate Fuming	Before applying any evidence enhancement method, the evidence is photographically fixed and then placed in the cyanoacrylate chamber. Once it is developed, a black volcanic powder is applied and it is again fixed with photography
YWU4WQ	Visual Examination	*Please note that gloves were worn at all times throughout processing. Item 1 was first removed from its packaging and visually examined. Slight ridge detail was observed in quadrant "D" at this time.
	Cyanoacrylate Fuming	*Please note that gloves were worn at all times throughout processing. Because item 1 was observed to be a non-porous surface, cyanoacrylate fuming was selected as the first development method. A cyanoacrylate fuming chamber was cleaned prior to use with isopropyl alcohol. A clean sheet of butcher paper was placed at the bottom of the chamber. A positive control was created utilizing black, non-porous cardstock and was hung from a clip inside the fuming chamber. Several drops of liquid superglue (Lot #WATA21419, Exp: 04/22) were placed into a small metallic disposable dish, which was placed on top of a small heating plate inside the chamber. Sufficient water levels were observed in the machine. Item 1 was then hung from another clip inside the chamber. The chamber was then closed and a fuming cycle was started. The control and item 1 were fumed for ten minutes at a 70% humidity level. Once fuming was complete, the chamber auto-purged the fumes for an additional ten minutes. Positive results were observed on the control. Item 1 was visually examined and ridge detail was clearly observed in the "D" quadrant.
	Powder Dusting	*Please note that gloves were worn at all times throughout processing. In order to further develop the observed ridge detail for possible lifting, black powder was applied to the front of item 1. The item was placed on a clean sheet of butcher paper on a downdraft table and black powder was applied with a fingerprint brush. The ridge detail remained clearly visible in quadrant "D".
YWU7NG	Visual Examination	Print visible in white and blue light
	Cyanoacrylate Fuming	5 min glue time. Print visible in white light
	Dye Stain	Basic yellow 40. Print visible in blue light
ZCH3WP	Visual Examination	Control: N/A; Lighting: white light & RUVIS. L001 was observed in Section D - Photographed with RUVIS
	Cyanoacrylate Fuming	CAE (Bottle # 101321). Control: +; Lighting: white light & RUVIS. L001 was still visible in Section D - Photographed with Paddle lights
	Dye Stain	R6G (Bottle # 101321). Control: +; Lighting: LASER. L001 was still visible in Section D - Photographed with Laser (532 nm)/Orange filter

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
ZHA692	Visual Examination	White light/fluorescent light
	Alternate Light Source	365nm and 495nm
	Cyanoacrylate Fuming	15 Minute fume time, approximately 80% RH
	Dye Stain	Ardrox, 365nm/350-380nm
ZU2WPY	Cyanoacrylate Fuming	After Cyanoacrylate Fuming, print was visible, magnetic powder used to lift print
	Dye Stain	Basic yellow dye stain used after, latent print photographed
ZX79XL	Visual Examination	Visually examined the evidence, using natural light source
	Cyanoacrylate Fuming	Used cyanoacrylate fuming tanking, getting the tank up to 80% relative humidity, fuming for 30 minutes with cyanoacrylate and purging the tank for 30 minutes (CA211012)
	Dye Stain	used dye stain M-star on the latent print after cyanoacrylate fuming (MS211031), then used a crime scope to visually see the fluorescent latent print
	Powder Dusting	Dusted the latent print with latent fingerprint powder
ZX89W2	Cyanoacrylate Fuming	Foster & Freeman chamber used
	Dye Stain	R6G used
	Alternate Light Source	R6G visualized w/a Laser

Response Summary

Participants: 259

Methods Utilized

Alternate Light Source	71	Physical Developer	5
Cyanoacrylate Fuming	194	Powder Dusting	86
DFO	0	Visual Examination	175
Dye Stain	119	Wet Powder Suspension	1
Ninhydrin	0	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 2

WebCode	Development Methods	Method Details
262U3Q	Visual Examination	ambient light
	Alternate Light Source	350nm and 515nm
	Cyanoacrylate Fuming	fish tank approximately 10 minutes
26G34E	Wet Powder Suspension	White wet wop
2BNEEU	Visual Examination	Item examined under natural light and a white Crime-Lite, no ridge detail visible.
	Alternate Light Source	Quaser examination carried out with blue (420 - 470nm), green (490 - 560nm), blue/green (460 - 510nm), orange (570 - 610nm), violet (395 - 425nm), UV (350 - 380nm) light sources using the appropriate viewing goggles, no ridge detail visible.
	Wet Powder Suspension	White Titanium Wet Powder Suspension (batch #WP190603) was used to treat the adhesive side of the tape pieces and the control sample, the painted on powder suspension was rinsed using tap water. Control sample was positive. Ridge detail was present on adhesive side of tape piece B.
2HNXFP	Visual Examination	11/3/21 - Item 2, Visual exam using white light. Ridge detail not preserved on piece of tape labeled B. No ridge detail detected on pieces of tape labeled A, C and D
	Wet Powder Suspension	11/6/21 - Item 2, Adhesive side of tape processed with white Wetwop. Visual exam using white light - latent print detected on piece of tape labeled B. No ridge detail detected on pieces of tape labeled A, C and D
2L3LY2	Visual Examination	
	Powder Dusting	Black magnetic -- for front
	Cyanoacrylate Fuming	for adhesive side
2MXADP	Visual Examination	
	Wet Powder Suspension	White Wetwop.
2NTRC7	Visual Examination	
	Sticky Side Powder	
2PQZMB	Visual Examination	Use a flashlight with white light and ambient light in room, latent print no visible.
	Cyanoacrylate Fuming	It was place in a steam chamber with cyanoacrylate for 15 minute.
2PUDGY	Wet Powder Suspension	White
	Cyanoacrylate Fuming	
	Dye Stain	Yellow Dye Stain

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
2TJ8YR	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	120°C +/- 5°, 75% +/- 15% relative humidity
	Wet Powder Suspension	
	Dye Stain	R.A.M., yellow filter, 395 nm
2W8LN2	Visual Examination	Used bright white light and oblique lighting.
	Wet Powder Suspension	Used White Wet Wop for adhesive processing. Test strip was performed, successfully passed and logged in log book. White wet wop was painted on adhesive side of tape. Used bright white light and oblique lighting to examine adhesive side after adhesive processing.
338KCW	Visual Examination	Performed visual exam utilizing oblique lighting.
	Wet Powder Suspension	Applied white wet wop to the adhesive side of tape and after 15 seconds rinsed with cold water.
3B3FFM	Visual Examination	Visually inspected under ambient light.
	Cyanoacrylate Fuming	Approximatel 20 drops of arrowhead forensics cyanoacrylate, +control (lot WATA21419, exp 04/2022). Used Mystaire CA-6000 fuming chamber: 70% humidity, 10mins fuming, 10mins purging.
	Dye Stain	Sprayed w/RAY (Rhodamine 6G, Ardrox, Basic Yellow 40), +control (PF301043082001, exp 11/03/2021). After 10 seconds, rinsed with cool water. Secured in evidence locker for approximately 2 days.
	Alternate Light Source	Used Crimescope 16 at 455nm
3BGRC7	Magnetic white powder	White stain. Non adhesive side.
	Wet Powder Suspension	White stain. Adhesive side.
3E3QCM	Visual Examination	oblique lighting used
	Alternate Light Source	420-470nm used
	Wet Powder Suspension	White Wet Wop used. Let sit for ~30 seconds before rinsing.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
3FVHL8	Visual Examination	Examined in the white light and the daylight.
	Alternate Light Source	Examined at 350-380 nm (CrimeLite 82S), 450 nm, 470 nm, 490 nm, 505 nm, 530 nm (Polilight PL500)
	Cyanoacrylate Fuming	Processed in the cyanoacrylate chamber "MVC 3000" for 20 min., t-120 C, RH-80 %. Examined in the white light and the daylight.
	Dye Stain	Processed in Basic Yellow 40 (0,2 % ethanol based solution), exposure time - 5 sec. Dried item examined at 420-470nm (CrimeLite 82S) with the filter OG550.
	Wet Powder Suspension	Processed in the white Wet Powder Suspension (Kjell Carlsson Innovation), exposure time - 10 sec. Dried item examined in the white light and the daylight.
3HQNEK	Visual Examination	Fluorescent desk light
	Cyanoacrylate Fuming	Air Science chamber ~30 min cycle. 70 degrees, 80% humidity
	Dye Stain	MStar - wash bottle application. No rinse. Allow air dry. View with Crime Scope 495nm
	Wet Powder Suspension	Wet Wop - White. Brush application. Tap water rinse and allow to dry.
3NR9BN	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	
	Alternate Light Source	
3TKCX2	Visual Examination	no fingerprint detected
	Wet Powder Suspension	White wet powder suspension. Photography of the fingerprint using white light and no filter
3W2QH2	Visual Examination	Visually looked at the item for any prints
	Wet Powder Suspension	Utilized White wetwop and applied to the adhesive side of tape, let sit for 15 seconds, to try and develop any prints
4KMYJJ	Visual Examination	No visible prints were observed.
	Cyanoacrylate Fuming	Placed in super glue before I realized only the adhesive side needed processing.
	Wet Powder Suspension	White sticky side powder was applied to the adhesive side of the tape then rinsed.
4KPMZX	Crystal Violet	CV/Laser
	Cyanoacrylate Fuming	BY40/FLS

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
4QCL9X	Visual Examination	A visual examination was completed of the items in their entirety and a general description was notated on the processing worksheet.
	Adhesive side kit	An adhesive side kit powder (light) and EZ Flo solution was utilized to process the items. The items were immerged into an adhesive side kit powder (light), EZ Flo solution, and water. A QC was also processed together with the items. The QC showed the process worked correctly and ridge detail was observed on one of the items.
4R3RM3	adhesive side deveoper	reagent for adhesive surfaces is applied, followed by the application of purified water to reveal the print.
4TYZW8	Dye Stain	Item was treated with crystal violet until development.
4UBYRG	Wet Powder Suspension	Processed with white wet wop.
4V266L	Visual Examination	Ambient and white lighting utilized.
	Wet Powder Suspension	White Wetwop utilized. White light utilized to view RD development.
4Y42X2	Wet Powder Suspension	White wet wop
4ZYKY3	Cyanoacrylate Fuming	Item was removed from packaging wearing Dept issued protective equipment. Item was photographed prior to processing. Item was placed in refrigeration for 20 minutes prior to tape removal. Tape was removed and processed with cyanoacrylate fuming in the cyano safe for 10 minutes.
	Dye Stain	Print developed on sticky side of tape and die stained with basic yellow.
63KN6E	Visual Examination	Brief visual examination. No ridge details observed.
	Wet Powder Suspension	Brief swipe of wet powder using a camel brush, then rinsed under an indirect stream of cold water. Ridge detail developed on piece labeled "B".
676NBM	Cyanoacrylate Fuming	
	Wet Powder Suspension	
6A26V4	Cyanoacrylate Fuming	Humidity held for 30 mins, fumed for 10 mins, no prints visible. Re-humidified for 10 mins, re-fumed for 30 mins. Print visible in B.
6A6PMD	Visual Examination	The individual pieces of tape were removed from the wax paper backing and the adhesive surface was observed under white light for any patent prints. None were observed.
	Wet Powder Suspension	Sticky-Side powder was used to process the adhesive surfaces of the pieces of tape. Powder was brushed on with a soft bristle brush and then rinsed in cool water after 15-30 seconds.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
6DJJ3A	Visual Examination	1. White Light/Naked eye. 2. Blue Light (445 nm) with goggle (495nm). 3. Green Light (550 nm) with goggle (550nm) No Mark found.
	Cyanoacrylate Fuming	Processing Time: 20 mins, which includes Humidifying, Fuming and Purging. After 20 mins, Mark search was done using white light. No Mark found.
	Dye Stain	After Dying with BY40, kept to dry for 20 mins in fumehood. After 20 mins, Mark search was done using 445nm light (blue light) with goggle (495nm). Mark found on the adhesive side of the tap (B piece).
6FNYR2	developer for sirchie brand white adhesive	White developer is applied to the adhesive surface of the four pieces of tape and allowed to act for 10 to 15 seconds, rinsing with water to remove excess reagent.
6HBQLJ	Visual Examination	White light at an oblique angle - no print visible.
	Sticky Side Powder - White	White sticky side powder applied to the sticky side of each piece of tape. Sticky side powder rinsed off with water. Print visible on piece B.
6PTZCZ	Visual Examination	
	Wet Powder Suspension	White wetwop
6Q42XY	Cyanoacrylate Fuming	Enhancement in fingerprint quality after 15 minutes CA fuming.
	white wetwop	Brush Wetwop onto the adhesive surface,then rinse the item with cold running tap water until the excess powder has been remove from the background.
6QVFVT	Visual Examination	
	Wet Powder Suspension	Wet Wop-white
6WEU9X	Visual Examination	ambient light
	Alternate Light Source	white light, blue, cyan, green light, CrimeLite 4x4
	Cyanoacrylate Fuming	MVC3000 Foster+Freeman, humidifying 15 min 80%RH, fuming 5 min 120C.
	Wet Powder Suspension	wet powder white
6X8N73	developer for sirchie brand white adhesive	White developer is applied to the adhesive surface of the four pieces of tape and allowed to act for 10 to 15 seconds, rinsing with water to remove excess reagent.
6YKFZ6	Wet Powder Suspension	was used to develop a print

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
72323Q	Visual Examination	The items were photographed before examination, Examined under white light for visible marks
	Cyanoacrylate Fuming	The test items were fumed in Cyanoacrylate Fuming for 25 minutes. No visible marks on the non-adhesive side
	Wet Powder Suspension	The items were exposed to wet powder on the adhesive side, a visible mark was found on item B
74QFQZ	Cyanoacrylate Fuming	Item 2 was placed in a portable camera, cyanoacrylate vapors were applied until the positive control was visible, item 2 was removed applying reagent for developing white hi-fi latent prints, visual inspection was performed with the support of a light hand lamp. white and magnifying glass
7BTH2T	Visual Examination	
	Alternate Light Source	365nm, 495nm
	Cyanoacrylate Fuming	15 minutes fuming time, 80% relative humidity
	Dye Stain	Ardrox, 365nm, 445nm-510nm
	Tapeglow	445nm-510nm
7DVDKV	Visual Examination	white light, fluorescent
	Alternate Light Source	365 nm, 495 nm, 535 nm, orange and red filters
	Laser	445 nm, 532 nm, orange filter
	Cyanoacrylate Fuming	About 15 minutes, RH 80%, white light
	Dye Stain	Ardrox, 365 nm with and without yellow filter
7LU6Q6	Dye Stain	Item was processed using cristal violet until development.
7MNKNV	Visual Examination	First, visually examine samples to determine if any friction ridge detail is visible.
	Cyanoacrylate Fuming	Second, process the non-sticky side of the pieces of tape in the CA fuming chamber for ~45 minutes.
	Wet Powder Suspension	Third, process the sticky side of the pieces of type with white "Wet Wop" and then run it under a light stream of water
	Dye Stain	Fourth, squirt non-sticky side of the pieces of tape with Rhodamine 6G and let dry before looking it under a laser
	Alternate Light Source	Last, look under a laser (with orange filter goggles, laser setting 515nm) the non-adhesive side of the pieces of tape

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
7QLC8R	Visual Examination	
	Wet Powder Suspension	applied white contrast "Wetwop" using camel hair brush. Let "Wetwop" sit 15 seconds and washed "Wetwop" away from specimens.
	Cyanoacrylate Fuming	30 minutes
	Dye Stain	Ardrox, drying 30 min, RUVIS at 365 nm. observed 2 LP on tape A and B - not suitable
	Wet Powder Suspension	sticky side powder. no additional ridge detail, not suitable
7ULF2Z	Wet Powder Suspension	White wet wop suspension
7YVLVK	Visual Examination	White Light
	Wet Powder Suspension	Method: White Wetwop. VIS: White Light
87CMFF	Visual Examination	White light was used for visual examination.
	Wet Powder Suspension	A control was performed using black electrical tape prior to processing the item. White ridges were present. White WetWop was applied to the adhesive side of item #2, four pieces of electrical tape. White ridges were present on tape labeled B.
87VHXG	Sticky Side Powder	White sticky side powder made same day; brushed on and let sit for approx. 30 seconds then rinsed with deionized water.
8ATWMR	Visual Examination	lights, ALS (530, 505, 450), magnification
	Cyanoacrylate Fuming	SafeFume chamber, 69.1 F, 80% humidity, 20 minutes
	Wet Powder Suspension	Adhesive side developer (light)
8CXMP2	Visual Examination	Photo document the piece where it is packed by the front and back opens the pieces is taken out and again this process is photographed is repeat in the analysis.
	Cyanoacrylate Fuming	the procedure for analyzing and developing this piece is approximately 15 minute in the sealed glass chamber after observing alternating light and magnifying glass.
8FMP2G	Visual Examination	Visual examination of evidence item. No ridge detail was visualized on the four pieces of tape.
	Wet Powder Suspension	Before applying the wet powder suspension to the evidence item, a control was conducted with Wetwop. Similar electrical tape was used and a known print was placed on the adhesive side of the tape. The white Wetwop was then applied, rinsed, and white ridges were visualized. The white Wetwop was applied on the adhesive side of each piece of tape (item #2) and left on for approximately 15 seconds. The Wetwop was then rinsed off with water. This process was individually done on each labeled piece of tape. White ridge detail developed on the piece of tape labeled B.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
8H7Q3U	Visual Examination	ambient light
	Adhesive side kit	white powder in a soapy solution
	Visual Examination	ambient light
8HJKEN	Visual Examination	Visual exam of Item #2 with and without oblique lighting, approximately 5 minutes, no prints observed
	Alternate Light Source	Item #2 viewed under Forensic Light (Laser) Source, approximately 5 minutes, no prints observed
	Wet Powder Suspension	Item #2 processed with Titanium Dioxide, partial print observed on tape piece B, approximately 15 minutes, positive control completed prior to processing
8JZJRL	Wet Powder Suspension	Applied to the sticky surface (white)
8NAUQ8	Visual Examination	Natural light, white light, optical instruments.
	Wet Powder Suspension	Wet Powder White applied to the adhesive side
	Visual Examination	Natural light, white light, optical instruments.
8PP4V2	Wet Powder Suspension	Wet white titanium based powder suspension applied
8UZ8RV	Visual Examination	Used the flashlight to see if any prints could be seen
	Small Particle Reagent (SPR-Molybdenum Disulfide)	SPR adheres to the fatty constituents of latent fingerprints to form a gray or black deposit. It can be used on all nonporous surfaces. 1. shake the container of the solution and have the nozzle adjusted to a cone-shaped spray 2. spray the area slightly above and let the liquid travel downwards, if a print start to appear continue to spray right above as the solution drains the gray/white powder will be left adhering to the print 3. possible allow the surface to dry before lifting prints.
	Cyanoacrylate Fuming	Made a portable fuming hood, place the evidence inside the hood, place my fingerprint on the clear plastic bag that would go over the evidence. I placed the canister of activator crystals in the plastic container of the activator solution with the hole side down. I then put the fingerprint developer on top of the canister. Once my print appears on the plastic bag the item is ready to be taken out. The print is now harder onto the surface of the item and can be dusted with powders to be lifted.
	Powder Dusting	Bichromatic powder was used, took the fingerprint brush into the powder. knock off any of the excess powder and swirl the brush over the print. Once the powder was applied the print would be ready to lift.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
92UUUF	Visual Examination	with white light
	Alternate Light Source	
	Cyanoacrylate Fuming	15 min cycle with 80% RH
	Dye Stain	Methanol based Rhodamine 6G viewed under 515nm light with orange filter
	Wet Powder Suspension	White wet powder suspension, premixed solution
93MK4Z	Visual Examination	A white light was used to examine the piece of evidence by detecting the print in the B-space.
	Wet Powder Suspension	The reagent small partticle white was used to develop the fingerprint.
93QCUV	Wet Powder Suspension	se utilizo la tecnica de teñido con solucion para suprficies adhesivas, utilizando el reactivo adhesive-side developer light de color blanco. [Requested translation was not received prior to CTS report publication.]
96G9MV	Wet Powder Suspension	WHITE WETWOP (BRUSH APPLICATION) - TAP WATER RINSE
9B6VFF	Visual Examination	
	Wet Wop	
	Cyanoacrylate Fuming	
	Rhodamine 6G	
	Alternate Light Source	
9D82NU	Visual Examination	While light and ambient lighting used to visually examine Item 1 on adhesive and non-adhesive side.
	Wet Powder Suspension	Applied White Wet Wop to the adhesive side of Item 2 with a camel hair brush, let sit for 15 seconds, then rinsed with cold running water. Adhesive side then visually examined
9D8WHX	Cyanoacrylate Fuming	Placed item in freezer for 10 minutes. Removed from freezer and removed tape from paper. Placed the four pieces of tape into Cyanoacrylate Fuming Tank to process for 21 minutes.
	Dye Stain	Processed all four pieces with Ardrox. Allowed to set for 30 seconds, then rinsed off with water. Allowed to air dry.
	Alternate Light Source	Viewed with Alternate Light Source under UV lighting. I observed Latent Print on Tape B.
9EFBKX	ADHESIVE-SIDE DEVELOPER	A SEARCH WAS MADE IN THE ADHESIVE PART OF THE TAPES USING ADHESIVE-SIDE DEVELOPER, APPLYING THE REAGENT AND LATER RINSE WITH COLD WATER, FINDING A RESULT ON THE TAPE MARKED WITH THE LETTER B

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
9FBUHT	Visual Examination	White light.
	Wet Powder Suspension	Wet powder, White Helling, item was painted with brush and hold for 15 sec. in the room temp. 20C. After 15 sec. item was washed with running water.
9G79DX	Wet Powder Suspension	Black sticky side powder combined with Photo Flo 200 and water. Sticky side powder applied and rinsed, with water, three times.
9G8CKU	Visual Examination	
	Wet Powder Suspension	Adhesive Process - White Wet Wop (WWW) (Visual)
9QD3EH	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	R6G
A2WW8Q	Visual Examination	Item 2 was visually examined with direct and oblique lighting. No friction ridge detail was observed.
	Cyanoacrylate Fuming	The adhesive sides of Item 2 were protected by affixing the pieces of tape to a sheet of acetate, and the non-adhesive sides of Item 2 were fumed in a Foster + Freeman cabinet with approximately 10 drops TurboFuse cyanoacrylate using the Auto Glue Cycle (15 minutes humidifying, 18 minutes fuming at 120 degrees Celsius and 79% relative humidity, and 16 minutes purging). No friction ridge detail was observed. A positive control was fumed simultaneously with Item #2 and yielded expected results.
	Wet Powder Suspension	The adhesive sides of Item 2 were brushed with white Wet Wop and rinsed with water after approximately 15 seconds. Friction ridge detail was observed on the adhesive side of the piece of tape labeled "B" and was photographed. A positive control was also brushed with Wet Wop and rinsed and yielded expected results.
	Dye Stain	The non-adhesive sides of Item 2 were sprayed with Rhodamine 6G and then examined with laser and filter. No friction ridge detail was observed. A positive control was also sprayed with R6G and examined with laser and filter and yielded expected results.
	Alternate Light Source	After Item 2 was stained with R6G, it was examined under a 532 nm laser with orange filter glasses. No friction ridge detail was observed. A positive control was also stained with R6G and examined with laser and filter and yielded expected results.
A69XYN	Visual Examination	
	Cyanoacrylate Fuming	
	Wet Powder Suspension	Titanium dioxide
	Dye Stain	Basic Yellow 40

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
A6V84Q	Visual Examination	Visual Exam for 10 minutes
	Cyanoacrylate Fuming	Exterior of tape while attached to sheet
	White Wet-wop	White Wet-Wop 15-60 seconds on adhesive side only
	Dye Stain	R6G Non- adhesive side
	Alternate Light Source	
A74A44	Visual Examination	oblique lighting on non-sticky side (I had not seen the prompt about only processing the sticky side, so I examined the items as I normally would)
	Cyanoacrylate Fuming	on non-sticky side - used air science chamber with same conditions as Item 1
	Visual Examination	room light on sticky side
	Wet Powder Suspension	on sticky side, used evident wet powder suspension in white
AA4LY4	Wet Powder Suspension	On visual examination no possible latent prints were visible. ALS/UV was also used and no prints were visible. White Wet Powder Suspension (Wet-Wop) was applied and a single latent print was developed in section "B". This area was then photographed.
ADJXVK	Visual Examination	
	Cyanoacrylate Fuming	120°C +/- 5°, 75% +/- 15% relative humidity
	Wet Powder Suspension	
	Dye Stain	R.A.M., 365 nm
ADMHMU	Visual Examination	
	Cyanoacrylate Fuming	12 min.
	Dye Stain	R6G with laser @532nm orange goggles, RUVIS
	Wet Powder Suspension	White Wetwop
APX84A	Wet Powder Suspension	Four pieces of black electrical tape were coated on the adhesive side with white wet powder suspension. After 15 seconds the suspension was rinsed with cold running water. Latent print developed on piece marked with a B. Negative and positive control were completed.
AT4JAC	Visual Examination	Visual examination with direct and indirect lighting.
	Wet Powder Suspension	Used white sticky-side-powder on adhesive side of tape and rinsed with water.
AVHA6L	Visual Examination	Visual examination with white light.
	Wetwop	Applied wetwop for 3 minutes, rinsed with distilled water.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
AWJW9D	Visual Examination	Visually examined the adhesive side of each piece of tape.
	Alternate Light Source	Viewed the tape pieces under a light source but did not see any ridge detail.
	Wet Powder Suspension	Applied wet powder to all pieces of tape. Wet powder was applied to the individual pieces of tape for approximately 20 seconds and rinsed off with purified water. The evidence was then allowed to dry.
	Dye Stain	Dye stain was applied to the ridge detail that developed on the tape section marked B.
AZXJWQ	Visual Examination	
	Cyanoacrylate Fuming	
	Alternate Light Source	Reflective Ultraviolet Imaging System (RUVIS), UV light
	Dye Stain	Rhodamine 6G, laser (520 nm)
BKG7DW	Cyanoacrylate Fuming	
	Wet Powder Suspension	
BW9VBG	Visual Examination	light white, UV, 415 nm - 550 nm
	Wet Powder Suspension	Wet Powder White
C2J72Q	Visual Examination	The pieces of tape were removed from the paper during the visual examination.
	Cyanoacrylate Fuming	
	Dye Stain	Rhodamine 6G
	Laser	
C3J2UU	Wet Powder Suspension	adhesive side was processed with white Wetwop for 15 seconds and rinsed with water and viewed with the naked eye
C3V2P4	Visual Examination	magnifier and light
	Cyanoacrylate Fuming	fumed non-adhesive sides; small chamber, 15 minutes, 73 degrees F, 80% humidity
	Wet Powder Suspension	commercial white WetWop (lot #1-0078)
CCMEN3	Visual Examination	in natural light and light from forensic illuminator; no prints
	Powder Dusting	fingerprints powder applied with brush; print was observed in section B
CGFFT3	Wet Powder Suspension	on the sitcky side of type.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
CGURNM	Visual Examination	Examination with an alternate forensic light source with appropriate filters (light source – POLILIGHT PL 500)
	Wet Powder Suspension	Applying with a brush to the adhesive part of tape and then rinsing the excess off with tap water after leaving it on the tape for 10 to 15 seconds. Examination with a white light.
CPT8FF	Wet Powder Suspension	White wet powder applied and rinsed off.
CQ64M6	Visual Examination	Observed item under Ambient light. No ridge detail was observed.
	Full Spectrum Imaging System	Item was viewed with the Full Spectrum Imaging System (FSIS) with Ultra Violet light at 254nm and InfraRed at 850nm. Photographs were taken of ridge detail of possible value.
	Cyanoacrylate Fuming	Item was placed into a fuming chamber with heated superglue. The sticky side of the tape was kept on the parchment paper to keep superglue from adhering to it. No ridge detail was observed on the smooth shiny side of the tape.
	Full Spectrum Imaging System	Only the smooth shiny side of the tape was viewed with the Full Spectrum Imaging System (FSIS) with Ultra Violet light at 254nm and InfraRed at 850nm. No ridge detail was observed.
	Wet Powder Suspension	Stickyside fluorescent powder was dripped onto the sticky side of the tape. Water was then dripped over the tape to rinse excess powder. The item was then viewed with and alternate light source at 515nm. Photographs were taken of ridge detail of possible value. The item was then viewed using the coherent laser and photographs were taken of ridge detail of possible value.
CQJDUK	Wet Powder Suspension	21C - temperature, 40% - humidity, 0-3 hours
CW8FJ3	Cyanoacrylate Fuming	Tape was processed in fuming chamber with partial ridge detail development around edge of latent print. Stained with basic yellow and observed with ALS at 495 manometers. Results photographed and then proceeded with "sticky side powder" suspension. Secondary processing produced no additional detail.
D38YDK	Visual Examination	Oblique white light
	Light Adhesive Side Powder	Paste of Light Adhesive Side Powder was applied on sticky side of tape by soft bristle brush; after 10 seconds it was rinsed with cold tap water and was allowed to dry.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
D6FAAN	Visual Examination	negative
	Cyanoacrylate Fuming	Fumed as received - with all four (4) strips of tape adhered to wax-type paper to protect adhesive side. negative
	Dye Stain	R6G (petroleum ether based) applied to non-adhesive side of tape pieces while adhered to wax-type paper. negative
	Alternate Light Source	Visualized at 515 nm
	Wet Powder Suspension	White Wetwop on adhesive side - print on Piece B
	Cyanoacrylate Fuming	Fumed adhesive side (non-adhesive side exposed) in automated chamber (same print visualized)
	Dye Stain	R6G (petroleum ether bases) on adhesive side
	Alternate Light Source	Visualized at 515 nm (same print visualized)
D7VD2V	Cyanoacrylate Fuming	
DB28WQ	developer for sirchie brand white adhesive	White developer is applied to the adhesive surface of the four pieces of tape and allowed to act for 10 to 15 seconds, rinsing with water to remove excess reagent.
DEREBL	Cyanoacrylate Fuming	
	Dye Stain	yellow
DFGHAU	Visual Examination	
	Wet Powder Suspension	White wet powder suspension.
DKCAHR	developer for sirchie brand white adhesive	White developer is applied to the adhesive surface of the four pieces of tape and allowed to act for 10 to 15 seconds, rinsing with water to remove excess reagent.
DMY7PH	Visual Examination	No latent prints observed on the adhesive side of the electrical tape pieces.
	Alternate Light Source	No latent prints observed on the adhesive side of the electrical tape pieces.
	Wet Powder Suspension	Latent print observed on the adhesive side of the electrical tape piece labeled "B" utilizing titanium dioxide.
DNQ7MT	Wet Powder Suspension	1.- Observación de trozos de cinta. 2.- Control positivo. 3.- Aplicación de polvos para lado pegajoso color blanco. Tiempo de procesamiento: 30 minutos. [Requested translation was not received prior to CTS report publication.]
DVBZ6K	Wet Powder Suspension	White wet wop
DZ8MZT	Wet Powder Suspension	"White wetwop". Wetwop (Lot 1-0272) used via manufacturer's instructions, viewed under natural light; Test print +

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
E36MCA	Visual Examination	Visual examination to both sides of the tape. Magnetic gray powder used on non-adhesive side of the tape. No processing was performed on the adhesive side because only processing technique available was powder processing.
E4KVHP	Visual Examination	
	Alternate Light Source	365nm, 450nm, 532nm used
	Wet Powder Suspension	White wet wop
E4YE3M	Visual Examination	White light examination of exhibit as received using ambient laboratory lighting and 'Tiablo' High Power LED Flashlight at varying angles. No useful marks were visible.
	Alternate Light Source	Sequential initial High Intensity Light Source (HILS) examination carried out, following dark adaptation, using Green Crime Lite 480nm-560nm with 571nm viewing filter followed by Blue Crime Lite 420nm-470nm with 476nm viewing filter and UV Crime Lite 350nm-380nm with 408nm viewing filter. QA adhered to and control test pieces passed. No useful marks were visible.
	Cyanoacrylate Fuming	Item 2 was treated with Cyanoacrylate Fuming. Carried out as per [Laboratory] validated/internally verified procedure (Foster & Freeman MVC5000 Cabinet, Relative Humidity 80%, Glue time 13 minutes & 3 g of superglue used). Following treatment, examined using 'Tiablo' High Power LED Flashlight (white light)at varying angles. QA adhered to and control test piece passed. No useful marks were visible.
	Dye Stain	Item 1 was treated with ethanol-based BY40 dye used, carried out as per [Laboratory] validated/ internally verified procedure. BY40 dye applied and left for ~20 seconds. Rinsed with water and left to dry. Examined when dry using blue Crime Lite 420-470nm with 476nm viewing filter, following dark adaptation. QA adhered to and control test piece passed. No useful marks were visible.
	Wet Powder Suspension	Item 2, the non-adhesive side and the adhesive side, was treated with titanium-based powder suspension used, carried out as per [Laboratory] validated/internally verified procedure. Pre-rinsed with water. Powder Suspension applied with soft squirrel hair brush and left for ~20 seconds. Powder Suspension rinsed off gently using running water until maximum contrast obtained and then allowed to dry. When dry, examined using 'Tiablo' High Power LED Flashlight (white light) at varying angles and magnifying eyeglass used where required. QA adhered to and control test piece passed. A mark was found, exhibited as 'GJM/1' and photographed.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
EAM3ZD	Visual Examination	The item was visually examined for possible latent prints. No latent print was observed.
	Cyanoacrylate Fuming	Item processed in the Foster & Freeman MVC1000 chamber. Humidity set at: 80%, Humidity time: 10 minutes, Glue temperature: 120 Celsius, Glue Time: 11 minutes, with 9 drops of "Cyanobloom" LOT#042621-02 Exp date: 04-26-22 in the tray. A plastic test strip was placed in the chamber as a control test. A control test of the Cyanoacrylate chemical (LOT 042621-01) and Ninhydrin (LOT 070721-1) was conducted and was positive. Negative control yielded appropriate result. One latent print was developed on piece "B" electrical tape.
EBZMRN	Visual Examination	
	Powder Dusting	Black Bichromatic Power & Black Magnetic Powder
ECVB8D	Visual Examination	White light/flashlight
	Cyanoacrylate Fuming	Non-adhesive side only. Approx. 70% humidity, between 6-7 min fuming time. Visual exam utilized white light/flashlight
	Wet Powder Suspension	Adhesive side only. Wet Wop, white
	Dye Stain	Non-adhesive side only. R6G, methanol based. Light source exam: Laser at 532nm using orange barrier filter
EDAGNN	Ninhydrin	Nuestro procedimiento para la recolección de rastros papilares establece en uno de sus puntos que se debe remitir al Laboratorio si es necesario el indicio al cual se le haya aplicado los reactivos para resaltar rastros papilares en caso de no obtener resultados positivos, para que el mismo sea procesado con otros reactivos con los que no se cuente al momento de la diligencia de inspección, por lo cual el mismo fue traslado a la Unidad de Revelado Lofoscópico para ser procesado con el reactivo químico de Ninhidrina. El indicio estuvo aproximadamente 30 minutos de dentro de la cabina con el reactivo en mención. [Requested translation was not received prior to CTS report publication.]
EL3RYJ	Tape and Adhesive	Visual, Lumi on non adhesive (17 minutes), Wet Powder on adhesive (white) (15 seconds)
ET2K2B	Visual Examination	Visual examination with direct light
	Visual Examination	Visual examination with Full Spectrum Imaging System
	Cyanoacrylate Fuming	Processed with Cyanoacrylate Ester using a fuming chamber for 30 minutes
	Visual Examination	Visual examination with Full Spectrum Imaging System
	Dye Stain	M Star dye stain
	Wet Powder Suspension	White Wet Wop

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
ET46YL	Visual Examination	The items were visually examined using ambient and oblique lighting. No latent prints were observed.
	Cyanoacrylate Fuming	The items were placed in the cyanoacrylate chamber for 12 minutes at an 80% humidity, with superglue on a heat plate. A test print was ran at the same time. No latent prints were observed.
	Dye Stain	The items were dye stained with Basic Yellow 40 and dried. The test print was dyed prior. A latent print was observed on the adhesive side of piece B. The item was rinsed with distilled water after photographing.
	Alternate Light Source	The item was observed under an alternate light source (blue) with a yellow filter. The test print was observed prior.
EV66YJ	Visual Examination	Visual exam, no ridge detail seen.
	Wet Powder Suspension	White Wetwop applied to adhesive side with hair brush, left on for about 15 seconds, rinsed with cool tap water, air dried.
EW2LD2	Visual Examination	WHITE LIGHT
	Alternate Light Source	BLUE 0020182S, GREEN 0020282S, UV 0022882S
	Wet Powder Suspension	
EZ4GYP	Visual Examination	
	Alternate Light Source	Krimesite scope
	Cyanoacrylate Fuming	
	Dye Stain	Rhodamine 6g
	Wet Powder Suspension	Gray powder
F2CZED	Visual Examination	Item was visually examined prior to further processing.
	Cyanoacrylate Fuming	Item was placed into MVC 1000 cyanoacrylate fuming chamber. Two cycles of processing were used to further develop possible impression. Seven (7) drops of cyanoacrylate was used during the first cycle, nine (9) drops were used during the second. Settings of MVC 1000 were as follows: 80 RH, 120 Celsius, 10 minutes humidify time and 11 minutes glue time. Total time processing in chamber was 80 minutes. Positive and negative controls yielded appropriate results.
F32JYB	Powder Dusting	On the non sticky side, magnetic black powder was used to determine if latent lifts were located on that side. Negative for latent lifts.
	Wet Powder Suspension	White wet wop was used on the sticky side of the tape. Once white wet wop was applied to sticky side on tape, I waited 15 seconds and rinsed the white wet wop off. Section B was positive for latent print.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
F4EYMK	Visual Examination	Examined with a bright white light and magnifier
	Alternate Light Source	Examined using 3 light sources at the following wavelengths: 365nm, 450nm, and 532nm
	Cyanoacrylate Fuming	Processed using cyanoacrylate fuming chamber. Examined using white light and RUVIS
	White Wet Wop	Processed using white wet wop. Examined using white light
	Dye Stain	Processed using RAM dye stain. Examined using the 3 light sources listed above.
F6RPDF	Visual Examination	There was no latent evidence visible with or without additional lighting.
	Adhesive Side Technique	Performance check was completed using a Liquinox and fingerprint powder mixture. A mixture of Liquinox and white color (for contrast) fingerprint powder was combined to a desired paint-like consistency. The mixture was then applied to the tape's adhesive side using a camel hair brush and left to rest for approx. 1 min. The mixture was then rinsed off using a gentle flow of cool water. This process was repeated for further print enhancement.
FFVNLP	Visual Examination	Direct white light
	Wet Powder Suspension	White powder suspension (Wetwop White)
FMVZLT	GENTIAN VIOLET	PHOTOGRAPHY STARTS 10:01 TO 17:55.
FNQRL7	Visual Examination	The adhesive sides were visually examined with no lighting and oblique lighting.
	Wet Powder Suspension	White colored small particle reagent was sprayed onto each piece of tape individually.
FRMAVQ	revelador lateral adhesivo	Reagent for adhesive surfaces is applied, followed by the application of purified water to develop the impression.
FRNBLJ	Cyanoacrylate Fuming	
	Dye Stain	Basic Yellow
	Wet Powder Suspension	Wet Wop White
FWKQ9K	Visual Examination	White light. Luminescence (from 315nm to 570 nm)
	Wet Powder Suspension	Application of the Wet powder with a brush. Observation in white light

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
G97H9F	Visual Examination	Oblique and overhead lighting, no latent prints observed on pieces A-D, 5 minutes
	Alternate Light Source	Alternate light source, no latent prints observed on pieces A-D, 10 minutes
	Titanium Dioxide	Prepared Titanium Dioxide (water based) solution per technical manual guidelines. Performed control of Titanium Dioxide solution on adhesive side of electrical tape, latent print successfully developed. Painted pieces A-D with Titanium Dioxide solution, nothing observed, 40 minutes.
GAGH8V	Cyanoacrylate Fuming	Cyanoacrylate fuming is a chemical method for the detection of latent fingermarks on non-porous surfaces such as plastic, glass, rubber bands, finished and unfinished wood. This four pieces of electrical tape labeled as pieces A-D put in the box sealed with hot for reveal the latent print.
	Alternate Light Source	to be able to see the latent print in the photo
GBWQCP	developer for adhesive surfaces sirchie brand	white developer for adhesive surfaces, sirchie brand.
GDKDTJ	Visual Examination	Visually examined
	Adhesive side kit	Painting method, white sticky side powder
GEW7TD	Visual Examination	Non-adhesive sides of the tapes with Crimelite and TracER laser
	Cyanoacrylate Fuming	Cyanoacrylate fumed with control in F+F MVC 5000 for 70 minutes
	Dye Stain	Enhanced any print development with control by Rhodamine 6G dye stain
	Powder Dusting	Dusted with black powder
	Visual Examination	Adhesive sides of the tapes with Crimlite and TracER laser
	Wetwop	Applied white wetwop solution on the adhesive sides of the tapes with control and rinsed off the wetwop after 15 seconds.
GKY3QR	Visual Examination	The piece of evidence was verified using a white light by detecting a fingerprint in the B-space.
	Cyanoacrylate Fuming	The piece of adhesive tape was placed in the fish tank to be worked with cyanoacrylate

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
GV32FR	Visual Examination	Examination under white light, no latent print observed on any position
	Alternate Light Source	Using DCS imaging system under UV light (crime lite (350-380nm)/ baader filter add on camera Nikon D5), also Using crime lite (blue/ green 450-510nm @ orange filter (529nm)), a latent print was not observed on any position
	Cyanoacrylate Fuming	The chamber runs at least 15 minutes with 80% humidity, This processing to fix a latent print on evidence. Later we try to use DCS imaging system under UV light (crime lite (350-380nm)/ baader filter add on camera Nikon D5) and see latent print if observed or not, it was not observed on any position.
	Adhesive Side Developer	We use Adhesive Side Developer (Light) depend on evidence tape if dark or light color. After using we washing evidence by distilled water and lit it dry from 10 to 15 minutes. Latent print was observed on position B with clear shap
GZTQHG	Visual Examination	
	Cyanoacrylate Fuming	40 mins
	Dye Stain	Ardrox, UV
H3UYK7	LPPM	White wetwop and visual examination
HBQW7N	adhesive side deveoper	reagent for adhesive surfaces is applied, followed by the application of purified water to reveal the print.
HLVQV9	Visual Examination	
	Wet Wop	
HRYQYH	Visual Examination	No traces.
	Wet Powder Suspension	White wet powder suspension.
HZF9NC	Visual Examination	oblique lighting
	Wet Powder Suspension	White wet-wop brushed on, rinsed off with water
J2LY7R	Visual Examination	Visual/oblique light - negative
	Alternate Light Source	UV - negative
	Alternate Light Source	FSIS - negative
	Wet Powder Suspension	Wet Wop - positive on B
JNTMP8	Visual Examination	White light on non-adhesive sides – no lats; removed 4 pieces of tape using UnDu – white light on adhesive sides – no lats
	Wet Powder Suspension	Brushed both adhesive and non-adhesive sides of black electrical tape with WetWop (white) - left on for a minute and rinsed in cold water; visual exam - 1 latent print (L003) observed in quadrant B; 2B to photo; others - no lats

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
JX4TUB	Visual Examination	Visual Examination performed using an alternate light source and examined with white light.
	Wet Powder Suspension	A control was created by placing friction ridge detail on a piece of black electrical tape. White Wet Wop was applied to the adhesive side of the control, as well as, the adhesive side of the four (4) pieces of black electrical tape. The test print resulted in a positive development.
K3R27G	Visual Examination	Naked eye
	Adhesive side kit	A solution was made using the white powder, the EZFLO Super concentrate, and water. The pieces of tape were submerged into this solution and were then agitated. The pieces of tape were allowed to sit in the solution until adequate ridge detail was observed, or no development occurred. The pieces of tape were then allowed to air dry.
K4H8KL	developer for adhesive surfaces sirchie brand	developer for adhesive surfaces, sirchie brand.
K6FFVQ	Latent fingerprint spray color white.	After using the spray, no fingerprint where found anywhere.
K9HCM7	Wet Powder Suspension	Ridge detail was developed on the adhesive side of specimen B using wet powder (white). Standard testing was performed on the developing agent prior to use.
KCCF7C	Wet Powder Suspension	Applied white sticky side powder, let rest for 30 seconds, and rinsed with deionized water.
KFBQ2C	Wet Powder Suspension	Rinsed with water
KLH64G	Wet Powder Suspension	Test print +, White wetwop #1-0272 used with brush left on for approximately 30 seconds and rinsed, examined and let dry, photographed
KMC7PY	Wet Powder Suspension	White Wet Powder solution brushed on using camel hair brush and rinsed off after 10-15 seconds using water
KMRAEK	Visual Examination	White light
	Cyanoacrylate Fuming	
	Dye Stain	MRM10
KVPWDC	Visual Examination	
	Wet Powder Suspension	White Wet Wop lightly brushed on adhesive side
	tap water rinse	allowed to air dry
	Visual Examination	

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
KXUMG7	Visual Examination	Using white/ambient light – Negligible FRD is observed on the adhesive side of tape piece B. It is not suitable for capture at this time. No FRD is observed on the remaining pieces of electrical tape.
	Alternate Light Source	Using Crimescope between 350 – 515 nm wavelengths with yellow, orange and red filters – No FRD is observed on the adhesive sides of any of the four pieces of tape.
	Wet Powder Suspension	Wet Powder brushed on the adhesive side of all four pieces of electrical tape with a camelhair brush, set aside for approximately 5 minutes and rinsed off with lukewarm water.
	Visual Examination	Using white/ambient light – FRD observed on the adhesive side of tape piece B. No FRD observed on any of the other pieces of tape.
L69Q7J	Cyanoacrylate Fuming	BY4D, atmospheric pressure
LM9MK9	Wet Powder Suspension	White suspension
LMBJXD	Visual Examination	White light
	Cyanoacrylate Fuming	12 minute fume time
	Dye Stain	R6G
	Alternate Light Source	LASER
LPDDP3	LPPM - non-pourous and adhesive	Item2 was fumed with cyanoacrylate in the environmental safe fume chamber at 75% relative humidity for 15 minutes and dye stained with basic yellow. The item was then used under forensic laser. The adhesive side of the tape was stained with white wet wop and viewed under white light.
LQQZ8G	Visual Examination	Item placed in freezer for ten minutes to assist with tape removal from wax paper. No friction ridge impressions were observed upon visual examination with and without oblique lighting.
	Wet Powder Suspension	Sticky side powder applied. No friction ridges present upon visual examination. Visual examination using RUVIS and UV lighting revealed very minimal friction ridge detail on sample B.
	Vacuum Metal Deposition	Item processed in VMD using sterling silver followed by zinc. No additional friction ridge detail observed as a result of this process.
	Cyanoacrylate Fuming	Item processed in cyanoacrylate fuming chamber and subsequently dye stained with Ardrox. Item visually examined under UV lighting revealing additional friction ridge detail on sample B.
M4BZDA	Vis, ALS, CA, Ardrox	

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
M97T9Q	Visual Examination	1) Four pièces of electrical tape labeled as pieces A-D on the non-sticky side. We observe with the nake eye the sticky side of the four adhesive tapes from different inclinations. No trace detected.
	Alternate Light Source	2) We illuminate the sticky side of the four adhesive tapes with the Crimescope MCS-400 at different frequencies with the appropriate filters and colored glasses, under different inclinations. No trace detected.
	Cyanoacrylate Fuming	3) In view of non porous support, we place the four pieces of electrical tape in the fumigation tank. Autocyle for 2g of solution of Lumicyano 8% during 1 hour. A contrôle trace is placed in the tank.
	Visual Examination	4) A white deposit of Lumicyano is observed with the naked eye on the sticky face of the piece of electrical adhesive tape labeled "B". No other traces are observed elsewhere on the object.
	Alternate Light Source	5) We illuminate the object using the Crimescope MCS-400 at different wavelengths and wearing glasses of appropriate colors. The fingerprint in the case "B" is even more visibly illuminated with white light or in CSS of the Crimescope. We don't observe other traces elsewhere on the object.
	Wet Powder Suspension	6) In view of sticky surface, we treat the sticky side of the four pieces of tape by spreading White Wet Powder (as the pieces of electrical tape are black), then we rinse the tape under running water. A control fingerprint is tested beforehand in order to verify the validity of the treatment. The fingerprint in box "B" is visible to the naked eye. It is white on the piece of black colored tape.
M9QCBC	Visual Examination	lighting
	Cyanoacrylate Fuming	70% humidity, 30 minute fume time, lighting
	Dye Stain	Rhodamine 6G, laser 520 nm, orange filter
	Wet Powder Suspension	1 Water:1 Kodak Photo-Flo 200, gray sticky side powder, lighting
MA2CAR	Visual Examination	
	Wet Powder Suspension	temp. 21°C, humidity 45%, time 1 min
MEAKTG	Visual Examination	
	Alternate Light Source	Dual77-UV
	Wet Powder Suspension	White Wet Wop
MF8QAB	Visual Examination	white, green and blue forensic light.
	Wet Powder Suspension	Titanium oxide powder suspension (20 seconds develops time)
MJ9U74	Visual Examination	ambient light showed faint ridge detail along bottom edge of B
	Wet Powder Suspension	wet powder white was applied to the sticky side using a camel hair brush, it was left on for about 15 seconds and then rinsed under running tap water, only piece B showed any ridge detail

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
MJMH24	Cyanoacrylate Fuming	MVC1000, 7 drops of Cyanobloom, 120° C, 80% Relative Humidity, 10 minute processing time (Lot# 042621-02, Exp: 4/26/22)
	Alternate Light Source	DCS5, ring light with yellow filter, greyscale, invert image, adjust brightness, contrast and gamma
	Visual Examination	
MY46Z2	Visual Examination	Examined for any patent prints and found none.
	Cyanoacrylate Fuming	I used a quality control on glass inside the super glue fuming tank while processing the non-adhesive side of the tape. I placed approximately a quarter size amount of super glue in an aluminum dish, hot water in a beaker for humidity, and fumed the sheet of tape for approximately 30 minutes.
	Powder Dusting	I used black powder to process the non-adhesive side of the tape after Cyanoacrylate Fuming and did not locate any prints.
	Wet Powder Suspension	Quality control used on a piece of electrical tape and confirmed the white Wet Wop was working, it was. I brushed the Wet Wop on the adhesive side of each evidence item, electrical tape (A-D). I located a print on electrical tape "B".
N3WVEC	Visual Examination	visually examined four pieces of electrical tape labeled A-D.
	Adhesive Side Kit-light	made the proper mixture of adhesive side powder-light, EZ Flo working solution and water in a basin for the immersion method and submerged my QC (known print on a piece of electrical tape) adhesive side up in the mixture, observed sufficient ridge detail, removed from solution to allow the tape to dry. Added each of the four pieces of electrical tape using the same method. Observed sufficient ridge detail on tape piece B, removed from solution and allowed to dry
N3XFCD	Visual Examination	
	Cyanoacrylate Fuming	
	Dye Stain	R6G
	Wet Powder Suspension	White powder in suspension
	Alternate Light Source	Laser
N4B4J7	Wet Powder Suspension	White suspension applied with animal hair brush for a few seconds, rinse with water
NLPN72	Visual Examination	
	Alternate Light Source	
	Wet Powder Suspension	White WetWop applied to adhesive sides

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
NP9NGB	Visual Examination	
	Alternate Light Source	365nm, 495nm
	Laser	532nm
	Cyanoacrylate Fuming	Fuming chamber C1, CA lot #19-25, processed for 15 minutes at 80% Relative Humidity.
	Dye Stain	Ardrox, 532nm
	TapeGlo	Adhesive tape reagent, 495nm
P49RHV	Wet Powder Suspension	The item was processed with wet powder - white. It was allowed remained on the item for 10 sec. It was rinsed off with water.
P6YXVZ	Visual Examination	Visual examination with white light.
	Wet Powder Suspension	White Wetwop. Visualized with white light.
P8CDKZ	Visual Examination	White light was used and there were no visible prints.
	Cyanoacrylate Fuming	The item was placed inside of the superglue chamber, along with hot water (for humidity) and superglue (placed on the hot plate). I made sure to put my print on the interior of the glass to use as a Quality Control (QC). The chamber was then closed and the item fumed for approximately 15 minutes. Once the QC had visible prints, the item was taken out of the chamber and visually examined once again.
	Powder Dusting	Using a brush, black powder was lightly dusted across the non-adhesive surface. No prints developed.
	Wet Powder Suspension	I collected a piece of black electrical tape and placed my finger on the adhesive side of the tape to use as a Quality Control (QC) for the White Wetwop. White ridges appeared on the QC, so I used White Wetwop on the adhesive surface of the evidence provided and a print developed.
PARYZZ	LPPM	White Wet Wop. Dry. Imaged w/ DCS-5
PAXHRX	Visual Examination	Crimelite and TracER Laser
	Cyanoacrylate Fuming	70 minutes in F+F MVC 5000 chamber
	Dye Stain	Rhodamine 6G
	Powder Dusting	White powder
	Wetwop	White

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
PH4BYJ	Visual Examination	An ocular inspection was carried out on piece of evidence # 2. An ocular inspection was carried out on piece of evidence # 2. An ocular inspection was carried out on piece of evidence # 2. An ocular inspection was carried out on piece of evidence # 2. An ocular inspection was carried out on piece of evidence # 2. An ocular inspection was carried out on piece of evidence # 2
	Alternate Light Source	Then using alternating white light to observe the piece of evidence, it was located where the fingerprint was.
	[No Methods Reported.]	Small Particle Reagent Spray-White was used.
PNARN8	Visual Examination	Made visible examination.
	Wet Powder Suspension	Applied white Wetwop on all (4) black strips of Tape, on Adhesive side. Ran strips under distilled water.
PPPZ22	Visual Examination	Magnifying lamp.
	[No Methods Reported.]	TapeGlo
PUVZRX	Visual Examination	White low angle light. Results negative.
	White Sticky Side Powder	Applied white sticky side powder to the adhesive side of the tape followed by rinsing with water. Positive piece B.
Q44UK6	Visual Examination	Item was visually examined with white light and magnification. No impressions were observed.
	Wet Powder Suspension	White Wet Wop was applied to adhesive-side of strips A-D. An impression was observed on strip B.
QCEV77	Wet Powder Suspension	White Wet Powder, water rinse
QCVA9A	Visual Examination	visually observed
	Adhesive side kit	solution made by mixing 1 teaspoon of white powder with 1 teaspoon of EZFLO working solution. Paint method used
QN9A8N	Cyanoacrylate Fuming	
	Dye Stain	ETHANOL BASE BY40 STAIN USED
	Wet Powder Suspension	TITANIUM
R4JD43	Cyanoacrylate Fuming	1 hour processing time.
	Dye Stain	Basic yellow.
	Alternate Light Source	Visually examined at 450 nano-meters.
RAP7ZJ	Dye Stain	Item was processed using crystal violet until development

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
RL2EY6	Visual Examination	Viewed item under white light, TracER laser, and CrimeScope CS-16-500 ALS.
	Cyanoacrylate Fuming	Item placed in Misonix CA-6000 superglue chamber for 9 minutes and viewed under white light.
	Dye Stain	Item sprayed with methanol based Rhodamine-6G and viewed under TracER laser.
RQUHN3	Visual Examination	Vis – white light (foster and freeman crime-lite 2 400-700nm)-neg 2.11.21
	Alternate Light Source	Vis examination using High intensity light sources (Foster and Freeman crime-lite 82s UV (350-380nm), violet (395-425nm), blue (420-470nm), blue/green (445-510nm), green (490-560nm), orange (570-610nm)), blue and green lights were checked that they are working using the depletion standards as per sop, dark adaption completed before using orange hils as per sop – neg 2.11.21
	Powder suspension Titanium	PST batch # WP190603 (purchased from WA products, manufactured by Kjell Carlsson Innovation, Sweden), peer review of +ve control. +ve for quadrant B 24.11.21.
RUXZBX	Visual Examination	No visible ridge detail observed. (from tape) Only the adhesive side of the tape was processed per instructions.
	Wet Powder Suspension	WetWop White, Used on sticky side of tape. Area 2.L2 (from tape "B", item 2) was preserved through digital imaging.
TA28E6	Visual Examination	No fingermarks were visible. Blue, green and white light was used.
	Cyanoacrylate Fuming	(For the non adhesive sides) No fingermarks were visible. Processing time: 5 minutes.
	Wet Powder Suspension	(For the adhesive sides) A fingermark was visible on tape B.
	Dye Stain	(For the non adhesive sides) Basic Yellow 40. No fingermarks were visible.
TBXFQV	Visual Examination	None found
	FSIS & UV light@ 254nm	None found - sticky side examined only
	Wet Powder Suspension	Wet Wop (white)- applied to the sticky side of the tape only; painted on via brush and then rinsed with water; one (1) impression on the sticky side of the black tape labeled B developed and was photographed; impression was determined to be of value (OV) and was labeled L2
TFACLW	Visual Examination	desk lamp
	Alternate Light Source	Full Spectrum Imaging System
	Cyanoacrylate Fuming	Air Science Safe Fume 30 min
	Dye Stain	M-star
	Alternate Light Source	crime scope
	Wet Powder Suspension	White Wet Wop

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
TFNVBV	LPPM	Item 2 was fumed w/ CA in the environmental chamber, dye stained w/ R6G. The tape was then removed from wax paper and processed w/ white WOP.
TJ3V73	Visual Examination	Visual inspection - 1 minute.
	Wet Powder Suspension	Used brush method to apply; waited 30 seconds for each (A-D).
	Distilled water	Rinsed each for 1 minute (A-D). Dry time 20 minutes.
TNZ6KA	Cyanoacrylate Fuming	I processed the pieces of tape with Cyanoacrylate in our fuming chamber for 21 minutes.
	Dye Stain	I then treated the strips with an Ardrox mix to enhance the print. I then allowed it to dry and used a UV light to see the print.
TQ46G2	Visual Examination	under natural and white light
	Cyanoacrylate Fuming	18 mins
	Dye Stain	R6G
	Alternate Light Source	laser
TTA8M7	Visual Examination	Examined the smooth and sticky sides with ambient white light and an LED flashlight from all angles. No ridge detail was seen.
	Alternate Light Source	Examined item with the Ultralite ALS, BMT head and orange filter. No ridge detail was seen.
	Cyanoacrylate Fuming	Processed item with cyanoacrylate esters using the Air Science SameFume Cabinet #1.3 for 15 minutes. A control print on foil was processed simultaneously.
	Visual Examination	Item was re-examined with white light. Latent print 1.1 was photographed again. No ridge detail was seen.
	Wet Powder Suspension	Processed item with a suspension of Sticky Side powder in PhotoFlo. Very thin edge of possible ridge detail was seen on the sticky side of piece B.
U7FXN6	Wet Powder Suspension	"Wetwop White". All four pieces of tape were removed from the wax paper and wetwop white was brushed with a camel hair brush and washed off with cool water after 15 seconds on the adhesive side.
UAGN8D	Cyanoacrylate Fuming	Item 2 was placed in a portable camera, cyanoacrylate vapors were applied until the positive control was visible, item 2 was removed applying reagent for developing white hi-fi latent prints, visual inspection was performed with the support of a light hand lamp. white and magnifying glass
UB868D	White wet wop	White wet wop was used painted on, rinsed with water after about 1 min. and viewed with oblique visible light.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
UBRNCK	Cyanoacrylate Fuming	
	Dye Stain	Rhodamine 6G
	Alternate Light Source	
	Wet Powder Suspension	Adhesive Side Developer
UDH3KU	Wet Powder Suspension	
UDUJVM	Cyanoacrylate Fuming	
	Alternate Light Source	FSIS
	Wet Powder Suspension	WetWop
UGT6GX	LPPM	Non-porous item 1 side; Visible search;
UGWP98	Visual Examination	No ridge detail located
	Wet Powder Suspension	Titanium Dioxide - 1 latent print suitable for documentation on piece of tape marked B
UHA27C	ADHESIVE-SIDE DEVELOPER LIGHT	LOPHOSCOPIC TRACKING IS CARRIED OUT BY USING ADHESIVE-SIDE DEVELOPER ON THE ADHESIVE TAPES, APPLYING ON THE ADHESIVE PART AND RINSING WITH WATER, OBTAINING A POSITIVE RESULT ON THE TAPE MARKED WITH THE LETTER B
ULT67V	Moved the pieces tape to a transparent plastic sheet	N/A
	Visual Examination	White light, blue forensic light with yellow filter, green light with red filter.
	Wet Powder Suspension	Wet Powder White
UM7UBT	not processed	not trained in sticky-side tape
UNC9NZ	Visual Examination	Fluorescence examination
	Wet Powder Suspension	Wet Powder White - used only on glue part
UQ668T	Visual Examination	Visual with flashlight (Crimelite).
	Alternate Light Source	Alternate light source at 530nm.
	Cyanoacrylate Fuming	70 minutes for non-adhesive side only.
	Powder Dusting	White powder for non-adhesive side only.
	Wet Powder Suspension	White wet wop for adhesive side only.

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
UQGXQA	Revelador para lado adhesivo	Se realiza la apertura del embalaje; se documenta fotográficamente, se observan características de la superficie que será sujeta al procesamiento, se realiza una prueba control del reactivo a utilizar para verificar su funcionamiento, posteriormente se realiza el procesamiento del item con el revelador para lado adhesivo, en color blanco. [Requested translation was not received prior to CTS report publication.]
	Alternate Light Source	Posterior a la aplicación de la técnica de revelado, con el revelador para lado adhesivo en color blanco. se procede a utilizar una fuente de luz blanca, para la observación de la superficie así como de la huella latente visible. [Requested translation was not received prior to CTS report publication.]
UXMGKU	Visual Examination	Crime-Lite, LASER
	Cyanoacrylate Fuming	Crime-Lite
	Dye Stain	Rhodamine 6G, LASER
	Powder Dusting	Black Powder
	Visual Examination	Crime-Lite, LASER
	Wet-wop black	Wet-wop black
V6GZYU	Wet Powder Suspension	
VF273Z	Alternate Light Source	white light source, 340-587 nm, UV, coaxially reflected
	Sticky Side Powder (SSP)	white light source
VH6WDL	Adhesive Side Developer - White	Processed for approximately 20 seconds.
VJF7W7	Visual Examination	Natural light, white light.
	Wet Powder Suspension	We were used white wet poder to develope latent print on the four pieces of electrical tape (10 seconds and wash with flowing water). The latent print was recovered on tape piece "B".
VNBQA3	Visual Examination	
	Alternate Light Source	350-380 nm ALS, 445-510 nm ALS
	Cyanoacrylate Fuming	Fume for 15 minutes at approximately 80% humidity
	Dye Stain	Ardrox (examined with 350-380 nm ALS)
	TapeGlo	Examined with 445-510 nm ALS
VVQPF	Visual Examination	No prints observed
	Cyanoacrylate Fuming	9 minutes in fume tank. No prints observed
	Powder Dusting	Black powder non adhesive side. No prints observed
	Wet Powder Suspension	White wet powder adhesive side. Print observed on tape piece "B"

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
VYAL6C	Magnetic Powder	I drop the magnetic powder to the fingerprint with the magnetic brush. Then I proceed to remove the excess of magnetic powder with the magnetic brush. Then I proceed to define the latent print.
VZL67A	Wet Powder Suspension	Iron oxide
W7L4XB	Visual Examination	White, blue and green light were used to examine the materials.
	Wet Powder Suspension	Titanium dioxid-based powder suspension was used.
W7PNPK	Cyanoacrylate Fuming	Processing time : 40 min. Dye stain : superglue and MBD solution. The reaction needs 75-80 percent humidity
WBF7X4	Visual Examination	Negative visual
	Wet Powder Suspension	White WetWop used - LP2 on piece "B"
WCWZZY	Visual Examination	PERFORMED VISUAL EXAMINATION.
	Wet Powder Suspension	APPLIED WET WOP WHITE ON ALL 4 STRIPS OF BLK ELECTRICAL TAPE. LET IT SIT FOR 5 MINUTES THEN RINSED WITH WATER.
WGRR9V	Alternate Light Source	000 nm - 650 nm
	Powder Dusting	Bichromatic powder on non-adhesive side.
	Wet Powder Suspension	White Wet Wop used on both sides; developed friction ridge detail on adhesive side of tape section B.
WQAJG7	Wet Powder Suspension	Wet Wop was brushed onto the surface with a brush, allowed to sit for 15 - 30 seconds, then ran under cool water.
WUC7CV	Visual Examination	under white light
	Alternate Light Source	fluorescence examination (350 nm - 650 nm under appropriate color barrier filters)
	Wet Powder Suspension	Wet Powder White. Visual Examination - under white light
WUFQ46	Visual Examination	
	Wet Powder Suspension	White
WUFZZV	Wet Powder Suspension	introduced to super glue tank for non sticky side of tape. for adhesive side i applied wet wop, let it sit on exhibit for 15 seconds before rinsing with cold water.
WXGUVR	Visual Examination	Negative results.
	Sticky Side Powder (White)	Applied sticky side powder to adhesive side only yielding positive results on tape piece "B".
XFACZD	Laten fingerprint spay SPR White	After spaying the electrical tape and waiting 3 minute the fingerprint developed

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
XGNJLU	Visual Examination	
	Cyanoacrylate Fuming	~20 minutes @ ~60% humidity of non-adhesive side only
	Wet Powder Suspension	white wet wop processed adhesive side of tape
XHKX9M	Wet Powder Suspension	
XPEAZA	Wet Powder Suspension	After the tape was removed from the paper it was operated by White Wet Powder.
XQCLRW	Visual Examination	Applied oblique lighting, then a Coherent TracER LASER with a KV550 lens filter to view any potential latent print. Done on both non-sticky side and adhesive side of the four pieces of tape.
	Cyanoacrylate Fuming	Using a Foster & Freeman MVC-5000 superglue chamber, 3 grams of cyanobloom (superglue), and 70 minutes of the autocycle was ran. Only done on the non-sticky side on the four pieces of tape.
	Dye Stain	Using a dispenser bottle, Rhodamine 6G was applied to the entire ono-sticky side of Item 2. A Coherent TracER LASER and a KV550 lens filter was used to view potential latent prints.
	Powder Dusting	On the non-sticky side, black powder was used for the dusting process. Both oblique lighting and incandescent lighting was used to view any potential latent prints.
	Wet Powder Suspension	White wetwop was brushed on the adhesive side of Item 2.
XWEM4J	Visual Examination	WHT Light
	Alternate Light Source	FSIS
	Cyanoacrylate Fuming	
	Dye Stain	R6G with Laser
Y284UH	Visual Examination	White light
	Alternate Light Source	Polilight, Foster+Freeman Crime-lite ML2 - all available wavelengths
	Wet Powder Suspension	White wet powder, 10 seconds, done two times.
Y7LU8Q	Visual Examination	Ambient Lighting
	Alternate Light Source	Full Spectrum Imaging System
	Cyanoacrylate Fuming	Cyanoacrylate ester in super glue chamber for 30 minute fume cycle
	Wet Powder Suspension	White Wet Wop
	Dye Stain	M-Star
Y8FE4X	Wet Powder Suspension	White suspension

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
YEC6RT	Visual Examination	No ridge details observed.
	Tape removal	Tape strips removed from paper sheet.
	Cyanoacrylate Fuming	Cyanoacrylate fuming for 12 minutes in chamber using Microburst cyanoacrylate. Adhesive and non-adhesive sides processed.
	Dye Stain	Basic Yellow dye applied to adhesive and non-adhesive sides of tape.
	Alternate Light Source	Blue laser with orange barrier filter used, ridge detail observed on the adhesive side of the tape strip marked B.
YFT8NU	Wet Powder Suspension	white wet wop
YRJ8U3	CYANOACRYLATE+BASIC YELLOW	Visual examination (000, 350 a 495 nm); photography; basic yellow; humidity 78,7%; temperature 130°c
YUBYDZ	Cyanoacrylate Fuming	MVC 1000 15 MINUTE FUME FOR EXTERIOR OF TAPE
	Wet Powder Suspension	WHITE WET WOP FOR STICKY SIDE OF TAPE
YWAP48	adhesive side deveoper	reagent for adhesive surfaces is applied, followed by the application of purified water to reveal the print.
YWU4WQ	Visual Examination	*Please note that gloves were worn at all times throughout processing. Item 2 was first removed from its packaging and visually examined. No areas of possible ridge detail were observed at this time.
	Wet Powder Suspension	*Please note that gloves were worn at all times throughout processing. Wetwop (Exp: 8/26/24) was selected as the method to process the adhesive sides of each piece of tape. White Wetwop was chosen to provide contrast against the black tape. On 10/25/21, a glass dish was cleaned prior to use with isopropyl alcohol. A positive control was created using a separate strip of black electrical tape. The control was placed into the glass dish with the adhesive side up. White Wetwop was applied to the adhesive side of the control utilizing a fingerprint brush with trimmed bristles. The Wetwop was left on the control for approximately 30 seconds prior to rinsing with a gentle stream of water. Positive results were observed on the control. The same technique was used for item 2 for each piece of tape. After rinsing, each piece was placed onto a paper towel. At this time, ridge detail was observed on the adhesive side of tape piece "B". The paper towel with the control and item 2 was then secured in a temporary locker for three days to allow the item to dry.
YWU7NG	Wet Powder Suspension	White wet powder suspension
ZCH3WP	Visual Examination	Control: N/A; Lighting: white light. No ridge detail observed on any pieces
	Wet Powder Suspension	White Wetwop (adhesive side) : Bottle # 092921. Control: +; Lighting: white light. L003 was developed on electrical tape labeled B - Photographed with paddle light

TABLE 2 - Item 2

WebCode	Development Methods	Method Details
ZHA692	Visual Examination	White light/fluorescent light
	Alternate Light Source	365nm and 495nm
	Laser	532nm
	Cyanoacrylate Fuming	15 Minute fume time, approximately 80% RH
	Dye Stain	Ardrox, 365nm/350-380nm
	TapeGlo	475nm
ZU2WPY	Dye Stain	Wet Wop- White used
ZX79XL	Visual Examination	Visually examined the evidence, using natural light source
	Cyanoacrylate Fuming	Used cyanoacrylate fuming tanking, getting the tank up to 80% relative humidity, fuming for 30 minutes with cyanoacrylate and purging the tank for 30 minutes (CA211012)
	Dye Stain	used dye stain M-star on the latent print after cyanoacrylate fuming (MS211031), then used a crime scope to visually see the fluorescent latent print
ZX89W2	Wet Powder Suspension	white wet wop

Response Summary

Participants: 258

Methods Utilized

Alternate Light Source	62	Physical Developer	0
Cyanoacrylate Fuming	96	Powder Dusting	14
DFO	0	Visual Examination	168
Dye Stain	61	Wet Powder Suspension	152
Ninhydrin	1	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
262U3Q	Visual Examination	ambient light
	Alternate Light Source	350nm, 515nm
	Ninhydrin	processed by immersion. Placed in humidity chamber for approximately 10 hours. Checked numerous times for any development. Test impressions were visualized after approximately 20 minutes in humidity chamber.
26G34E	1,2-Indanedione	No heat method
2BNEEU	Visual Examination	Item examined under natural light and a white Crime-Lite, no ridge detail visible.
	Alternate Light Source	Quaser examination carried out with blue (420-470nm), green (490-560nm), blue/green (460-510nm), orange (570-610nm), violet (395-425nm), UV (350-380nm) light sources, no ridge detail visible.
	1,2-Indanedione	The item and control were drawn through the 1,2-Indandione solution (batch #20AA211) and left to dry thoroughly on a flat surface in the fume cabinet. They were then placed into Weiss Gallenkamp #3 for 10 minutes at a temperature of 100°C and no humidity. Control sample was positive. Ridge detail was present in box A of the blue paper.
	Ninhydrin	The item and control were drawn through the Ninhydrin solution (batch #169193) and left to dry thoroughly on a flat surface in the fume cabinet. They were then placed into Weiss Gallenkamp #3 for 6 minutes at a temperature of 80°C and 62% humidity. Control sample was positive. The ridge detail in box A was not enhanced further and would not be captured again at this stage.
	Physical Developer (PD)	The item and control were immersed and gently rocked in Maleic Acid (batch #20AA276) for 10mins before being immersed and gently rocked in PD solution (batch #20AA277) for 20mins followed by three distilled water washes for 5mins each and a final wash with running tap water passed over the item and control. PD solution contains Silver Nitrate, Purified water, Iron (III) Nitrate, Ammonium Iron (II) Sulphate, Citric Acid and Stock Detergent. Ambient temperature was measured as 20°C. Control Sample was positive. No visible ridge detail in any of the boxes.
2HNXFP	Visual Examination	11/3/21 - Item 3, Visual using white light, Laser exam using 6.00 watts and orange filter and Ruvis exam using white light - no ridge detail detected
	1,2-Indanedione	11/6/21 - Item 3, Processed with IND, placed in the Caron Forensic Fingerprint Chamber for 15 minutes. Viewed with laser (5.50 watts, orange filter) - latent print detected in section labeled A
	Ninhydrin	11/30/21 - Item 3, Processed with NIN, placed in the Caron Forensic Fingerprint Chamber for 15 minutes. Visual exam using white light - no additional development or enhancement with NIN

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
2L3LY2	Visual Examination	
	Powder Dusting	Black magnetic
2MXADP	1,2-Indanedione	Used a heat press at 160 degrees C for 10 seconds. Used laser 532 nm with OB filter for visualization.
	Ninhydrin	Used a steam iron.
2NTRC7	Visual Examination	
	1,2-Indanedione	Indane Dione Zn Treatment
2PQZMB	Visual Examination	Use a flashlight with white light and ambient light in room, latent print no visible.
	Iodine Crystal Ampoules	The sheet of paper was place in a plastic bag with Iodine Crystal Ampoules, the ampoules broken and the bag was sealed.
2PUDGY	DFO	
2TJ8YR	Visual Examination	
	Alternate Light Source	
	Ninhydrin	80°C +/- 5°, 65% +/- 5% relative humidity, green filter
2W8LN2	Visual Examination	Used bright white light and oblique lighting.
	Alternate Light Source	Used three light sources; 450nm (blue light), 365nm (UV light) and 532nm (laser).
	1,2-Indanedione	Processed item with 1,2-Indanedione, let item completely dry. Placed item in the 100 degree Celsius oven for approximately 20 minutes. Used bright white light and 532nm (laser) to examine the item.
	Ninhydrin	Processed item with Ninhydrin, let item completely dry. Placed item in the 76% relative humidity chamber for approximately 15 minutes. Used bright white light to examine the item.
	Physical Developer (PD)	Processed item with physical developer. Item was placed in a maleic acid bath for 15 minutes and then placed in a Redox Working solution for 15 minutes. The item was placed in a distilled water rinse and then rinsed with a second water rinse. Examined the item once it was completely dry using a bright white light.
338KCW	Visual Examination	Performed visual exam utilizing oblique lighting.
	Alternate Light Source	Utilized 532nm Laser, 450nm blue light and 365nm UV light.
	1,2-Indanedione	Placed item in the oven for 20 minutes then used 532nm Laser.
	Ninhydrin	Placed item in humidity cabinet for 15 minutes then performed a visual exam
	Physical Developer (PD)	Placed item in maleic acid for 15 minutes. Placed item in REDOX working solution for 15 minutes. Placed item in DI water then rinsed with tap water.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
3B3FFM	Visual Examination	Visually inspected under ambient light.
	Ninhydrin	ninhydrin +control (lot [Number], exp 06/18/2022); Used Misonix FE-8000 humidity chamber (temp 32.2C, humidity 43.9%, time 30 minutes). Secured in evidence locker for approximately 2 days.
3BGRC7	Ninhydrin	3 hours into heated camara, violet stain.
3E3QCM	Visual Examination	oblique lighting used
	Alternate Light Source	420-470nm used
	Ninhydrin	Processed for 3 mins in chamber
3FVHL8	Visual Examination	Examined in the white light and the daylight.
	Alternate Light Source	Examined at 350-380 nm (CrimeLite 82S), 450 nm, 470 nm, 490 nm, 505 nm, 530 nm (Polilight PL500)
	Ninhydrin	Applied solution: 0,5 %, HFE 7100 based. The item was processed in the DFO/Ninhydrin chamber NINcha L31 for 23 hours, t - 30 C, RH - 65 %. Examined in the white light and at 350-380 nm (CrimeLite 82S).
	Powder Dusting	Supranano Black (non-magnetic)
3HQNEK	Visual Examination	Fluorescent desk light
	Ninhydrin	HFE Ninhydrin - spray method
3NR9BN	Visual Examination	
	Ninhydrin	
3TKCX2	Visual Examination	no fingerprint detected
	1,2-Indanedione	Photography of the fingerprint: Excitation filter: 490nm, Observation filter: 590nm
	Ninhydrin	Photography of the fingerprint using white light and no filter
3W2QH2	Visual Examination	Visually looked at the item for any prints
	Alternate Light Source	Used 532nm Laser, 450nm Blue light, and 365nm UV
	1,2-Indanedione	Used Indanedione and placed the item in the oven for 20 minutes, afterwards used the 532nm Laser
	Ninhydrin	Used Ninhydrin and then placed the item in the humidity cabinet for 15 minutes and then performed a visual examination
	Physical Developer (PD)	Used physical developer on the item and then performed a visual examination
4KMYJJ	Visual Examination	No visible prints were observed.
	Ninhydrin	Applied heptane ninhydrin. Let the paper sit for one hour.
	Caron Chamber	Placed in the Caron chamber for a ten minute run.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
4KPMZX	1,2-Indanedione	Laser
4QCL9X	Visual Examination	A visual examination was completed of the item in its entirety and a general description was notated on the processing worksheet.
	Ninhydrin	Ninhydrin-Special Formula was utilized to process this item by saturating it on both sides via the ninhydrin spray bottle. Once dry the item was exposed to heat via a steamer and left to dry overnight. The item was processed together with a QC. The QC showed the process worked correctly and ridge detail was not observed on the item, however a purple suspected finger mark was observed.
	Vacuum Metal Deposition (VMD)	The VMD was utilized in order to possibly develop ridge detail from the suspected finger mark observed after the item was processed with ninhydrin. The item was placed into the VMD and exposed to gold and zinc metals where they deposited onto the item. The item was processed together with a QC. The QC showed the process worked correctly however, ridge detail was not observed on the item.
4R3RM3	Ninhydrin	The paper surface reagent is applied to apply a heat generator, which proceeds to reveal the print, which is instantly and very faintly visible.
4TYZW8	Ninhydrin	Item was treated with ninhydrin spray and left to dry at room temperature until development about 10 minutes).
4UBYRG	Ninhydrin	Dipped in liquid ninhydrin at 0932hrs, dried under humidity for 1.5 hours.
4V266L	Visual Examination	Ambient and white lighting utilized.
	1,2-Indanedione	LASER ALS utilized to view RD development. Transferred to Photographer in our Forensic Photography Branch (FPB) for photographic documentation.
	Ninhydrin	White light utilized to view any additional RD development.
4Y42X2	DFO	DFO heated in 100 degree C oven for 20 minutes
4ZYKY3	Ninhydrin	Item was removed from packaging wearing Dept issued protective equipment. Item was photographed prior to processing. The item was visually examined using the ALS. Ridge detail visible in section A. Item processed with Ninhydrin.
63KN6E	Visual Examination	Brief visual examination. No ridge detail observed.
	Ninhydrin	Sheet of paper briefly submerged into ninhydrin then hung in a humidity chamber for approximately 1 hour. Ridge detail developed in quadrant "A".
676NBM	Ninhydrin	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
6A26V4	Ninhydrin	Humidified and left overnight. Re-sprayed next day and left till 9th November 2021. Print becoming visible in section A but no ridge detail. Put in ion flake desiccator until 11th November 2021 but no improvement.
6A6PMD	Visual Examination	White light exam for patent prints, none observed
	Ninhydrin	Item was further processed with Ninhydrin (Petroleum Ether). The item was dipped in the Ninhydrin solution and allowed to dry. Afterwards it was placed in the FDC-5 development chamber for approximately 10 minutes at 70 degrees and 80% humidity.
6DJJ3A	Visual Examination	1. White Light/Naked eye. 2. Blue Light (445 nm) with goggle (495 nm). 3. Green Light (532 nm) with goggle (550 nm). No Mark found.
	1,2-Indanedione	Dyed with 1,2 Indanedione, kept in Oven for 20 mins to dry at 100C temperature, with 0% humidity. After 20 mins, Mark search was done by using 532nm light (green) with goggle (550nm), Mark found on Section A.
	Ninhydrin	Sprayed with Ninhydrin, kept in Oven for 20 mins to dry at 80C temperature, with 65% humidity. After 20 mins, Mark search was done by using Naked eye and White light, no addtional mark found
6FNYR2	Ninhydrin	ninhydrin is applied on the sheet of paper over the entire surface, hot water vapor is applied on the four sections revealing in section A the lofoscopic feature in purple color.
6HBQLJ	Visual Examination	White light at an oblique angle - no print visible.
	DFO	Paper dipped in DFO then put in DFO oven at about 200F for 30 minutes. Item viewed with ALS and orange barrier filter (goggles) - print visible in section A.
	Ninhydrin	Paper dipped in Ninhydrin then put in a sealed heat/humidity chamber overnight - print visible in section A.
6PTZCZ	DFO	With heat and humidity
	Ninhydrin	With heat and humidity
6Q42XY	Ninhydrin	Item was immersed in a tray of solution and allowed in to air dry then placed in zippered plastic bag.
6QVFVT	Visual Examination	
	Ninhydrin	
6WEU9X	Visual Examination	ambient light
	Alternate Light Source	CrimeLite 4x4, white light, blue, cyan, green light
	DFO	solution in HFE7100, heating for 15 min. in 90C
	Ninhydrin	solution in HFE7100, heating for 15 min. in 90C

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
6X8N73	Ninhydrin	ninhydrin is applied on the sheet of paper over the entire surface, hot water vapor is applied on the four sections revealing in section A the lofoscopic feature in purple color.
6YKFZ6	Ninhydrin	and was placed in the oven to be exposed to heat and humidity
72323Q	Visual Examination	The item was photographed before examination
	Ninhydrin	After applying Ninhydrin to the item, a visible mark was found in section A
7BTH2T	Visual Examination	
	Alternate Light Source	365nm, 495nm
	Laser	532nm
	IND-ZnCl	65°C, 70% relative humidity, 30 minutes
7DVDKV	Visual Examination	fluorescent
	Alternate Light Source	365 nm, 475 nm, CSS, 495 nm, 515 nm, 535 nm, 555 nm, orange and red filters
	Laser	445 nm, 532 nm, orange filter
	Indanedione-Zinc Chloride	About 20 minutes, Laser 445 nm and 532 nm, orange filter
7LU6Q6	Ninhydrin	Item was treated with ninhydrin spray and left to dry at room temperature for aproximately 10 minutes until fully developed.
7MNKNV	Visual Examination	Visually examined piece of paper for visible friction ridge detail
	Ninhydrin	Squirted ninhydrin on piece of paper and then steamed the piece of paper with an iron filled with distilled water.
7QLC8R	Visual Examination	
	Ninhydrin	NIN/HEX humidity chamber approximately 45 min. NIN/ACETONE humidity chamber approximately 45 min. Iron (steam). Some reaction in section box A. No visible ridge detail. No latent prints developed. Test prints positive.
7ULF2Z	DFO	DFO at 100 degrees C for 20 minutes
	Ninhydrin	
7YVLVK	Visual Examination	White Light
	1,2-Indanedione	VIS: LASER, Orange Filter
	Ninhydrin	VIS: White Light

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
87CMFF	Visual Examination	White light was used for visual examination.
	Ninhydrin	A control was performed and purple ridges were seen. Running ninhydrin was applied to item #3. Once dry, the evidence was placed inside the Caron chamber for 10 minutes at 80 degrees Celsius and 65% humidity.
87VHXG	DFO	Sprayed on to surface. Baked for 20 minutes in a dry chamber at approximately 97 degrees Celsius
	Alternate Light Source	ALS set to 475nm and examined with orange barrier goggles.
	Ninhydrin	Petroleum ether based ninhydrin, sprayed on to surface. Baked for ~4 minutes in a humidified chamber at approximately 74 degrees Celsius.
8ATWMR	Visual Examination	lights, ALS (530, 505, 450), magnification
	Powder Dusting	black magnetic powder (lightly dusted)
	Ninhydrin	Ninhydrin in acetone (spray). oven @ 55 C for 10 minutes.
8CXMP2	Visual Examination	Photo document the piece where it is packed by the front and back opens the pieces is taken out and again this process is photographed is repeat in the analysis.
	iode ampoule	The document is placed inside a plastic bag, iode ampoule broken inside the bag is sealed
8FMP2G	Visual Examination	Visual examination of evidence item. No ridge detail was visualized on the sheet of paper.
	Ninhydrin	Before applying the ninhydrin to the evidence item, a control was conducted. A piece of paper was used and known prints were placed on the paper. Ninhydrin was then applied to the paper and air dried. The control was placed into a humidity controlled chamber where the temperature was set at 80 degrees Celsius and humidity at 65% for approximately 10 minutes. Purple colored ridges were visualized. The same process was done to the evidence item. Ninhydrin was applied to the paper and allowed to air dry. The item was then placed in a humidity controlled chamber where the temperature was set at 80 degrees Celsius and humidity at 65% for approximately 10 minutes. Visible purple colored ridge detail developed.
8H7Q3U	Visual Examination	ambient light 10/27
	Ninhydrin	acetone formula used followed with heat and humidity allowed to sit overnight 10/27
	Visual Examination	ambient light 10/27, 10/28
	Ninhydrin	acetone formula used followed with heat and humidity allowed to sit overnight 10/28
	Visual Examination	ambient light 10/28, 11/1. Purple fingermark observed, no ridge detail
	Vacuum Metal Deposition	gold deposition followed by zinc deposition 11/1
	Visual Examination	ambient light 11/1

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
8HJKEN	Visual Examination	Visual exam of Item #3 with and without oblique lighting, approximately 5 minutes, no latent prints observed
	Alternate Light Source	Item #3 viewed under Forensic Light (Laser) Source, approximately 5 minutes, no prints observed
	Iodine Fuming	Item #3 fumed with Iodine, approximately 5 minutes, no prints observed, positive control completed prior.
	DFO	Item #3 processed with DFO and then viewed under Forensic Light (Laser) Source, approximately 15 minutes, positive control completed prior, print observed and documented in Section A
	Ninhydrin	Item #3 processed with Ninhydrin (petroleum ether based), approximately 15 minutes, positive control completed prior, print observed and documented in Section A
8JZJRL	Ninhydrin	Heat 1 minute at 90°C, and isolated in dark space for 2 weeks.
	Silver Nitrate	Applied after ninhydrin and under the sun checking that the evidence doesn't turn dark
8NAUQ8	Visual Examination	Natural light, white light, optical instruments.
	Alternate Light Source	Polilight PL 500, barrier filters, optical instruments.
	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.
8PP4V2	1,2-Indanedione	Indandione working solution (Dstl formula); followed by fluorescent examination using green 532nm laser
92UUUF	Visual Examination	with white light
	Alternate Light Source	
	1,2-Indanedione	100 degrees Celsius for 15 min and viewed under 515nm light with orange filter
	Ninhydrin	80 degrees Celsius, 80% RH for 15 min
93MK4Z	Visual Examination	A white light was used to examine the piece of evidence by detecting the print in the A-space.
	Ninhydrin	Ninhydrin reagent was used to develop the fingerprint.
93QCUV	Ninhydrin	se utilizo la tecnica de aspercion de solucion de ninhidrina, revelando una huella lofoscopica como 3A-L-1. [Requested translation was not received prior to CTS report publication.]
96G9MV	Ninhydrin	HFE NINHYDRIN (SPRAY) HEAT APPLICATION/2ND APPL HEPTANE NINHYDRIN (DIP) FOR DARKER DEVELOPEMENT - HEAT APPLICATION

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
9B6VFF	Visual Examination	
	Ninhydrin	
9D82NU	Visual Examination	White light and ambient lighting used to examine Item 3 with the naked eye
	Alternate Light Source	Examined Item 3 using: 365nm UV light source, 455nm blue light source, 532nm laser light source
	1,2-Indanedione	Applied 1,2-Indanedione to Item 3, allowed to dry in fume hood, then placed in oven for 20min at 100*C. Item 3 examined with white light and ambient lighting, followed by 532nm Laser exam
	Ninhydrin	Applied ninhydrin to Item 3, allowed to dry, then placed in humidity cabinet for 15min at 76*C at 76% relative humidity. Item 3 examined with white light and ambient lighting
	Physical Developer (PD)	Submerged Item 3 in maleic acid bath for 15min before transferring to PD working solution bath for 15min. At end of 15min item was rinsed off with water and allowed to dry. Item 3 examined with white light and ambient lighting
9D8WHX	1,2-Indanedione	Sprayed all four sections of card with indanedione and allowed to air dry for 3 minutes. Placed card in oven at 80 degrees centigrade and 65% humidity for 3 minutes. Developed print on section A.
9EFBKX	Ninhydrin	A LATENT PRINT SEARCH IS MADE BY APPLYING THE NINHYDRINE REAGENT, APPLYING HEAT TO THE PAPER SHEET, TO WHICH A RESULT IS IDENTIFIED IN SECTOR "A" OF THE ITEM
9FBUHT	Visual Examination	White light.
	Ninhydrin	Nynhidrin spray "NIN-PRINT" B-78500, BVDA. Room temperature 19.5C, room humidity 36%, procesing time 8 days. Spraying time 5-6 sec.
9G79DX	Ninhydrin	Limited-ink Ninhydrin used. Applied by spraying the Ninhydrin onto sample. Placed in humidity chamber for 45 minutes.
9G8CKU	Visual Examination	
	Alternate Light Source	(LASER, Blue Light, UV)
	1,2-Indanedione	(Visual, LASER)
	Ninhydrin	(Visual)
	Physical Developer (PD)	(Visual)
9QD3EH	Visual Examination	
	Ninhydrin	ENIN applied then heated/dryed with steam iron

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
A2WW8Q	Visual Examination	Item 3 was visually examined with direct lighting. No friction ridge detail was observed.
	Ninhydrin	Item 3 was sprayed with ninhydrin, placed in an incubator at 70 degrees Celsius and 80% relative humidity for approximately one hour, and then stored at room temperature. Friction ridge detail was observed in the section labeled "A" and was photographed. A positive control was sprayed with ninhydrin and treated with a steam iron and yielded expected results.
A69XYN	Visual Examination	
	1,2-Indanedione	
A6V84Q	Visual Examination	Visual examination
	Ninhydrin	Ninhydrin and Humidity cabinet set at 70 for two (2) hours followed by a hot iron
A74A44	Visual Examination	room light and overhead exam light
	1,2-Indanedione	used in-house prepared indanedione-zinc chloride solution, placed item in Caron environmental chamber at ~100*C for ~10 min, visualized with ALS at CSS and 515 nm wavelengths and orange filter, also allowed for extended processing time in heat-sealed KAPAK bag from 12-03-21 to 12-07-21 stored in the dark
	Ninhydrin	used in-house prepared ninhydrin solution, placed item in Caron environmental chamber at ~80*C and ~65% RH for ~6 min, also allowed for extended processing time in heat-sealed KAPAK bag from 12-07-21 to 12-09-21 stored in the dark
AA4LY4	Iodine	On visual examination no possible latent prints were visible. ALS/UV was also used and no prints were visible. Iodine was applied to the substrate and a single latent print was developed in section "A". This area was then photographed.
ADJXVK	Visual Examination	
	Ninhydrin	80°C +/- 5°, 65% +/- 5% relative humidity
ADMHMU	Visual Examination	ambient light
	Ninhydrin	humidity chamber for approx. 15 min.
APX84A	Ninhydrin	Paper evidence was soaked in ninhydrin liquid and hung to dry in hood. Negative and positive controls were run. After drying the paper was held over steam to develop any latent prints. Section A developed a latent print.
AT4JAC	Visual Examination	Visual examination with direct and indirect lighting.
	Ninhydrin	Sprayed with Ninhydrin and placed into controlled Caron Forensics fingerprint chamber for 20 minutes at 70% humidity and 70-degree Celsius.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
AVHA6L	Visual Examination	Visual examination with white light.
	1,2-Indanedione	Applied heat to item for 2 minutes after applying Indanedione.
	Ninhydrin	Placed in humidity chamber at 80% humidity for 30 minutes after applying Ninhydrin.
AWJW9D	Alternate Light Source	Went through several wavelengths with a forensic light source and while there was some fluorescence there wasn't any ridge detail.
	Ninhydrin	Applied ninhydrin, allowed it to dry, applied it again and let the ninhydrin cure 72+ hours. After the curing period there was a color shift but no ridge detail. Applied steam to develop the ridge detail further.
AZXJWQ	Visual Examination	
	Ninhydrin	
BKG7DW	1,2-Indanedione	
BW9VBG	Visual Examination	light white, UV, 415 nm - 550 nm
	DFO	415-550 nm
	Ninhydrin	light white, UV, 415 nm - 450 nm
C2J72Q	Visual Examination	
	Ninhydrin	Ninhydrin Hexane solution. Used steam iron for heat and humidity source.
C3J2UU	DFO	sprayed with DFO placed into an oven at 100 °C for 20 minutes and viewed using a 530nm/green forensic laser
C3V2P4	Visual Examination	magnifier and light
	1,2-Indanedione	used IND/ZnCl working solution and heat press. Viewed under Bright Beam Laser (532 nm) with orange goggles
	Ninhydrin	used ninhydrin (HFE7100) working solution and steam iron
CCMEN3	Visual Examination	in natural light and light from forensic illuminator - no prints
	DFO	time - 20 min; temp - 100 C; print was observed in section A
	Ninhydrin	time - 20 min; temp - 70 C; discovered fingerprint has not improved
CGFFT3	DFO	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
CGURNM	Visual Examination	Examination with an alternate forensic light source with appropriate filters (light source – POLILIGHT PL 500)
	DFO	Spraying item with DFO working solution, after drying – heating the item for 10 min in 95° C, viewing with POLILIGHT PL 500 alternate forensic light source in ~515 nm range + appropriate filters
	Ninhydrin	Spraying item with ninhydrin aerosol spray, after drying – heating the item for 90 min in 40 °C, 80% humidity, viewing in a daylight and with POLILIGHT PL 500 alternate forensic light source in white light and in ~515 nm range + appropriate filters, viewing again after few days
CPT8FF	Ninhydrin	Item saturated with Ninhydrin. Allowed to dry, heat & moisture introduced.
CQ64M6	Visual Examination	Observed item under Ambient light. No ridge detail was observed.
	Full Spectrum Imaging System	Item was viewed with the Full Spectrum Imaging System (FSIS) with Ultra Violet light at 254nm and InfraRed at 850nm. No ridge detail was observed.
	Ninhydrin	The item was immersed in Ninhydrin, then dried. Steam was applied to it. Ridge detail of possible value was observed and photographed. The item was placed in a zip lock bag with steam inside then placed in temporary storage overnight. It was viewed again the next day and ridge detail of possible value was observed and photographed.
CQJDUK	Ninhydrin	21C - temperature, 50% - humidity, 0-24 hours
CW8FJ3	DFO	Paper processed with liquid DFO brushed on and dried in low heat drying cabinet. Development was observed and photographed, then additional processing with liquid Ninhydrin brushed on and air dried overnight in darkened room. No additional development was observed.
D38YDK	Visual Examination	White light was used for visual examination
	Ninhydrin	Exhibit was sprayed with ninhydrin and was left in dark for 6 days with monitoring on daily basis
	Visual Examination	White light was used for visual examination
D6FAAN	Visual Examination	negative
	1,2-Indanedione	IND, then placed in the NINcha L31 chamber at 100 C, 0% humidity for 30 minutes
	Alternate Light Source	Visualized with ALS at 515nm in quadrant A
D7VD2V	Ninhydrin	
DB28WQ	Ninhydrin	ninhydrin is applied on the sheet of paper over the entire surface, hot water vapor is applied on the four sections revealing in section A the lofoscopic feature in purple color.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
DEREBL	DFO	
	Ninhydrin	
DFGHAU	Visual Examination	
	Ninhydrin	Labrum klimate forensic climate cabinet FKC-2. Moisture: 62%. Heat: 80°C. Period: 6min
DKCAHR	Ninhydrin	ninhydrin is applied on the sheet of paper over the entire surface, hot water vapor is applied on the four sections revealing in section A the lofoscopic feature in purple color.
DMY7PH	Visual Examination	No latent prints observed on the piece of blue paper.
	Alternate Light Source	No latent prints observed on the piece of blue paper.
	DFO	Latent print observed within quadrant "A" of the piece of blue paper utilizing DFO and the forensic light source.
	Ninhydrin	Latent print observed within quadrant "A" of the piece of blue paper utilizing Ninhydrin Petroleum Ether.
DNQ7MT	vaporización de iodo	1.- Observación. 2.- Control positivo. 3.- Vaporización de iodo. 4.- Barrido de polvos magnéticos color negro. Tiempo de procesamiento: 20 minutos. [Requested translation was not received prior to CTS report publication.]
DVBZ6K	DFO	ALS 2 535/red. C1
	Ninhydrin	C1
DZ8MZT	DFO	DFO (Batch #DFO-NY10292021), oven ~20min at 100C, visualize under forensic laser; test print +
E36MCA	Powder Dusting	Visual examination was conducted first. Magnetic black powder was then used for processing.
E4KVHP	Visual Examination	
	Alternate Light Source	365nm, 450nm, 532nm used
	1,2-Indanedione	visual, 532nm
	Physical Developer (PD)	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
E4YE3M	Visual Examination	White light examination of exhibit as received using ambient laboratory lighting and 'Tiablo' High Power LED Flashlight at varying angles. No useful marks were visible.
	Alternate Light Source	Sequential initial High Intensity Light Source (HILS) examination carried out, following dark adaptation, using Green Crime Lite 480 nm-560 nm with 571 nm viewing filter followed by Blue Crime Lite 420 nm-470 nm with 476 nm viewing filter and UV Crime Lite 350 nm-380 nm with 408 nm viewing filter. QA adhered to and control test pieces passed. No useful marks were visible.
	DFO	Item 3 was treated with DFO. Carried out as per [Laboratory] validated/internally verified procedure. Treated with DFO, allowed to dry, and then placed in the oven for 23 minutes (3 minutes recovery time included in time) at 100°C. Following dark adaptation, examined using the Green Crime Lite 82S 490-560 nm with 571 nm viewing filter. QA adhered to throughout and control test piece passed. Ridge detail was seen in section 'C'. This was exhibited as 'BAC/2' and photographed.
	Ninhydrin	Item 3 was treated with Ninhydrin. Carried out as per [Laboratory] validated/internally verified procedure. Treated with Ninhydrin and allowed to dry. Treated in oven set at 62%RH & 80°C for 5 minutes (3 minutes recovery time included in time). Examined using 'Tiablo' High Power LED Flashlight (white light) at varying angles on same day. QA adhered to and control test piece passed. BAC/2 in section 'A' was further enhanced, exhibited as 'BAC/2A0' and photographed.
	Physical Developer (PD)	Item 3 was treated with Physical Developer. Carried out as per [Laboratory] validated/internally verified procedure. Ensured all solutions and room temperature >17°C. Treated with Maleic Acid for 10 minutes followed with Physical Developer Working Solution for 20 minutes and then 3 x water rinses as per procedure. All treatment stages carried out on rockers so exhibit was constantly agitated throughout. When dry, item was examined using 'Tiablo' High Power LED Flashlight (white light) at varying angles. QA adhered to and control test piece passed. No useful marks were developed.
EAM3ZD	Visual Examination	Visually inspection of the item was conducted. No latent prints were observed.
	Ninhydrin	The item was processed in Premier Protector Chemical Fume Hood with the dipping method. A white piece of paper with a print was treated with the chemical as the control test. After drying for 20 minutes the item was placed in the "Caron Forensics" Fingerprint chamber set at: Temperature:80 Celsius at 65% humidity for 3 minutes. One latent print developed in quadrant "A". A control test of the Ninhydrin (LOT 070721-1) was conducted and was positive. Negative control yielded appropriate result.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
EBZMRN	Visual Examination	
	Powder Dusting	Black Bichromatic Powder & Black Magnetic Powder - front of tape strips
	Cyanoacrylate Fuming	Cyanoacrylate Fuming - back of tape strips
ECVB8D	1,2-Indanedione	Heat applied using heat press at approx. 160 degrees C for approx. 10 seconds; Light source exam: Laser at 532nm using orange barrier filter
	Ninhydrin	Heat/humidity applied using a steam iron
EDAGNN	Ninhydrin	Nuestro procedimiento para la recolección de rastros papilares establece en uno de sus puntos que se debe remitir al Laboratorio si es necesario el indicio al cual se le haya aplicado los reactivos para resaltar rastros papilares en caso de no obtener resultados positivos, para que el mismo sea procesado con otros reactivos con los que no se cuente al momento de la diligencia de inspección, por lo cual el mismo fue traslado a la Unidad de Revelado Lofoscópico para ser procesado con el reactivo químico de Ninhidrina. El indicio estuvo aproximadamente 30 minutos de dentro de la cabina con el reactivo en mención. [Requested translation was not received prior to CTS report publication.]
EL3RYJ	Porous	Visual, 1,2 Indanedione (120 seconds dry press), Ninhydrin (20 seconds steam iron)
ET2K2B	Visual Examination	Visual examination with direct light
	Visual Examination	Visual examination with Full Spectrum Imaging System
	Iodine	Shake and Bake method with Iodine
	Ninhydrin	Sprayed with HFE Ninhydrin and placed into heat/humidity chamber for 3 minutes
ET46YL	Visual Examination	The item was visually examined using ambient and oblique lighting. No latent prints were observed.
	Ninhydrin	The item was dipped in Ninhydrin and dried by hanging. The item was then placed in the humidity chamber at a humidity of 80%, for 5 minutes at 75 degrees C. A latent print was observed in section A. A test print was ran prior to and at the same time.
EV66YJ	Visual Examination	Visual exam, no ridge detail seen.
	DFO	DFO applied, air dried, heated in oven at 100 degrees C for over 20 minutes
	Alternate Light Source	Examined with ALS at 495 nm with orange goggles and 555 nm with red goggles
	Ninhydrin	Ninhydrin applied, air dried, left for over 48 hours, and examined.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
EW2LD2	Visual Examination	WHITE LIGHT
	Alternate Light Source	BLUE 0020182S, GREEN 0020282S, UV 0022882S
	DFO	100 DEGREES , 20 MINUTES
	Ninhydrin	80 DEGREES, 62%RH, 4 MINUTES TREATMENT TIME
EZ4GYP	Visual Examination	
	Alternate Light Source	Krimesight
	Iodine Fuming	
	Ninhydrin	After Ninhydrin sprayed: Paper placed in Ninhydrin oven with humidity for 4 hours. Allowed to develop further development in evidence room 12/06/2021 to 12/09/2021. Iron with steam used to check for full development
F2CZED	Visual Examination	Item was visually examined prior to further processing.
	Ninhydrin	Item was dipped in chemical solution for 10 seconds, both sides of document. Item was then allowed to air dry for an hour and 15 minutes before placing item into Caron Fingerprint Chamber. Item was allowed to process in chamber at 80 degrees Fahrenheit and 65% humidity for 3 minutes. Positive and negative controls yielded appropriate results.
F32JYB	Ninhydrin	Ninhydrin was used onto the surface of the paper. After the paper was dried, humidity was added from an iron producing steam. Section A produced a positive reaction.
F4EYMK	Visual Examination	Examined with a bright white light and magnifier
	Alternate Light Source	Examined using 3 light sources at the following wavelengths: 365nm, 450nm, and 532nm
	1,2-Indanedione	Processed with 1,2-Indanedione. Accelerated development in an oven. Examined with 532nm laser.
	Ninhydrin	Processed with Ninhydrin. Accelerated development in a humidity chamber. Examined with white light.
	Physical Developer (PD)	Processed with physical developer. Examined with white light.
F6RPDF	Visual Examination	There was no latent evidence visible with or without additional lighting.
	1,2-Indanedione	Performance check was completed using Indanedione and dry heat. Indanedione was applied to item using a bath method to ensure proper saturation. The item was then hang dried. Dry heat was applied using a hot iron which revealed visible latent evidence. The evidence was then enhanced using a laser in the 520nm range with an orange color barrier.
FFVNLP	Visual Examination	Direct white light, fluorescence verification at wave lengths 470, 490, 505 and 530 nm
	1,2-Indanedione	Hot press treatment for 10 seconds, Temperature=165°C

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
FMVZLT	Ninhydrin	PHOTOGRAPHY STARTS 10:01 TO 13:06
FNQRL7	Ninhydrin	Paper was dipped into ninhydrin for approximately 5 seconds. The paper was allowed to dry for approximately one hour and was then placed in between two thin sheets with a hot iron applied.
FRMAVQ	Ninhydrin	The reagent is applied on the surface of the paper to apply a heat generator, which proceeds to develop the print, which is instantaneous and very faintly visible.
FRNBLJ	DFO	
FWKQ9K	Visual Examination	White light. Luminescence (from 315nm to 570 nm)
	1,2-Indanedione	Immersion. Heating. Observation at 532nm
	Ninhydrin	Immersion. RH : 80%. Temperature : 60°C. Observation in white light
G97H9F	Visual Examination	Utilized oblique and overhead lighting, no latent prints observed on Item 3, 5 minutes
	Alternate Light Source	Alternate light source, no latent prints observed on Item 3, 5 minutes
	DFO	Utilized pre-mixed DFO solution, Caron fingerprint chamber. Performed control of latent print on paper with DFO, latent print successfully developed. Processed Item 3 with DFO, latent print observed in Quadrant A, photographed, 30 minutes
	Ninhydrin	Utilized pre-mixed Ninhydrin solution, Caron fingerprint chamber. Performed control of Ninhydrin solution with latent print on paper, latent print successfully fluoresced under ALS. Processed Item 3 with Ninhydrin, latent print observed in Quadrant A under ALS, photographed, 40 minutes.
GAGH8V	Iodine Crystal Ampoules	Paper is introduced into a sealed plastic sleeve where the iodine crystal ampoules are inserted, the top part is folded, the iodine crystal ampoules proceed to broken so that with the movement it is revealed where this latent imprint.
GBWQCP	Ninhydrin	application of ninhydrin on the paper sheet and application of heat to accelerate the process of ninhydrin.
GDKDTJ	Ninhydrin	Lot #202012011 allowed to develop and was photographed on 12/3/2021
	Vacuum metal deposition	Gold and zinc completed 12/7/2021
	Visual Examination	visually examined for possible prints

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
GEW7TD	Visual Examination	Crimelite and TracER laser
	DFO	Applied DFO solution on the item with control (two times). Incubated in the oven at 100 degree Celsius for 20 minutes.
	Ninhydrin	Applied Ninhydrin solution on the item with control (two times). incubated in the oven at 70 degree Celsius (web bulb) and 80 degree Celsius (dry bulb) for 6 minutes.
GKY3QR	Visual Examination	The piece of evidence was verified using a white light by detecting a fingerprint in the A-space
	Iodine pipette	The piece of paper was placed in a resealable plastic bag with the iodine pipettes.
	Ninhydrin	Then ninhydrin reagent was used to highlight the fingerprint.
GV32FR	1,2-Indanedione	The paper was placed in 1,2-Indanedione solution, let paper around 20 minutes to dry. Using crime lite (blue/ green 450-510nm @ orange filter (529nm)), a latent print was observed on A position but not more clear shape
	Ninhydrin	Putting paper on Ninhydrin solution, let paper dry around 15 minutes. Latent print was appeared on A position
GZTQHG	Visual Examination	
	Ninhydrin	30 mins, Darwin chamber, Iron
H3UYK7	LPPM	DFO, Caron Chamber, Visual Inspection, Laser Inspection
HBQW7N	Ninhydrin	the paper surface reagent is applied to apply a heat generator, wich proceeds to reveal the print, which is instantly and very faintly visible.
HLVQV9	Visual Examination	
	DFO	
	Heat	
HRYQYH	Visual Examination	No traces.
	1,2-Indanedione	Labrum klimate forensic climate cabinet. Temp 90, humidity 55, 15min.
HZF9NC	Visual Examination	direct light
	Ninhydrin	spray on dried applied direct steam
	Zinc chloride	spray on, visual exam under green laser and orange filter

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
J2LY7R	Visual Examination	Visual/oblique light - negative
	Alternate Light Source	UV - negative
	Alternate Light Source	FSIS - negative
	DFO	Positive
	Ninhydrin	Positive
JNTMP8	Visual Examination	White light then laser/orange filter – no lats
	1,2-Indanedione	Dipped in IND; allowed to dry; 20 mins in heat/humidity (80 degrees/65%) chamber - examine with laser; 1 latent print (L002) observed in quadrant A; 3A - Photo; others - no lats
	Ninhydrin	Dipped in NIN; allowed to dry; 20 mins in heat/humidity (80 degrees/65%) chamber; visual exam - no additional lats of value
JX4TUB	Visual Examination	Visual Examination performed using ambient room light.
	1,2-Indanedione	Applied Indanedione to a control deposited on white paper. The control was placed in a Caron heat chamber at 100 degrees for 10 minutes without the addition of humidity. Following a positive control result, Indandione was applied to Item 3 and then placed in the Caron heat chamber at 100 degrees for 10 minutes without the addition of humidity.
	Alternate Light Source	The control was viewed under a Laser using orange googles at 532nm and 445nm. The test print resulted in a positive reaction. Item 3 was subsequently viewed under a Laser using orange googles at 532nm and 445nm.
	Ninhydrin	Applied Ninhydrin to the same control used for the Indanedione process. The control was placed in a Caron heat chamber at 80 degrees and 60% humidity. The control remained for 5 minutes while being monitored. Following a positive control result, Ninhydrin was applied to item 3 and then placed in a Caron heat chamber at 80 degrees and 60% humidity. Item 3 was monitored for positive development of friction ridge detail for approximately 7 minutes and removed from the chamber.
K3R27G	Visual Examination	Naked eye
	Ninhydrin	Special formula used. On 11/10/21 the paper was saturated by spraying, allowed to air dry, and then humidity/heat was applied using a steamer. This was then repeated a 2nd time and allowed to sit overnight. On 11/11/21 the paper was again saturated by spraying and then allowed to air dry. The steamer was not used after this application. No ridge detail was observed, but a possible finger mark was observed in section A.
	VMD	On 11/17/21 the paper was processed in the VMD using gold followed by zinc. Uneven depositing was observed on the paper, with even depositing observed on the QC. Because of this the paper was processed again on 11/18/21 in the VMD using gold and zinc. The same result was obtained, an no ridge detail was developed.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
K4H8KL	Ninhydrin	aplicattion of ninhydrin on the paper sheet and aplication of heat to acelerate the process of ninhydrin
K6FFVQ	Ninhydrin	Using the Ninhydrin, it was sprayed toward the blue paper for about 10 seconds. Then the paper was put on the microwave to apply heat, so it can reveal the fingerprint.
K9HCM7	Ninhydrin	10/15/21: Prior to chemical processing I was able to observe a slight color shift within quadrant A, when viewed through a red #25A filter and a forensic light source emitting a 505nm wavelength, however no discernible ridge detail was present. The blue color of the copy paper was of a pale hue and capable of producing sufficient contrast against Ruhemann's Purple, therefore DFO was not indicated. The entire surface of item #3 was treated with Ninhydrin and allowed to cure for a minimum of 72 hrs. 10/19/21: The surface of the copy paper, which had previously been treated with Ninhydrin, was exposed to steam. Ridge detail was developed within quadrant A. Standard testing was performed on the developing agent prior to use.
KCCF7C	Reutheum Tetroxide (RTX)	Applied RTX fuming with mechanical pump.
	Ninhydrin	Processed with NIN/HFE and then placed in humidity oven at 60-65% humidity/175 degrees F for 5-10 min.
KFBQ2C	DFO	Heated in oven, visualized with laser.
KLH64G	1,2-Indanedione	Test print +, Lot # CS101321-2, Expiration Date 4/13/2022; sprayed let dry 2x, then placed between butcher paper and used steam iron, Laser/ALS-photographed with orange filter/laser
	Ninhydrin	Test print +, Lot # LP033021-1, Expiration date 03-30-2022; sprayed let dry 2x, then placed between butcher paper and used steam iron; visual/ALS, no change
	Dye Stain	Test print +, Oil Red O; LOT CS101921-1 EXP-7-19-22; agitated in plastic bag for approximately 10 min, rinsed, no change
KMC7PY	Ninhydrin	Chemical poured onto paper until paper was wet then hung in fume hood to air dry. Evidence placed between 2 pieces of brown craft paper then Steam iron used for humidity held approximately 3" above evidence.
KMRAEK	Visual Examination	White light
	1,2-Indanedione	
	DFO	
KVPWDC	Visual Examination	
	Ninhydrin	
	heat and humidity	placed in heat and humidity chamber / 15 minutes
	Visual Examination	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
KXUMG7	Visual Examination	Using white/ambient light – No FRD observed on either side of the paper.
	Alternate Light Source	Using Crimescope between 350 – 515 nm wavelengths with yellow, orange and red filters – One small area in quadrant A fluoresces at all wavelengths. No FRD or additional areas fluoresce anywhere else on the front or back of the paper.
	Ninhydrin	Paper sprayed with Ninhydrin, set to dry for approximately 5 minutes, and placed in the Weiss Gallenkamp Chamber with 65% relative humidity at 80 degrees Celsius for approximately 20 minutes.
	Visual Examination	Using white/ambient light – FRD observed in quadrant A and will capture. No additional FRD observed anywhere else on the front or back of the paper.
L69Q7J	Ninhydrin	steam, RDN
LM9MK9	1,2-Indanedione	100 degree Celcius, 0% rh, 10 minutes
LMBJXD	Visual Examination	White light and LASER
	1,2-Indanedione	Viewed with LASER/ 20 min air dry time/ 20 min in oven at 100 degrees C
	Ninhydrin	20 min dry time/ 20 min in heat and humidity chamber
LPDDP3	LPPM - Pourous	Item 3 was stained with DFP and dried in a Caron chamber at 100 degrees Celcius for 20 minutes. The item was then viewed under a forensic laser.
LQQZ8G	Visual Examination	No friction ridge impressions were observed upon visual examination with and without oblique lighting.
	Ninhydrin	Ninhydrin applied to the paper under the fuming hood. Paper placed in forensic oven set at 80C/65% RH. Friction ridge impression successfully developed in section A of the sample.
M4BZDA	Vis, ALS, Laser, IND-ZnCl	IND-ZnCl - humidity chamber ~20 mins @ 70F & relative humidity @ 65%

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
M97T9Q	Visual Examination	1) The sheet of blue copy paper is observed to nake eye. No trace detected.
	Alternate Light Source	2) We illuminate the sheet of blue copy paper with the Crimescope MCS-400 at different frequencies with the appropriate filters and colored glasses, under different inclinations. No trace detected.
	1,2-Indanedione	3) In view of porous support, we vaporise the solution 1,2-Indanedione, under a hood, on the sheet of blue copy paper, then we wait 2 minutes for evaporation of the solution. Then the object is placed under a heating press at 165°C during 10 seconds. The solution 1,2-Indanedione is tested in parallel on a control.
	Visual Examination	4) We observe a fingerprint, with the naked eye, in the box "A", colored in pink. We can determine the type of trace pattern. We don't observe other traces elsewhere on the object.
	Alternate Light Source	5) We observed the sheet of blue copy paper with crimescope MCS-400 at CSS filter and orange filter glasses for observation. The fingerprint in box "A" is luminescent. We can clearly determine the pattern type of the trace. We don't observe other traces elsewhere on the object.
	Ninhydrin	6) We spray the ninhydrin under a hood on the piece of blue paper, then we wait 2 minutes for the solution to evaporate. Then the object is placed in a cuvette in the dark at room temperature with a beaker of water for 24-48 hours for a slow reaction. The object is checked regularly with the naked eye to verify the revelation of the purple fingerprint. The ninhydrin solution is tested in parallel on a control.
	Visual Examination	7) The fingerprint is visible in the box "A" and colored in purple with nake eye. We don't observe other traces elsewhere on the object.
	Alternate Light Source	8) The fingerprint in case "A" is illuminated under different wavelengths of the Crimescope, whith glasses of appropriate colors, to get the best contrast. The white light of Crimescope give a good result. We don't observe other traces elsewhere on the object.
M9QCBC	Visual Examination	lighting
	Ninhydrin	Humidity Chamber about 2-3 hours, 70% humidity, 32C degrees, lighting
MA2CAR	Visual Examination	
	1,2-Indanedione	temp. 90°C, humidity 5%, time 15 min
	Ninhydrin	temp. 21°C, humidity 80%, time 30 min
MEAKTG	Visual Examination	
	Alternate Light Source	Dual77-UV
	1,2-Indanedione	Oven
	Physical Developer (PD)	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
MF8QAB	Visual Examination	white, green and blue forensic light.
	1,2-Indanedione	100°C and 10 min develope time
	Ninhydrin	80°C and 62% RH for 2 min develope time
MJ9U74	Visual Examination	ambient light showed no ridge detail
	Alternate Light Source	no fluorescence or ridge detail observed using crime lite
	Ninhydrin	ninhydrin was applied by dipping in a tray for approximately 15 seconds, the item was hung to dry and then a steam iron was applied for development using heat and humidity, ridge detail observed in A only
MJMH24	Ninhydrin	Chemical hood, 10 minute drying time (Lot# 111721-01, Exp: 11/17/22)
	Humidity Chamber	Caron Fingerprint Humidity Chamber, 80° C, 65% Relative Humidity, 3 minute processing time
	Alternate Light Source	DCS5 ring light with green filter, greyscale, adjust brightness, contrast and gamma
	Visual Examination	
MY46Z2	Visual Examination	Examined for any patent prints and found none.
	Ninhydrin	A quality control was used on piece of paper to confirm the Ninhydrin was working correctly. Once that was confirmed, I covered the evidence, a sheet of blue copy paper, with Ninhydrin, then let it dry for a few minutes. I then placed the evidence in our heating oven for approximately 8 minutes at 80°C and humidity at 65% RH.
N3WVEC	Visual Examination	visually examined sheet of blue copy paper divided into sections/boxes labeled A-D.
	Ninhydrin	On 11/9/2021-Ninhydrin with acetone was applied twice to a QC (copy paper with known print) upon drying, a purple color change was produced which is indicative of a positive result. Ninhydrin with acetone was then applied twice to all four section/boxes of the blue copy paper labeled A-D, a faint purple color change was observed in box A, will allow overnight drying to see if ridge detail is sufficient. On 11/10/2021-the blue copy paper was observed upon drying, purple color change is present, however, ridge detail isn't sufficient. Further processing will be used to see if ridge detail will improve.
	Vacuum Metal Deposition	11/17/2021-the blue copy paper was placed in the Vacuum Metal Deposition (VMD) chamber along with a QC (known print on copy paper). The metals used were gold and zinc. Under the vacuum state, gold is deposited onto the evidence then zinc is deposited onto the gold. Ridge detail did not improve.
N3XFCD	Visual Examination	
	1,2-Indanedione	
	Alternate Light Source	Laser

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
N4B4J7	Ninhydrin	70° /65% 10 min, ready-to-use solution ninhydrin in petroleumether
NLPN72	Visual Examination	
	Alternate Light Source	
	DFO	
	Ninhydrin	
	Silver Nitrate	
NP9NGB	Visual Examination	
	Alternate Light Source	365nm, 495nm
	Laser	532nm
	1,2 Indanedione Zinc Chloride	Humidity chamber H1 processed for 20 minutes at 70 degrees Celsius and 65% Relative Humidity. Observed with laser at 532nm.
P49RHV	Ninhydrin	The item was saturated with the liquid ninhydrin. It was allowed to dry completely. Steam was applied to the item.
P6YXVZ	Visual Examination	Visual examination with white light.
	1,2-Indanedione	IND with tracer laser.
	Ninhydrin	Visualized with white light.
P8CDKZ	Visual Examination	White light was used and there were no visible prints.
	Ninhydrin	A Quality Control (QC) was used on a piece of paper and ridges developed. Non-running ninhydrin was applied to the evidence on 11/9/2021. The evidence was then air dried and left to develop. Evidence was re-checked on 11/16/2021 and a print had developed.
PARYZZ	Dye Stain	DFO; developed in Caron chamber
PAXHRX	Visual Examination	Crimelite and TracER Laser
	DFO	100 degrees Celsius for 20 minutes
	Ninhydrin	65% RH and 80 degrees Celsius for 3 minutes

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
PH4BYJ	Visual Examination	An ocular inspection was carried out on piece of evidence # 3.
	Alternate Light Source	then using alternating white light to observe the piece of evidence, it was located where the fingerprint was. then using alternating white light to observe the piece of evidence, it was located where the fingerprint was. then using alternating white light to observe the piece of evidence, it was located where the fingerprint was
	1,2-Indanedione	We proceeded to work with a transparent plastic bag Capak was sealed and a vial of Iodine Crystals (Iodine Cystal Ampoules) was placed inside, to develop the impression.
PNARN8	Visual Examination	Made visible examination.
	1,2-Indanedione	Item is drenched with Indanedione. Item allowed to dry, once dry, heat is applied.
	Ninhydrin	Ninhydrin is applied to item, allowed to dry. Before storing, placed in humidifier for 20 minutes. Then stored in darkness to allow for development.
PPPZ22	Visual Examination	Magnifying lamp.
	[No Methods Reported.]	Iodine.
	DFO	
	Ninhydrin	Magnifying lamp.
	[No Methods Reported.]	Silver Nitrate. Magnifying lamp.
PUVZRX	Visual Examination	White low angle light. Results negative.
	DFO	Item dipped in DFO then placed in DFO oven at 200 F for 30 minutes. Item then viewed under an ALS with orange barrier filter (goggles). Positive Quadrant A.
	Ninhydrin	Item dipped in ninhydrin then placed in a sealed high humidity chamber overnight. Positive Quadrant A.
Q44UK6	Visual Examination	Item was visually examined with white light and magnification on 10/28/2021. No impressions were observed.
	DFO	Item was treated with DFO and processed in the Caron heat/humidity chamber on 10/28/21. Post processing ALS exam with Foster+Freeman Crime-lite 82S blue-green (450-510nm) and orange glasses. An impression was observed in section A.
	Ninhydrin	Item was treated with Ninhydrin HFE-7100 base and processed in the Caron heat/humidity chamber on 10/28/21. An impression was observed in section A.
QCEV77	1,2-Indanedione	Indanedione in oven at 100 degrees Celsius, ALS with orange goggles at 505nm

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
QCVA9A	Visual Examination	visually observed
	Ninhydrin	Ninhydrin special formula used. heat and humidity applied with steamer. re-treated and dried overnight. Fingermark developed.
	Vacuum metal deposition	Multi-metal setting used Zinc and gold used. Possible over development
QN9A8N	1,2-Indanedione	
	Ninhydrin	
R4JD43	Ninhydrin	Heptane carrier used.
RAP7ZJ	Ninhydrin	Item was treated with ninhydrin spray and left to dry at room temperature until development.
RL2EY6	Visual Examination	Viewed item under white light, TracER laser, and CrimeScope CS-16-500 ALS.
	1,2-Indanedione	Item sprayed with 1,2-Indanedione and placed under a heat press for approx. 2 minutes. Item was viewed under TracER laser.
	Ninhydrin	Item sprayed with Ninhydrin and developed using an iron for approx. 2 minutes. Item was viewed under white light.
RQUHN3	Visual Examination	Vis – white light (foster and freeman crime-lite 2 400-700nm-neg 2.11.21
	Alternate Light Source	Vis examination using High intensity light sources (Foster and Freeman crime-lite 82s UV (350-380nm), violet (395-425nm), blue (420-470nm), blue/green (445-510nm), green (490-560nm), orange (570-610nm)), blue and green lights were checked that they are working using the depletion standards as per sop, dark adaption completed before using orange hils as per sop – neg 2.11.21
	1,2 Indandione	Ind batch # 20aa211 (mixed in house using DSTL configuration; Indandione, Ethyl acetate, Acetic acid, HFE7100, Zinc chloride stock solution), oven #4, end temp 100.0°C (acceptable range not less than 95°C) depletion standard 1, peer review of +ve control. +ve for quadrant A 24.11.21
	Ninhydrin	NIN batch # 169193 (ready-made Ninhydrin from Banner chemicals) oven # 3 end temp and humidity – 80.4°C, 63.2%RH (acceptable range 80°C +/- 2°C, 62%RH +/- 5%RH), peer review of +ve control. +ve for quadrant A 24.11.21
	Physical Developer (PD)	Malaic acid batch 20AA276 (mixed in house using DSTL configuration; maleic acid and water), PD batch 20AA277 (mixed in house using DSTL configuration; silver nitrate, Iron III nitrate, Ammonium II sulphate, citric acid, stock detergent solution, water). DSTL treatment instructions followed; submerged in maleic acid solution for 10 minutes, PD solution for 20 mins and then washed in distilled water for 15 mins and tap water for 5 mins. Start air temperature was 20°C and end air temp was 21.3°C (acceptable range between 17-23°C) +ve control sample peer reviewed. -ve result. 2.12.21

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
RUXZBX	Visual Examination	No visible ridge detail observed. (from paper)
	1,2-Indanedione	1,2-IND with Laser (90 min at 50c/60% Humidity, 532nm, Orange Filter, control positive) Area 2.L3 (from paper, Item 3) was preserved through digital imaging.
TA28E6	Visual Examination	No fingermarks were visible. Blue, green and white light was used.
	1,2-Indanedione	A fingermark was visible in square A. Processing time: 10 minutes at 100 degrees.
	Ninhydrin	A fingermark was visible in square A. Processing time: 2 minutes at 80 degrees, 62% RH.
	Physical Developer (PD)	The previously visible fingermark was no longer visible after treatment with PD. Processing time: 10 minutes.
TBXFQV	Visual Examination	None found
	1, 2-Indanedione	IND (pre-mix) was sprayed onto the item and item was allowed to dry in the hood; Heat was applied to the item via steam iron only; Visualized item with Laser + orange googles - one (1) impression developed in section A and was photographed; Determined to be of value (OV) and labeled L3
TFACLW	Visual Examination	desk lamp
	Alternate Light Source	Full Spectrum Imaging System
	Ninhydrin	HFENINHYDRIN
	Physical Developer (PD)	physical developer two part solution
TFNVBV	LPPM	Item 3 was processed w/ DFO and placed in Caron chamber (T=100oC for 20min).
TJ3V73	Visual Examination	1 minute - Visual inspection.
	1,2-Indanedione	10 minutes (includes dry time) fluorescence - applied by squirt bottle. 3 minutes of dry heat (Iron).
	Ninhydrin	17 hours (overnight) - Fluorescence.
	Humidity Chamber	40 minutes.
TNZ6KA	Ninhydrin	I sprayed the paper with Ninhydrin and allowed it to dry. I then put the paper in an oven at 80 degrees with 65% relative humidity for 3 minutes. The print was developed.
TQ46G2	Visual Examination	under natural and white light
	1,2-Indanedione	20 mins in heat/humidity chamber
	Alternate Light Source	laser
	Ninhydrin	20 mins in heat/humidity chamber
	Visual Examination	white/natural light

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
TTA8M7	Visual Examination	Examined item with ambient white light and an LED flashlight from all angles. No ridge detail could be seen.
	Alternate Light Source	Examined item with the Ultralite ALS, BMT head and orange filter. No ridge detail was seen.
	Ninhydrin	Processed by saturation with a solution of Ninhydrin in petroleum ether (LOT 07082020). Item was allowed to dry and process overnight. On 10/13/2021, the item was processed with a steam iron and one latent print was developed in section A and marked 3.1.
U7FXN6	DFO	"DFO Dye Stain". Item was treated with DFO, dried and placed into a 100C oven for 20 minutes. Item was viewed under laser.
UB868D	Indanedione w ZNCl	Saturated with Indanedione with ZnCl in petroleum ether. Heat and humidity add for 10 min (approx. 65% RH & 80 C) viewed with a green laser at 532 nm and an orange filter at OG 550 nm.
UBRNCK	Ninhydrin	
UDH3KU	1,2-Indanedione	
UDUJVM	Ninhydrin	
UGT6GX	LPPM	Visible search, treated with DFO, dried. Developed in Caron @ 100oC for 20 min with no added humidity. Viewed with green laser.
UGWP98	Visual Examination	No ridge detail located
	1,2-Indanedione	Processed in Caron heat chamber for approximately 15 minutes at 80 degrees. 1 latent print suitable for documentation developed in Section A. Laser exam using green laser at approx 532nm with orange goggles
UHA27C	Ninhydrin	LOPHOSCOPIC SCANNING IS PERFORMED BY APPLYING NINHYDRNA ON THE WHOLE ITEM 3 PAPER SHEET, ALSO APPLYING HEAT, LOCATING A POSITIVE RESULT IN SECTOR A
ULT67V	Visual Examination	White light
	1,2-Indanedione	10 minutes, 95-100 degrees celcius
	Ninhydrin	2 minutes, 80 degrees celcius, 62% RH
UM7UBT	Visual Examination	CrimeLite & Laser
	DFO	
	Ninhydrin	

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
UNC9NZ	Visual Examination	Fluorescence examination
	DFO	Temperature: 100 C, Time: 10 minute
	Ninhydrin	Temperature: 80 C, Humidity: 62%, Time: 10 minute
UQ668T	Visual Examination	Visual with flashlight (Crimelite).
	Alternate Light Source	Alternate light source at 530nm.
	DFO	20 minutes in oven.
	Ninhydrin	3 minutes in humidity chamber.
UQGXQA	Revelador magnético	Se realiza la apertura del embalaje; se documenta fotográficamente, se observan características de la superficie que será sujeta al procesamiento, se realiza una prueba control del reactivo a utilizar para verificar su funcionamiento, posteriormente se realiza el procesamiento del item con el reactivo magnético en color negro. [Requested translation was not received prior to CTS report publication.]
	Alternate Light Source	Posterior a la aplicación de la técnica de revelado, con el reactivo magnético en color negro, se procede a utilizar una fuente de luz blanca, para la observación de la superficie así como de la huella latente visible. [Requested translation was not received prior to CTS report publication.]
UXMGKU	Visual Examination	Crime-Lite, LASER
	DFO	LASER
	Ninhydrin	Crime-lite, Incandescent
V6GZYU	1,2-Indanedione	
	Silver Nitrate	
VF273Z	Alternate Light Source	white light source, 340-587 nm, UV, coaxially reflected
	DFO	100°C during 20 min in oven
	Alternate Light Source	fluorescence examination with polylight (491-548nm)
	Ninhydrin	Development in the dark for 24-48 hours in an ambient Temperature with humidity
	Alternate Light Source	white light source
VH6WDL	Ninhydrin	
VJF7W7	Visual Examination	Natural light, white light
	Ninhydrin	Ninhidrin spray was used to find latent print on a sheet of blue copy paper. A sheet of blue copy paper was left in a dark room (about 22 degrees Celsius) for 24 hours.The latent print was recovered in section "A".

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
VNBQA3	Visual Examination	
	Alternate Light Source	350-380 nm ALS, 445-510 nm ALS
	Laser Examination	532 nm laser
	1,2-Indanedione-Zinc Chloride	After reagent application, item was placed in a humidity chamber set to 70 degrees Celsius and 65% humidity for at least 20 minutes (examined with 532 nm laser)
VVVQPF	Visual Examination	No prints observed.
	Ninhydrin	Single print observed in quadrant "A"
VYAL6C	Ninhydrin	I sprayed the blue paper with Ninhydrin. Then I placed the blue paper inside the microwave for almost 2 minutes until the latent print appears.
VZL67A	1,2-Indanedione	
	Ninhydrin	
W7L4XB	Visual Examination	White, blue and green light were used to examine the materials.
	1,2-Indanedione	100*C, process time 10 min.
	Ninhydrin	80*C, 62% humidity, process time 2 min.
W7PNPK	Ninhydrin	Processing time : 48 hrs. Dye stain : Ninhydrine solution (2,2-dihydroxy indane -1,3-dione). The reaction needs humidity and dark place
WBF7X4	Visual Examination	Negative results
	Ninhydrin	Positive results - LP3 - "A"
WCWZZY	Visual Examination	PERFORMED VISUAL EXAMINATION.
	1,2-Indanedione	APPLIED INDANEDIONEON ON PAPER. LET IT DRY FOR ABOUT 10 MINUTES AND APPLIED HEAT BY USING IRON.
	Ninhydrin	APPLIED NINHYDRIN AND PLACED IN HUMIDIFIER CHAMBER FOR ABOUT 30-45 MINUTES BUT NO FURTHER DEVELOPMENT
WGRR9V	Alternate Light Source	000 - 650 nm
	Ninhydrin	80° C for 3 minutes
WQAJG7	Ninhydrin	Ninhydrin was sprayed on the surface in a ventilated chamber. The item was left in the ventilated chamber for 24 hours for development.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
WUC7CV	Visual Examination	under white light
	Alternate Light Source	fluorescence examination (350 nm - 650 nm under appropriate color barrier filters)
	DFO	baked in the chamber DFO at approximately 100°C (212°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
WUFQ46	Visual Examination	
	Ninhydrin	
WUFZZV	Ninhydrin	Applied ninhydrin, and then let set in tank to dry for 24 hours.
WXGUVR	Visual Examination	Negative results
	DFO	Submerged in DFO solution then placed in DFO oven. Positive results viewed in section "A" under alternate light source.
	Ninhydrin	Submerged in Ninhydrin. Placed in heated, humidity controlled chamber. Positive results in section "A".
XFACZD	Iodine Crystal Ampoules	After seal a bag with iodine crystal and waiting 2 minutes the finger print developed
XGNJLU	Visual Examination	
	1,2-Indanedione	1,2-Indanedione-Zinc Chloride applied -> heat press ~160°C for 10 seconds
	Alternate Light Source	viewed with LASER @ 532 nm with orange barrier. viewed with LASER @ 532 nm with orange and AFF1 barriers
XHKX9M	Ninhydrin	
XPEAZA	1,2-Indanedione	Indanedione treatment in Attestor 31 NinCha cabinet 30min at 65Rh + 65C temperature.
XQCLRW	Visual Examination	Applied oblique lighting, then a Coherent TracER LASER with a KV550 lens filter to image to view any potential latent print.
	DFO	3 seconds soaking of 1,8-Diazafluoren-9-one (DF0) was done on Item 3. After the item dried, the soaking process was repeated and placed into the Sanyo Gallankamp oven set at 100 degrees Celsius for 20 minutes. A Coherent TracER LASER and KV550 lens filter was used to image the latent print.
	Ninhydrin	3 seconds soaking of Ninhydrin was done on Item 3. After the item dried, the soaking process was repeated and placed into oven for 6 minutes set at 80 degrees Celsius and having 65 percent relative humidity.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
XWEM4J	Visual Examination	WHT Light
	Alternate Light Source	FSIS
	DFO	DFO with Laser
Y284UH	Visual Examination	White light
	Alternate Light Source	Polilight, Foster+Freeman Crime-lite ML2 - all available wavelengths
	DFO	100° C, 0% RH. Processing time 10 min
	Ninhydrin	80° C, 65% RH. Processing time 5 min
Y7LU8Q	Visual Examination	Ambient Lighting
	Alternate Light Source	Full Spectrum Imaging System
	Ninhydrin	HFE ninhydrin in humidity tank for 3 minutes.
Y8FE4X	Ninhydrin	
YEC6RT	Visual Examination	No ridge details observed.
	Ninhydrin	Ninprint spray applied to the paper, and then paper was allowed to air dry in a fume hood.
	Steam Heat	Steam heat applied to paper via an iron. Ridge detail observed in quadrant A.
YFT8NU	Ninhydrin	
YRJ8U3	DFO	Visual examination (000-590nm); photography; 100 °c
YUBYDZ	DFO	DFO OVEN, 200 DEGREES, APPROXIMATELY 20 MINUTES
	Ninhydrin	MOIST HEAT FROM IRON
YWAP48	Ninhydrin	The paper surface reagent is applied to apply a heat generator, which proceeds to reveal the print, which is instantly and very faintly visible.

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
YWU4WQ	Visual Examination	*Please note that gloves were worn at all times throughout processing. Item 3 was first removed from its packaging and visually examined. No areas of possible ridge detail were observed at this time.
	Ninhydrin	*Please note that gloves were worn at all times throughout processing. Because item 3 was observed to be paper, ninhydrin was selected for processing. On 10/25/21, a glass dish was cleaned prior to use with isopropyl alcohol and placed into a large sink. A positive control was created utilizing a clean piece of white butcher paper. A small amount of ninhydrin (Lot #[Number], EXP: 06/18/2022) was poured into the glass dish, just enough to cover the bottom of the dish. The control was placed into the dish and allowed to soak for approximately 15 seconds. It was then removed and allowed to air dry for approximately 30 seconds. A Black and Decker brand hand steamer was turned on and allowed to heat up until it began producing a steady flow of steam. The control was then held in the steam approximately 10 inches away from the steamer for approximately 30 seconds. Positive results were observed on the control. Identical steps were taken to process item 3. At this time, purple discoloration and slight ridge detail were observed in quadrant "A" of item 3. The item along with the control were then placed into an unsealed plastic bag and placed into a temporary locker pending analysis at a later date.
YWU7NG	1,2-Indanedione	10 min in climate cabinet, 100 degrees. Visible in green light
	Ninhydrin	2 min in climate cabinet, 80 degrees and 62% humidity. Visible in white light
ZCH3WP	Visual Examination	Control: N/A; Lighting: white light. No ridge detail observed in any section
	1,2-Indanedione	IND-Zn (Bottle # 080921). Control: +; Lighting: LASER. L002 developed in Section A - Photographed by FPB Section
	Ninhydrin	NIN (Bottle # 101321). Control: +; Lighting: white light. L002 was still visible in Section A - Photographed with 2 paddle lights
ZHA692	Visual Examination	White light/fluorescent light
	Alternate Light Source	365nm and 495nm
	Laser	532nm
	IND-ZnCl	Approximately 20 minutes, 70 degrees C, 65% RH
ZU2WPY	Ninhydrin	temp 75 Celsius, 80 % humidity, 5 mins
ZX79XL	Visual Examination	Visually examined the evidence, using natural light source
	Iodine Fuming	used iodine crystals on the porous surface causing fumes to develop the latent print reacting to the fatty and oily components in the print, forming a yellowish-brown fingerprint (IO211118)
	Ninhydrin	sprayed evidence with ninhydrin reacting to the amino acids in the fingerprint forming a purple print (HFENIN211103)

TABLE 2 - Item 3

WebCode	Development Methods	Method Details
ZX89W2	Ninhydrin	humidity chamber

Response Summary

Participants: 255

Methods Utilized

Alternate Light Source	59	Physical Developer	13
Cyanoacrylate Fuming	1	Powder Dusting	5
DFO	46	Visual Examination	161
Dye Stain	2	Wet Powder Suspension	0
Ninhydrin	196	1,2-Indanedione	71

**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
262U3Q	Photography	
26G34E	Photography	Digital Camera
2BNEEU	Photography	Under normal circumstances the ridge detail in box D would be captured as a visual mark using the DCS with the white Crime-Lite at an oblique angle. The mark would further be captured as a QUVIS mark using the DCS with the blue light at an oblique angle, the mark would be cross-referenced to the visual mark previously captured. After SG/DYE the ridge detail would be further captured with blue light on the DCS and the mark cross-referenced to the QUVIS mark previously captured.
	Blue Light Examination	Item examined under a blue light source (420-470nm wavelength) using the appropriate viewing goggles, prior to and following SG/DYE treatment. Ridge detail was visible in box D.
2HNXFP	Photography	11/3/21 - Item 1, aluminum foil - L001 VIS. Photographer's information: Photographer - [Name]. Photography date - 11/22/21. Capture Method - Camera. Lighting - White. Lighting Technique - Direct Balance. Filter used - None
	Photography	11/30/21 - Item 1, aluminum foil - L001 CAE. Photographer's information: Photographer - [Name]. Photography date - 12/1/21. Capture Method - Camera. Lighting - White. Lighting Technique - Direct Balance. Filter used - None
2L3LY2	Lifting	Lift tape
2MXADP	Photography	Used at every step, after visual then after CA and lastly after R6G.
2NTRC7	Photography	NIKON D810. ALS 505nm with Orange Filter
2PQZMB	Photography	After developing the latent print with cyanoacrylate , it was documented with photography with metric witness.
	Lifting	Use a white plastic patch with metric witness.
2PUDGY	Photography	
2TJ8YR	Photography	
2W8LN2	None	
338KCW	None	

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
3B3FFM	Photography	photographed w/orange filter in RAW image w/scale, enhanced via Photoshop
3BGRC7	Lifting	Lifting with white microsylk
	Photography	Camara
3E3QCM	Photography	I used blue light to make the print visible and photographed the print using the DCS5.
3FVHL8	Photography	Digital capture (DCS 5) after Visual Examination in the White Ring Light, after Cyanoacrylate Fuming in the White Ring Light, after Dye Stain in Multi-wavelength Ring Light at 445 nm with the filter OG550.
3HQNEK	Photography	Nikon DSLR. LED lighting and CrimeScope with orange filter for dye stain. Enhancements in Adobe Photoshop
3NR9BN	Photography	
3TKCX2	Photography	Photography of the fingerprint as described in the methods above
3W2QH2	None	
4KMYJJ	Photography	One digital image of visible prints was taken. The one to one image has a PPI of 1144.016.
	Lifting	One latent print card containing one tape lift was collected.
4KPMZX	Photography	
4QCL9X	Photography	Overall, mid-range, and close-up 1:1 photos were taken, saved in JPEG and NEF format, and burned to a DVD.
4R3RM3	Photography	Once fixed with black volcanic powder, it is fixed again with photography.
	Lifting	to preserve the previously developed print, it is protected with a transparent acetate.
4TYZW8	Lifting	The latent print was photographed and then preserved using a hinged print lifter.
4V266L	Photography	One (1) photograph taken of RD development noted in Section D after use of R6G dye stain - LASER ALS and an orange filter utilized to capture RD. Examination quality photograph taken of RD development with Nikon camera.
4Y42X2	Photography	Oblique light

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
4ZYKY3	Lifting	Results were photographed and the print was lifted and secured to a lift card for storage and handling.
63KN6E	Lifting	Clear lifting tape and white lift card ([Laboratory] Form #74).
676NBM	Photography	
6A26V4	Photography	
6A6PMD	Photography	The developed ridge detail was photographed after both powder processing and dye stain processing. A Nikon D7000 digital camera with a macro lens was used to capture the photographs at greater than 1000ppi. Dye stain photography was performed using orange filters.
6DJJ3A	Photography	1. Initially, Mark found on section D by visual examination. It was photographed with the help of white light. 2. After polycyano UV fuming, Mark was photographed again using UV light.
6FNYR2	Photography	A canon t5i reflex camera was used using metric witness according to established in the field criminology procedures.
6HBQLJ	Photography	Photos taken after each processing step where the print was visible.
6PTZCZ	Photography	White light and forensics alternative light source (blue laser)
6Q42XY	Photography	Digital Capture. Item 1 submitted into evidence with detected fingerprint located in Area D.
6QVFVT	Photography	
6WEU9X	Photography	lighting from the side to eliminate reflections
6X8N73	Photography	A canon t5i reflex camera was used using metric witness according to established in the field criminology procedures.
6YKFZ6	Photography	photographed using DSL Camera and micro lens
72323Q	Lifting	
74QFQZ	Photography	The revealed friction ridges are photographed with a digital reflex camera using a metric core, using a white rubber lifter with acetate to protect the friction ridges.
7BTH2T	Photography	Digital processing ADAMS

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
7DVDKV	Photography	Digital photography, upload into ADAMS
7LU6Q6	Lifting	The latent print was photographed and then preserved using a hinged print lifter.
7MNKNV	Photography	First took a photo when the print was visible after cyanoacrylate fuming with a scale. Scale contained case specific information.
	Photography	Second set of photos taken after print was subjected to dye stain. Same scale used for this series of photos
7QLC8R	Photography	photo of LP in section D after cyanoacrylate fuming, tungsten lighting. photo of LP in section D after Ardrox (dye stain), RUVIS at 365 nm
7ULF2Z	Scanning	
7YVLVK	Photography	CAE: White light. R6G: LASER, Orange Filter
87CMFF	Photography	One photograph was taken after CAE fume of a print in section D.
	Lifting	One lift card was collected after powdering of a print in section D.
87VHXG	Photography	Three (3) total digital images were taken. 1:1 photos with macro lens on copy stand in TIF format. One (1) image after visual examination, one (1) image after CA fuming, one (1) image after dye stain and ALS exam. First and second images taken with oblique white light from ALS, third image taken with ALS set to 495nm and with an orange barrier filter on the camera lens.
8ATWMR	Scanning	Photoshop @ 600dpi
8CXMP2	Photography	Proceeds to photo document is used metric witness
	Plastic patch	A white plastic patch was used to lift the fingerprint, to submit laboratory.
8FMP2G	Photography	The visible white ridge detail that developed on section D after cyanoacrylate fuming was photographed before powder dusting.
	Lifting	After black powder dusting, ridge detail was lifted with lifting tape and placed onto a latent print card.
8H7Q3U	Photography	Overalls, midranges, and closeup photos taken

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
8HJKEN	Photography	Print in Section D documented with a digital camera throughout visual exam, cyanoacrylate fuming, and dye stain processing of Item #1.
	Lifting	Print in Section D lifted after dusting with black powder.
8JZJRL	Photography	
	Lifting	Transfered to a contrast card
8NAUQ8	Photography	Digital photos - Canon EOS 60D, 100 mm lens, scale ruler.
	CD-R	Recording digital photos of latent print to CD-R.
8PP4V2	Photography	Daylight coaxial lighting to photograph the impression
	Photography	Daylight oblique lighting at copystand to illuminate the superglue impression.
8UZ8RV	Lifting	Used lift tape and placed it on a fingerprint card
92UUUF	Photography	with white light and with ALS and orange filter
	Scanning	with desktop scanner, overall only
93MK4Z	Photography	The method of preservation used was photography. A ruler was placed next to the fingerprint and a photograph was taken at 90 degrees. In addition, a piece of adhesive tape was placed on the piece.
93QCUV	Lifting	se levanto la huella lofoscopica con levantador de gel. [Requested translation was not received prior to CTS report publication.]
96G9MV	Photography	PHOTO DOC WITH SCALE BEFORE STANDARD TAPE AND LIFT METHOD - NO ADJUSTMENT FOR SUBSTRATE
	Lifting	
9B6VFF	Photography	
9D82NU	None	
9D8WHX	Magnetic powder	Processed all four sections of aluminum foil with magnetic powder. Latent print observed on section D.
	Photography	Photographed latent print on section D using camera and scale.
	Lift Tape	Placed clear lift tape over latent print on section D. Packaged for storage.

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
9EFBKX	Lifting	THE RESULT WAS PHOTOGRAPHICALLY DOCUMENTED, LIKEWISE THE LOFOSCOPIC FRAGMENT WAS LIFTED BY MEANS OF A TRANSPARENT LIFTING ACETATE
9FBUHT	Photography	Camera Canon EOS 50D, lens "EF-100 mm 1:2.8 USM".
9G79DX	Lifting	Utilizing clear tape, print was lifted and placed on latent lift card.
9G8CKU	None	
9QD3EH	Scanning Lifting	
A2WW8Q	Photography	A_Vis: ISO 200, auto white balance, Focus 0.4m, 1/3 second shutter speed without filter, oblique lighting; A_Vis2: ISO 200, auto white balance, Focus 0.4m, 30 seconds shutter speed, with polarizer filter, oblique lighting; A_CA: ISO 200, auto white balance, Focus 0.4m, 15 seconds shutter speed, with polarizer filter, direct lighting; A_CA2: ISO 200, auto white balance, Focus 0.4m, 1/4 second shutter speed, with polarizer filter, oblique lighting; A_R6G: ISO 200, auto white balance, Focus 0.4m, 20 seconds shutter speed, with orange filter, 500 nm light. An overall/object shot was also captured for orientation.
A69XYN	Photography	
A6V84Q	Photography	Foster and freeman DCS (Digital Capture System)
A74A44	Photography	used DSL-R Nikon camera and macro lens
AA4LY4	Photography	Photography followed by lifting which would then be sent to AFIS
ADJXVK	Photography	
ADMHMU	Photography	
APX84A	submitted to LPU	Due to delicate nature of foil sheet latent print in section D was not lifted. The foil sheet would be submitted to Latent Print Unit for identification/comparison.
AT4JAC	Photography	Photographs taken in RAW.

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
AVHA6L	Photography	White light for visual print and CA print. 475nm ALS with orange filter for R.A.M.
AWJW9D	Photography	Before processing the ridge detail present was photographed with a forensic light source. MRM-10 development was photographed with a 450 nm wavelength light source to illuminate the item and an orange barrier filter was placed on the camera lens.
AZXJWQ	Photography	digital photography, photo of (1) LP under visual and cyanoacrylate fuming
BKG7DW	Photography	
BW9VBG	Photography	macro
C2J72Q	Photography	Photographs of the latent impression were taken after CA fuming and during the laser examination.
C3J2UU	Photography	photo taken of latent print in section D
C3V2P4	Photography	Photographed 1-LP1 after each method/step
CCMEN3	Photography	fingerprint was photographed with a macro camera lens and linear scale
CGFFT3	Photography	
CGURNM	Photography	NIKON D7100
CPT8FF	Lifting	
CQ64M6	Lifting	Prior to lifting ridge detail was photographed with FSIS and Nikon DSLR camera. Ridge detail was lifted with tape and placed on a white card.
CQJDUK	Photography	in white light
CW8FJ3	Photography	Photographed on copy stand with scale, orange filter and ALS. Latent print would be entered into ADAMS system, calibrated, enhanced, converted to grayscale and printed at 1000dpi for entry into AFIS. Latent image would be submitted to Latent Print Unit and item into evidence as per department SOPs.
D38YDK	Photography	Polilight PL500 at 505 nm, Tiffen Orange 21 Filter, Foray ADAMS Imaging System

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
D6FAAN	Photography	Digital photography at Visible (white light), CA (white light) and Dye Stain using ALS (515nm).
D7VD2V	Photography	
DB28WQ	Photography	A canon t5i reflex camera was used using metric witness according to established in the field criminology procedures.
DEREBL	Photography	
DFGHAU	Photography	Canon EOS 77D + Tamron SP AF 90mm/2.8 macro lens.
DKCAHR	Photography	A canon t5i reflex camera was used using metric witness according to established in the field criminology procedures.
DMY7PH	Photography	Eight friction ridge images with scale of the latent print located within quadrant "D" of the aluminum foil were captured during processing. The images were captured during visual examination, forensic light source, CA fuming, and Rhodamine 6G dye stain.
	Lifting	One latent lift card was obtained from quadrant "D" of the aluminum foil during magnetic powder processing.
DNQ7MT	Lifting	1.- Fijación fotográfica. 2.- Levantamiento de fragmento dactilar con levantador de bisagra transparente. [Requested translation was not received prior to CTS report publication.]
DVBZ6K	Photography	495/orange. f/45 ISO 100 archived to ADAMS
DZ8MZT	Photography	"Digital Capture". Nikon D800 - photograph under forensic laser (orange filter, macro lens)
E36MCA	Photography	Photography with JPEG and TIFF including scales. Latent print also lifted with 2X2 hinge lift.
E4KVHP	None	

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
E4YE3M	Lifting	Once all treatments had been completed, a black gel lift was taken on the side of the mark and exhibited as BAC/1E0. Item 1 was Gel Lifted as per current SOP; to see if any suitable marks would develop after being scanned by the Photography Department.
	Photography	Any suitable marks developed throughout sequential treatment were marked up and photographed 1:1 using a D810 Nikon digital camera with an AF-5 micro Nikkor 105 mm lens, 8 x 4 Crime Lite light source(s) and appropriate camera filter(s). The camera is linked to DCS5 (Digital Capture System 5)software where the images are exhibited with full audit trails and further DCS5 enhancement tools can be used to improve contrast/remove background interference where applicable. Exhibited images then submitted to the Fingerprint Bureau for further analysis and comparison.
EAM3ZD	Photography	After Cyanoacrylate fuming the latent print in quadrant "D" was photographed with the Fujifilm IS PRO with oblique lighting and a scale. The latent print was uploaded into the "FORAY" program. The latent print was scaled and enhanced in the following manner, CMYK with black filter - Change to gray scale - invert - outline - levels. a print of the original and processed print were made.
	Lifting	The latent in quadrant "D" was also lifted with finger print lifting tape.
EBZMRN	Lifting	Lift Tape
ECVB8D	Photography	Photographed using white light (source: flashlight) both after visual exam and cyanoacrylate fuming. No photos captured after dye stain.
EDAGNN	Lifting	Los rastros pailares fueron levantados con cinta adhesiva transparente y preservados en una tarjeta de color blanco, adicional los mismos fueron fotografiados antes de recolectarse como una buena practica en materia de la escena del crimen. [Requested translation was not received prior to CTS report publication.]
EL3RYJ	Photography, Ruvis	Digital images are taken at 1000 ppi or greater and saved to secure drive
ET2K2B	Photography	Photographed with a Nikon and FSIS camera, enhanced with Adobe Photoshop and saved onto a DVD.

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
ET46YL	Photography	After visual examination, a latent print was observed in section D of the item. The latent print was photographed and saved on the DSC-4 system using a DSLR camera, an oblique white light source and a calibrated scale. The image was enhanced in the DSC-4 system and the lift was printed. The lift print included the lift number, central complaint number, my name and ID, the date and time, and where the lift was recovered from. The lift print was submitted as evidence.
	Photography	After cyanoacrylate fuming and dye staining, the latent print was photographed and saved on the DSC-4 system using a DSLR camera, an alternate light source (Blue), a yellow/orange filter and a calibrated scale. The image was enhanced in the DSC-4 system and the lift was printed. The lift print included the lift number, central complaint number, my name and ID, the date and time, and where the lift was recovered from. The lift print was submitted as evidence.
	Lifting	After processing the item with black powder, the latent print was lifted using clear lifting tape and a glossy white lift card. The orientation of the print and a diagram were included. The lift card included the lift number, central complaint number, my name and ID, the date and time, and where the lift was recovered from. The lift card was submitted as evidence.
EV66YJ	Photography	Photographed at visual/patent stage, at glue fumed stage, and after dye stain. Nikon camera: f11-f13, ISO100 with varying lighting (both ceiling lights & LED flashlight for visual/patent and fumed stages; ALS at 495 nm with orange filter for dye stain)
EW2LD2	Photography	TECHNICAL PHOTOGRAPHY RAW AND TIFF
EZ4GYP	Photography	
F2CZED	Lifting	Observed latent impression was recovered using tape lift. Tape lift was placed onto latent lift card.
F32JYB	Lifting	Used latent print tape to lift the print off of section D and then placed tape on to a latent print card.
F4EYMK	None	
F6RPDF	Photography	Scaled photographs were gathered using a Nikon 5200 with a Macro lens in RAW setting. The latent photos were transferred to a CD and submitted as additional evidence.
FFVNLP	Photography	None

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
FMVZLT	Lifting	1.OBSERVATION AND IDENTIFICATION, 2.WRITTEN AND PHOTOGRAPHIC DOCUMENTATION, 3.COLLECTED, PACKAKING AND SEALED.
FNQRL7	Lifting	A single tape lift was taken and placed on a fingerprint card. The fingerprint card was packaged into a manila envelope (item 001.A.01.a) and repackaged into the evidence container (item 001).
FRMAVQ	Photography	Once the print is developed with the magnetic powder, it is photographically documented.
FRNBLJ	Photography	
FWKQ9K	Photography	
G97H9F	Photography	Documented latent prints in the laboratory during the visual inspection, alternate light source, CA, and the CA with Rhodamine 6G under ALS phases of processing. Utilized 1 inch scale, Nikon D610, 60mm lens, Orange barrier filter, Repro camera rigging system
	Lifting	Attempted to lift print after processing with black powder, nothing was observed or obtained.
GAGH8V	Lifting	Then it is defined with graphite powder with the lifting with a plastic patch to describe the pertinent information relate the case.
	Photography	To be photodocumented
GBWQCP	Photography	and lifting of the fingerprint with conventional tape
GDKDTJ	Photography	Overall, mid-range, and close up shots
GEW7TD	Photography	Photographed print development with Crimelite or TracER laser.
GKY3QR	Photography	The method used for the preservation is photography and adhesive tape was placed on the piece where the fingerprint was developed.
GV32FR	Photography	Capture and image processing completed with Foster+Freeman DCS imaging system under UV light (crime lite (350-380nm)/ baader filter add on camera Nikon D5)
GZTQHG	Photography	digital imaging
H3UYK7	Photography	Photography with RUVIS

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
HBQW7N	Photography	once fixed with black volcanic powder, it is fixed again with photography
HLVQV9	Photography	photographed prior to lifting to preserve latent. item was super thin foil, and lifting may have destroyed the item
	Lifting	after a photograph of the latent of taken, lifting was attempted and successful.
HRYQYH	Photography	Canon EOS 760D with 100mm macro-objektive.
HZF9NC	Photography	digital photography
J2LY7R	Photography	Photography with Full Spectrum Imaging System (FSIS)
JNTMP8	Photography	White light - direct balance lighting/no filter
JX4TUB	Photography	Developed friction ridge detail on the controls and in section D were documented using a Nikon D7500 camera and ambient light following visual examination, superglue fuming. The addition of a Laser set at 532nm was used following Dye Stain/ALS.
K3R27G	Photography	Overalls, midranges, and close ups of the ridge detail were taken prior to processing and post processing using a digital camera. Photos were taken with natural or oblique lighting and while using the laser. Photos were taken in JPEG and RAW formats.
K4H8KL	Photography	and lifting of the fingerprint with conventional tape
K6FFVQ	Lifting	
K9HCM7	Photography	Photographic documentation of the ridge detail found within quadrant D was performed prior to, as well as between, the two chemical processes which were utilized (CA & MRM10), and within resolution guidelines. Images to be used for comparative analysis were taken in RAW format, using a Canon 5D full frame camera and a Canon 100mm macro lens. These images were taken with a surface to sensor distance of no greater than 0.49 meters. The same methods and equipment were used for the images taken of the ridge detail after the application of MRM10, with the addition of a Heliopan #22 orange filter, used in conjunction with a ROFIN PL500 poly-light emitting a 450nm wavelength.
KCCF7C	Photography	Photographed friction ridge impression of value with scale and then uploaded image into ADAMS.

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
KFBQ2C	Photography	
KLH64G	Photography	Bracketing with ALS and side lighting
KMC7PY	Lifting	Latent print lifted with lifting tape and placed on latent print card and packaged
KMRAEK	Photography	
KVPWDC	Photography	with scale
KXUMG7	Photography	One (1) image captured using Nikon D810 and digitally processed with Photoshop Creative Cloud. Image calibrated 1:1, >1000 ppi and saved in TIF format on the T: drive.
L69Q7J	Photography	dark field
LMBJXD	Photography	Photographed after visual exam
LPDDP3	Photography	The latent prints were preserved using a digital Nikon D8210 camera.
LQQZ8G	Photography	Scaled photographs were taken before and after processing.
M4BZDA	digital photography	
M97T9Q	Photography	During step 1), the trace in the box "D" is illuminated in white light by searching the best contrast. We place a centimeter test being near the fingerprint and photographies are taken.
	Photography	During step 2), the digital trace in the "D" box is illuminated using the Crimescope in CSS under different wavelengths looking for the best contrast. Photographs of the fingerprint with the centimeter test are taken, in particular in white light with an orange filter and in 515 with an orange filter.
	Photography	During step 4), the trace in the box "D" is illuminated in white light by searching the best contrast. Photographies are realised of the fingerprint with the centimeter test.
	Photography	During step 5), orange filter is fixed on the camera when the trace in the box "D" is illuminated with the Crimescope in white lignht without filter and in CSS with an orange filter, by searching the best contrast. Photographies are realised of the fingerprint with the centimeter test.
M9QCBC	Photography	Digital photography (Nikon D7000), oblique lighting
MA2CAR	Photography	

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
MEAKTG	None	
MF8QAB	Photography	
MJ9U74	Photography	area D captured using Nikon D810 both before and after being processed with black powder
MJMH24	Lifting	Tape lift, lift card
MY46Z2	Lifting	I used lifting tape to lift the print and placed it on a lift card to preserve the print.
N3WVEC	Photography	at the photography station, I ensured the camera had the proper settings (set to jpeg & raw format, ISO at 400, Fstop f/8 or higher, camera leveled above evidence at 90 degrees) took a series of overall, midrange and closeup photographs of section/box D to document ridge detail using the laser and white light.
	Lifting	the foil sheet was placed at the downdraft station, fingerprint powder was applied to a fingerprint brush and twirled in a circular motion in section/box D. I applied the adhesive side of lift tape and smoothed it over and pulled it from section/box D then applied the adhesive side of the tape to a lift card.
N3XFCD	Photography	
N4B4J7	Photography	RAW, enhancement in Photoshop
NLPN72	Photography	Canon EOS5D
NP9NGB	Photography	Uploaded to ADAMS, processed in Photoshop.
P49RHV	Lifting	Clear latent print lifting tape.
P6YXVZ	Photography	Orange filter used with R6G photo.
P8CDKZ	Lifting	Using a latent print card and tape, one print was lifted off of the surface.
PARYZZ	Photography	Imaged under reflected UV light w/ DCS-5
PAXHRX	Photography	raw images using fx camera

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
PH4BYJ	Photography Lifting	It was documented and preserved by photography, using a photographic camera, proceeded to photograph the piece, in addition a white plastic patch was used to lift the impression.
PNARN8	Photography	Used white light for visible photo(Photo 1). Used ALS for post-RAM photo(Photo 2).
PPPZ22	Photography	Crime scope-455nm for dye stain photos.
PUVZRX	Photography	
Q44UK6	Photography	Images were taken with Nikon D-610 camera.
QCEV77	Photography	
QCVA9A	Photography	1:1 photography. Overall, midrange and close-up photos taken.
QN9A8N	Photography	
QY862C	Lifting Photography	Cinta adhesiva transparente / Transparent tape. Macrophotography
R4JD43	Scanning	Photoshop, 1200 ppi
RAP7ZJ	Lifting	Latent print was photographed and then preserved using a hinged print lifter.
RL2EY6	Photography	Photos of latent print were taken using a Nikon D800. Photos were taken under white light prior to processing, under white light following Cyanoacrylate fuming, and under the TracER laser using an orange barrier filter following dye staining with Rhodamine-6G.
RUXZBX	Photography	I photographed 2.L1 from section D of item 1 after the visual, superglue, and dye stain phases.
TA28E6	Photography	Photography would have been used to document the fingermark.

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
TBXFQV	Photography	Digital photography/orange filter - captured impression in section D
	Photography	Digital photography and oblique light - captured the impression in section D
	FSIS & UV Light@ 254nm	captured impression in section D
	Adobe Photoshop CC	Image was calibrated and processed for best detail; Added L1 to the composite; Saved on DVD at completion of the case
TFACLW	Photography	Nikon D5200, images enhanced via Adobe Photoshop, printed and DVD made
TFNVBV	Photography	Viewed under forensic laser/RUVIS.
TJ3V73	Photography	Foster Freeman DCS-5 with ALS (White light) on visual and Orange filter (550nm) for R.A.M.
TNZ6KA	Photography	I photographed the print on the foil using a copy stand.
TQ46G2	Photography	cr2 and tif files retained
TTA8M7	Photography	Latent print 1.1 was photographed using a Nikon D100 with a Nikkor macro lens in the RAW format.
U7FXN6	Photography	"Digital Capture". Took a photograph using a Nikon D800, Nikon 105mm microlens, and Nikon 056 orange filter.
UAGN8D	Photography	The revealed friction ridges are photographed with a digital reflex camera using a metric core, using a white rubber lifter with acetate to protect the friction ridges.
UB868D	UV-light	A FSIS unit with 254 nm UV light was used
UBRNCK	Photography	
UDH3KU	Photography	
UDUJVM	Photography	
UGT6GX	LPPM	
UGWP98	Photography	Photographed latent print after visual exam with tungsten lighting. Photographed latent print after CAE with tungsten lighting

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
UHA27C	Lifting	PHOTOGRAPHIC DOCUMENTATION OF THE LOPHOSCOPIC FRAGMENT IS MADE AND IT IS LIFTED WITH TRANSPARENT ACETATE AS AN ITEM 1.1
ULT67V	Photography	Visual Examination
UM7UBT	Photography	3 photos plus 2 overalls
	Lifting	1 lift
UNC9NZ	Photography	
UQ668T	Photography	
UQGXQA	Photography	Una vez que la huella latente es observada con una fuente de luz blanca, se realiza una documentación fotográfica para la observación de los detalles de las crestas de fricción, con la utilización de programas digitales en una computadora. [Requested translation was not received prior to CTS report publication.]
	Lifting	Además del medio fotográfico, es utilizada cinta de polyetileno, y es adherida a un trasplantador color blanco, para la mejor apreciación de sus crestas de fricción. [Requested translation was not received prior to CTS report publication.]
UXMGKU	Photography	Four images were taken
V6GZYU	Lifting	
VF273Z	Photography	Digital Capturing System (DCS-4). Cyanoacrylate white light source. Dye stain (BY40): Blue light (430-470 nm) with filter OG-495
VH6WDL	Photography	
	Lifting	
VJF7W7	Photography	The latent print was photographed. Camera: Canon Power Shot SX20 IS.
VNBQA3	Photography	
VVVQPF	Photography	Photography conducted prior to chemical processing.
	Lifting	One tape lift collected from foil after processing with black powder.

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
VYAL6C	Lifting	I place the lifting plastic on the latent print, then I removed the lifting plastic with the latent print on it.
VZL67A	Photography	
W7L4XB	Photography	Photography was used to preserv the fingerprint after Visual examination (white light), Cyanoacrylate Fuming (white light) and BY40 (blue light & yellow filter).
W7PNPK	Photography	The latent prints recovered are photographed by using DCS4 Imaging device (Blue light 470nm and yellow filter OG530) , a paper copy is sent to the information branch for comparison on the data base and the soft copy are kept on the hard disk.
WBF7X4	Photography	Photographed at each method: Visual, CA, R6G/Laser
	Lifting	LP1 tape lift
WCWZZY	Photography	PHOTOGRAPHED VISIBLE, SUPERGLUE, AND RAM IMPRESSION. UTILIZED FOSTER FREEMAN CAMERA AND EQUIPMENTS.
WGRR9V	Photography	ALS white light, oblique prior to processing yielded best results.
WQAJG7	Lifting	Lifting tape was placed over the ridge detail, then removed and placed on a latent print card.
WUC7CV	Photography	after Visual Examination – under white light
	Photography	after Cyanoacrylate Fuming - under white light
	Photography	after Basic Yellow 40 - in alternate light source at 450 nm using a orange colored bandpass filter
WUFQ46	[No Methods Reported.]	No preservation
WUFZZV	Photography	With the assistance of ALS, pictures were taken to preserve and document findings.
WXGUVR	Photography	One to one photographs of positive results in section "D" only.
XFACZD	Photography	
XGNJLU	Photography	used orange barrier filter on camera lens
XHKX9M	Lifting	

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
XPEAZA	Photography	Photography in white light. Light targetted horisontally from side of fingerprint.
XQCLRW	Photography	All images were uploaded into the Authenticated Digital Asset Management System (ADAMS) and the laboratory's Information Management System (LIMS).
XWEM4J	Photography	DSLR: #1-1 and #1-2
Y284UH	Photography	White light for CA, blue light and yellow filter for BY40
Y7LU8Q	Photography	FSIS camera and Nikon camera
Y8FE4X	Photography	
YEC6RT	Photography	Digital photography
YFT8NU	Photography	
	Lifting	
YRJ8U3	Photography	photography 415nm filter orange
YUBYDZ	Photography	
YWAP48	Photography	Once fixed with black volcanic powder, it is fixed again with photography.
YWU4WQ	Lifting	*Please note that gloves were worn at all times throughout processing. Clear tape was placed across the area of observed ridge detail and lifted from the item. The tape lift was then placed onto a white backing card for contrast and preservation. A directionality arrow was drawn onto the front of the backing card to indicate orientation of the lift. All case information was written on the back of the card. The latent lift card was then placed into an evidence envelope and sealed with evidence tape.
ZCH3WP	Photography	L001 was observed in Section D during visual exam - Photographed with RUVIS
	Photography	L001 was still visible in Section D after CAE Fuming - Photographed with Paddle lights
	Photography	L001 was still visible in Section D after dye staining - Photographed with Laser (532 nm)/Orange filter
ZHA692	Photography	Digital capturing/processing

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
ZU2WPY	Lifting	After Cyanoacrylate Fuming, magnetic powder used to lift print
	Photography	After basic yellow dye stain, blue/green filter, shutter speed 1.5, Polariser used
ZX79XL	Photography	used a digital camera to capture the image of the latent print and adobe photoshop to visually see details in the latent print
ZX89W2	Photography	b&w, 1:1

Response Summary

Participants: 255

Methods Utilized

Lifting	59
Photography	219
Scanning	5

**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
262U3Q	Photography	
26G34E	Photography	Digital Camera
2BNEEU	White Light Examination	Item examined under a white light source (White Crime-Lite) following White Titanium Wet Powder Suspension. Ridge detail was visible on the adhesive side of tape B.
	Photography	Under live casework circumstances, I would capture the ridge detail found after White Titanium Wet Powder Suspension treatment using the DCS with the white light on the camera system.
2HNXFP	Photography	11/8/21 - Item 2, black electrical tape - L003 Wetwop (white). Photographer information: Photographer - [Name]. Photography date - 11/22/21. Capture method - Camera. Lighting - White. Lighting Technique - Direct Balance. Filter used - None
2L3LY2	Lifting	Lift tape
2MXADP	Photography	Used after wet powder suspension.
2NTRC7	Photography	NIKON D810 Under White Light
2PQZMB	Photography	After developing the latent print with cyanoacrylate , it was documented and preserved with photography with metric witness.
2PUDGY	Photography	
2TJ8YR	Photography	
2W8LN2	None	
338KCW	None	
3B3FFM	Photography	photographed w/orange filter in RAW image w/scale, enhanced via Photoshop
3BGRC7	Photography	Camara.
	Packed	The item was protected whit plastic film acetate.
3E3QCM	Photography	Photographed the print using the DCS5

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
3FVHL8	Photography	Digital capture (DCS 5) after Cyanoacrylate Fuming in the White Ring Light, after Dye Stain in Multi-wavelength Ring Light at 445 nm with the filter OG550, after Wet Powder Suspension in the White Ring Light.
3HQNEK	Photography	Nikon DSLR. CrimeScope with orange filter. Enhancements in Adobe Photoshop
3NR9BN	Photography	
3TKCX2	Photography	Photography of the fingerprint using white light and no filter
3W2QH2	None	
4KMYJJ	Photography	One digital image of developed prints was taken. The one to one image is 1788 PPI.
4KPMZX	Photography	
4QCL9X	Photography	Overall, mid-range, and close-up 1:1 photos were taken, saved in JPEG and NEF format, and burned to a DVD.
4R3RM3	Photography	Once the print is developed on the fragment with adhesive, it is photographically fixed.
4TYZW8	Photography	The latent print was photographed at 90 degrees and scaled.
4V266L	Photography	One (1) photograph taken of RD development noted in Section B after use of White Wetwop powder suspension - white paddle lights utilized to capture RD. Examination quality photograph taken of RD development with Nikon camera.
4Y42X2	Scanning	1200 dpi
4ZYKY3	Photography	Results were photographed using the ALS with a calibrated scale.
63KN6E	Packaged	Piece "B" secured with masking tape, upright in a pill box.
676NBM	Photography	
6A26V4	Photography	
6A6PMD	Photography	Digital photography with a Nikon D7000 digital camera and a macro lens at greater than 1000ppi.

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
6DJJ3A	Photography	1. After Dye Stain, Mark found on peice B photographed using 445nm light with 495nm Filter.
6FNYR2	Photography	A canon t5i reflex camera was used using metric witness using grazing light according to established in the field criminology procedures.
6HBQLJ	Photography	Photos taken after each processing step where the print was visible. However, this print would be of no value due to only a few visible ridges. The majority of the print is a smudge on the tape.
6PTZCZ	Photography	Diffused white light
6Q42XY	Photography	Digital Capture. Item 2 submitted into evidence with detected fingerprint located in Area B.
6QVFVT	Photography	
6WEU9X	Photography	
6X8N73	Photography	A canon t5i reflex camera was used using metric witness using grazing light according to established in the field criminology procedures.
6YKFZ6	Photography	was photographed using DSL camera and micro lens
72323Q	Lifting	
74QFQZ	Photography	After the application of the reagent for developing white hi-fi latent prints, it was photographed with a digital reflex camera.
7BTH2T	Photography	Digital processing, ADAMS
7DVDKV	Photography	Digital photography, upload into ADAMS
7LU6Q6	Photography	Item was photographed at 90 degrees and scaled.
7MNKNV	Photography	Photographed under normal white sticky side of piece of tape labeled "B" with scale. Scale has case specific information including case number, exhibit 1, initials, and date
7QLC8R	NONE	No latent prints suitable were developed. Test prints positive.
7ULF2Z	Scanning	

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
7YVLVK	Photography	White Light
87CMFF	Photography	One photograph was taken of the adhesive side of tape B after processing with WetWop.
87VHXG	Photography	1:1 photo with a macro lens on the copy stand with white light provided by ALS.
8ATWMR	Scanning	Photoshop @ 600dpi
8CXMP2	Photography	Proceeds to photo document is used metric witness
8FMP2G	Photography	The white ridge detail that developed on the adhesive side of tape labeled B was photographed.
8H7Q3U	Photography	Overalls, midranges, closeups taken
8HJKEN	Photography	partial print photographed after Titanium Dioxide processing
8JZJRL	Photography	Only photography because of the nature of the evidence
8NAUQ8	Photography CD-R	Digital photos - Canon EOS 60D, 100 mm lens, scale ruler. Recording digital photos of latent print to CD-R.
8PP4V2	Photography	Daylight oblique lighting at the copystand
8UZ8RV	Lifting	used lift tape and placed on a fingerprint card
92UUUF	Photography Scanning	with ALS and orange filter with desktop scanner, overall only
93MK4Z	Photography	The piece was preserved by photography, a ruler was placed next to the piece and photographed at 90 degrees.
93QCUV	Photography	no se revelo ninguna huella lofoscopica. [Requested translation was not received prior to CTS report publication.]
96G9MV	Photography	PHOTO W/SCALE - PRESERVATION OF SPECIMEN ON CLEAR ACETATE
9B6VFF	Photography	
9D82NU	None	

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
9D8WHX	Photography	Photographed Latent Print using camera and scale.
9EFBKX	Photography	THE RESULT IS PHOTOGRAPHICALLY DOCUMENTED, LIKE THE TAPE IS PRESERVED WITH THE USE OF A TRANSPARENT ACETATE.
9FBUHT	Photography	Camera Canon EOS 50D, lens "EF-100 mm 1:2.8 USM".
9G79DX	Photography	Examination quality photographs, using scale and macro lens, of print recovered taken.
9G8CKU	None	
9QD3EH	Photography	
A2WW8Q	Photography	A_SSP: ISO 200, auto white balance, Focus 0.4m, 1.5 second shutter speed with polarizer filter. An overall/object shot was also captured for orientation.
A69XYN	Photography	
A6V84Q	Photography	Foster Freeman DCS (Digital Capture System)
A74A44	Photography	used DSL-R Nikon with macro lens
AA4LY4	Photography	Photographed in RAW format with and without a scale then sent to AFIS
ADJXVK	Photography	
ADMHMU	Photography	
APX84A	submitted to LPU	Tape marked with a B would be packaged and submitted to the latent print unit for identification/ comparison.
AT4JAC	Photography	Photographs taken in RAW.
AVHA6L	Photography	Photographed using white light.
AWJW9D	Photography	After the development of ridge detail with wet powder the section of tape was photographed with a forensic light source. MRM-10 development was photographed with a 450 nm wavelength light source to illuminate the item and an orange barrier filter was placed on the camera lens.

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
AZXJWQ	Photography	digital photography, photo of LP developed with rhodamine 6G and laser at 520 nm
BKG7DW	Photography	
BW9VBG	Photography	macro
C2J72Q	Photography	Photographs of the latent impression were taken during the laser examination.
C3J2UU	Photography	photo taken of latent print on adhesive of tape labeled B
C3V2P4	Photography	
CCMEN3	Photography	fingerprint was photographed with a macro camera lens and linear scale
CGFFT3	Photography	
CGURNM	Photography	Nikon D7100
CPT8FF	print protected with plastic sheet protector	
CQ64M6	Photography	All ridge detail was photographed using the Nikon DSLR camera or the FSIS
CQJDUK	Photography	in white light
CW8FJ3	Photography	Photographed on copy stand with scale, orange filter and ALS. Latent print would be entered into ADAMS system, calibrated, enhanced, converted to grayscale and printed at 1000dpi for entry into AFIS. Latent image would be submitted to Latent Print Unit and item into evidence as per department SOPs.
D38YDK	Photography Pasting Acetate Sheet	Foray ADAMS Imaging System was used for photography. Developed latent print was pasted on acetate sheet
D6FAAN	Photography	Digitally photographed print on adhesive side of Piece B after Wetwop (white light), second round of CA (white light) and second round of R6G (first application to adhesive side) at 515nm using ALS.
D7VD2V	Photography	

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
DB28WQ	Photography	A canon t5i reflex camera was used using metric witness using grazing light according to established in the field criminology procedures.
DEREBL	Photography	Yellow filter 455 ALS
DFGHAU	Photography	Canon EOS 77D + Tamron SP AF 90mm/2.8 macro lens.
DKCAHR	Photography	A canon t5i reflex camera was used using metric witness using grazing light according to established in the field criminology procedures.
DMY7PH	Photography	Five friction ridge images with scale of the latent print observed on the adhesive side of the electrical tape piece labeled "B". The images were obtained during the titanium dioxide processing.
DNQ7MT	Photography	1.- Fijación fotográfica. 2.- Aplicación de acetato para conservar el fragmento lofoscópico. [Requested translation was not received prior to CTS report publication.]
DVBZ6K	Photography	f/45. oblique lighting with flashlight. archived to ADAMS
DZ8MZT	Photography	"Digital Capture". Nikon D800 - Photograph under natural light (macro lens)
E36MCA	[No Methods Reported.]	No friction ridge detail was developed
E4KVHP	None	
E4YE3M	Photography	Any suitable marks developed throughout sequential treatment were marked up and photographed 1:1 using a D810 Nikon digital camera with an AF-5 micro Nikkor 105 mm lens, 8 x 4 Crime Lite light source(s) and appropriate camera filter(s). The camera is linked to DCS5 (Digital Capture System 5)software where the images are exhibited with full audit trails and further DCS5 enhancement tools can be used to improve contrast/remove background interference where applicable. Exhibited images then submitted to the Fingerprint Bureau for further analysis and comparison.
EAM3ZD	Photography	After Cyanoacrylate fuming the latent print was photographed with the Fujifilm IS PRO with oblique lighting and a scale. The latent print was uploaded into the "FORAY" program. The latent print was scaled and enhanced in the following manner, RBG with green filter - Change to gray scale - invert - outline - levels. A print of the original and processed print were made.
EBZMRN	Lifting	Lift Tape

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
ECVB8D	Photography	Photographed latent print on adhesive side after Wet Wop application. Photographed using white light (source: flashlight)
EDAGNN	Photography	Se utilizo el Instructivo de Luces forenses, específicamente la lámpara con color de luz ámbar para huellas después de haber aplicado la ninhidrina al indicio, posteriormente se fotografió y se almaceno en un disco compacto el rastro papilar, donde se le hizo su respectiva cadena de custodia. [Requested translation was not received prior to CTS report publication.]
EL3RYJ	Photography	Digital images are taken at 1000 ppi or greater and saved to secure drive
ET2K2B	Photography	Photographed with a Nikon camera, enhanced with Adobe Photoshop and saved onto a DVD.
ET46YL	Photography	After cyanoacrylate fuming and dye staining, the latent print was photographed and saved on the DSC-4 system using a DSLR camera, an alternate light source (Blue), a yellow filter and a calibrated scale. The image was enhanced in the DSC-4 system and the lift was printed. The lift print included the lift number, central complaint number, my name and ID, the date and time, and where the lift was recovered from. The lift print was submitted as evidence.
	Photography	The item was rinsed with distilled water after photographing and was photographed and saved on the DSC-4 system using a DSLR camera, an alternate light source (Blue), a yellow filter and a calibrated scale. The image was enhanced in the DSC-4 system and the lift was printed. The lift print included the lift number, central complaint number, my name and ID, the date and time, and where the lift was recovered from. The lift print was submitted as evidence.
EV66YJ	Photography	Nikon camera: f13, ISO100, lighting: LED flashlight
EW2LD2	Photography	TECHNICAL PHOTOGRAPHY RAW AND TIFF
EZ4GYP	Photography	
F2CZED	Photography	Upon completion of cyanoacrylate processing, item was photographed using DCS5. Settings of DCS5 were as follows: ISO 1250, F8 and 1/250 shutter speed. Image was captured in gray scale.
F32JYB	Item to be submitted to latent print unit	I placed the evidence back onto the wax paper and sealed the evidence.
F4EYMK	None	

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
F6RPDF	Photography	Scaled photographs were gathered using a Nikon 5200 with a Macro lens in RAW setting. The latent photos were transferred to a CD and submitted as additional evidence.
FFVNLP	Photography	None
FMVZLT	SHIELD	REALIZED THE PROTECT OF THE EVIDENCE WITH TRANSPARENT LIFHTING TAPE
FRMAVQ	Photography	once the print is developed on the fragment with adhesive, it is photographically documented.
FRNBLJ	Photography	Photographed with ALS.
FWKQ9K	Photography	
G97H9F	[No Methods Reported.]	None used, no latent developed.
GAGH8V	Photography	Only a photo document with a ruler is used since it cannot be lifted since it can be damaged
GBWQCP	Photography	and covered with transparent plastic acetate to preserve the fingerprint.
GDKDTJ	Photography	Overall and close up shots
GEW7TD	Photography	Photographed any prints with Crimelite or TracER laser.
GKY3QR	Photography	The method of preservation was photography. A ruler was placed next to the print and photographed at 90 degrees.
GV32FR	Photography	Capture and enhancement processing completed with DCS5 system with daylight rang light (visible filter add on camera Nikon D5), add daylight filter to halogen light source to be come latent print more clear.
GZTQHG	Photography	Digital imaging
H3UYK7	Photography	Photograph with DCS5
HBQW7N	Photography	once the print is developed on the fragment with adhesive, it is photografhically fixed
HLVQV9	Photography	
HRYQYH	Photography	Canon EOS 760D with 100mm macro-objektive.

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
HZF9NC	Photography	digital photo
J2LY7R	Scanning	Hi-resolution scan
JNTMP8	Photography	White light - direct balance lighting/no filter
JX4TUB	Photography	A Nikon D7500 camera and ambient light were used to document the developed friction ridge detail on the control and tape B following the application of white Wet Wop.
K3R27G	Photography	Overalls, midranges, and close ups of the ridge detail were taken post processing using a digital camera. Photos were taken with natural or oblique lighting, and were taken in JPEG and RAW formats.
K4H8KL	Photography	and covered with transparent plastic acetate to preserve the fingerprint
K9HCM7	Photography	Photographic documentation of the ridge detail developed on the adhesive side of specimen B was performed within resolution guidelines. Images to be used for comparative analysis were taken in RAW format, using a Canon 5D full frame camera and a Canon 100mm macro lens. These images were taken with a surface to sensor distance of no greater than 0.49 meters.
KCCF7C	Scanning	Placed processed tape on transparent acetate sheet, scanned at 1000ppi, and uploaded image into ADAMS.
KFBQ2C	Photography	
KLH64G	Photography	scaled and photographed with ALS
KMC7PY	[No Methods Reported.]	Electric tape pieces placed back on to waxed paper after it dried and sealed back into original envelope
KVPWDC	Photography	with scale
KXUMG7	Photography	One (1) image captured using Nikon D810 and digitally processed with Photoshop Creative Cloud. Image calibrated 1:1, >1000 ppi and saved in TIF format on the T: drive.
L69Q7J	Photography	dark ground, blue laser/yellow filter/fluorescent
LMBJXD	Photography	Visualized and photographed after R6G/LASER

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
LPDDP3	Photography	The latent prints were preserved using a digital Nikon D810 camera.
LQQZ8G	Photography	Scaled photographs taken before and after processing.
M4BZDA	digital photography	
M97T9Q	Photography	During step 4), the trace on the sticky side on the piece of electricla tape labeled "B" is illuminated in white light by searching the best contrast. We place a centimeter test being near the fingerprint and photographies are taken.
	Photography	During step 5), orange filter is fixed on the camera, when the trace on the sticky side on the piece of electricla tape labeled "B" is illuminated with the Crimescope in CSS by searching the best contrast. Photographs of the trace are taken.
	Photography	During step 6), the fingerprint has whitened following the treatment on the sticky side of the piece of adhesive tape labeled "B" of black color. We take photographs are taken under white light looking for the best contrast.
M9QCBC	Photography	Digital Photography (Nikon D7000), oblique lighting
MA2CAR	Photography	
MEAKTG	None	
MF8QAB	Photography	
MJ9U74	Photography	B was captured with Nikon D810
MJMH24	Photography	DCS5
MY46Z2	Photography	I photographed the overall evidence item and print "B" with a scale for future analysis.
N3WVEC	Photography	at the photography station, I ensured the camera had the proper settings (set to jpeg & raw format, ISO at 400, Fstop f/8 or higher, camera leveled above evidence at 90 degrees) took a series of overall, midrange and closeup photographs of tape piece B to document ridge detail using white light.
N3XFCD	Photography	
N4B4J7	Photography	RAW, enhancement in Photoshop

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
NLPN72	Photography	
NP9NGB	Photography	Uploaded to ADAMS, processed in Photoshop
P49RHV	Clear plastic sheet protector	The tape labeled "B" was placed sticky side to the clear plastic sheet protector.
P6YXVZ	Photography	White light used for photo.
P8CDKZ	Photography	I took two photographs of the developed print from the adhesive side of the tape.
PARYZZ	Photography	DCS-5 under natural light
PAXHRX	Photography	raw images using fx camera
PH4BYJ	Photography	To develop the impression after observing the development, this was observed in the adhesive tape B, it was documented and it was preserved by photography, using a camera the piece of evidence was photographed.
PNARN8	Photography	Used white light for Photo(Photo 3).
PPPZ22	Photography	Crime scope-455nm.
PUVZRX	Photography	
Q44UK6	Photography	Image was taken with Nikon D-610 camera.
QCEV77	Photography	
QCVA9A	Photography	1:1 photography. Overall, midrange and close-up photos taken.
QN9A8N	Photography	
R4JD43	Photography	Digital, opened and examined on Photoshop.
	Scanning	Scanned into Photoshop at 1200 ppi.
RAP7ZJ	Photography	Item was photographed at 90 degrees and scaled.
RL2EY6	Photography	Photos of latent print were taken using a Nikon D800. Photos were taken under the TracER laser using an orange barrier filter following dye staining with Rhodamine-6G.

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
RUXZBX	Photography	I photographed 2.L2 from strip "B" of item 2 after the Wet Powder Suspension phase.
TA28E6	Photography	Photography would have been used to document the fingermark.
TBXFQV	Photography	Digital photography + ALS on the white light setting only, no goggles - captured one impression on the sticky side of the black tape labeled B
	Adobe Photoshop CC	Image was calibrated and processed for best detail; Added L2 to the composite; Saved on DVD at the completion of the case
TFACLW	Photography	Nikon D5200, images enhanced via Adobe Photoshop, printed and DVD made
TFNVBV	Photography	Viewed under forensic laser and RUVIS.
TJ3V73	Photography	Foster Freeman DCS5 with ALS (White Light).
TNZ6KA	Photography	I then photographed the print using a copy stand.
TQ46G2	Photography	cr2 and tif files retained
TTA8M7	Photography	Latent print 1.1 was photographed using a Nikon D100 with a Nikkor macro lens in the RAW format.
U7FXN6	Photography	"Digital Capture". Took a photograph using a Nikon D800 and Nikon 205mm microlens.
UAGN8D	Photography	After the application of the reagent for developing white hi-fi latent prints, it was photographed with a digital reflex camera.
UBRNCK	Lifting	Latent Lift Card
	Scanning	
UDH3KU	Photography	
UDUJVM	Photography	
UGT6GX	LPPM	Adhesive side - Visible search, remove from wax paper, no hexane used. Treated with white wop ~20 sec. Rinse and view with vis light.
UGWP98	Photography	Photographed latent print after titanium dioxide using fiber optic lighting

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
UHA27C	Photography	PHOTOGRAPHIC DOCUMENTATION OF THE FOUND LOPHOSCOPIC FRAGMENT IS MADE, LIKE IT IS PRESERVED WITH THE USE OF A TRANSPARENT ACETATE. IT IS KEPT AS ITEM 2.1
ULT67V	Photography	Wet Powder Suspension
UNC9NZ	Photography	
UQ668T	Photography	
UQGXQA	Photography	Una vez que la huella latente es observada con una fuente de luz blanca, se realiza una documentación fotográfica para la posterior observación de los detalles de las crestas de fricción, con la utilización de programas digitales en una computadora. [Requested translation was not received prior to CTS report publication.]
UXMGKU	Photography	one image was taken.
V6GZYU	Photography	
VF273Z	Photography	Digital Capturing System (DCS-4). white light source
VH6WDL	Photography	
VJF7W7	Photography	The latent print was photographed. Camera: Canon Power Shot SX20 IS.
VNBQA3	Photography	
VVVQPF	Photography	Photography conducted after processing with white wet powder
VZL67A	Photography	
W7L4XB	Photography	Photography was used to preserv the fingerprint after wet powder suspension (white light).
WBF7X4	Photography	
WCWZZY	Photography	PHOTOGRAPHED WET WOP IMPRESSION. UTILIZED FOSTER FREEMAN CAMERA AND EQUIPMENTS.
WGRR9V	Photography	ALS white light, oblique

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
WQAJG7	Photography	Ridge detail was photographed with and without a scale using a photocopy stand.
WUC7CV	Photography	after Wet Powder (White) - under white light
WUFQ46	[No Methods Reported.]	no preservation
WUFZZV	Photography	with the assistance of ALS, exhibit 2 was photographed for documentation and preservation purposes.
WXGUVR	Photography	One to one photographs.
XFACZD	Photography	
XGNJLU	Photography	
XHKX9M	[No Methods Reported.]	Submitted full piece of evidence
XPEAZA	Photography	Photography in white light in reprosystem.
XQCLRW	Photography	All images were uploaded into the Authenticated Digital Asset Management System (ADAMS) and the laboratory's Information Management System (LIMS).
XWEM4J	Photography	DLSR: #3-1 and #3-2
Y284UH	Photography	White light for WP
Y7LU8Q	Photography	Nikon Camera
Y8FE4X	Photography	
YEC6RT	Photography	Digital photography was used.
YFT8NU	Photography	
YRJ8U3	Photography	photography 495nm filter orange
YUBYDZ	Photography	
YWAP48	Photography	Once the print is developed on the fragment with adhesive, it is photographically fixed.

TABLE 3 - Item 2

WebCode	Preservation Methods	Method Details
YWU4WQ	Photography	*Please note that gloves were worn at all times throughout processing. On 10/28/2021, item 2 was removed from the temporary locker. Tape piece "B" was placed onto a clean sheet of butcher paper with the adhesive side up. Overall and close-up digital photographs were taken with a digital camera positioned at 90 degree angle utilizing a copy stand. A macro lens was used and the images were taken with RAW formatting. Photographs were taken with and without a scale. All photographs were uploaded into Digital TraQ. Through TraQ, the scaled close-up photograph was then opened in Adobe Photoshop. The image was enhanced and calibrated to a 1:1 ratio. All image history is documented in Digital TraQ and the original image remains preserved and unaltered. The enhanced photograph was then printed on photograph paper and secured in an evidence envelope.
ZCH3WP	Photography	L003 was developed on electrical tape labeled B with white Wetwop - Photographed with paddle light
ZHA692	Photography	Digital capturing/processing
ZU2WPY	Photography	white light used, non-inverted and inverted photograph taken. for inverted: enhance, sharpen, smooth used
ZX79XL	Photography	used a digital camera to capture the image of the latent print and adobe photoshop to visually see details in the latent print
ZX89W2	Photography	b&w, 1:1

Response Summary

Participants: 247

Methods Utilized

Lifting	5
Photography	219
Scanning	8

**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
262U3Q	Photography	
26G34E	Photography	Digital Camera
2BNEEU	Green Light Examination	Item examined under a green light source (490-560nm) using the appropriate viewing goggles, following IND treatment. Ridge detail was visible in box A.
	Photography	Under live casework circumstances, I would capture the ridge detail found after IND treatment using the DCS with the green light on the camera system.
2HNXFP	Photography	11/8/21 - Item 3, blue copy paper - L002. Photographer's information: Photographer - [Name]. Photography date - 11/22/21. Capture method - Camera. Lighting - Laser. Lighting Technique - Direct Balance. Filter used - Orange color
2L3LY2	Lifting	Lift tape
2MXADP	Photography	Used after 1, 2-Indanedione and again after Ninhydrin.
2NTRC7	Photography	NIKON D810. ALS at 505nm and 550,570nm Filter
2PQZMB	Photography	After developing the latent print with Iodine Crystal Ampoules , it was documented and preserved with photography with metric witness.
2PUDGY	Photography	
2TJ8YR	Photography	
2W8LN2	None	
338KCW	None	
3B3FFM	Photography	photographed in RAW image w/scale, enhanced via Photoshop
3BGRC7	Photography	Camara.
	Packed	The item was protected whit original packed folder.
3E3QCM	Photography	Photographed the print using the DCS5
3FVHL8	Photography	Digital capture (DCS 5) after Ninhydrin in the White Ring Light.

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
3HQNEK	Scanning	Epson Scanner. Enhancements in Adobe Photoshop
3NR9BN	Scanning	
3TKCX2	Photography	Photography of the fingerprint as described in the methods above
3W2QH2	None	
4KMYJJ	Scanning	One scan of the developed print was taken at 1000 PPI.
4KPMZX	Photography	
4QCL9X	Photography	Documentary photos were taken after each method, saved in JPEG and NEF format, and burned to a DVD.
4R3RM3	Photography	is documented photographically.
4TYZW8	Photography	The latent print was photographed at 90 degrees and scaled.
4V266L	Photography	One (1) photograph taken of RD development noted in Section A after use of 1,2-Indanedione dye stain - LASER ALS and an orange filter utilized to capture RD. Examination quality photograph taken of RD development with camera by Photographer [Name].
4Y42X2	Photography	BP 550 filter for camera
4ZYKY3	Photography	Results were photographed with a calibrated scale.
63KN6E	Packaged	Sheet of paper repackaged in envelope.
676NBM	Photography	
6A26V4	Photography	
6A6PMD	Photography	Developed latent print was scanned with an Epson Perfection 4990 photo scanner at 1200ppi.
6DJJ3A	Photography	Mark found on section D after 1,2-Indanedione. Photographed using 532nm light (green light) and camera filter 550nm.
6FNYR2	Photography	A canon t5i reflex camera was used using metric witness using grazing light according to established in the field criminology procedures.

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
6HBQLJ	Photography	Photos taken after each processing step where the print was visible. This print is a double touch, is very faint, and is of very limited value.
6PTZCZ	Photography	White light with diffuser
6Q42XY	Photography	Digital Capture. Item 3 submitted into evidence with detected fingerprint located in Area A.
6QVFVT	Scanning	Made photocopies of the front and back of the evidence before and after processing.
6WEU9X	Photography	
6X8N73	Photography	A canon t5i reflex camera was used using metric witness using grazing light according to established in the field criminology procedures.
6YKFZ6	Scanning	the print was then scanned using Epson Scanner
72323Q	Scanning	
7BTH2T	Photography	Digital processing ADAMS
7DVDKV	Photography	Digital photography, upload into ADAMS
7LU6Q6	Photography	Item was photographed at 90 degrees and scaled.
7MNKNV	Photography	Photographed the friction ridge detail visible on the piece of paper with normal white light and with scale including case specific information.
	Scanning	Photocopied piece of blue paper after photographs were taken of the friction ridge detail and included in the case notes
7QLC8R	NONE	No latent prints developed.
7ULF2Z	Scanning	
7YVLVK	Photography	IND: LASER, Orange Filter. NIN: White Light
87CMFF	Photography	One photograph was taken of a print in section A after processing with ninhydrin.

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
87VHXG	Photography	1:1 macro photographs taken after DFO/ALS exam. Taken with orange barrier filter on the camera lens and with the ALS set to 475nm.
	Scanning	Color scan taken at 1200 PPI & saved in TIF format.
8ATWMR	Scanning	Photoshop @ 600dpi
8CXMP2	Photography	Proceeds to photo document is used metric witness
8FMP2G	Photography	The purple colored ridge detail that developed on section A of the paper was photographed.
8HJKEN	Photography	Print observed in Section A documented with digital photographs after DFO and Ninhydrin processing
8JZJRL	Photography	Only photographic because of the nature of the evidence.
8NAUQ8	Photography	Digital photos - Canon EOS 60D, 100 mm lens, scale ruler.
	CD-R	Recording digital photos of latent print to CD-R.
8PP4V2	Photography	Image recorded using green 532nm laser
92UUUF	Photography	with ALS and orange filter
	Scanning	with desktop scanner
93MK4Z	Photography	The piece was preserved by photography, a ruler was placed next to the piece and photographed at 90 degrees.
93QCUV	Photography	se documento con fotografia la huella lofoscopica revelada, y se protegió dicho indicio con levantador de gel para evitar contagio. [Requested translation was not received prior to CTS report publication.]
96G9MV	Scanning	MAINTAIN SCANS ON DISC, PRESERVE ORIGINAL SPECIMEN IN SEALED PLASTIC SHEETING
9B6VFF	Photography	
9D82NU	None	
9D8WHX	Photography	Photographed latent print on section A using camera and scale.
	Scanning	Scanned latent print on section A using scanner and scale.

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
9EFBKX	Photography	THE RESULTS ARE PHOTOGRAPHICALLY DOCUMENTED
9FBUHT	Photography	Camera Canon EOS 50D, lens "EF-100 mm 1:2.8 USM".
9G79DX	Photography	Examination quality photographs, using scale and macro lens, of print recovered taken.
9G8CKU	None	
9QD3EH	Scanning	
A2WW8Q	Photography	A_Nin: ISO 200, auto white balance, Focus 0.4m, 1/10 second shutter speed without polarizer filter; A_Nin2: ISO 200, auto white balance, Focus 0.4m, 1 second shutter speed with polarizer filter. An overall/object shot was also captured for orientation.
A69XYN	Photography	
A6V84Q	Photocopy	Friction ridge detected but appeared to be not suitable for source identification. Therefore, not photographed but photocopied for record purposes only.
A74A44	Photography	photographed indanedione impression at 515 nm with orange filter with DSL-R Nikon camera and macro lens
	Scanning	used Epson scanner to scan Item 3
AA4LY4	Photography	Photographed in RAW format with and without a scale then sent to AFIS
ADJXVK	Photography	
ADMHMU	Scanning	flatbed scanner
APX84A	submitted to LPU	Due to the delicate nature of the paper evidence it would be submitted to the latent print unit for identification/comparison.
AT4JAC	Photography	Photographs taken in RAW.
AVHA6L	Photography	475nm ALS with orange filter for Indanedione print. No photograph taken after applying Ninhydrin.
AWJW9D	Scanning	The ridge detail was scanned into tif format at 1200 dpi.
AZXJWQ	Photography	digital photography, photograph of LP developed on Section A

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
BKG7DW	Photography	
BW9VBG	Photography	macro
C2J72Q	Scanning	The latent impression was scanned after ninhydrin.
C3J2UU	Photography	photo taken of latent print in section A
C3V2P4	Photography	
CCMEN3	Photography	fingerprint was photographed with a macro camera lens and linear scale
CGFFT3	Photography	
CGURNM	Photography	Nikon D7100
CPT8FF	Submitted entire exhibit.	
CQ64M6	Photography	All ridge detail was photographed using the Nikon DSLR camera.
CQJDUK	Photography	in white light
CW8FJ3	Scanning	Latent image would then be scanned into ADAMS system, converted to grayscale and printed at 1000 dpi for entry into AFIS as per department SOPs.
D38YDK	Photography	Foray ADAMS Imaging System use for photography
D6FAAN	Photography	Digital photography
D7VD2V	Photography	
DB28WQ	Photography	A canon t5i reflex camera was used using metric witness according to established in the field criminology procedures.
DEREBL	Photography	Orange Filter 455
DFGHAU	Photography	Canon EOS 77D + Tamron SP AF 90mm/2.8 macro lens.
DKCAHR	Photography	A canon t5i reflex camera was used using metric witness according to established in the field criminology procedures.

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
DMY7PH	Photography	Four friction ridge images with scale of the latent print located within quadrant "A" of the piece of blue paper were captured during processing. The images were captured during DFO and Ninhydrin.
DNQ7MT	[No Methods Reported.]	No se reveló material lofoscópico. [Requested translation was not received prior to CTS report publication.]
DVBZ6K	Photography	535/red / oblique lighting with flashlight. f/45. ISO 100 archived to ADAMS
DZ8MZT	Photography	"Digital Capture". Nikon D800 - Photograph under forensic laser (orange filter, macro lens)
E36MCA	[No Methods Reported.]	No friction ridge detail was developed.
E4KVHP	None	
E4YE3M	Photography	Any suitable marks developed throughout sequential treatment were marked up and photographed 1:1 using a D810 Nikon digital camera with an AF-5 micro nikkor 105mm lens, 8x4 Crime Lite light source(s) and appropriate camera filter(s). The camera is linked to DCS5 (Digital Capture System 5)software where the images are exhibited with full audit trails and further DCS5 enhancement tools can be used to improve contrast/remove background interference where applicable. Exhibited images then submitted to the Fingerprint Bureau for further analysis and comparison.
EAM3ZD	Photography	After Ninhydrin processing the developed latent print in quadrant "A" was photographed with the Fujifilm IS PRO with direct lighting and a scale. The latent print was uploaded into the "FORAY" program. The latent print was scaled and enhanced in the following manner, RBG with green filter - Change to gray scale - outline - levels. A print of the original and processed print were made.
ECVB8D	Photography	Photographed after 1,2-Indanedione application. Photographed with light source: Laser at 532nm using orange barrier filter; No photos captured after ninhydrin
EDAGNN	Photography	Se utilizo el Instructivo de Luces forenses, específicamente la lámpara con color de luz ámbar tratadas después de haber aplicado la ninhidrina al indicio, posteriormente se fotografió y se almaceno en un disco compacto el rastro papilar, donde se le hizo su respectiva cadena de custodia. [Requested translation was not received prior to CTS report publication.]
EL3RYJ	Photography	Digital images are taken at 1000 ppi or greater and saved to a secure drive.

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
ET2K2B	Photography	Photographed with a Nikon camera, enhanced with Adobe Photoshop and saved onto a DVD.
ET46YL	Photography	After the Ninhydrin process the latent print was photographed and saved on the DSC-4 system using a DSLR camera, a white light source and a calibrated scale. The image was enhanced in the DSC-4 system and the lift was printed. The lift print included the lift number, central complaint number, my name and ID, the date and time, and where the lift was recovered from. The lift print was submitted as evidence.
EV66YJ	Photography	Photographed at DFO stage only since ninhydrin development did not improve print. Nikon camera: f13, ISO100 with ALS at 495nm with orange filter
EW2LD2	Photography	TECHINCAL PHOTOGRPAHY RAW AND TIFF
EZ4GYP	Photography	
F2CZED	Photography	Upon completion of ninhydrin processing, item was photographed using DCS5. Settings for DCS5 were as follows: ISO 320, F20 and 1/80 shutter speed. Image was captured in gray scale.
F32JYB	Item to be sent to latent print unit	Placed evidence back into original envelope.
F4EYMK	None	
F6RPDF	Photography	Scaled photographs were gathered using a Nikon 5200 with Macro lens and orange barrier in RAW setting. The latent photos were transferred to a CD and submitted as additional evidence.
FFVNLP	Photography	Crimescope wave length= 505 nm & emission filter Red 23A (Tiffen)
FMVZLT	SHIELD	REALIZED THE PROTECT OF THE EVIDENCE WITH TRANSPARENT LIFHTING TAPE
FNQRL7	Photography	Five examination quality photographs were taken of the apparent fingerprint. One was taken without a scale and four were taken with a scale.
FRMAVQ	Photography	is documented photographically, as the fragment is very faint.
FRNBLJ	Photography	Photographed with ALS.

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
FWKQ9K	Photography	
G97H9F	Photography	Documented latent prints in the laboratory during the DFO and Ninhydrin with ALS phases of processing. Utilized 1 inch scale. Nikon D610, 60mm lens. Orange barrier filter. Repro camera rigging system
GAGH8V	Photography	177 / 5000. Resultados de traducción: its disadvantage is that the imprint disappears quickly, so it must be photographed almost immediately, the advantage is that the procedure can be carried out several times.
GBWQCP	Photography	the fingerprint is photographed and the sheet of paper is preserved in the packaging.
GDKDTJ	Photography	Overall, mid range, and close up shots
GEW7TD	Photography	Photographed print development with Crimelite or TracER laser
GKY3QR	Photography	The method of preservation was photography. A ruler was placed next to the print and photographed at 90 degrees.
GV32FR	Photography	Capture and enhancement processing completed with DCS5 system with green rang light (visible filter add on camera Nikon D5), add green filter to halogen light source to be come latent print more clear.
GZTQHG	Photography	digital imaging
H3UYK7	Photography	Photography with forensic laser.
HBQW7N	Photography	is documented photographically
HLVQV9	Photography	
HRYQYH	Photography	Canon EOS 760D with 100mm macro-objektive. Rofin Polylight 530nm. Red filter.
HZF9NC	Photography	digital photos without filter for ninhydrin, with OCB filter for zinc chloride under green laser
J2LY7R	Scanning	Hi-resolution scan
JNTMP8	Photography	Camera - laser/orange filter

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
JX4TUB	Photography	A Nikon D7500 camera and Laser set at 532nm, were used to document the developed friction ridge detail on the Indanedione control. The Nikon D7500 camera and ambient light was used to document the developed friction ridge detail on the Ninhydrin control. The friction ridge detail developed in section A was digitally photographed following the Ninhydrin process only.
K3R27G	Photography	Overall, midranges, and close ups, specifically Section A of the paper, were taken using a digital camera. Photos were taken with natural or oblique lighting, and in JPEG and RAW formats. Photos were taken post application of ninhydrin (after the 3rd application), post 1st processing with the VMD, and post 2nd processing with the VMD.
K4H8KL	Photography	the fingerprint is photographed and the sheet of paper is preserved in the packaging
K9HCM7	Scanning	The ridge detail developed within quadrant A was scanned within resolution guidelines. This included the use of a Tiff file format scanned at 1200 DPI on an EPSON dual lens V750 PRO scanner.
KCCF7C	Scanning	Scanned friction ridge impression of value at 1000ppi and uploaded image into ADAMS.
KFBQ2C	Photography	Orange filter.
KLH64G	Photography	Photographed using bracketing and the TracerLaser after Indanedione
KMC7PY	[No Methods Reported.]	After print developed in section "A" paper was place back into original envelope and sealed.
KMRAEK	Photography	
KVPWDC	Photography	with scale
KXUMG7	Photography	Two (2) images captured using Nikon D810 and digitally processed with Photoshop Creative Cloud. Images calibrated 1:1, >1000 ppi and saved in TIF format on the T: drive.
L69Q7J	Photography	reflected light
LMBJXD	Photography	Visualized and photographed after IND
LPDDP3	Photography	The latent prints were preserved using a digital Nikon D810 camera.

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
LQQZ8G	Photography	Scaled photographs taken before and after processing.
M4BZDA	digital photography	
M97T9Q	Photography	During step 5), orange filter is fixed on the camera when the trace in "A" box is illuminated with the Crimescope in CSS. We place a centimeter test being near the fingerprint and photographies are taken.
	Photography	During step 8), no filter is fixed on the camera when the trace in "A" box is illuminated with the Crimescope in white light. Photographies are realised of the fingerprint with the centimeter test.
M9QCBC	Photography	Digital Photography (Nikon D7000), direct lighting
MA2CAR	Photography	
MEAKTG	None	
MF8QAB	Photography	
MJ9U74	Scanning	A was scanned at 1200 dpi using Epson V800
MJMH24	Photography	DCS5
MY46Z2	Photography	I took an overall photo of the evidence, with a scale, and a close-up photo with a scale of the print from section "A" of the sheet of paper for further analysis.
N3WVEC	Photography	at the photography station, I ensured the camera had the proper settings (set to jpeg & raw format, ISO at 400, Fstop f/8 or higher, camera leveled above evidence at 90 degrees) took a series of overall, midrange and closeup photographs of blue copy paper document insufficient ridge detail using white light.
N3XFCD	Photography	
N4B4J7	Photography	RAW, enhancement in Photoshop
NLPN72	Photography	
NP9NGB	Photography	Uploaded to ADAMS, processed in Photoshop.
P49RHV	None	The item was packaged in the original packaging.

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
P6YXVZ	Photography	Orange filter used with IND photo.
P8CDKZ	Photography	I took two photographs of the developed print from the piece of paper.
PARYZZ	Photography	Viewed w/ forensic laser and photographed
PAXHRX	Photography	raw images using fx camera
PH4BYJ	Photography	After observing the development, in approximately 3 minutes, it was observed in section A, it was documented and preserved by photography, using a camera, the piece of evidence was photographed.
PNARN8	Photography	Post-Indane process, item is enhanced with ALS for photo(Photo 4).
PPPZ22	Photography	Crime scope-455nm, for DFO prints.
	Scanning	For Ninhydrin prints.
PUVZRX	Photography	
Q44UK6	Photography	Images were taken with Nikon D-610 camera.
QCEV77	Photography	orange filter, ALS at 505nm
QCVA9A	Photography	1:1 photography. Overall, midrange and close-up photos taken. Documentary photos only.
QN9A8N	Photography	
R4JD43	Scanning	Scanned into Photoshop at 1200 ppi
RAP7ZJ	Photography	The latent print was photographed at 90 degrees and scaled.
RL2EY6	Photography	Photos of latent print were taken using a Nikon D800. Photos were taken under the TracER laser using an orange barrier filter following 1,2-Indanedione and under white light following Ninhydrin.
RUXZBX	Photography	I photographed 2.L3 from section A of item 3 after the 1,2-Indanedione phase.
TA28E6	Photography	Photography would have been used to document the fingermark.

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
TBXFQV	Photography	Digital photography/orange filter + Laser - captured impression in section A
	Adobe Photoshop CC	Image was calibrated and processed for best detail; Added L3 to the composite; Saved on a DVD at the completion of the case
TFACLW	Photography	Nikon D5200, images enhanced via Adobe Photoshop, printed and DVD made
TFNVBV	Photography	Viewed under visible light
TJ3V73	Photography	Foster Freeman DCS5 with ALS, Orange filter 550nm.
TNZ6KA	Scanning	I then scanned the print to a computer.
TQ46G2	Photography	cr2 and tif files retained
	Scanning	scanned at 1200dpi; retained as a tif file
TTA8M7	Photography	Latent print 3.1 was photographed using a Nikon D100 with a Nikkor macro lens in the RAW format.
U7FXN6	Photography	"Digital Capture". Took a photograph using a Nikon D800, Nikon 105mm microlens and Nikon 056 orange filter.
UBRNCK	Scanning	
UDH3KU	Photography	
UDUJVM	Photography	
UGWP98	Photography	Photographed using green laser at approx 532nm with orange filter
UHA27C	Photography	PHOTO DOCUMENTATION OF THE RESULT OBTAINED IS MADE
ULT67V	Photography	1,2-Indanedione
UM7UBT	Photography	2 photos plus 2 overalls
UNC9NZ	Photography	
UQ668T	Photography	

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
UXMGKU	Photography	Two images were taken.
VF273Z	Photography	Digital Capturing System (DCS-4). DFO: green light(500-548nm) with filter OG-550. Ninhydrine: white light source
VH6WDL	Photography	
VJF7W7	Photography	The latent print was photographed. Camera: Canon Power Shot SX20 IS.
VNBQA3	Photography	
VVVQPF	Photography	Photography conducted after processing with ninhydrin
VYAL6C	Photography	I placed the camera on the tripod, then I took a photo.
VZL67A	Photography	
W7L4XB	Photography	Photography was used to preserv the fingerprint after Indanedione (green light, orange/red filter) and Ninhydrin (white light).
W7PNPK	Photography	The latent prints recovered are photographed by using DCS4 Imaging device (white light and GG495 filter) , a paper copy is sent to the information branch for comparison on the data base and the soft copy are kept on the hard disk.
WBF7X4	Photography	
WCWZZY	Photography	PHTOGRAPHED INDANEDIONE IMPRESSION. UTILIZED FOSTER FREEMAN CAMERA AND EQUIPMENT AND USED BRIGHT BEAM FORENSIC LASER.
WGRR9V	Photography	ALS white 000 and 550 green filter.
WQAJG7	Photography	Ridge detail was photographed with and without a scale using a photocopy stand.
WUC7CV	Photography	after DFO - in alternate light source at 505 nm using a orange colored bandpass filter
	Photography	after Ninhydrin - under white light
WUFQ46	[No Methods Reported.]	no preservation

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
WUFZZV	Photography	Exhibit 3 was photographed for documentation and preservation, using the assistance of ALS.
WXGUVR	Photography	One to one photographs
XFACZD	Photography	
XGNJLU	Photography	used orange barrier filter and AFF1 filter on camera lens
XPEAZA	Photography	Reprophotography with Foster+Freeman S82 515nm green handlight with OG590 orange filter in front of camera lens.
XQCLRW	Photography	All images were uploaded into the Authenticated Digital Asset Management System (ADAMS) and the laboratory's Information Management System (LIMS).
XWEM4J	Photography	DSLR #2
Y284UH	Photography	For DFO blue-green light and orange filter, white light for NH
Y7LU8Q	Scanning	Epson Scanner
Y8FE4X	Photography	
YEC6RT	Photography	Digital photography used.
YFT8NU	Photography	
YRJ8U3	Photography	photography 495nm filter orange
YUBYDZ	Photography	
YWAP48	Photography	is documented photographically

TABLE 3 - Item 3

WebCode	Preservation Methods	Method Details
YWU4WQ	Photography	*Please note that gloves were worn at all times throughout processing. On 10/28/2021, item 3 was removed from the temporary locker and placed onto a clean sheet of butcher paper. Overall and close-up digital photographs were taken with a digital camera positioned at 90 degree angle utilizing a copy stand. A macro lens was used and the images were taken with RAW formatting. Photographs were taken with and with a scale. All photographs were uploaded into Digital TraQ. Through TraQ, the scaled close-up photograph was then opened in Adobe Photoshop. The image was enhanced and calibrated to a 1:1 ratio. All image history is documented in Digital TraQ and the original image remains preserved and unaltered. The enhanced photograph was then printed on photograph paper and secured in an evidence envelope.
ZCH3WP	Photography	L002 developed in Section A using IND-Zn - Photographed by FPB Section using Laser (532nm)/Orange filter
	Photography	L002 was still visible in Section A after processing with NIN - Photographed with 2 paddle lights
ZHA692	Photography	Digital capturing/processing
ZU2WPY	Photography	Shutter speed 1/180, white light with green filter used
ZX79XL	Photography	used a digital camera to capture the image of the latent print and adobe photoshop to visually see details in the latent print
	Scanning	scanned Ninhydrin print to capture the image of the latent print and adobe photoshop to visually see details in the latent print
ZX89W2	photocopy	

Response Summary

Participants: 243

Methods Utilized

Lifting	1
Photography	202
Scanning	30

**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 Pattern(s)? Arch	Loop	Whorl	WebCode		First Level Pattern(s)? Arch	Loop	Whorl
262U3Q			✓		4R3RM3	N/A			
26G34E			✓		4TYZW8	N/A			
2BNEEU	N/A				4UBYRG	N/A			
2HNXFP			✓	✓	4V266L			✓	
2L3LY2			✓	✓	4Y42X2	N/A			
2MXADP			✓		4ZYKY3			✓	
2NTRC7			✓		63KN6E	N/A			
2PQZMB	N/A				676NBM			✓	
2PUDGY			✓		6A26V4	N/A			
2TJ8YR			✓		6A6PMD			✓	
2UJ6EU	N/A				6DJJ3A			✓	
2W8LN2			✓		6FNYR2	N/A			
338KCW		✓			6HBQLJ			✓	
3B3FFM	N/A				6PTZCZ			✓	
3BGRC7	N/A				6Q42XY			✓	
3E3QCM	N/A				6QVFVT	N/A			
3FVHL8			✓		6WEU9X			✓	
3HQNEK			✓	✓	6X8N73	N/A			
3NR9BN			✓		6YKFZ6	N/A			
3TKCX2			✓		72323Q			✓	
3W2QH2			✓		74QFQZ	N/A			
4KMYJJ	N/A				7BTH2T	N/A			
4KPMZX			✓		7DVDKV	N/A			
4QCL9X	N/A				7LU6Q6	N/A			

TABLE 4 - Item 1

WebCode		First Level Pattern(s)? Arch	Loop	Whorl	WebCode		First Level Pattern(s)? Arch	Loop	Whorl
7MNKNV	N/A				9G8CKU			✓	
7QLC8R			✓		9QD3EH			✓	✓
7ULF2Z	N/A				A2WW8Q	N/A			
7YVLVK			✓		A69XYN	N/A			
87CMFF	Not Suitable				A6V84Q			✓	
87VHXG			✓	✓	A74A44			✓	
8ATWMR			✓		AA4LY4				✓
8CXMP2	N/A				ADJXVK			✓	
8FMP2G			✓	✓	ADMHMU			✓	
8H7Q3U	N/A				APX84A	N/A			
8HJKEN	N/A				AT4JAC			✓	
8JZJRL			✓		AVHA6L			✓	
8NAUQ8			✓		AWJW9D	N/A			
8PP4V2			✓		AZXJWQ			✓	
8UZ8RV			✓		BKG7DW			✓	
92UUUF			✓		BW9VBG			✓	
93MK4Z	N/A				C2J72Q			✓	
93QCUV			✓		C3J2UU	N/A			
96G9MV			✓	✓	C3V2P4			✓	
9B6VFF	N/A				CCMEN3			✓	
9D82NU			✓		CGFFT3			✓	
9D8WHX			✓		CGURNM			✓	
9EFBKX	N/A				CPT8FF	N/A			
9FBUHT			✓		CQ64M6	N/A			
9G79DX	N/A				CQJDUK			✓	

TABLE 4 - Item 1

WebCode		First Level Pattern(s)? Arch	Loop	Whorl	WebCode		First Level Pattern(s)? Arch	Loop	Whorl
CW8FJ3	N/A				F32JYB	Not Suitable			
D38YDK			✓		F4EYMK			✓	
D6FAAN			✓		F6RPDF	N/A			
D7VD2V			✓		FFVNLP	N/A			
DB28WQ	N/A				FMVZLT	N/A			
DEREBL			✓		FNQRL7	N/A			
DFGHAU	N/A				FRMAVQ	N/A			
DKCAHR	N/A				FRNBLJ			✓	
DMY7PH	N/A				FWKQ9K			✓	
DNQ7MT				✓	G97H9F	N/A			
DVBZ6K			✓		GAGH8V	N/A			
DZ8MZT	N/A				GBWQCP	N/A			
E36MCA	N/A				GDKDTJ			✓	
E4KVHP			✓		GEW7TD	N/A			
E4YE3M			✓		GKY3QR	N/A			
EAM3ZD	N/A				GV32FR			✓	
EBZMRN			✓		GZTQHG			✓	
ECVB8D			✓		H3UYK7	N/A			
EDAGNN	N/A				HBQW7N	N/A			
ET2K2B			✓		HLVQV9	N/A			
ET46YL	N/A				HRYQYH	N/A			
EV66YJ			✓		HZF9NC			✓	
EW2LD2			✓		J2LY7R			✓	
EZ4GYP			✓		JNTMP8			✓	
F2CZED	N/A				JX4TUB			✓	

TABLE 4 - Item 1

WebCode		First Level Pattern(s)? Arch	Loop	Whorl	WebCode		First Level Pattern(s)? Arch	Loop	Whorl
K3R27G	N/A				N3WVEC	N/A			
K4H8KL	N/A				N3XFCD			✓	
K6FFVQ			✓		N4B4J7	N/A			
K9HCM7	N/A				NLPN72			✓	
KCCF7C			✓		NP9NGB			✓	
KFBQ2C			✓		P49RHV	N/A			
KLH64G			✓		P6YXVZ			✓	
KMC7PY	Not Suitable				P8CDKZ			✓	
KMRAEK			✓		PARYZZ	N/A			
KVPWDC			✓		PAXHRX	N/A			
KXUMG7			✓		PH4BYJ	N/A			
L69Q7J	N/A				PNARN8			✓	
LM9MK9			✓		PPPZ22	N/A			
LMBJXD			✓		PUVZRX			✓	
LPDDP3	N/A				Q44UK6			✓	
LQQZ8G			✓		QCEV77			✓	
M4BZDA	N/A				QCVA9A	N/A			
M97T9Q			✓		QN9A8N			✓	
M9QCBC			✓	✓	QY862C	N/A			
MA2CAR			✓		R4JD43			✓	
MEAKTG			✓		RAP7ZJ	N/A			
MF8QAB	N/A				RL2EY6			✓	
MJ9U74	Not Suitable				RQUHN3	N/A			
MJMH24	N/A				RUXZBX			✓	
MY46Z2			✓		TA28E6	N/A			

TABLE 4 - Item 1

WebCode		First Level Pattern(s)? Arch	Loop	Whorl
TBXFQV			✓	
TFACLW			✓	
TFNVBV	N/A			
TJ3V73	N/A			
TNZ6KA			✓	
TQ46G2			✓	
TTA8M7			✓	✓
U7FXN6	N/A			
UAGN8D	N/A			
UB868D			✓	
UBRNCK	N/A			
UDH3KU			✓	
UDUJVM			✓	
UGT6GX	N/A			
UGWP98	N/A			
UHA27C	N/A			
ULT67V			✓	
UM7UBT	N/A			
UNC9NZ			✓	
UQ668T	N/A			
UQGXQA			✓	
UXMGKU	N/A			
V6GZYU	N/A			
VF273Z			✓	
VJF7W7			✓	
VLLJKY	N/A			
VNBQA3	N/A			
VVVQPF			✓	
VYAL6C			✓	
VZL67A			✓	
W7L4XB	N/A			
W7PNPK			✓	
WBF7X4	N/A			
WCWZZY			✓	
WGRR9V			✓	
WQAJG7			✓	
WUC7CV			✓	
WUFQ46			✓	✓
WUFZZV			✓	
WXGUVR			✓	
XFACZD		✓	✓	✓
XGNJLU			✓	
XHKX9M	N/A			
XPEAZA		✓	✓	✓
XQCLRW	N/A			
XWEM4J			✓	✓
Y284UH			✓	
Y7LU8Q			✓	
Y8FE4X	N/A			
YEC6RT			✓	

TABLE 4 - Item 1

WebCode	First Level Pattern(s)? Arch	Loop	Whorl	WebCode	First Level Pattern(s)? Arch	Loop	Whorl
YFT8NU		✓					
YRJ8U3		✓					
YUBYDZ		✓					
YWAP48	N/A						
YWU4WQ	N/A						
ZCH3WP		✓					
ZCJR6T	N/A						
ZHA692	N/A						
ZU2WPY	N/A						
ZX79XL	N/A						
ZX89W2		✓					

Item 1 - Findings Summary Total Participants: 265

1st Level	Arch	Loop	Whorl	Not Suitable	N/A
Total	3	144	15	4	108

**NOTE: These numbers may not add up to the total # of participants, as a participant may have selected more than one pattern option.*

TABLE 4 - Item 2

WebCode		First Level Pattern(s)? Arch	Loop	Whorl	WebCode		First Level Pattern(s)? Arch	Loop	Whorl
262U3Q		✓	✓		4UBYRG	N/A			
26G34E		✓			4V266L		✓	✓	
2BNEEU	N/A				4Y42X2	N/A			
2HNXFP		✓			4ZYKY3		✓		
2L3LY2	Not Suitable				63KN6E	N/A			
2MXADP		✓			676NBM		✓	✓	
2NTRC7		✓	✓		6A26V4	N/A			
2PQZMB	N/A				6A6PMD	Not Suitable			
2PUDGY	Not Suitable				6DJJ3A		✓		
2TJ8YR		✓			6FNYR2	N/A			
2UJ6EU	N/A				6HBQLJ	Not Suitable			
2W8LN2		✓			6PTZCZ			✓	
338KCW		✓			6Q42XY		✓	✓	
3B3FFM	N/A				6QVFVT	N/A			
3BGRC7	N/A				6WEU9X		✓		
3E3QCM	N/A				6X8N73	N/A			
3FVHL8		✓			6YKFZ6	N/A			
3HQNEK		✓	✓		72323Q		✓		
3NR9BN	Not Suitable				74QFQZ	N/A			
3TKCX2		✓			7BTH2T	N/A			
3W2QH2		✓	✓		7DVDKV	N/A			
4KMYJJ	N/A				7LU6Q6	N/A			
4KPMZX		✓			7MNKNV	N/A			
4QCL9X	N/A				7QLC8R	Not Suitable			
4TYZW8	N/A				7ULF2Z	N/A			

TABLE 4 - Item 2

WebCode		First Level Pattern(s)? Arch	Loop	Whorl
7YVLVK		✓		
87CMFF	Not Suitable			
87VHXG	Not Suitable			
8ATWMR		✓	✓	
8CXMP2	N/A			
8FMP2G		✓	✓	
8H7Q3U	N/A			
8HJKEN	N/A			
8JZJRL		✓		
8NAUQ8		✓		
8PP4V2		✓		
8UZ8RV	Not Suitable			
92UUUF		✓		
93MK4Z	N/A			
93QCUV	N/A			
96G9MV		✓		
9B6VFF	N/A			
9D82NU		✓		
9D8WHX		✓		
9EFBKX	N/A			
9FBUHT		✓		
9G79DX	N/A			
9G8CKU		✓	✓	
9QD3EH	Not Suitable			
A2WW8Q	N/A			
A69XYN	N/A			
A6V84Q		✓	✓	
A74A44		✓	✓	
AA4LY4		✓		
ADJXVK		✓		
ADMHMU		✓		
APX84A	N/A			
AT4JAC		✓		
AVHA6L		✓		
AWJW9D	N/A			
AZXJWQ		✓		
BKG7DW			✓	
BW9VBG		✓		
C2J72Q		✓	✓	
C3J2UU	N/A			
C3V2P4		✓		
CCMEN3		✓		
CGFFT3		✓		
CGURNM		✓	✓	
CPT8FF	N/A			
CQ64M6	N/A			
CQJDUK			✓	
CW8FJ3	Not Suitable			
D38YDK		✓		
D6FAAN		✓		

TABLE 4 - Item 2

WebCode		First Level Pattern(s)? Arch	Loop	Whorl
D7VD2V		✓		
DB28WQ	N/A			
DEREBL		✓		
DFGHAU	N/A			
DKCAHR	N/A			
DMY7PH	N/A			
DNQ7MT		✓		
DVBZ6K		✓		
DZ8MZT	N/A			
E36MCA	Not Suitable			
E4KVHP		✓		
E4YE3M	Not Suitable			
EAM3ZD	N/A			
EBZMRN	Not Suitable			
ECVB8D		✓	✓	
EDAGNN	N/A			
ET2K2B	Not Suitable			
ET46YL	N/A			
EV66YJ		✓		
EW2LD2	N/A			
EZ4GYP	Not Suitable			
F2CZED	N/A			
F32JYB		✓		
F4EYMK		✓	✓	
F6RPDF	N/A			

WebCode		First Level Pattern(s)? Arch	Loop	Whorl
FFVNLP	N/A			
FMVZLT	N/A			
FNQRL7	N/A			
FRMAVQ	N/A			
FRNBLJ		✓		
FWKQ9K		✓		
G97H9F	N/A			
GAGH8V	N/A			
GBWQCP	N/A			
GDKDTJ		✓		
GEW7TD	N/A			
GKY3QR	N/A			
GV32FR		✓		
GZTQHG		✓		
H3UYK7	N/A			
HBQW7N	N/A			
HLVQV9	N/A			
HRYQYH	N/A			
HZF9NC		✓		
J2LY7R		✓		
JNTMP8		✓	✓	
JX4TUB		✓		
K3R27G	N/A			
K4H8KL	N/A			
K6FFVQ	Not Suitable			

TABLE 4 - Item 2

WebCode		First Level Pattern(s)? Arch	Loop	Whorl	WebCode		First Level Pattern(s)? Arch	Loop	Whorl
K9HCM7	N/A				NLPN72		✓		
KCCF7C		✓	✓		NP9NGB		✓		
KFBQ2C		✓			P49RHV	N/A			
KLH64G		✓			P6YXVZ		✓		
KMC7PY		✓			P8CDKZ		✓		
KMRAEK	N/A				PARYZZ	N/A			
KVPWDC	Not Suitable				PAXHRX	N/A			
KXUMG7		✓			PH4BYJ	N/A			
L69Q7J	N/A				PNARN8		✓	✓	
LM9MK9		✓			PPPZ22	N/A			
LMBJXD		✓			PUVZRX	Not Suitable			
LPDDP3	N/A				Q44UK6		✓	✓	
LQQZ8G		✓			QCEV77		✓		
M4BZDA	N/A				QCVA9A	N/A			
M97T9Q		✓			QN9A8N		✓		
M9QCBC		✓			QY862C	N/A			
MA2CAR			✓		R4JD43	Not Suitable			
MEAKTG		✓			RAP7ZJ	N/A			
MF8QAB	N/A				RL2EY6		✓	✓	
MJ9U74		✓			RQUHN3	N/A			
MJMH24	N/A				RUXZBX		✓		
MY46Z2		✓			TA28E6	N/A			
N3WVEC	N/A				TBXFQV		✓	✓	
N3XFCD		✓	✓		TFACLW	Not Suitable			
N4B4J7	N/A				TFNVBV	N/A			

TABLE 4 - Item 2

WebCode		First Level Pattern(s)? Arch	Loop	Whorl	WebCode		First Level Pattern(s)? Arch	Loop	Whorl
TJ3V73	N/A				VZL67A		✓		
TNZ6KA		✓			W7L4XB	N/A			
TQ46G2		✓	✓		W7PNPK	Not Suitable			
TTA8M7	Not Suitable				WBF7X4	N/A			
U7FXN6	N/A				WCWZZY		✓		
UAGN8D	N/A				WGRR9V			✓	
UB868D		✓			WQAJG7	Not Suitable			
UBRNCK	N/A				WUC7CV		✓		
UDH3KU			✓		WUFQ46		✓	✓	
UDUJVM	Not Suitable				WUFZZV		✓		
UGT6GX	N/A				WXGUVR		✓		
UGWP98	N/A				XFACZD		✓		✓
UHA27C	N/A				XGNJLU		✓		
ULT67V		✓			XHKX9M	N/A			
UNC9NZ		✓			XPEAZA		✓	✓	✓
UQ668T	N/A				XQCLRW	N/A			
UQGXQA		✓			XWEM4J		✓		
UXMGKU	N/A				Y284UH		✓	✓	
V6GZYU	N/A				Y7LU8Q	Not Suitable			
VF273Z		✓			Y8FE4X	N/A			
VJF7W7		✓			YEC6RT		✓		
VLLJKY	N/A				YFT8NU	Not Suitable			
VNBQA3	N/A				YRJ8U3		✓		
VVVQPF		✓	✓		YUBYDZ		✓	✓	
VYAL6C	N/A				YWAP48	N/A			

TABLE 4 - Item 2

WebCode		First Level Pattern(s)? Arch	Loop	Whorl	WebCode	First Level Pattern(s)? Arch	Loop	Whorl
YWU4WQ	N/A							
ZCH3WP		✓						
ZCJR6T	N/A							
ZHA692	N/A							
ZU2WPY	N/A							
ZX79XL	N/A							
ZX89W2		✓	✓					

Item 2 - Findings Summary Total Participants: 265

1st Level	Arch	Loop	Whorl	Not Suitable	N/A
Total	116	36	2	27	108

**NOTE: These numbers may not add up to the total # of participants, as a participant may have selected more than one pattern option.*

TABLE 4 - Item 3

WebCode		First Level Pattern(s)? Arch	Loop	Whorl
262U3Q	Not Suitable			
26G34E			✓	
2BNEEU	N/A			
2HNXFP			✓	
2L3LY2	N/A			
2MXADP			✓	
2NTRC7			✓	
2PQZMB	N/A			
2PUDGY			✓	
2TJ8YR			✓	
2UJ6EU	N/A			
2W8LN2			✓	
338KCW			✓	
3B3FFM	N/A			
3BGRC7	N/A			
3E3QCM	N/A			
3FVHL8			✓	
3HQNEK	Not Suitable			
3NR9BN	Not Suitable			
3TKCX2			✓	
3W2QH2			✓	
4KPMZX			✓	
4QCL9X	N/A			
4TYZW8	N/A			
4UBYRG	N/A			
4V266L			✓	
4Y42X2	N/A			
4ZYKY3			✓	
63KN6E	N/A			
676NBM			✓	
6A26V4	N/A			
6A6PMD		✓	✓	
6DJJ3A			✓	
6FNYR2	N/A			
6HBQLJ			✓	
6PTZCZ		✓	✓	
6Q42XY			✓	
6QVFVT	N/A			
6WEU9X			✓	
6X8N73	N/A			
6YKFZ6	N/A			
72323Q			✓	
74QFQZ	N/A			
7BTH2T	N/A			
7DVDKV	N/A			
7MNKNV	N/A			
7QLC8R	Not Suitable			
7ULF2Z	N/A			
7YVLVK			✓	
87CMFF	Not Suitable			

TABLE 4 - Item 3

WebCode		First Level Pattern(s)? Arch	Loop	Whorl
87VHXG			✓	✓
8ATWMR			✓	✓
8CXMP2	N/A			
8FMP2G			✓	✓
8H7Q3U	N/A			
8HJKEN	N/A			
8JZJRL			✓	
8NAUQ8			✓	
8PP4V2			✓	
8UZ8RV	N/A			
92UUUF			✓	
93MK4Z	N/A			
93QCUV			✓	
96G9MV			✓	✓
9B6VFF	N/A			
9D82NU			✓	
9D8WHX			✓	
9EFBKX	N/A			
9FBUHT			✓	
9G79DX	N/A			
9G8CKU			✓	
9QD3EH			✓	
A2WW8Q	N/A			
A69XYN	N/A			
A6V84Q	Not Suitable			
A74A44			✓	
AA4LY4			✓	
ADJXVK			✓	
ADMHMU			✓	
APX84A	N/A			
AT4JAC			✓	
AVHA6L			✓	✓
AWJW9D	N/A			
AZXJWQ			✓	
BKG7DW			✓	
BW9VBG			✓	
C2J72Q		✓	✓	✓
C3J2UU	N/A			
C3V2P4			✓	
CCMEN3			✓	
CGFFT3			✓	
CGURNM			✓	
CPT8FF	N/A			
CQ64M6	N/A			
CQJDUK			✓	
CW8FJ3	N/A			
D38YDK			✓	
D6FAAN			✓	
D7VD2V	Not Suitable			
DB28WQ	N/A			

TABLE 4 - Item 3

WebCode	First Level Pattern(s)?			WebCode	First Level Pattern(s)?		
		Arch	Loop	Whorl		Arch	Loop	Whorl
DEREBL	Not Suitable				FRNBLJ		✓	
DFGHAU	N/A				FWKQ9K		✓	
DKCAHR	N/A				G97H9F	N/A		
DMY7PH	N/A				GAGH8V	N/A		
DVBZ6K			✓		GBWQCP	N/A		
DZ8MZT	N/A				GDKDTJ		✓	
E36MCA	Not Suitable				GEW7TD	N/A		
E4KVHP			✓		GKY3QR	N/A		
E4YE3M			✓		GV32FR		✓	
EAM3ZD	N/A				GZTQHG	Not Suitable		
EBZMRN	N/A				H3UYK7	N/A		
ECVB8D			✓		HBQW7N	N/A		
ET2K2B			✓		HLVQV9	N/A		
ET46YL	N/A				HRYQYH	N/A		
EV66YJ			✓		HZF9NC		✓	
EW2LD2	N/A				J2LY7R		✓	
EZ4GYP	Not Suitable				JNTMP8		✓	
F2CZED	N/A				JX4TUB		✓	
F32JYB			✓		K3R27G	N/A		
F4EYMK			✓		K4H8KL	N/A		
F6RPDF	N/A				K6FFVQ	Not Suitable		
FFVNLP	N/A				K9HCM7	N/A		
FMVZLT	N/A				KCCF7C		✓	
FNQRL7	N/A				KFBQ2C		✓	
FRMAVQ	N/A				KLH64G		✓	

TABLE 4 - Item 3

WebCode		First Level Pattern(s)? Arch	Loop	Whorl	WebCode		First Level Pattern(s)? Arch	Loop	Whorl
KMC7PY	Not Suitable				P8CDKZ			✓	
KMRAEK			✓		PARYZZ	N/A			
KVPWDC			✓		PAXHRX	N/A			
KXUMG7			✓		PH4BYJ	N/A			
L69Q7J	N/A				PNARN8			✓	
LM9MK9	Not Suitable				PPPZ22	N/A			
LMBJXD			✓		PUVZRX			✓	
LPDDP3	N/A				Q44UK6			✓	
LQQZ8G			✓		QCEV77			✓	
M4BZDA	N/A				QCVA9A	N/A			
M97T9Q			✓		QN9A8N			✓	
M9QCBC			✓		QY862C	N/A			
MA2CAR			✓		R4JD43			✓	
MEAKTG			✓		RAP7ZJ	N/A			
MF8QAB	N/A				RL2EY6			✓	
MJ9U74			✓		RQUHN3	N/A			
MJMH24	N/A				RUXZBX			✓	
MY46Z2			✓		TA28E6	N/A			
N3WVEC	N/A				TBXFQV			✓	
N3XFCD			✓		TFACLW			✓	
N4B4J7	N/A				TFNVBV	N/A			
NLPN72			✓		TJ3V73	N/A			
NP9NGB			✓		TNZ6KA			✓	
P49RHV	N/A				TQ46G2		✓	✓	
P6YXVZ			✓		TTA8M7	Not Suitable			

TABLE 4 - Item 3

WebCode		First Level Pattern(s)? Arch	Loop	Whorl	WebCode		First Level Pattern(s)? Arch	Loop	Whorl
U7FXN6	N/A				WCWZZY			✓	
UAGN8D	N/A				WGRR9V	Not Suitable			
UB868D			✓		WQAJG7			✓	
UBRNCK	N/A				WUC7CV			✓	✓
UDH3KU			✓		WUFQ46			✓	✓
UDUJVM			✓		WUFZZV	Not Suitable			
UGT6GX	N/A				WXGUVR			✓	
UGWP98	N/A				XFACZD				✓
UHA27C	N/A				XGNJLU			✓	
ULT67V			✓		XHKX9M	N/A			
UM7UBT	N/A				XPEAZA		✓	✓	
UNC9NZ			✓		XQCLRW	N/A			
UQ668T	N/A				XWEM4J			✓	
UXMGKU	N/A				Y284UH			✓	✓
V6GZYU	N/A				Y7LU8Q			✓	
VF273Z			✓		Y8FE4X	N/A			
VJF7W7			✓		YEC6RT			✓	✓
VLLJKY	N/A				YFT8NU			✓	
VNBQA3	N/A				YRJ8U3			✓	
VVVQPF			✓		YUBYDZ	Not Suitable			
VYAL6C	Not Suitable				YWAP48	N/A			
VZL67A			✓		YWU4WQ	N/A			
W7L4XB	N/A				ZCH3WP			✓	
W7PNPK			✓		ZCJR6T	N/A			
WBF7X4	N/A				ZHA692	N/A			

TABLE 4 - Item 3

WebCode	First Level Pattern(s)?			WebCode	First Level Pattern(s)?		
	Arch	Loop	Whorl		Arch	Loop	Whorl
ZU2WPY	N/A						
ZX79XL	N/A						
ZX89W2	Not Suitable						

Item 3 - Findings Summary Total Participants: 265

1st Level	Arch	Loop	Whorl	Not Suitable	N/A
Total	5	125	11	20	107

**NOTE: These numbers may not add up to the total # of participants, as a participant may have selected more than one pattern option.*

Additional Comments

TABLE 5

WebCode	Additional Comments
262U3Q	For Item 3, the paper had to be left in the humidity chamber for approximately 10 hours before any ridge detail at all was visible. After the 10 hours, a very faint impression was visible and preserved. The item was placed back in the humidity chamber to see if the impression could be further developed/enhanced. No improvement was observed after approximately 6 additional hours in the chamber. The developed impression only has ridges visible around the perimeter and would not be considered suitable in casework. Based on the few ridges observed, it appears most likely that the pattern would be a loop or a whorl; however, the entire center of the impression is void of any ridge flow. Because of this, a response of "Not suitable for determination" was deemed most appropriate for this impression.
2BNEEU	PPE was worn at all times and all processes were carried out in accordance with laboratory policies and Technical Procedures. I have completed sequential examinations as per instructions advising me this test was to simulate a serious/major crime. There was no indication these items had been wet, therefore processes were selected accordingly. Control samples were treated for each chemical process applied and all provided positive results. I have maintained appropriate records on our Forensic Case Management System and saved correspondence in the correct locations.
2L3LY2	Adhesive side for item 2, Cyanoacrylate fuming worked and visually seen detail, however upon recovering fingerprint, not enough sufficient detail was present.
2PQZMB	Good practice exercise.
2UJ6EU	This proficiency test was utilized for an external crime scene investigation proficiency test. Due to the processing techniques for these types of items only being performed in the laboratory, no actual processing was performed. The items were documented, photographed and collected for processing at the laboratory as they would be at a crime scene.
4QCL9X	The results apply to the items tested or data provided, as received. All relevant samples have been retained by the [Laboratory] as required by the Annotated Code of [State]. This report contains conclusions based on the interpretation and opinions of the below signed author. This test is accredited under the laboratory's ISO/IEC 17025 accreditation issued by the ANSI National Accreditation Board. Refer to certificate and scope of accreditation.
4R3RM3	Before applying any evidence-enhancing reagents, a positive and negative control with surfaces similar to the processed indicia was used.
6FNYR2	THE TEST IS DEVELOPED WITHOUT A COUNTERTIME IN A PERIOD OF 1 HOUR AND APPROXIMATELY 30 MINUTES
6HBQLJ	Item 2 developed minimal ridge detail toward the tip, the pattern type could not be determined based on the development, and the print developed would not be of value. Item 3 developed ridge detail evident of a double touch.
6QVFVT	For CTS exhibit 3, after Ninhydrin was applied, there was observed purple staining in quadrant labeled 'A', however, no friction ridge detail observed.
6X8N73	IT STARTED AT 1:00 PM AND THE PROCESSING ENDED AT 2:30 PM WITHOUT ANY REPAYMENTS.
7QLC8R	Item 2 - Saw friction ridge detail on both tape A and tape B. Both partial images and both not suitable for determination. Selected tape A in response to Question 1 - saw latent print detail on tape A first. Upon checking and examining the other pieces of tape, saw latent print detail on tape B. Both partial images and both not suitable for determination./ Additional methodology notes: Item 1 - Photograph after CAE of developed LP in section D. Second photograph after application of Ardrox dye stain, VIS UV observed more ridge detail in LP. Both LP images photographed and preserved. / Item 2 - Wetwop (white) - negative results. CAE 30 min, observed partial latent prints (1 LP on tape A and 1 LP on tape B). Latents observed were not suitable for determination on tape A and on tape B. Applied sticky side powder - negative results. No additional ridge detail. No latent prints were developed./ Item 3 - some chem. reaction square section A to NIN/HEXANE. Second chem process with NIN/ACETONE

TABLE 5

WebCode	Additional Comments
	observed a faint finger impression in section A. No friction ridge detail observed/visible. Applied steam iron in attempt to develop ridge detail. No latent prints were developed.
87VHXG	The ridge detail recovered from item 2 lacked a sufficient core to make a pattern type determination (tip and phalange developed). Items 1 and 3 primary loop, referenced as a whorl
8H7Q3U	The results apply to the items tested or data provided, as received. All relevant samples have been retained by the [Laboratory] as required by the Annotated Code of [State]. This report contains conclusions based on the interpretation and opinions of the below signed author. This test is accredited under the laboratory's ISO/IEC 17025 accreditation issued by the ANSI National Accreditation Board. Refer to certificate and scope of accreditation.
8HJKEN	Adhesive side of Item #2 (tape pieces) appeared to have texture similar to the parchment paper it was adhered to. Possibly caused distortion to print on adhesive side, only partial print observed on tape piece "B".
8PP4V2	Item 1 following superglue fuming was subjected to BY-40 dye-stain process (ethanol based) and examined using blue 469nm light source. This examination did not improve the quality of the impression in section D. The examination did reveal a lot of background contaminant on both sides of the foil, most likely caused by the foil being wiped clean prior to the impression being deposited. Believed this contaminant is affecting the ability / effectiveness of the dye-stain.
8UZ8RV	For item 3 of the paper, I would submit the sample as is. The people in the lab have better suitable fingerprint processes that work on paper. I did do a visual examination of the paper to determine if I could see any prints without any enhancement.
9BJKEL	This proficiency test was utilized for an external crime scene investigation proficiency test. Due to the processing techniques for these types of items only being performed in the laboratory, no actual processing was performed. The items were documented, photographed and collected for processing at the laboratory as they would be at a crime scene.
9D82NU	Additional ridge detail was observed on Item 1 in excess of the test print in Quadrants A and D, as well as on the reverse side of Item 1. See processing notes for more details.
9EFBKX	THE ANALYSIS IS CARRIED OUT IN THE PROCESSING AREA OF THE FORENSIC CRIMNALISTICS UNIT, [Laboratory]
9QD3EH	SSP (sticky side powder) not used for adhesive side of tape because it is electrical tape.
A74A44	Edited to add: I mistyped relative humidity as ~7% instead of ~70% for Item 1.
CC4BEG	This proficiency test was utilized for an external crime scene investigation proficiency test. Due to the processing techniques for these types of items only being performed in the laboratory, no actual processing was performed. The items were documented, photographed and collected for processing at the laboratory as they would be at a crime scene.
CGURNM	Pattern revealed on item 2 has illegible center, so it is hard to decide if it is an arch or loop.
CQ64M6	The items were initialed and sealed back into the original packaging. All ridge detail photographed and lifted was collected as Item #100.
DB28WQ	The processing is carried out in the forensic criminalistics unit of the central zone field at 1:00 p.m. concluding at 2:30 p.m. without further ado for the moment
DKCAHR	The test was carried out in the field criminology processing area from 1:00 p.m. to 2:30 p.m. on November 16, 2021.
DMY7PH	The parchment paper created lines on the adhesive side of the electrical tape. The friction ridge detail on the adhesive side of the electrical tape was very faint and did not develop much during sequential processing.
EDAGNN	En indicio No.2 pudimos observar también rastros papilares en segmento C, los cuales fueron fotografiados y almacenados en un CD, al cual se le hizo también su cadena de custodia. [Requested translation was not received prior to CTS report publication.]

TABLE 5

WebCode	Additional Comments
F4EYMK	Item 2 was fully processed.
FRMAVQ	Before applying any reagents to improve the evidence of the tests obtained for processing, a positive and negative control with surfaces similar to the processed marks was used.
GDKDTJ	The results apply to the items tested or data provided, as received. All relevant samples have been retained by the [Laboratory] as required by the Annotated Code of [State]. This report contains conclusions based on the interpretation and opinions of the below signed author. This test is accredited under the laboratory's ISO/IEC 17025 accreditation issued by the ANSI National Accreditation Board. Refer to certificate and scope of accreditation.
H3FR2B	This proficiency test was utilized for an external crime scene investigation proficiency test. Due to the processing techniques for these types of items only being performed in the laboratory, no actual processing was performed. The items were documented, photographed and collected for processing at the laboratory as they would be at a crime scene.
H3UYK7	Methods used: LPPM
HBQW7N	before applying any evidence-enhancing reagents, a positive and negative control with surfaces similar to the processed indicia was used
HZF9NC	Item 3 fingerprint had an obscured core, possibly smudged. Also, Item 3 had a crease in it through part of section D
K3R27G	Only methods currently approved were used for analysis. No photographs were forwarded to the Latent Print Unit at this time. 1,2 Indanedione was not used due to limited reagents available. The results apply to the items tested or data provided, as received. All relevant samples have been retained by the [Laboratory] as required by the Annotated Code of [State]. These tests are accredited under the laboratory's ISO/IEC 17025 accreditation issued by the ANSI National Accreditation Board. Refer to certificate and scope of accreditation. This report contains conclusions based on the interpretation and opinions of the below signed author.
L69Q7J	Thank you
LM9MK9	Item 3: smudged in center so could not determine if it is a loop or a whorl (double loop).
N3WVEC	* No items were forwarded to the Latent Print Unit.* *1,2 Indanedione was not used as the HFE solution wasn't available for proper use.* The above results apply to the items tested or data provided, as received. All relevant samples have been retained by the [Laboratory] as required by the annotated Code of [State]. This report contains conclusions based on the interpretation and opinions of the below signed author. This test is accredited under the laboratory's ISO/IEC 17025 accreditation issued by the ANSI National Accreditation Board. Refer to certificate and scope of accreditation.
PUVZRX	Item 2 developed ridge detail below the main pattern area of the finger and the top portion of the second joint of the finger. Development observed was not suitable for pattern determination.
QCVA9A	The results apply to the items tested or data provided, as received. All relevant samples have been retained by the [Laboratory] as required by the Annotated Code of [State]. This report contains conclusions based on the interpretation and opinions of the below signed author. This test is accredited under the laboratory's ISO/IEC 17025 accreditation issued by the ANSI National Accreditation Board. Refer to certificate and scope of accreditation.
QY862C	The items 2 and 3 was no analizy because the CSI lab does not use chemical developers for the enhancement in field. The box were the items arrival was opened by the border for safty procedure.
RQUHN3	I have been asked by my supervisor to treat these items as if they are from a major and serious crime and complete a full sequential treatment plan as recommended by [Laboratory]. I am to complete all treatments in the treatment plan and not stop once I have found ridge detail. Treatment plan for Item 1 – foil sheet: Visual examination with white light (400-700nm). Visual examination using high intensity light sources , UV (350-380nm), violet (395-425nm), blue (420-470nm), blue/green (445-510nm), green (490-560nm), orange (570-610nm). Cyanoacrylate fuming. Dye using BY40 (basic yellow40) dye dissolved in ethanol. Solvent black 3. Treatment plan for Item 2 – black electrical type adhesive

TABLE 5

WebCode	Additional Comments
	tape: Visual examination with white light (400-700nm). Visual examination using high intensity light sources , UV (350-380nm), violet (395-425nm), blue (420-470nm), blue/green (445-510nm), green (490-560nm), orange (570-610nm). Powder suspension titanium. Treatment plan for Item 3 – blue paper: Visual examination with white light (400-700nm). Visual examination using high intensity light sources , UV (350-380nm), violet (395-425nm), blue (420-470nm), blue/green (445-510nm), green (490-560nm), orange (570-610nm). 1,2 Indandione. Ninhydrin. Physical Developer. We are an accredited laboratory and all the treatments undertaken were completed as per the appropriate technical instruction, all equipment was used as per the appropriate working instruction.
TA28E6	Information about the adhesive side, that it was that side that was intended for processing, was not included on the paper that came with the material. Hence, both sides were processed.
TBXFQV	Latent impression L2 contains smudges and pressure/movement distortion. Pattern type is hard to discern due to smudging and distortion in the core area and around it. Therefore, it was thought to possibly be a loop (/) or T (tented arch). Level 2 detail above and to the side of the core is sufficient for comparison purposes. Latent impression L3 contains smudges and pressure/movement distortion. Pattern type is hard to discern due to smudging and distortion in and around the core. Ridge flow suggests possible loop (/). The area above the core is sufficient for comparison purposes (level 2 detail).
UDH3KU	Regarding Item 2, the general pattern has been noted as a loop (left loop). Nevertheless the pattern is very close to an arch as only one ridge is curving.
UHA27C	THE PROCESSING IS CARRIED OUT IN THE PROCESSING AREA OF THE FORENSIC CRIMINALISTICS UNIT OF THE [Laboratory]
UM7UBT	a 2nd smudgy print was developed with DFO in section C of Item 3, but no distinct ridges were observed so the print was not photographed
UQGXQA	No revelada ninguna huella latente en el item 3, por lo tengo no esta descrito el medio de levantamiento de la misma, tampoco el patron de la huella, por no haber obtenido huella latente. [Requested translation was not received prior to CTS report publication.]
VF273Z	Tests on similar surfaces were done to make sure that methods were correctly realized.
VLLJKY	This proficiency test was utilized for an external crime scene investigation proficiency test. Due to the processing techniques for these types of items only being performed in the laboratory, no actual processing was performed. The items were documented, photographed and collected for processing at the laboratory as they would be at a crime scene.
VWQPF	Center of print for Item #2 was distorted so as a result, arch and loop were selected.
XGNJLU	Limited processing of the Items 2 and 3. Processing was stopped after the quadrant containing the latent print was identified. If processing would have continued to completion, the following additional steps would have been done: * Item 2: -> application of dye-stain (R6G) to the non-adhesive surface -> examination with LASER or ALS and using orange barrier filter. * Item 3: -> application of ninhydrin -> application of heat/humidity with steam iron -> physical developer
XQCLRW	For Item 2, both sides of the pieces of tape (non-sticky and adhesive side) were processed per laboratory's policy.
YWAP48	Before applying any evidence-enhancing reagents, a positive and negative control with surfaces similar to the processed indicia was used.
ZCJR6T	This proficiency test was utilized for an external crime scene investigation proficiency test. Due to the processing techniques for these types of items only being performed in the laboratory, no actual processing was performed. The items were documented, photographed and collected for processing at the laboratory as they would be at a crime scene.

-End of Report-
(Appendix may follow)

Collaborative Testing Services ~ Forensic Testing Program

Test No. 21-5191: Latent Print Processing - Varied Surfaces

DATA MUST BE SUBMITTED BY **Dec. 13, 2021, 11:59 p.m.** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A WebCode: CWTHX7

The Accreditation Release section can be accessed by using the "Continue to Final Submission" button above. This information can be entered at any time prior to submitting to CTS.

Scenario:

During the week of 27 September 2021, several items of evidence were recovered from a crime scene. Police have requested that you process each item of evidence for latent prints. These items will not undergo additional testing in other departments, so you may use destructive testing if necessary.

All item packaging has been labeled with a CTS item number and each item divided into four sections, which have been indicated as A-D. A single latent print has been deposited in one of these areas for each item.

Packaging and protective material is not intended to be processed.

Items Submitted (Sample Pack LAP2):

Item 1: Sheet of aluminum foil, divided into sections A-D.
Item 2: Four pieces of electrical tape, labeled as pieces A-D (adhesive side intended for processing).
Item 3: Sheet of blue copy paper, divided into sections A-D.

Please inspect your sample sets upon receipt. If the packaging of any of your individual items appears to be compromised, please contact CTS for replacement samples.

1.) For each item, in which section or on which piece (A, B, C, D) was the latent ridge detail recovered?

Please indicate only the single letter of your determined location from the dropdown menu. Further explanation may be provided in the Additional Comments. If no ridge detail was recovered, please select "None." If you do not process the type of evidence offered, please select "Not Tested". ***A selection of "Not Tested" for an item will lock the corresponding methodology tab for that item. No methodology data will be captured in the report for that item.***

1
2
3

Results for Item 1:

Sheet of aluminum foil, divided into sections A-D.

1-1.) Date Samples Received:

1-2.) Date(s) Samples Analyzed:

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

Method Used	Methodology-specific information (ex. processing time, type of dye stain)

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

Method Used	Methodology-specific information

1-5.) What first-level pattern(s) are referenced in the recovered latent print?
If ridge detail was recovered, choose up to 2 pattern types. If ridge detail was not sufficiently recovered, please select "Not suitable for determination." If you are not trained to make pattern determinations, please select "N/A".

☐ Arch ☐ Loop ☐ Whorl ○ Not suitable for determination ○ N/A

Results for Item 2:

Four pieces of electrical tape, labeled as pieces A-D (adhesive side intended for processing).

2-1.) Date Samples Received:

2-2.) Date(s) Samples Analyzed:

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

Method Used	Methodology-specific information (ex. processing time, type of dye stain)

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

Method Used	Methodology-specific information

2-5.) What first-level pattern(s) are referenced in the recovered latent print?
If ridge detail was recovered, choose up to 2 pattern types. If ridge detail was not sufficiently recovered, please select "Not suitable for determination." If you are not trained to make pattern determinations, please select "N/A".

☐ Arch ☐ Loop ☐ Whorl ○ Not suitable for determination ○ N/A

Results for Item 3:

Sheet of blue copy paper, divided into sections A-D.

3-1.) Date Samples Received:

3-2.) Date(s) Samples Analyzed:

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

Method Used	Methodology-specific information (ex. processing time, type of dye stain)

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

Method Used	Methodology-specific information

3-5.) What first-level pattern(s) are referenced in the recovered latent print?
If ridge detail was recovered, choose up to 2 pattern types. If ridge detail was not sufficiently recovered, please select "Not suitable for determination." If you are not trained to make pattern determinations, please select "N/A".

☐ Arch ☐ Loop ☐ Whorl ○ Not suitable for determination ○ N/A

4.) Additional Comments

Please note: *Any additional formatting applied in the free form space below will not transfer to the Summary Report and may cause your information to be illegible. This includes additional spacing and returns that present your responses in lists and tabular formats.*

RELEASE OF DATA TO ACCREDITATION BODIES

The Accreditation Release is accessed by pressing the "Continue to Final Submission" button online and can be completed at any time prior to submission to CTS.

CTS submits external proficiency test data directly to ASCLD/LAB, ANAB, and/or 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 below must be completed.)
○ This participant's data is **not** intended for submission to ASCLD/LAB, ANAB, and/or A2LA.

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

ANAB Certificate No.
(Include ASCLD/LAB Certificate here)

A2LA Certificate No.

Step 2: Complete the Laboratory Identifying Information in its entirety

Authorized Contact Person and Title

Laboratory Name

Location (City/State)