



Latent Print Processing - Nonporous Surfaces

Test No. 25-5193 Summary Report

Each participant received a sample pack containing three items of simulated crime scene evidence, which they were asked to process each item for latent prints and report their findings. Data were returned from 116 participants and are compiled into the following tables:

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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 four labeled sections, one of which contained a single latent print. Participants were asked to process each item utilizing the method(s) deemed most appropriate for the substrate being examined and report the section in which the latent ridge detail was recovered.

SAMPLE PREPARATION: All substrates were thoroughly cleaned following a detailed procedure before the latent print was applied. Each item was divided into sections and labeled A, B, C, and D using a chemical-safe marker. For each item, an oil enhancer was applied to the individual's finger prior to deposition to assist in the longevity of the print.

VERIFICATION: Predistribution results were consistent with each other and the manufacturer's preparation information. In addition, a random selection of prepared test items were processed in-house for latent prints to verify their durability and proper latent print location.

SAMPLE PACK ASSEMBLY: Each item was individually packed into its pre-labeled item envelope with necessary protective materials. Following predistribution testing, each item envelope was sealed and initialed. These were then placed into a sample pack box with bubble wrap and sealed.

Item No.	Test Material	Print Location
1	Plexiglass sheet	D
2	Magnetic picture frame	A
3	Tin box	B

Inked Impressions of Deposited Prints		
<u>Item 1</u> 	<u>Item 2</u> 	<u>Item 3</u> 

Inked versions of the fingerprints deposited by the individuals were obtained in both pressed and rolled formats. The pressed impressions should more closely resemble the appearance of the deposited prints on the substrate.

Summary Comments

This test was designed to allow participants to assess their proficiency in the processing and/or development of latent prints on nonporous pieces of evidence. Each sample pack contained three items of evidence, which were divided into four sections (A-D), to be processed for latent prints: a plexiglass sheet (Item 1), a magnetic picture frame (Item 2), and a tin box (Item 3). During the creation of this test, latent prints were purposefully deposited in section "D" for Item 1, section "A" for Item 2, and section "B" for Item 3. Due to the tenuous nature of latent fingerprints, it was expected that some participants may not successfully recover the deposited print on each item. Participants who did not develop a print on an item were therefore not flagged/marked as inconsistent or outliers to the consensus. Refer to the Manufacturer's Information for preparation details.

Of the 116 responding participants, 114 (98%) were able to successfully recover a latent print in the location where the print was deposited for all three items. One participant did not recover a print for an item and one participant reported ridge detail in a section that differed from the consensus for one item.

For Item 1, 115 of 116 participants (99%) recovered a latent print in section "D" of the plexiglass sheet. One participant did not recover ridge detail. Visual Examination (reported 68 times) was most often reported by participants as the first step during the development stage. Powder Dusting (reported 89 times) was the prevailing method of development reported by participants, followed by Cyanoacrylate Fuming (52), Alternate/Forensic Light Source (39), and Dye Stain (35) methods. During preservation, Lifting (reported 85 times) was the prevailing method reported, followed by the Photography (71) method.

For Item 2, all 116 participants recovered a latent print in section "A" of the magnetic picture frame. Visual Examination (reported 69 times) was most often reported by participants as the first step during the development stage. Powder Dusting (reported 89 times) was the prevailing method of development, followed by Cyanoacrylate Fuming (52), Alternate/Forensic Light Source (42), and Dye Stain (35) methods. During preservation, Lifting (reported 83 times) was the prevailing method reported, followed by the Photography (72) method.

For Item 3, 115 of 116 participants (99%) recovered a latent print in section "B" of the tin box. One participant reported ridge detail in section "C" and was marked as an outlier. Visual Examination (reported 67 times) was most often reported by participants as the first step during the development stage. Powder Dusting (reported 90 times) was the prevailing method of development reported by participants, followed by Cyanoacrylate Fuming (55), Alternate/Forensic Light Source (39), and Dye Stain (36) methods. During preservation, Lifting (reported 79 times) was the prevailing method reported, followed by the Photography (71) method.

Print Location

TABLE 1 - Item 1: Plexiglass sheet

WebCode	Location	WebCode	Location	WebCode	Location
2CK2TZ	D	AJBE8R	D	J6YVPP	D
2JFYHN	D	AMCHXT	D	J92WPL	D
2NDK87	D	AN8ZYU	D	JCJYWR	D
3EZQR4	D	ARN37Z	D	JJKBTN	D
3HMAW8	D	AZWWZT	D	JMJLNN	D
3JWHZZ	D	CFKRPN	D	JYWPAL	D
3Z3JX9	D	CN26Q9	D	KJ3JGJ	D
49V9WN	D	CQ47TQ	D	KQD3DM	D
4A3QTY	D	CUGJ8F	D	LEZ3JE	D
4QBHWN	D	D6LBFD	D	LFBZQ6	D
6HYNF2	D	DC7EMF	D	LG8HT7	D
6LEHTD	D	DE7MRQ	D	LMVZ7H	D
6R27Q4	D	DH8QJD	D	MUPRRG	D
727BHK	D	DL72ED	D	MX7UYL	D
7EA2XX	D	DZM38W	D	NWAYR4	D
7HA6PK	D	E9DYCB	D	NZ8F3C	D
7JQ463	D	EAJZ7D	D	P2HJDF	D
7NJ4JY	D	EG7FYU	D	PYEQGW	D
7VF29M	D	EPZH6C	D	QCYLB2	D
8RDKBH	D	F2AHA4	D	QPMPFC	D
9CGMLT	D	F4XRLQ	D	QYRWVC	D
9FGXHT	D	F73GQK	D	RGPKZF	D
9GTUPH	D	FDNCRN	D	RJTDWZ	D
9KA39C	D	FNP376	D	RNPWXY	D
9LLWQW	D	FV7BWL	D	TC8HTB	D
9MXCKX	D	G6AT64	D	TJ2GGY	D
9UCGUA	D	GALVUK	D	TJAN8D	D
9W2NGR	D	H4ERGR	D	TPY7NB	D
9XW8JT	D	H68F29	D	TVZHK8	D
A6RQXU	D	H93AV3	D	U4KJCX	D
AA9U6Y	D	HW3EBA	D	UG3QEW	D

TABLE 1 - Item 1: Plexiglass sheet

WebCode	Location	WebCode	Location	WebCode	Location
UKXGK9	D				
URL6GY	D				
UXMJZF	D				
V4TA67	D				
V8AZ7V	D				
VAP2MV	D				
VEQD8E	D				
W39B3T	D				
W3URGA	D				
WM6MKU	D				
WQZBPN	D				
WY6H6N	D				
WZPYPW	None				
XK7X6B	D				
XMTCUL	D				
XXT3D9	D				
Y376Y4	D				
YKLEZ6	D				
YQNLGT	D				
ZAJE3Q	D				
ZHDJVR	D				
ZRYPQB	D				
ZVG8LZ	D				

Item 1 - Location Response Summary			
Location	Total	Total Participants: 116	
A	0	NOTE: Tallies may not add up to the total number of participants, if a participant did not report a response.	
B	0		
C	0		
D	115		
None	1		
Not Tested	0		

TABLE 1 - Item 2: Magnetic picture frame

WebCode	Location	WebCode	Location	WebCode	Location
2CK2TZ	A	AMCHXT	A	JCJYWR	A
2JFYHN	A	AN8ZYU	A	JKBTN	A
2NDK87	A	ARN37Z	A	JMJLNN	A
3EZQR4	A	AZWWZT	A	JYWPAL	A
3HMAW8	A	CFKRPN	A	KJ3JGJ	A
3JWHZZ	A	CN26Q9	A	KQD3DM	A
3Z3JX9	A	CQ47TQ	A	LEZ3JE	A
49V9WN	A	CUGJ8F	A	LFBZQ6	A
4A3QTY	A	D6LBFD	A	LG8HT7	A
4QBHWN	A	DC7EMF	A	LMVZ7H	A
6HYNF2	A	DE7MRQ	A	MUPRRG	A
6LEHTD	A	DH8QJD	A	MX7UYL	A
6R27Q4	A	DL72ED	A	NWAYR4	A
727BHK	A	DZM38W	A	NZ8F3C	A
7EA2XX	A	E9DYCB	A	P2HJDF	A
7HA6PK	A	EAJZ7D	A	PYEQGW	A
7JQ463	A	EG7FYU	A	QCYLB2	A
7NJ4JY	A	EPZH6C	A	QPMPFC	A
7VF29M	A	F2AHA4	A	QYRWVC	A
8RDKBH	A	F4XRLQ	A	RGPKZF	A
9CGMLT	A	F73GQK	A	RJTDWZ	A
9FGXHT	A	FDNCRN	A	RNPWXY	A
9GTUPH	A	FNP376	A	TC8HTB	A
9KA39C	A	FV7BWL	A	TJ2GGY	A
9LLWQW	A	G6AT64	A	TJAN8D	A
9MXCKX	A	GALVUK	A	TPY7NB	A
9UCGUA	A	H4ERGR	A	TVZHK8	A
9W2NGR	A	H68F29	A	U4KJCX	A
9XW8JT	A	H93AV3	A	UG3QEW	A
A6RQXU	A	HW3EBA	A	UKXGK9	A
AA9U6Y	A	J6YVPP	A	URL6GY	A
AJBE8R	A	J92WPL	A	UXMJZF	A

TABLE 1 - Item 2: Magnetic picture frame

WebCode	Location	WebCode	Location	WebCode	Location
V4TA67	A				
V8AZ7V	A				
VAP2MV	A				
VEQD8E	A				
W39B3T	A				
W3URGA	A				
WM6MKU	A				
WQZBPN	A				
WY6H6N	A				
WZPYPW	A				
XK7X6B	A				
XMTCUL	A				
XTT3D9	A				
Y376Y4	A				
YKLEZ6	A				
YQNLGT	A				
ZAJE3Q	A				
ZHDJVR	A				
ZRYPQB	A				
ZVG8LZ	A				

Item 2 - Location Response Summary			
Location	Total	Total Participants: 116	
A	116	NOTE: Tallies may not add up to the total number of participants, if a participant did not report a response.	
B	0		
C	0		
D	0		
None	0		
Not Tested	0		

TABLE 1 - Item 3: Tin box

WebCode	Location	WebCode	Location	WebCode	Location
2CK2TZ	B	AMCHXT	B	JCJYWR	B
2JFYHN	B	AN8ZYU	B	JKBTN	B
2NDK87	B	ARN37Z	B	JMJLNN	B
3EZQR4	B	AZWWZT	B	JYWPAL	B
3HMAW8	B	CFKRPN	B	KJ3JGJ	B
3JWHZZ	B	CN26Q9	B	KQD3DM	B
3Z3JX9	B	CQ47TQ	B	LEZ3JE	B
49V9WN	B	CUGJ8F	B	LFBZQ6	B
4A3QTY	B	D6LBFD	B	LG8HT7	B
4QBHWN	B	DC7EMF	C	LMVZ7H	B
6HYNF2	B	DE7MRQ	B	MUPRRG	B
6LEHTD	B	DH8QJD	B	MX7UYL	B
6R27Q4	B	DL72ED	B	NWAYR4	B
727BHK	B	DZM38W	B	NZ8F3C	B
7EA2XX	B	E9DYCB	B	P2HJDF	B
7HA6PK	B	EAJZ7D	B	PYEQGW	B
7JQ463	B	EG7FYU	B	QCYLB2	B
7NJ4JY	B	EPZH6C	B	QPMPFC	B
7VF29M	B	F2AHA4	B	QYRWVC	B
8RDKBH	B	F4XRLQ	B	RGPKZF	B
9CGMLT	B	F73GQK	B	RJTDWZ	B
9FGXHT	B	FDNCRN	B	RNPWXY	B
9GTUPH	B	FNP376	B	TC8HTB	B
9KA39C	B	FV7BWL	B	TJ2GGY	B
9LLWQW	B	G6AT64	B	TJAN8D	B
9MXCKX	B	GALVUK	B	TPY7NB	B
9UCGUA	B	H4ERGR	B	TVZHK8	B
9W2NGR	B	H68F29	B	U4KJCX	B
9XW8JT	B	H93AV3	B	UG3QEW	B
A6RQXU	B	HW3EBA	B	UKXGK9	B
AA9U6Y	B	J6YVPP	B	URL6GY	B
AJBE8R	B	J92WPL	B	UXMJZF	B

TABLE 1 - Item 3: Tin box

WebCode	Location	WebCode	Location	WebCode	Location
V4TA67	B				
V8AZ7V	B				
VAP2MV	B				
VEQD8E	B				
W39B3T	B				
W3URGA	B				
WM6MKU	B				
WQZBPN	B				
WY6H6N	B				
WZPYPW	B				
XK7X6B	B				
XMTCUL	B				
XTT3D9	B				
Y376Y4	B				
YKLEZ6	B				
YQNLGT	B				
ZAJE3Q	B				
ZHDJVR	B				
ZRYPQB	B				
ZVG8LZ	B				

Item 3 - Location Response Summary			
Location	Total	Total Participants: 116	
A	0	NOTE: Tallies may not add up to the total number of participants, if a participant did not report a response.	
B	115		
C	1		
D	0		
None	0		
Not Tested	0		

Development Methods

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
2CK2TZ	Powder Dusting	The item was processed using white magnetic power.
2JFYHN	Visual Examination	
	Cyanoacrylate Fuming	Humanity 80%,heat temperature 120°C,fuming time 5min.
2NDK87	Visual Examination	Visual examination - with and without flashlight and oblique light (flashlight)
	Powder Dusting	Powder dusting - black sterile powder and sterile brush
	Photo comparison	Photo comparison - overall, midrange, and close-up comparison photos of the print
3EZQR4	Powder Dusting	processed item with black powder
3HMAW8	Visual Examination	Observation (Visual Inspection); observed with the naked eye in Quadrant D, as described in Item 1.
	Alternate Light Source	with flashlight.
	Silk Black Powder	Using black silk powder applied with camel hair brushes, fiberglass brushes and Marabou Feather brushes, the latent print was identified in Quadrant D.
3JWHZZ	Visual Examination	oblique lighting with white light and Coherent Tracer laser
	Cyanoacrylate Fuming	CA Fuming for 8-10 minutes
	Dye Stain	Rhodamine 6G with Coherent Tracer Laser
	Powder Dusting	Black powder processing
3Z3JX9	Visual Examination	
	Powder Dusting	
49V9WN	Cyanoacrylate Fuming	- Barrido de luz blanco sobre la superficie del ITEM -Vaporización por cianoacrilato 35 minutos. [Requested translation was not provided by time of publication.]
	Powder Dusting	- Barrido de polvo convencional negro - Barrido de luz blanca sobre la superficie del ITEM. [Requested translation was not provided by time of publication.]

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
4A3QTY	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	With Oblique Lighting
	Dye Stain	Rhodamine With Alternate Light Source
	Powder Dusting	Black Powder
4QBHWN	Cyanoacrylate Fuming	
	Alternate Light Source	FSIS II
	Powder Dusting	Black powder
	Dye Stain	Ardrox
	Alternate Light Source	Crime-Lite AUTO
6HYNF2	Powder Dusting	White powder applied to each quadrant on plexiglass sheet.
6LEHTD	Cyanoacrylate Fuming	Placed items into fuming chamber for approximately 9:30 minutes using cyanoacrylate. Examined developed prints with UV light and Full Spectrum Imaging System.
6R27Q4	Visual Examination	I examined the piece visually for one minute to see if the latent print could be identified, and a simple glance was able to detect it.
	Alternate Light Source	I also examined the piece visually using white alternating light for one minute to see if the latent print could be identified, and it was also detected under alternating light.
	Powder Dusting	Developing the latent print with black magnetic powder.
727BHK	Visual Examination	White light, RUVIS
	Lumicyano	Temperature 250F, time 17:00, humidity 75% Laser, RUVIS
7EA2XX	Visual Examination	white light torch
	Alternate Light Source	Polilight, laser, RUVIS
	Cyanoacrylate Fuming	9 min. heating
	Dye Stain	BY-40, Crystal violet

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
7HA6PK	Visual Examination	11:13 am Examination conducted with a white light - latent print observed in quadrant "D".
	Cyanoacrylate Fuming	11:36 am Cyanoacrylate fuming for 15 minutes.
	Visual Examination	1:04 pm Examination conducted and latent print observed in quadrant "D".
	Dye Stain	1:25 Basic Yellow 40 (BY40) spray of the plexiglass.
	Alternate Light Source	1:30 pm Examination conducted with ALS Crime-Lite 82S using blue lens and orange goggles. Latent print observed in quadrant "D".
	Powder Dusting	1:50 pm Latent print dusted with magnetic fingerprint powder.
7JQ463	Visual Examination	Item 1: Quadrants A-D within plexiglass sheet. A visual inspection was conducted, and a possible fingerprint impression was visibly located in quadrant D. A photos was taken documenting the finding.
7NJ4JY	Visual Examination	
	Cyanoacrylate Fuming	12 min. fuming
7VF29M	Cyanoacrylate Fuming	80% for 17 min
	Powder Dusting	black powder
	Dye Stain	Ardrox
	Alternate Light Source	Crime-Lite AUTO
8RDKBH	Visual Examination	No visual aids, normal room lighting
	Alternate Light Source	Various bandwidths, various filters
	Cyanoacrylate Fuming	CA fuming, approximately 10 minutes due to size of chamber and number of items.
	Powder Dusting	Black powder
9CGMLT	Powder Dusting	Magnetic White powder used. Dusted with magnetic brush.
9FGXHT	Visual Examination	I attempted to visualize any suspected ridge detail under regular lighting with the unaided eye. Visualized a suspected print in quadrant D.
	Alternate Light Source	I searched item with Crime Light Auto under multiple wavelengths, no fluorescence observed.
	Powder Dusting	I processed item with bi-chromatic powder. Observed development of suspected ridge detail on quadrant D.

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
9GTUPH	Visual Examination	The item was visually inspected using LED light along with oblique lighting technique.
	Cyanoacrylate Fuming	Item was fumed in the cyanoacrylate fuming chamber for 13 minutes in total and using 20 drops of cyanoacrylate.
	Powder Dusting	The revealed latent fingerprint was enhanced using black in colour conventional powder and a fiberglass brush.
9KA39C	Cyanoacrylate Fuming	Cyanoacrylate Fuming (MVC-1000XI tank) - Control Positive - 20 Minute Cycle
	Dye Stain	Aqueous Rhodamine 6G- control passed. Viewed using Polilight 505 and Orange Filter
	Dye Stain	Ardrox - control Passed. Viewed using Polilight 415.
9LLWQW	Powder Dusting	Black powder used to develop latent print.
9MXCKX	Powder Dusting	White fingerprint powder
9UCGUA	Cyanoacrylate Fuming	Fuming chamber used with cyanoacrylate 9 min.
9W2NGR	Visual Examination	Visual examination using oblique lighting with a flashlight.
	Powder Dusting	Fiberglass brush and black powder.
9XW8JT	Visual Examination	Use of oblique lighting with visual exam.
	Alternate Light Source	Coherent Tracer Forensic Light Source (FLS)
	Cyanoacrylate Fuming	Along with a known control. (Print observed in quadrant D).
	Dye Stain	Rhodamine 6 G dye stain, tested on known control first prior to use on item of evidence.
	Alternate Light Source	Dye stain viewed under FLS. (viewed known control first prior to item of evidence) (Print observed in quadrant D).
	Powder Dusting	Standard black latent print powder. (Print lifted from quadrant D).

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
A6RQXU	Visual Examination	1 mark was visualised with natural light and labelled CTS25-5193Item1_[Initials]1 CTS25-5193Item1_[Initials]1 was captured using DCS-5 under blue light using a Foster & Freeman Crime-lite 8x4 Mk2 (see alternative light source for further information).
	Alternate Light Source	Examination was carried out using Attestor LIGHTcube sources. The following light sources were used: UV narrow angle (365 nm) Violet narrow angle (410 nm) Royal blue narrow angle (447 nm) Blue-green narrow angle (470 nm) Pure green narrow angle (530 nm) Orange narrow angle (590 nm) Pure red narrow angle (630 nm) Examination was carried out using the corresponding filter goggles and after a brief period of darkness adaptation. Foster & Freeman Crime-lite 8x4 Mk2 White (400-700nm), Violet (410nm), Green (520nm), Blue (445nm), Blue-Green (475nm), Orange (590nm) and Red (640nm) UV (365 nm)
	Powder Dusting	CTS25-5193Item1_[Initials]1 enhanced using Sirchie Black Magnetic latent fingerprint powder and captured using DCS-5 and LIGHTcube white light.
	Cyanoacrylate Fuming	Forenteq Megafume M61 cabinet used with standard cyanoacrylate pre-set process (15 min fuming at 80% Relative Humidity) Full spectrum Light-cube examination as per Alternative Light Source comments. No significant enhancement of mark.
AA9U6Y	Powder Dusting	Magnetic Powder
AJBE8R	Visual Examination	Visual inspection using flashlight with oblique lighting.
	Forensic Light Source/Laser	Coherent Tracer
	Cyanoacrylate Fuming	CA Fuming Chamber-10 minutes
	Dye Stain	Rhodamine 6
	Forensic Light Source/Laser	FLS- Laser.
	Powder Dusting	Black Powder
AMCHXT	Visual Examination	Oblique lighting
	Powder Dusting	Black powder
AN8ZYU	Visual Examination	white light examination
	Alternate Light Source	Polilight PL 500 illuminator, full range of visible light spectrum, yellow, orange, red filter
	Cyanoacrylate Fuming	MVC FFLEX M chamber, 80% RH, 120°C, 0,5g cyanoacrylate glue white light observation
	Dye Stain	Basic Yellow 40 UV observation - orange filter

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
ARN37Z	Visual Examination	A visual inspection was made with alternative light for the piece of evidence and was seeing.
	Powder Dusting	The piece of evidence was worked with black magnetic powder to develop the fingerprint in the letter D.
AZWWZT	Visual Examination	with oblique lighting
	Powder Dusting	with regular black powder
CFKRPN	Visual Examination	Oblique lighting using a flashlight
	Powder Dusting	Bi-chromatic fingerprint power and brush
CN26Q9	Powder Dusting	BP
CQ47TQ	Visual Examination	Examined object with the naked eye, oblique lighting, and with a forensic light source.
	Cyanoacrylate Fuming	Fumed the item of evidence for approximately 10 minutes.
	Dye Stain	Used Rhodamine 6G dye stain to further visualize latent prints.
	Powder Dusting	Used black powder to process the item.
CUGJ8F	Powder Dusting	Brush and Black Powder
D6LBFD	Visual Examination	Oblique lighting
	Powder Dusting	Black powder
DC7EMF	Visual Examination	
	Powder Dusting	Magnetic powder
DE7MRQ	Visual Examination	Friction ridge detail observed in Quadrant D
	Powder Dusting	All 4 quadrants processed with fingerprint powder. Friction ridge detail developed in Quadrant D.
DH8QJD	Powder Dusting	Sweedish Black powder were used
DL72ED	Cyanoacrylate Fuming	Superglue application method, basic yellow 40 staining method ten o'clock

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
DZM38W	Alternate Light Source	Mark search was done by following ways: 1. Blue Light (445 nm) using Goggle (495 nm). 2. Green Light (532 nm) using Goggle (550 nm) No print found
	Cyanoacrylate Fuming	Processing Time: 45 mins, which includes Humidifying, Fuming and Purging. After 45 mins Print was found in section D.
	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). Print Found on D, Photographed.
E9DYCB	Visual Examination	Used room lighting and held item at various angles to search for ridge detail. Very faint ridge detail was observed in Quadrant D.
	Cyanoacrylate Fuming	Used Air Science SafeFume chamber and Evident CAE. Chamber temperature was ~74 degF and relative humidity was ~75.1%. Item was fumed for ~15 minutes. Test print (control) OK. Ridge detail was observed in Quadrant D, designated with photo marker 1-L1, and photographed.
	Dye Stain	Item was processed with Evident fluorescent dye stain RAM and visualized with an ALS at 475 nm and 550 LP filter (Foster + Freeman Crimelite AUTO). Test print (control) OK. Latent print 1-L1 in Quadrant D was observed and photographed.
EAJZ7D	Powder Dusting	Black Powder, Zephy, Brush
EG7FYU	Powder Dusting	I obtained supplies (black powder, lift cards, latent tape, brush) and personal protective equipment (gloves and mask). I donned a mask and gloves and placed a piece of butcher paper on the clean table surface. I opened the box containing the items of evidence. I opened item #1. In my notes, I wrote down times the packages were opened, the lot number/expiration of the black powder, the time I started powdering, and a description of item #1. I placed a small amount of powder into a clean, plastic bag and dipped the brush into the powder. I made sure to get rid of any excess powder on the brush. Then I began to gently, swirl the brush with the powder in a circular motion on item #1, which was a plexiglass sheet with four quadrants labeled as A, B, C and D. I continued to swirl the brush, until a possible fingerprint was developed on a quadrant. For item #1, I located a possible fingerprint on quadrant D. Without adding additional powder to the brush, I enhanced the print with the powder. I utilized oblique lighting with my flashlight to make sure that there were no other prints present on the plexiglass. I changed my gloves as needed and wore a mask the entirety of the process.
EPZH6C	Cyanoacrylate Fuming	
	RAM	

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
F2AHA4	Visual Examination	Room and oblique lighting were used to visualize any latent on the item, but no ridges were seen.
	Cyanoacrylate Fuming	Placed item into an enclosed chamber along with a humidifier, test print, and a dish of cyanoacrylate on a heating plate. The fuming occurred for 12 minutes and then the fumes were vented. Visualized/photographed print using direct lighting with a ring light.
	Dye Stain	After testing the control print with Basic Yellow 40, the dye was applied to the item and rinsed with DI water. After it completely dried, it was visualized/photographed using a yellow filter and a 450 nm light source.
F4XRLQ	Powder Dusting	White powder for items 1
F73GQK	Visual Examination	Examination done using natural light and a flashlight.
	Cyanoacrylate Fuming	Used Misonix fuming chamber set to 70% humidity, 12 minute fume time and 10 minute purge time.
	Dye Stain	Basic Yellow 40 sprayed onto item followed by a rinse with distilled water. Viewed and photographed developed latent print using a 450 nm forensic light source with a yellow filter.
	Powder Dusting	Used a magnetic wand for the application of magnetic/conventional powder mixture.
FDNCRN	Visual Examination	regular flashlight
	Powder Dusting	black powder
FNP376	Powder Dusting	MP
FV7BWL	Visual Examination	White light
	Alternate Light Source	handheld LED ultraviolet light (365nm)
	Alternate Light Source	Crime Scope at 515 nm
	RUVIS	Reflective Ultraviolet Imaging System (RUVIS), 254nm
G6AT64	Powder Dusting	BP
GALVUK	Visual Examination	w/ oblique light
	Forensic Light Source	Forensic Light Source
	Cyanoacrylate Fuming	w/ oblique lighting (Lot #: 202503101; Exp: 04-2026)
	Dye Stain	w/ Forensic Light Source Rhodamine (Lot#: R6G-072225; Exp: 01/22/2026)
	Powder Dusting	Black Powder

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
H4ERGR	Powder Dusting	Work for approximately one minute until the print is seen, with magnetic black powder.
H68F29	Cyanoacrylate Fuming	0.145g glue FOSTER AND FREEMAN CABINET 147
	Dye Stain	BY 04 25 ETHANOL BASED BY40
H93AV3	Powder Dusting	BP
HW3EBA	Powder Dusting	Black powder, zephyr Brush
J6YVPP	Visual Examination	Oblique lighting
	Powder Dusting	Bichromatic Powder using a "Arrowhead Forensics Cyclone #A-2488" fingerprint brush - dipped the brush in powder and twirled off the excess powder - lightly brushed over the item until the print was visible
	Powder Dusting	Magnetic Powder using a Magnetic Fingerprint Powder Applicator - dipped the brush in powder and tapped off the excess powder - lightly brushed over the item until the print was visible
J92WPL	Powder Dusting	White powder
JCJYWR	Powder Dusting	Following the initial examination of the sample, an impression was observed with the naked eye, a fine, soft, bristled brush was utilized to apply black graphite powder to the surface. Subsequently, a medium-bristled brush was employed to evenly distribute the powder, which successfully developed a latent fingerprint impression, located on the latter D
JJKBTN	Visual Examination	Visual examination with ambient light and oblique lighting via flashlight
	Powder Dusting	Sterile black powder application over all sides of item

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
JMJLNN	Visual Examination	After removing the item from the package and photographing it, I visually inspected the item. I identified what side the quadrants were labeled. I then used oblique lighting to visually inspect the item; Oblique lighting was done with a flashlight.
	Powder Dusting	I obtained a sterile brush in a package. I bleached my gloves. I obtained a new weigh boat. I poured sterile black powder into the new weigh boat. I opened the sterile brush packaging just enough that the stem of the brush was accessible. I bleached my gloves. I removed the sterile brush from the packaging. I gathered some of the black powder by dipping the brush into the weigh boat a few times, approximately 3. I then held the brush over the weigh boat, brush pointed down and twisted the brush back and forth to remove excess powder. This process was done twice. I utilized the now black powder coated brush, using a back-and-forth twisting motion, to dust over the entire surface of the front side of the item to process it for latent prints.
	Visual Examination	After processing, I visually inspected the surface of the front side of the item for evidence of a latent print. I visually identified a latent print located in quadrant D. I then utilized oblique lighting to identify if more powder was necessary for additional development; oblique lighting was done with a flashlight.
JYWPAL	Visual Examination	Patent prints were observed and photographed with a scale - 5 minutes
	Cyanoacrylate Fuming	I fumed in a super glue chamber for 20 minutes at 80% humidity and did a 10 minute purge cycle.
	Powder Dusting	I dusted with black powder - 2 minutes
KJ3JGJ	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	Rhodamine 6G
	Alternate Light Source	Visualized print after Rhodamine
	Powder Dusting	Black powder
KQD3DM	Visual Examination	Visually examined with flashlight.
	Powder Dusting	Biochromatic Powder
LEZ3JE	Visual Examination	Used overhead lighting.
	Cyanoacrylate Fuming	CA in a chamber 15 minutes.
	Dye Stain	BY40 - water rinse

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
LFBZQ6	Cyanoacrylate Fuming	Used CA chamber. Cycle went for 10 minutes and then purged for 10 minutes.
	Dye Stain	Applied RAM, and allowed it to dry about 10 minutes.
LG8HT7	Cyanoacrylate Fuming	
	Dye Stain	Ardrox
	Alternate Light Source	
LMVZ7H	Visual Examination	Visual exam with room lighting and flashlight
	Alternate Light Source	Crime Lite 2 400-430 nm (yellow glasses) 420-470nm (yellow and orange glasses)
	Powder Dusting	Black powder
MUPRRG	Visual Examination	
	Cyanoacrylate Fuming	fumed about 15 minutes
	Dye Stain	Aqueous R6G
	Alternate Light Source	532nm laser
	Powder Dusting	black
MX7UYL	Powder Dusting	Magnetic Powder 1 minute
NWAYR4	Cyanoacrylate Fuming	78% for 18 minutes
	Alternate Light Source	FSIS II
	Powder Dusting	black powder
	Dye Stain	Ardrox
	Alternate Light Source	
NZ8F3C	Powder Dusting	Magnetic bi-chromatic powder was first used which didn't work well, so then black powder was used.
P2HJDF	Visual Examination	Patent prints were observed - 2 mins photographing
	Powder Dusting	Processing time - 2 mins
PYEQGW	Powder Dusting	BP
QCYLB2	Powder Dusting	Silk black powder

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
QPMPCF	Visual Examination	WITH OBLIQUE LIGHTING
	Alternate Light Source	WITH FORENSIC LIGHT SOURCE
	Cyanoacrylate Fuming	WITH OBLIQUE LIGHTING
	Dye Stain	RHODAMINE WITH FORENSIC LIGHT SOURCE
	Powder Dusting	BLACK POWDER
QYRWVC	Visual Examination	Oblique lighting used to analyze each section of the clear plastic material. FRD visible in Section D.
	Powder Dusting	Black powder used to analyze all sections of the clear plastic material, confirmed to only have FRD present in Section D.
RGPKZF	Powder Dusting	
RJTDWZ	Cyanoacrylate Fuming	
	Dye Stain	Ardrox
RNPWXY	Visual Examination	White light
	Cyanoacrylate Fuming	
	Visual Examination	FSIS/UV
	Dye Stain	R6G
TC8HTB	Visual Examination	Oblique lighting with a flashlight
	Powder Dusting	Black powder
TJ2GGY	Visual Examination	Visual examination to see possible location of latent prints
	Cyanoacrylate Fuming	CA Fumed for approximately 5 minutes, used to develop possible latent prints
	Powder Dusting	Black powder dusting over the CA fumed. to create contrast on developed prints
TJAN8D	Visual Examination	Visual examination of Item 1. Utilized various lighting types to view item. 1-LP1 was located on Item 1 in quadrant D.
	Cyanoacrylate Fuming	Utilized cyanoacrylate (CAE) fuming on Item 1 for the development of ridge detail. Relative humidity during CAE processing was ~70%. 1-LP1 improved after CAE fuming.
	Dye Stain	A chemical dye stain consisting of Rhodamine 6G (R6G) dissolved in distilled water was utilized on Item 1 for the development of ridge detail. A green light laser (532nm) along with the applicable filter (orange) was utilized to visualize ridge detail. 1-LP1 did not improve after chemical dye stain.

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
TPY7NB	Visual Examination	Visual examination with oblique lighting. Latent prints observed and documented on Lab Items 1 and 2. No prints observed on Lab Item 3.
	Alternate Light Source	Examination with Coherent TracER Forensic Laser (532nm) and orange barrier filter. No print observed
	Cyanoacrylate Fuming	Item fumed in fuming chamber for approximately four minutes. Control conducted and passed. One print observed in quadrant D.
	Dye Stain	Rhodamine 6G dye stain. Control conducted and passed. Item washed with Rhodamine and examined with Coherent TracER Forensic Laser 532nm and orange barrier filter. One print observed in quadrant D
	Powder Dusting	Item dusted with black powder. One print observed in quadrant D.
TVZHK8	Visual Examination	overhead light
	Cyanoacrylate Fuming	80% humidity, 18 minutes fuming time, view/vis exam with overhead light
	Dye Stain	basic yellow 40, rinse with DI water, view/vis exam with 450 nm ALS
U4KJCX	Visual Examination	
	Powder Dusting	
UG3QEW	Cyanoacrylate Fuming	vacuum cyanoacrylate fuming chamber
	Powder Dusting	black powder
UKXGK9	Visual Examination	Visual examination with oblique lighting (flashlight)
	Alternate Light Source	Forensic Light Source
	Cyanoacrylate Fuming	CA fuming in chamber (about 5-10 minutes)
	Visual Examination	Viewed developed friction ridge detail using visual examination with oblique lighting (flashlight)
	Dye Stain	Rhodamine 6G
	Alternate Light Source	Viewed developed friction ridge detail using Forensic Light Source
	Powder Dusting	Black powder
URL6GY	Cyanoacrylate Fuming	
	Alternate Light Source	FSIS II
	Powder Dusting	black powder
	Dye Stain	RAM
	Alternate Light Source	

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
UXMJZF	Visual Examination	The piece of evidence was examined visually to see if I could identify where the latent print was located. Thoroughly checking each side of the sheet of plexiglass, focusing my view on each of the assigned spaces A,B,C,D. Always documenting the piece through photography.
	Alternate Light Source	Due to the latent print not being found so easily with just my visual prowess, I added an alternate light source to help the process. Using a flashlight with a white beam of light. Helping identify where the latent print was located in the lower right part of the D section of the sheet of plexiglass. Always documenting the piece through photography.
	Powder Dusting	Once located through an alternate light source the latent print was exposed through the use of black graphite powder and brushes. Working through it with caution not to affect the integrity of the latent print and cleaning the excess of graphite to clean the area. To properly see the latent print and its characteristics. Always documenting the piece through photography.
V4TA67	Powder Dusting	Black, magnetic powder was used for processing.
V8AZ7V	Visual Examination	Latent print was visible in quadrant D prior to processing.
	Cyanoacrylate Fuming	Lot #: 091024-04 Parameters: 80% humidity, 120°C, 4 drops of glue
	Powder Dusting	Black powder; Lot # 102623-01
VAP2MV	Powder Dusting	Lifted with clear fingerprint tape and placed on the back of a white fingerprint card
VEQD8E	Visual Examination	I Perform a visual inspection of the object to locate the fingerprint.
	Alternate Light Source	I used an alternating white light in an oblique direction to highlight fingerprint.
	Graphite Powder	I used Graphite Powder to develop the fingerprint, black.
W39B3T	Visual Examination	
	Cyanoacrylate Fuming	MVC FFLEX S1 120 Degrees C 80% Humidity 10 minute glue time 4 drops of Cyanoacrylate Cyanoacrylate lot number: 091024-04
	Powder Dusting	Black Powder Lot#: 102623-02
W3URGA	Powder Dusting	black powder with brush
WM6MKU	Visual Examination	
	Powder Dusting	
WQZBPN	Cyanoacrylate Fuming	Processed for 10min with 1.7grams of Cyanoacrylate at 80% humidity in out Capture BT fuming chamber.
WY6H6N	Powder Dusting	I used black powder and a brush to dust for latent prints.

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
WZPYPW	Powder Dusting	- Wear personal protective equipment (PPE) and check if the package was well sealed; - Apply a digital photography with camera canon 1100D to record the received package; - Open the package which contains 3 items; - Apply a digital photography with camera canon 1100D for the item 1; - Open the item 1 which contains Quadrants A-D within plexiglass sheet; - Proceed with visual examination of the Quadrants A-D within the plexiglass sheet; - Dusting with Black Powder by using camel hairbrush after wearing appropriate ppe; - Apply a digital photography with camera, reproduction table with ruler closer to the latent print for recording the developed latent print; - Enhancement by using DCS-5 machine with forensic light source (FLS) e.g. Ring light; - Apply a digital photography using DCS-5 camera Nikon D6 to save image of enhanced latent print; - Processing time was about 40 minutes;
XK7X6B	Powder Dusting	Item 1 was treated for about 2 minutes with magnetic black powder
XMTCUL	Cyanoacrylate Fuming	Item was stood up in the fuming chamber, cyanoacrylate was used, item was fumed for approximately 8.5 minutes, print was visible with the naked eye.
XTT3D9	Powder Dusting	Item 1 processed with fingerprint powder. Latent print developed in quadrant D.
Y376Y4	Visual Examination	Visually inspected the item for visible fingerprints and photographed, if any.
	Oblique lighting	Used a flashlight to visually inspect the item for visible fingerprints and photographed, if any.
	Cyanoacrylate Fuming	The item was placed within the fuming chamber along with a control for approximately 5 minutes and any visible fingerprints were photographed.
	Dye Stain	Rhodamine 6G was applied to the item and allowed to dry after the control was tested.
	Alternate Light Source	A forensic light source was used to examine the item for fingerprints and photographed.
	Powder Dusting	Black powder was used to attempt to lift any fingerprints
YKLEZ6	Visual Examination	Includes oblique lighting
	Alternate Light Source	Forensic light source
	Cyanoacrylate Fuming	
	Dye Stain	Rhodamine 6G
	Alternate Light Source	Viewed above dye stain under forensic light source
YQNLGT	Powder Dusting	Processing time – 10 minutes. First step: observation of the object's four sections using both natural and artificial lighting and magnifying glass. Second step: processing the object's four sections by white magnetic powder and magnetic brush, after which the fingerprint was developed in section D.

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
ZAJE3Q	Visual Examination	Latent visible but not captured
	FSIS Examination	Latent captured - quadrant D
	Cyanoacrylate Fuming	Latent visible but not captured
	FSIS Examination	Latent visible but not captured
	Dye Stain	R6G Latent captured - quadrant D
ZHDJVR	Powder Dusting	1. Visual examination 2. Reagent selection-magnetic black powder
ZRYQPB	Visual Examination	First, I made a visual examination to locate the latent print and it was visible in the letter D of the plexiglass sheet.
	Alternate Light Source	Then I used an alternate white light source to highlight the latent print.
	Powder Dusting	I used black magnetic powder to develop the fingerprint with the magnetic brush in the section D.
ZVG8LZ	Visual Examination	Visually examined using a LED flashlight.
	Cyanoacrylate Fuming	CA fumed the plexiglass sheet. Item was hung by a clip to fume both sides of the sheet.

Item 1 - Development Response Summary					Participants: 116
Methods Utilized					
Alternate Light Source	36	Physical Developer	0	Note: Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.	
Cyanoacrylate Fuming	52	Powder Dusting	87		
DFO	0	Visual Examination	68		
Dye Stain	35	Wet Powder Suspension	0		
Ninhydrin	0	1,2-Indanedione	0		

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
2CK2TZ	Powder Dusting	The item was processed using white magnetic power.
2JFYHN	Visual Examination	
	Cyanoacrylate Fuming	Humanity 80%,heat temperature 120°C,fuming time 5min.
2NDK87	Visual Examination	Visual examination - with and without flashlight and oblique light (flashlight)
	Powder Dusting	Powder dusting - black sterile powder and sterile brush
	Photo comparison	Photo comparison - overall, midrange, and close-up comparison photos of the print
3EZQR4	Powder Dusting	black powder used to process for latent prints
3HMAW8	Visual Examination	Observation (Visual Inspection); observed with the naked eye in Quadrant A, as described in Item 2.
	Alternate Light Source	with flashlight.
	Magnetic Black Powder	Using Black Magnetic Powder, applied with a magnetic brush and fiberglass brushes and a Marabou Feather. The latent print was identified in Quadrant A.
3JWHZZ	Visual Examination	oblique lighting with white light and Coherent Tracer laser
	Cyanoacrylate Fuming	CA Fuming for 8-10 minutes
	Dye Stain	Rhodamine 6G with Coherent Tracer Laser
	Powder Dusting	Black powder processing
3Z3JX9	Visual Examination	
	Powder Dusting	
49V9WN	Cyanoacrylate Fuming	-Barrido de luz blanco sobre la superficie del ITEM -Vaporización por cianoacrilato 35 minutos. [Requested translation was not provided by time of publication.]
	Powder Dusting	- Barrido de polvo convencional negro - Barrido de luz blanca sobre la superficie del ITEM. [Requested translation was not provided by time of publication.]
4A3QTY	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	with oblique lighting
	Dye Stain	rhodamine with alternate light source
	Powder Dusting	black powder

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
4QBHWN	Cyanoacrylate Fuming	
	Alternate Light Source	FSIS II
	Powder Dusting	black powder
	Dye Stain	Ardrox
	Alternate Light Source	Crime-Lite AUTO
6HYNF2	Powder Dusting	Black powder applied to each quadrant on the white part of the magnetic picture frame.
6LEHTD	Cyanoacrylate Fuming	Placed items into fuming chamber for approximately 9:30 minutes using cyanoacrylate. Examined developed prints with UV light and Full Spectrum Imaging System.
6R27Q4	Visual Examination	I examined the piece visually for one minute to see if the latent print could be identified, and a simple glance was able to detect it.
	Alternate Light Source	I also examined the piece visually using white alternating light for one minute to see if the latent print could be identified, and it was also detected under alternating light.
	Powder Dusting	Developing the latent print with graphite black latent print powder.
727BHK	Visual Examination	White light, RUVIS
	Lumicyano	Temperature 250F, time 17:00, humidity 75% Laser, RUVIS
7EA2XX	Visual Examination	white light torch
	Alternate Light Source	Polilight, Laser, RUVIS
	Cyanoacrylate Fuming	9 min. heating
	Dye Stain	BY-40, crystal violet
7HA6PK	Visual Examination	11:13 am Examination conducted with a white light - latent print observed in quadrant "A".
	Cyanoacrylate Fuming	11:36 am Cyanoacrylate fuming for 15 minutes.
	Visual Examination	1:04 pm Examination conducted and latent print observed in quadrant "A".
	Dye Stain	1:25 Basic Yellow 40 (BY40) spray of the white part of a magnetic picture frame.
	Alternate Light Source	1:30 pm Examination conducted with ALS Crime-Lite 82S using blue lens and orange goggles. Latent print observed in quadrant "A".
	Powder Dusting	2:05 pm Latent print dusted with black fingerprint powder.

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
7JQ463	Visual Examination	Item 2: Quadrants A-D within the white part of the magnetic picture frame. A visual inspection was conducted with a magnifying glass and alternating white light, locating a fingerprint impression in quadrant A. A photos was taken documenting the finding.
7NJ4JY	Visual Examination	
	Cyanoacrylate Fuming	12 min. fuming
7VF29M	Cyanoacrylate Fuming	80% for 17 min
	Powder Dusting	black powder
	Dye Stain	ardrox
	Alternate Light Source	Crime-Lite AUTO
8RDKBH	Visual Examination	No visual aids, normal room lighting
	Alternate Light Source	Various bandwidths, various filters
	Cyanoacrylate Fuming	CA fuming, approximate 10 minute due to size of chamber and number of items.
	Powder Dusting	Black power
9CGMLT	Powder Dusting	Black magnetic powder used. Dusted with magnetic brush.
9FGXHT	Visual Examination	I attempted to visualize any suspected ridge detail under regular lighting with the unaided eye. Visualized a suspected print in quadrant A.
	Alternate Light Source	I searched item with Crime Light Auto under multiple wavelengths, no fluorescence observed.
	Powder Dusting	I processed item with bi-chromatic powder. Observed development of suspected ridge detail on quadrant A.
9GTUPH	Visual Examination	The item was visually inspected using LED light along with oblique lighting technique.
	Cyanoacrylate Fuming	Item was fumed in the cyanoacrylate fuming chamber for 13 minutes in total and using 20 drops of cyanoacrylate.
	Powder Dusting	The revealed latent fingerprint was enhanced using black in colour conventional powder and a fiberglass brush.
9KA39C	Cyanoacrylate Fuming	Cyanoacrylate Fuming (MVC-1000XI tank) - Control Positive - 20 Minute Cycle
	Dye Stain	Aqueous Rhodamine 6G- control passed. Viewed using Polilight 505 and Orange Filter
	Dye Stain	Ardrox - control Passed. Viewed using Polilight 415.

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
9LLWQW	Powder Dusting	Black powder used to develop latent print.
9MXCKX	Powder Dusting	Black fingerprint powder
9UCGUA	Cyanoacrylate Fuming	Fuming chamber used with cyanoacrylate 9 min.
9W2NGR	Visual Examination	Visual examination using oblique lighting with a flashlight.
	Powder Dusting	Fiberglass brush and black powder.
9XW8JT	Visual Examination	Use of oblique lighting with visual exam.
	Alternate Light Source	Coherent Tracer Forensic Light Source (FLS)
	Cyanoacrylate Fuming	Along with a known control. (Print observed in quadrant A).
	Dye Stain	Rhodamine 6 G dye stain, tested on known control first prior to use on item of evidence.
	Alternate Light Source	Dye stain viewed under FLS. (viewed known control first prior to item of evidence) (Print observed in quadrant A).
	Visual Examination	Standard black latent print powder. (Print lifted from quadrant A).
A6RQXU	Visual Examination	1 mark was visualised with natural light and labelled CTS25-5193Item2_[Initials]2 CTS25-5193Item2_[Initials]2 was captured using DCS-5 under blue light using a Foster & Freeman Crime-lite 8x4 Mk2 (see alternative light source for further information).
	Alternate Light Source	Examination was carried out using Attestor LIGHTcube sources. The following light sources were used: UV narrow angle (365 nm) Violet narrow angle (410 nm) Royal blue narrow angle (447 nm) Blue-green narrow angle (470 nm) Pure green narrow angle (530 nm) Orange narrow angle (590 nm) Pure red narrow angle (630 nm) Examination was carried out using the corresponding filter goggles and after a brief period of darkness adaptation. Foster & Freeman Crime-lite 8x4 Mk2 White (400-700nm), Violet (410nm), Green (520nm), Blue (445nm), Blue-Green (475nm), Orange (590nm) and Red (640nm) UV (365 nm)
	Powder Dusting	CTS25-5193Item2_[Initials]2 enhanced using Black Onyx latent fingerprint powder and captured using DCS-5 and LIGHTcube white light.
	Cyanoacrylate Fuming	Forenteq Megafume M61 cabinet used with standard cyanoacrylate pre-set process (15 min fuming at 80% Relative Humidity) Full spectrum Light-cube examination as per Alternative Light Source comments. Further enhancement required.
	Alternate Light Source	CTS25-5193Item2_[Initials]2 enhanced using rUV and captured using DCS-5 with a Jenoptik 60mm UV Transmitting Quartz Lens and Baader filter.
AA9U6Y	Powder Dusting	Black powder

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
AJBE8R	Visual Examination	Visual inspection using flashlight with oblique lighting.
	Forensic Light Source/Laser	Coherent Tracer
	Cyanoacrylate Fuming	CA Fuming Chamber-10 minutes
	Dye Stain	Rhodamine 6
	Forensic Light Source/Laser	FLS-Laser
	Powder Dusting	Black Powder
AMCHXT	Visual Examination	Oblique lighting
	Powder Dusting	Black powder
AN8ZYU	Visual Examination	white light examination
	Alternate Light Source	Polilight PL 500 illuminator, full range of visible light spectrum, yellow, orange, red filter
	Cyanoacrylate Fuming	MVC FFLEX M chamber, 80% RH, 120°C, 0,5g cyanoacrylate glue white light observation
	Dye Stain	Basic Yellow 40 UV observation - orange filter
ARN37Z	Visual Examination	A visual inspection was made with alternative light for the piece of evidence, but it was not visible.
	Alternate Light Source	I used alternate white light source to locate the latent print, but it was not visible.
	Powder Dusting	The piece of evidence was worked with black magnetic powder to develop the fingerprint in the letter A.
AZWWZT	Visual Examination	with oblique lighting
	Powder Dusting	with regular black powder
CFKRPN	Visual Examination	Oblique lighting using a flashlight
	Powder Dusting	Bi-chromatic fingerprint power and brush
CN26Q9	Powder Dusting	BP

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
CQ47TQ	Visual Examination	Examined object with the naked eye, oblique lighting, and with a forensic light source.
	Cyanoacrylate Fuming	Fumed the item of evidence for approximately 10 minutes.
	Dye Stain	Used Rhodamine 6G dye stain to further visualize latent prints.
	Powder Dusting	Used black powder to process the item.
CUGJ8F	Powder Dusting	Brush and Black Powder
D6LBFD	Visual Examination	Oblique lighting
	Powder Dusting	Black powder
DC7EMF	Visual Examination	
	Powder Dusting	Magnetic powder
DE7MRQ	Visual Examination	Friction ridge detail observed in Quadrant A
	Powder Dusting	All 4 quadrants processed with fingerprint powder. Friction ridge detail developed in Quadrant A.
DH8QJD	Powder Dusting	Magnetic Two tone powder were used with magnetic applicator
DL72ED	Cyanoacrylate Fuming	Superglue application method, basic yellow 40 staining method ten o'clock
DZM38W	Alternate Light Source	Mark search was done by following ways: 1. Blue Light (445 nm) using Goggle (495 nm). 2. Green Light (532 nm) using Goggle (550 nm) No print found
	Cyanoacrylate Fuming	Processing Time: 45 mins, which includes Humidifying, Fuming and Purging. After 45 mins. A print was found in section A.
	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). Print Found on A. and Photographed.
E9DYCB	Visual Examination	Used room lighting and held item at various angles to search for ridge detail. Faint ridge detail was observed in Quadrant A.
	Cyanoacrylate Fuming	Used Air Science SafeFume chamber and Evident CAE. Chamber temperature was ~74 degF and relative humidity was ~75.1%. Item was fumed for ~15 minutes. Test print (control) OK. Ridge detail was observed in Quadrant A, designated with photo marker 2-L1, and photographed.
	Dye Stain	Item was processed with Evident fluorescent dye stain RAM and visualized with an ALS at 475 nm and 550 LP filter (Foster + Freeman Crimelite AUTO). Test print (control) OK. Latent print 2-L1 in Quadrant A was observed and photographed.
EAJZ7D	Powder Dusting	Black powder, Zephyr Brush

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
EG7FYU	Powder Dusting	I started by wearing a mask, wore a clean set of gloves and had a clean workstation. I previously had written the lot # and expiration of the black powder used. I opened item #2 and noted the time I opened the package and a description. I placed a small amount of powder into a clean, plastic bag and dipped the clean brush into the powder. I made sure to get rid of any excess powder on the brush. Then I began to gently, swirl the brush with the powder in a circular motion on item #2, which was a magnetic picture frame with four quadrants labeled as A, B, C and D. I continued to swirl the brush, until a possible fingerprint was developed on a quadrant. For item #2, I located a possible fingerprint on quadrant A. Without adding additional powder to the brush, I enhanced the print with the powder. I utilized oblique lighting with my flashlight to make sure that there were no other prints present on the magnetic picture frame. I changed my gloves as needed and wore a mask the entirety of the process.
EPZH6C	Cyanoacrylate Fuming RAM	
F2AHA4	Visual Examination	Direct lighting was used to visualize any latent on the item, and ridges were seen and preserved with direct lighting from a ring light and photographed.
	Cyanoacrylate Fuming	Placed item into an enclosed chamber along with a humidifier, test print, and a dish of cyanoacrylate on a heating plate. The fuming occurred for 12 minutes and then the fumes were vented. Visualized/photographed print using direct lighting with a ring light.
	Dye Stain	After testing the control print with Basic Yellow 40, the dye was applied to the item and rinsed with DI water. After it completely dried, it was visualized/photographed using a yellow filter and a 450 nm light source.
F4XRLQ	Powder Dusting	Black powder
F73GQK	Visual Examination	Examination done using natural light and a flashlight.
	Cyanoacrylate Fuming	Used Misonix fuming chamber set to 70% humidity, 12 minute fume time and 10 minute purge time.
	Dye Stain	Basic Yellow 40 sprayed onto item followed by a rinse with distilled water. Viewed and photographed developed latent print using a 450 nm forensic light source with a yellow filter.
FDNCRN	Visual Examination	normal flashlight
	Alternate Light Source	UV flashlight at low angle
	Powder Dusting	black powder
FP376	Powder Dusting	BP

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
FV7BWL	Visual Examination	White light
	Alternate Light Source	handheld LED ultraviolet light (365nm)
	Alternate Light Source	Crime Scope at 515 nm
	RUVIS	Reflective Ultraviolet Imaging System (RUVIS), 254nm
G6AT64	Powder Dusting	BP
GALVUK	Visual Examination	w/ oblique light
	Forensic Light Source	Forensic Light Source
	Cyanoacrylate Fuming	w/ oblique light (Lot#: 202503101; Exp: 04-2026)
	Dye Stain	w/ Forensic Light Source Rhodamine (Lot#: R6G-072225; Exp: 01/22/2026)
	Powder Dusting	Black Powder
H4ERGR	Powder Dusting	Work for approximately one minute until the print is seen, with magnetic black powder.
H68F29	Cyanoacrylate Fuming	0.145g glue FOSTER AND FREEMAN CABINET 147
	Dye Stain	BY 04 25 ETHANOL BASED BY40
H93AV3	Powder Dusting	BP
HW3EBA	Powder Dusting	Black Powder, Zephyr Brush
J6YVPP	Visual Examination	Oblique Lighting
	Powder Dusting	Bichromatic Powder using a "Arrowhead Forensics Cyclone #A-2488" fingerprint brush - dipped the brush in powder and twirled off the excess powder - lightly brushed over the item until the print was visible
J92WPL	Powder Dusting	Black powder
JCJYWR	Powder Dusting	Following the initial examination of the sample, no impression was observed with a naked eye, a fine, soft, bristled brush was utilized to apply black graphite powder to the surface. Subsequently, a medium-bristled brush was employed to evenly distribute the powder, which successfully developed a latent fingerprint impression, located on the latter A
JJKBTN	Visual Examination	Visual examination with ambient light and oblique lighting via flashlight
	Powder Dusting	Sterile black powder application over all sides of item, followed by sterile magnetic powder application to area of black powder adherence

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
JMJLNN	Visual Examination	After removing the item from the package and photographing it, I visually inspected the item. I identified what side the quadrants were labeled. I then used oblique lighting to visually inspect the item; Oblique lighting was done with a flashlight.
	Powder Dusting	I obtained a sterile brush in a package. I bleached my gloves. I obtained a new weigh boat. I poured sterile black powder into the new weigh boat. I opened the sterile brush packaging just enough that the stem of the brush was accessible. I bleached my gloves. I removed the sterile brush from the packaging. I gathered some of the black powder by dipping the brush into the weigh boat a few times, approximately 3. I then held the brush over the weigh boat, brush pointed down, and twisted the brush back and forth to remove excess powder. This process was done twice. I utilized the now black powder coated brush, using a back-and-forth twisting motion, to dust over the entire surface of the front side of the item to process it for latent prints.
	Visual Examination	After processing, I visually inspected the surface of the front side of the item for evidence of a latent print. I visually identified a latent print located in quadrant A. I then utilized oblique lighting to identify if more powder was necessary for additional development; oblique lighting was done with a flashlight.
JYWPAL	Visual Examination	Patent prints were observed and photographed with a scale - 5 minutes
	Cyanoacrylate Fuming	I fumed in a super glue chamber for 20 minutes at 80% humidity and did a 10 minute purge cycle.
	Powder Dusting	I dusted with black powder - 2 minutes
KJ3JGJ	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	Rhodamine 6G
	Alternate Light Source	Visualized print after Rhodamine
	Powder Dusting	Black powder
KQD3DM	Visual Examination	Visually examined with flashlight.
	Powder Dusting	Biochromatic Powder
LEZ3JE	Visual Examination	Overhead lighting.
	Cyanoacrylate Fuming	CA in fume hood 15 minutes.
	Dye Stain	BY40 - water rinse

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
LFBZQ6	Cyanoacrylate Fuming	Used CA chamber. Cycle went for 10 minutes and then purged for 10 minutes.
	Dye Stain	Applied RAM, and allowed it to dry about 10 minutes.
LG8HT7	Cyanoacrylate Fuming	
	Dye Stain	Ardrox
	Alternate Light Source	
LMVZ7H	Visual Examination	Visual exam with room lighting and flashlight
	Alternate Light Source	Crime Lite 2 400-430 nm (yellow glasses) 420-470nm (yellow and orange glasses)
	Powder Dusting	Black powder on light/clear areas White powder on dark areas
MUPRRG	Visual Examination	
	Cyanoacrylate Fuming	Fumed about 15 minutes
	Dye Stain	Aqueous R6G
	Alternate Light Source	532nm laser
	Powder Dusting	black
MX7UYL	Powder Dusting	Magnetic Powder 1 Minute
NWAYR4	Cyanoacrylate Fuming	78% for 18 min
	Alternate Light Source	FSIS II
	Powder Dusting	black powder
	Dye Stain	Ardrox
	Alternate Light Source	
NZ8F3C	Powder Dusting	Black powder was used.
P2HJDF	Visual Examination	Patent prints observed - 5 mins photographing
	Powder Dusting	Processing time - 2 mins
PYEQGW	Magnetic Powder dusting	MP
QCYLB2	Powder Dusting	Silk black powder

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
QPMFPC	Visual Examination	WITH OBLIQUE LIGHTING
	Alternate Light Source	FORENSIC LIGHT SOURCE
	Cyanoacrylate Fuming	WITH OBLIQUE LIGHTING
	Dye Stain	RHODAMINE WITH FORENSIC LIGHT SOURCE
	Powder Dusting	BLACK POWDER
QYRWVC	Visual Examination	Oblique lighting used to analyze each section of the white portion of the item. FRD visible in Section A.
	Powder Dusting	Black powder used to analyze all sections of the white portion of the item, confirmed to only have FRD present in Section A.
RGPKZF	Powder Dusting	
RJTDWZ	Cyanoacrylate Fuming	
	Dye Stain	Ardrox
RNPWXY	Visual Examination	White light
	Cyanoacrylate Fuming	
	Visual Examination	FSIS/UV
	Dye Stain	R6G
TC8HTB	Visual Examination	Oblique lighting with a flashlight
	Powder Dusting	Black powder
TJ2GGY	Visual Examination	Visual examination to see possible location of latent prints
	Cyanoacrylate Fuming	CA Fumed for approximately 5 minutes, used to develop possible latent prints
	Powder Dusting	Black powder dusting over the CA fumed. to create contrast on developed prints
TJAN8D	Visual Examination	Visual examination of Item 2. Utilized various lighting types to view item. 2-LP1 was located on Item 2 in quadrant A.
	Cyanoacrylate Fuming	Utilized cyanoacrylate (CAE) fuming on Item 2 for the development of ridge detail. Relative humidity during CAE processing was ~70%. 2-LP1 improved after CAE fuming.
	Dye Stain	A chemical dye stain consisting of Rhodamine 6G (R6G) dissolved in distilled water was utilized on Item 2 for the development of ridge detail. A green light laser (532nm) along with the applicable filter (orange) was utilized to visualize ridge detail. 2-LP1 improved after chemical dye stain with R6G.

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
TPY7NB	Visual Examination	Visual examination with oblique lighting. Latent print observed in Quadrant A.
	Alternate Light Source	Examination with Coherent TracER Forensic Laser (532nm) and orange barrier filter. No print observed
	Cyanoacrylate Fuming	Item fumed in fuming chamber for approximately four minutes. Control conducted and passed. One print observed in quadrant A.
	Dye Stain	Rhodamine 6G dye stain. Control conducted and passed. Item washed with Rhodamine and examined with Coherent TracER Forensic Laser 532nm and orange barrier filter. One print observed in quadrant A.
	Powder Dusting	Item dusted with black powder. One print observed in quadrant A.
TVZHK8	Visual Examination	overhead light
	Cyanoacrylate Fuming	80% humidity, 18 minutes fuming time, view/vis exam with overhead light
	Dye Stain	basic yellow 40, rinse with DI water, view/vis exam with 450 nm ALS
U4KJCX	Visual Examination	
	Powder Dusting	
UG3QEW	Cyanoacrylate Fuming	vacuum cyanoacrylate fuming chamber
	Powder Dusting	black powder
UKXGK9	Visual Examination	Visual examination with oblique lighting (flashlight)
	Alternate Light Source	Forensic Light Source
	Cyanoacrylate Fuming	CA fuming in chamber (about 5-10 minutes)
	Visual Examination	Viewed developed friction ridge detail using visual examination with oblique lighting (flashlight)
	Dye Stain	Rhodamine 6G
	Alternate Light Source	Viewed developed friction ridge detail using Forensic Light Source
	Powder Dusting	Black powder
URL6GY	Cyanoacrylate Fuming	
	Alternate Light Source	FSIS II
	Powder Dusting	black powder
	Dye Stain	RAM
	Alternate Light Source	

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
UXMJZF	Visual Examination	The piece of evidence was examined visually to see if I could identify where the latent print was located. Thoroughly checking each side of the white part of a magnetic picture frame, focusing my view on each of the assigned spaces A,B,C,D. Always documenting the piece through photography.
	Alternate Light Source	Due to the latent print not being found so easily with just my visual prowess, I added an alternate light source to help the process. Using a flashlight with a white beam of light. Helping identify where the latent print was located in the middle left part of the A section of the white part of a magnetic picture frame. Always documenting the piece through photography.
	Powder Dusting	Once located through an alternate light source the latent print was exposed through the use of black magnetic graphite powder and brushes. Working through it with caution not to affect the integrity of the latent print and cleaning the excess of graphite to clean the area. To properly see the latent print and its characteristics. Always documenting the piece through photography.
V4TA67	Powder Dusting	Black, magnetic powder was used for processing.
V8AZ7V	Visual Examination	Latent print was visible in quadrant A prior to processing.
	Cyanoacrylate Fuming	Lot #: 091024-04 Parameters: 80% humidity, 120°C, 4 drops of glue
	Powder Dusting	Black powder; lot # 102623-01
VAP2MV	Powder Dusting	Black Powder, lifted with clear fingerprint tape and placed on a white fingerprint card.
VEQD8E	Visual Examination	I Perform a visual inspection of the object to locate the fingerprint.
	Alternate Light Source	I used an alternating white light in an oblique direction to highlight fingerprint.
	Graphite Powder	I used Graphite Powder to develop the fingerprint, black.
W39B3T	Visual Examination	
	Cyanoacrylate Fuming	MVC FFLEX S1 120 Degrees C 80% Humidity 10 minute glue time 4 drops of Cyanoacrylate Cyanoacrylate lot number: 091024-04
	Powder Dusting	Black Powder Lot#: 102623-02
W3URGA	Powder Dusting	black powder with brush
WM6MKU	Visual Examination	
	Powder Dusting	
WQZBPN	Cyanoacrylate Fuming	Processed for 10min with 1.7grams of Cyanoacrylate at 80% humidity in out Capture BT fuming chamber.
WY6H6N	Powder Dusting	I used black powder and a brush to dust for latent prints.

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
WZPYPW	Powder Dusting	- Wear personal protective equipment (PPE) and check if the package was well sealed; - Apply a digital photography with camera canon 1100D for item 2; - Open item 2 containing one security envelope; - Proceed with visual examination; - Apply digital photography with camera canon 1100D for recording one security envelope, Quadrants A-D within the white part of the magnetic picture frame; - Dusting with Black Powder by using camel hair brush after wearing appropriate ppe; - Apply a digital photography with camera, reproduction table with ruler closer to the latent print for recording the developed latent print; - Enhancement by using DCS-5 machine with forensic light source (FLS) e.g. Ring light; - Apply digital photography by using DCS-5 camera Nikon D6 to save image of enhanced latent print; - Processing time was about 40 minutes;
XK7X6B	Powder Dusting	Item 1 was treated for about 2 minutes with magnetic black powder
XMTCUL	Cyanoacrylate Fuming	Item hung in the fuming chamber, cyanoacrylate was used, item was fumed for approximately 8.5 minutes, print was visible with the naked eye.
XTT3D9	Powder Dusting	Item 2 processed with fingerprint powder. Latent print developed in quadrant A.
Y376Y4	Visual Examination	Visually inspected the item for visible fingerprints and photographed, if any.
	Oblique lighting	Used a flashlight to visually inspect the item for visible fingerprints and photographed, if any.
	Cyanoacrylate Fuming	The item was placed within the fuming chamber along with a control for approximately 5 minutes and any visible fingerprints were photographed.
	Dye Stain	Rhodamine 6G was applied to the item and allowed to dry after the control was tested.
	Alternate Light Source	A forensic light source was used to inspect the item for fingerprints and photographed.
	Powder Dusting	Black powder was used to attempt to lift any fingerprints.
YKLEZ6	Visual Examination	Include oblique lighting
	Alternate Light Source	Forensic light source
	Cyanoacrylate Fuming	
	Dye Stain	Rhodamine 6G
	Alternate Light Source	Viewed above dye stain under forensic light source
YQNLGT	Powder Dusting	Processing time – 15 minutes, First step: observation of the object's four sections using both natural and artificial lighting and magnifying glass. Second step: processing the object's four sections by black non-magnetic powder and Squirrel hair brush, after which the fingerprint was developed in section A.

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
ZAJE3Q	Visual Examination	Latent visible but not captured
	FSIS Examination	Latent captured - quadrant A
	Cyanoacrylate Fuming	Latent visible but not captured
	FSIS Examination	Latent visible but not captured
	Dye Stain	R6G Latent captured - quadrant A
ZHDJVR	Powder Dusting	1. Visual examination 2. Reagent selection-black conventional powder
ZRYQBB	Visual Examination	First, I made a visual examination to locate the latent print and it was visible in the letter A of the magnetic picture frame.
	Alternate Light Source	Then I used an alternate white light source to highlight the latent print.
	Powder Dusting	I used black powder, a squirrel hairbrush and a marabou hairbrush to develop the fingerprint in section A.
ZVG8LZ	Visual Examination	Visually examined using a LED flashlight.
	Cyanoacrylate Fuming	CA fumed the magnetic picture frame. Item was opened and hung by clips to fume both inside and outside of the parafilm sheet, along with the white side of the magnet.
	Powder Dusting	Black magnetic powder was used to develop latent print.

Item 2 - Development Response Summary				Participants: 116
Methods Utilized				
Alternate Light Source	39	Physical Developer	0	Note: Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.
Cyanoacrylate Fuming	52	Powder Dusting	85	
DFO	0	Visual Examination	69	
Dye Stain	35	Wet Powder Suspension	0	
Ninhydrin	0	1,2-Indanedione	0	

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
2CK2TZ	Powder Dusting	The item was processed using white magnetic power.
2JFYHN	Visual Examination	
	Cyanoacrylate Fuming	Humanity 80%,heat temperature 120°C,fuming time 5min.
	Powder Dusting	
2NDK87	Powder Dusting	Visual examination - with and without flashlight and oblique light (flashlight)
	Powder Dusting	Powder dusting - black sterile powder and sterile brush
	Photo comparison	Photo comparison - overall, midrange, and close-ups comparison photos of the print
3EZQR4	Powder Dusting	black powder was used to develop latent print
3HMAW8	Visual Examination	Observation (Visual Inspection); observed with the naked eye in Quadrant B, as described in Item 3.
	Alternate Light Source	with flashlighth.
	Magnetic Black Powder	Using Black Magnetic Powder, applied with a magnetic brush and fiberglass brushes and a Marabou Feather. The latent print was identified in Quadrant B.
3JWHZZ	Visual Examination	oblique lighting with white light and Coherent Tracer laser
	Cyanoacrylate Fuming	CA Fuming for 8-10 minutes
	Dye Stain	Rhodamine 6G with Coherent Tracer Laser
	Powder Dusting	Black powder processing
3Z3JX9	Visual Examination	
	Powder Dusting	
49V9WN	Cyanoacrylate Fuming	- barrido de luz blanco sobre la superficie del ITEM -Vaporización por cianoacrilato 35 minutos. [Requested translation was not provided by time of publication.]
	Powder Dusting	- Barrido de polvo convencional blanco - Barrido de luz blanca sobre la superficie del ITEM. [Requested translation was not provided by time of publication.]

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
4A3QTY	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	with oblique lighting
	Dye Stain	rhodamine with alternative light source
	Powder Dusting	black powder
4QBHWN	Cyanoacrylate Fuming	
	1,2-Indanedione	FSIS II
	Powder Dusting	black powder
	Dye Stain	Ardrox
	Alternate Light Source	Crime-Lite AUTO
6HYNF2	Powder Dusting	Black powder applied to each quadrant within the inside of the tin box.
6LEHTD	Cyanoacrylate Fuming	Placed items into fuming chamber for approximately 9:30 minutes using cyanoacrylate. Examined developed prints with UV light and Full Spectrum Imaging System.
6R27Q4	Visual Examination	I examined the piece visually for one minute to see if the latent print could be identified, but it could not be seen.
	Alternate Light Source	For one minute examine the piece using an alternating white light to see if the latent print could be identified, it could not be visualized.
	Cyanoacrylate Fuming	The piece to be worked was place in a sealed fish tank with the reagent Cyano Shot Activator Solution and Activator Crystal Canister for 30 minutes, after which it was detected the laten print.
	Powder Dusting	After detecting the latent print using the method cyanoacrylate fuming, it was also developed with graphite black latent print powder.
727BHK	Visual Examination	White light, RUVIS
	Lumicyano	Temperature 250F, time 17:00, humidity 75% Laser, RUVIS
7EA2XX	Visual Examination	white light torch
	Alternate Light Source	Polilight, LASER, RUVIS
	Cyanoacrylate Fuming	7 min. heating
	Dye Stain	BY-40, crystal violet

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
7HA6PK	Visual Examination	11:13 am Examination conducted with a white light - latent print observed in quadrant "B".
	Cyanoacrylate Fuming	11:36 am Cyanoacrylate fuming for 15 minutes.
	Visual Examination	1:04 pm Examination conducted and latent print observed in quadrant "B".
	Dye Stain	1:25 Basic Yellow 40 (BY40) spray of the interior area of the tin box.
	Alternate Light Source	1:30 pm Examination conducted with ALS Crime-Lite 82S using blue lens and orange goggles. Latent print observed in quadrant "B".
	Powder Dusting	2:15 pm Latent print dusted with black fingerprint powder.
7JQ463	Visual Examination	Item 3: Quadrants A-D within the inside of the tin box. (Flat surface area only, excluding inner walls). A visual inspection was conducted with a magnifying glass and alternating white light, locating a fingerprint impression in quadrant B. A photos was taken documenting the finding.
7NJ4JY	Visual Examination	
	Cyanoacrylate Fuming	12 min. fuming
7VF29M	Cyanoacrylate Fuming	80% for 17 min
	Powder Dusting	black powder
	Dye Stain	ardrox
	Alternate Light Source	Crime-Lite AUTO
8RDKBH	Visual Examination	No visual aids, normal room lighting
	Alternate Light Source	Various bandwidths, various filters
	Cyanoacrylate Fuming	CA fuming, approximately 10 minutes due to size of chamber and number of items.
	Powder Dusting	Black powder
9CGMLT	Powder Dusting	Black magnetic powder used. Dusted with magnetic brush.
9FGXHT	Visual Examination	I attempted to visualize any suspected ridge detail under regular lighting with the unaided eye. No obvious ridge detail was observed.
	Alternate Light Source	I searched item with Crime Light Auto under multiple wavelengths, no fluorescence observed.
	Powder Dusting	I processed item with bi-chromatic powder. Observed development of suspected ridge detail on quadrant B.

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
9GTUPH	Visual Examination	The item was visually inspected using LED light along with oblique lighting technique.
	Cyanoacrylate Fuming	Item was fumed in the cyanoacrylate fuming chamber for 13 minutes in total and using 20 drops of cyanoacrylate.
	Powder Dusting	The revealed latent fingerprint was enhanced using black in colour conventional powder and a fiberglass brush.
9KA39C	Cyanoacrylate Fuming	Cyanoacrylate Fuming (MVC-1000XI tank) - Control Positive - 20 Minute Cycle
	Dye Stain	Aqueous Rhodamine 6G- control passed. Viewed using Polilight 505 and Orange Filter
	Dye Stain	Ardrox - control Passed. Viewed using Polilight 415.
9LLWQW	Powder Dusting	Black powder used to develop latent print.
9MXCKX	Powder Dusting	White fingerprint powder
9UCGUA	Cyanoacrylate Fuming	Fuming chamber used with cyanoacrylate 9 min.
9W2NGR	Visual Examination	Visual examination using oblique lighting with a flashlight.
	Powder Dusting	Fiberglass brush and black powder.
9XW8JT	Visual Examination	Use of oblique lighting with visual exam.
	Alternate Light Source	Coherent Tracer Forensic Light Source (FLS)
	Cyanoacrylate Fuming	Along with a known control. (Print observed in quadrant B).
	Dye Stain	Rhodamine 6 G dye stain, tested on known control first prior to use on item of evidence.
	Alternate Light Source	Dye stain viewed under FLS. (viewed known control first prior to item of evidence) (Print observed in quadrant B).
	Powder Dusting	Standard black latent print powder.

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
A6RQXU	Visual Examination	Evidence of touch but insufficient ridge detail to capture.
	Alternate Light Source	Examination was carried out using Attestor LIGHTcube sources. The following light sources were used: UV narrow angle (365 nm) Violet narrow angle (410 nm) Royal blue narrow angle (447 nm) Blue-green narrow angle (470 nm) Pure green narrow angle (530 nm) Orange narrow angle (590 nm) Pure red narrow angle (630 nm) Examination was carried out using the corresponding filter goggles and after a brief period of darkness adaptation. Foster & Freeman Crime-lite 8x4 Mk2 White (400-700nm), Violet (410nm), Green (520nm), Blue (445nm), Blue-Green (475nm), Orange (590nm) and Red (640nm) UV (365 nm)
	Powder Dusting	1 mark developed using black onyx latent fingerprint powder and labelled CTS25-5193Item3_[Initials]3. CTS25-5193Item3_[Initials]3 captured using DCS-5 and LIGHTcube white light.
	Cyanoacrylate Fuming	CTS25-5193Item3_[Initials]3 enhanced using Forenteq Megafume M61 cabinet used with standard cyanoacrylate pre-set process (15 min fuming at 80% Relative Humidity). CTS25-5193Item3_[Initials]3 recaptured using DCS-5 and oblique lighting with white light.
	Dye Stain	CTS25-5193Item3_[Initials]3 was enhanced with Basic Yellow 40 solution, prepared according to the method in the CAST FVM. The dye solution was applied using a spraying method and dried in a Voigtländer VTR forensic drying cabinet. CTS25-5193Item3_[Initials]3 recaptured using DCS-5 and a Blue Crime-lite.
AA9U6Y	Powder Dusting	Black powder
AJBE8R	Visual Examination	Visual inspection using flashlight with oblique lighting.
	Forensic Light Source/Laser	Coherent Tracer
	Cyanoacrylate Fuming	CA Fuming Chamber-10 minutes
	Dye Stain	Rhodamine 6
	Forensic Light Source/Laser	FLS-Laser
	Powder Dusting	Black Powder
AMCHXT	Visual Examination	Oblique lighting
	Powder Dusting	Black powder

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
AN8ZYU	Visual Examination	white light examination
	Alternate Light Source	Polilight PL 500 illuminator, full range of visible light spectrum, yellow, orange, red filter
	Cyanoacrylate Fuming	MVC FFLEX M chamber, 80% RH, 120°C, 0,5g cyanoacrylate glue white light observation
	Dye Stain	Basic Yellow 40 UV observation - orange filter
ARN37Z	Visual Examination	A visual inspection was made with alternative light for the piece of evidence, but it was not visible.
	Alternate Light Source	I used alternate white light source to locate the latent print, but it was not visible.
	Powder Dusting	The piece of evidence was worked with black magnetic powder to develop the fingerprint in the letter B.
AZWWZT	Visual Examination	using oblique lighting
	Powder Dusting	Using black powder and visual
CFKRPN	Visual Examination	Oblique lighting using a flashlight
	Powder Dusting	Black fingerprint power and brush
CN26Q9	Powder Dusting	BP
CQ47TQ	Visual Examination	Examined object with the naked eye, oblique lighting, and with a forensic light source.
	Cyanoacrylate Fuming	Fumed the item of evidence for approximately 10 minutes.
	Dye Stain	Used Rhodamine 6G dye stain to further visualize latent prints.
	Powder Dusting	Used black powder to process the item.
CUGJ8F	Powder Dusting	Brush and Black Powder
D6LBFD	Visual Examination	Oblique lighting
	Cyanoacrylate Fuming	Non-vacuum chamber (45minutes)
	Powder Dusting	Black powder
DC7EMF	Visual Examination	
	Powder Dusting	Magnetic powder

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
DE7MRQ	Visual Examination	No friction ridge detail observed
	Powder Dusting	All 4 quadrants processed with fingerprint powder. Friction ridge detail developed in Quadrant B
DH8QJD	Powder Dusting	Two tone silver black powder were used
DL72ED	Cyanoacrylate Fuming	Superglue application method, basic yellow 40 staining method ten o'clock
DZM38W	Alternate Light Source	Mark search was done by following ways: 1. Blue Light (445 nm) using Goggle (495 nm). 2. Green Light (532 nm) using Goggle (550 nm) No print found.
	Cyanoacrylate Fuming	Processing Time: 45 mins, which includes Humidifying, Fuming and Purging. After 45 mins. A print was found in section B.
E9DYCB	Visual Examination	Used room lighting and held item at various angles to search for ridge detail. No ridge detail was observed.
	Cyanoacrylate Fuming	Used Air Science SafeFume chamber and Evident CAE. Chamber temperature was ~74 degF and relative humidity was ~75.1%. Item was fumed for ~15 minutes. Test print (control) OK. Ridge detail was observed in Quadrant B, designated with photo marker 3-L1, and photographed.
	Dye Stain	Item was processed with Evident fluorescent dye stain RAM and visualized with an ALS at 475 nm and 550 LP filter (Foster + Freeman Crimelite AUTO). Test print (control) OK. Latent print 3-L1 in Quadrant B was observed and photographed.
EAJZ7D	Powder Dusting	Black Powder, zephyl brush
EG7FYU	Powder Dusting	From the previous item, I was wearing a mask, wore a clean set of gloves and was at a clean workstation. I previously had written the lot # and expiration of the black powder used. I opened item #3 and noted the time I opened the package and a description. Item #3 was a black tin box. First, I obtained bichromatic powder to powder process the exterior of the tin box. I placed a small quantity of bichromatic powder into a clean, plastic bag and obtained a new brush for this type of powder. I dipped the brush in the powder and made sure to get rid of any excess powder on the brush. I began to gently, swirl the brush in a circular motion on the exterior of the tin box. I did not observe any possible fingerprints on the exterior of the tin box; I utilized oblique lighting to look for any possible fingerprints. I opened the box, and the interior was divided into 4 different quadrants labeled as A, B, C, D. For the interior of the tin box, I used black powder. I obtained a clean brush and placed a small quality of black powder in a clean, plastic bag. I dipped the brush in the powder and got rid of excess powder on the brush. I began to gently, swirl the brush in a circular motion on the interior of the tin brush. For item #3, I located a possible fingerprint on quadrant B. Without adding additional powder to the brush, I enhanced the print with the powder. I utilized oblique lighting with my flashlight to make sure that there were no other prints present on interior of the tin box. I changed my gloves as needed and wore a mask the entirety of the process.

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
EPZH6C	Cyanoacrylate Fuming RAM	
F2AHA4	Visual Examination	Room and oblique lighting were used to visualize any latent on the item, but no ridges were seen.
	Cyanoacrylate Fuming	Placed item into an enclosed chamber along with a humidifier, test print, and a dish of cyanoacrylate on a heating plate. The fuming occurred for 12 minutes and then the fumes were vented. Visualized/photographed print using direct lighting with a flashlight and room lighting.
	Dye Stain	After testing the control print with Basic Yellow 40, the dye was applied to the flat sides of the inside of the tin box and rinsed with DI water. After it completely dried, it was visualized/photographed using a yellow filter and a 450 nm light source.
F4XRLQ	Powder Dusting	White powder
F73GQK	Visual Examination	Examination done using natural light and a flashlight.
	Cyanoacrylate Fuming	Used Misonix fuming chamber set to 70% humidity, 12 minute fume time and 10 minute purge time.
	Dye Stain	Basic Yellow 40 sprayed onto item followed by a rinse with distilled water. Viewed and photographed developed latent print using a 450 nm forensic light source with a yellow filter.
FDNCRN	Visual Examination	normal flashlight
	Alternate Light Source	415 nm w/ yellow goggles
	Powder Dusting	black power
FPN376	Powder Dusting	BP
FV7BWL	Visual Examination	White light
	Alternate Light Source	handheld LED ultraviolet light (365nm)
	Alternate Light Source	Crime Scope at 515 nm
	RUVIS	Reflective Ultraviolet Imaging System (RUVIS), 254nm
G6AT64	Powder Dusting	BP

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
GALVUK	Visual Examination	w/ oblique light
	Forensic Light Source	Forensic Light Source
	Cyanoacrylate Fuming	w/ oblique light (Lot #: 202503101; Exp: 04-2026)
	Dye Stain	w/ Forensic Light Source Rhodamine (Lot#: R6G-072225; Exp: 01/22/2026)
	Powder Dusting	Black Powder
H4ERGR	Powder Dusting	Work for approximately one minute until the print is seen, with conventional black powder.
H68F29	Cyanoacrylate Fuming	0.145g glue FOSTER AND FREEMAN CABINET 147
	Dye Stain	BY 04 25 ETHANOL BASED BY40
H93AV3	Powder Dusting	BP
HW3EBA	Powder Dusting	Black Powder, Zephyr Brush
J6YVPP	Visual Examination	Oblique Lighting
	Powder Dusting	Bichromatic Powder using a "Arrowhead Forensics Cyclone #A-2488" fingerprint brush - dipped the brush in powder and twirled off the excess powder - lightly brushed over the item until the print was visible
J92WPL	Powder Dusting	Black and white powders
JCJYWR	Powder Dusting	Following the initial examination of the sample, an impression was visually observed with the naked eye, a fine, soft, bristled brush was utilized to apply black graphite powder to the surface. Subsequently, a medium-bristled brush was employed to evenly distribute the powder, which successfully developed a latent fingerprint impression, located on the latter B
JJKBTN	Visual Examination	Visual examination with ambient light and oblique lighting via flashlight
	Powder Dusting	Sterile black powder application over all sides of item, followed by sterile magnetic powder application to area of black powder adherence

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
JMJJNN	Visual Examination	After removing the item from the package and photographing it, I visually inspected the item. I identified where the quadrants were labeled. I then used oblique lighting to visually inspect the item; Oblique lighting was done with a flashlight.
	Powder Dusting	I obtained a sterile brush in a package. I bleached my gloves. I obtained a new weigh boat. I poured sterile black powder into the new weigh boat. I opened the sterile brush packaging just enough that the stem of the brush was accessible. I bleached my gloves. I removed the sterile brush from the packaging. I gathered some of the black powder by dipping the brush into the weigh boat a few times, approximately 3. I then held the brush over the weigh boat, brush pointed down, and twisted the brush back and forth to remove excess powder. This process was done twice. I utilized the now black powder coated brush, using a back-and-forth twisting motion, to dust over the entire interior surface of the item to process it for latent prints.
	Visual Examination	After processing, I visually inspected the interior surface of the item for evidence of a latent print. I visually identified a latent print located in quadrant B. I then utilized oblique lighting to identify if more powder was necessary for additional development; oblique lighting was done with a flashlight.
JYWPAL	Visual Examination	Patent prints were observed. Minimal ridge detail was observed, but could not be photographed - 10 minutes
	Cyanoacrylate Fuming	I fumed in a super glue chamber for 20 minutes at 80% humidity and did a 10 minute purge cycle.
	Powder Dusting	I dusted with black powder - 2 minutes
KJ3JGJ	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	
	Dye Stain	Rhodamine 6G
	Alternate Light Source	Visualized print after Rhodamine
	Powder Dusting	Black powder
KQD3DM	Visual Examination	Visually examined with flashlight.
	Powder Dusting	Biochromatic Powder
LEZ3JE	Visual Examination	Overhead lighting
	Cyanoacrylate Fuming	CA in chamber 15 minutes.
	Dye Stain	BY40 - water rinse

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
LFBZQ6	Cyanoacrylate Fuming	Used CA chamber. Cycle went for 10 minutes and then purged for 10 minutes.
	Dye Stain	Applied RAM, and allowed it to dry about 10 minutes.
LG8HT7	Cyanoacrylate Fuming	
	Dye Stain	Ardrox
	Alternate Light Source	
	Powder Dusting	black powder
LMVZ7H	Visual Examination	Visual exam with room lighting and flashlight
	Alternate Light Source	Crime Lite 2 400-430 nm (yellow glasses) 420-470nm (yellow and orange glasses)
	Powder Dusting	Black powder on light/clear areas White powder on dark areas
MUPRRG	Visual Examination	
	Cyanoacrylate Fuming	fumed about 15 minutes
	Dye Stain	Aqueous R6G
	Alternate Light Source	532nm laser
	Powder Dusting	black
MX7UYL	Powder Dusting	Black Powder 1 minute
NWAYR4	Cyanoacrylate Fuming	78% for 18 min
	Alternate Light Source	FSIS II
	Powder Dusting	black powder
	Dye Stain	ardrox
	Alternate Light Source	
NZ8F3C	Powder Dusting	Black powder was used.
P2HJDF	Visual Examination	Patent prints observed - some ridge detail observed but couldn't photograph
	Powder Dusting	Processing time - 2 mins
PYEQGW	Powder Dusting	BP
QCYLB2	Powder Dusting	Silk Black powder

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
QPMPCF	Visual Examination	WITH OBLIQUE LIGHTING
	Alternate Light Source	FORENSIC LIGHT SOURCE
	Cyanoacrylate Fuming	WITH OBLIQUE LIGHTING
	Dye Stain	RHODAMINE WITH FORENSIC LIGHT SOURCE
	Powder Dusting	BLACK POWDER
QYRWVC	Visual Examination	Oblique lighting used to analyze each section of the interior side of the tin box. FRD visible in Section B.
	Powder Dusting	Black powder used to analyze all sections of the interior side of the tin box, confirmed to only have FRD present in Section B.
RGPKZF	Powder Dusting	
RJTDWZ	Cyanoacrylate Fuming	
	Dye Stain	Ardrox
	Powder Dusting	black powder
RNPWXY	Visual Examination	White light
	Cyanoacrylate Fuming	
	Visual Examination	FSIS/UV
	Dye Stain	R6G
TC8HTB	Visual Examination	Oblique lighting with a flashlight
	Powder Dusting	Black powder
TJ2GGY	Visual Examination	Visual examination to see possible location of latent prints
	Cyanoacrylate Fuming	CA Fumed for approximately 5 minutes, used to develop possible latent prints
	Powder Dusting	Black powder dusting over the CA fumed. to create contrast on developed prints
TJAN8D	Visual Examination	Visual examination of Item 3. Utilized various lighting types to view item. No ridge detail was located after this step.
	Cyanoacrylate Fuming	Utilized cyanoacrylate (CAE) fuming on Item 3 for the development of ridge detail. Relative humidity during CAE processing was ~70%. 3-LP1 was located in quadrant B on Item 3.
	Dye Stain	A chemical dye stain consisting of Rhodamine 6G (R6G) dissolved in distilled water was utilized on Item 3 for the development of ridge detail. A green light laser (532nm) along with the applicable filter (orange) was utilized to visualize ridge detail. 3-LP1 improved after chemical dye stain with R6G.

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
TPY7NB	Visual Examination	Visual examination with oblique lighting. No print observed.
	Alternate Light Source	Examination with Coherent TracER Forensic Laser (532nm) and orange barrier filter. No print observed
	Cyanoacrylate Fuming	Item fumed in fuming chamber for approximately four minutes. Control conducted and passed. One print observed in quadrant B.
	Dye Stain	Rhodamine 6G dye stain. Control conducted and passed. Item washed with Rhodamine and examined with Coherent TracER Forensic Laser 532nm and orange barrier filter. One print observed in quadrant B. Secondary prints observed on the exterior of the box near the hinge area.
	Powder Dusting	Item dusted with black powder. One print observed in quadrant B.
TVZHK8	Visual Examination	overhead light
	Cyanoacrylate Fuming	80% humidity, 18 minutes fuming time, view/vis exam with overhead light
	Dye Stain	basic yellow 40, rinse with DI water, view/vis exam with 450 nm ALS
U4KJCX	Visual Examination	
	Powder Dusting	
UG3QEW	Cyanoacrylate Fuming	vacuum cyanoacrylate fuming chamber
	Powder Dusting	black powder
UKXGK9	Visual Examination	Visual examination with oblique lighting (flashlight)
	Alternate Light Source	Forensic Light Source
	Cyanoacrylate Fuming	CA fuming in chamber (about 5-10 minutes)
	Visual Examination	Viewed developed friction ridge detail using visual examination with oblique lighting (flashlight)
	Dye Stain	Rhodamine 6G
	Alternate Light Source	Viewed developed friction ridge detail using Forensic Light Source
	Powder Dusting	Black powder
URL6GY	Cyanoacrylate Fuming	
	Alternate Light Source	FSIS II
	Powder Dusting	black powder
	Dye Stain	RAM
	Alternate Light Source	

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
UXMJZF	Visual Examination	The piece of evidence was examined visually to see if I could identify where the latent print was located. Thoroughly checking each side of the inside of a tin box, focusing my view on each of the assigned spaces A,B,C,D. Always documenting the piece through photography.
	Alternate Light Source	Due to the latent print not being found so easily with just my visual prowess, I added an alternate light source to help the process. Using a flashlight with a white beam of light. Helping identify where the latent print was located in the middle right part of the B section of the inside of a tin box. Always documenting the piece through photography.
	Powder Dusting	Once located through an alternate light source the latent print was exposed through the use of black graphite powder and brushes. Working through it with caution not to affect the integrity of the latent print and cleaning the excess of graphite to clean the area. To properly see the latent print and its characteristics. Always documenting the piece through photography.
V4TA67	Powder Dusting	Black, magnetic powder was used for processing.
V8AZ7V	Visual Examination	No visible prints prior to processing.
	Cyanoacrylate Fuming	Lot #: 091024-04 Parameters: 80% humidity, 120°C, 4 drops of glue
	Dye Stain	Basic Yellow; lot# 021324-02
VAP2MV	Powder Dusting	Black Powder, lifted with clear fingerprint tape and placed on the back of a white fingerprint card.
VEQD8E	Visual Examination	I Perform a visual inspection of the object to locate the fingerprint.
	Alternate Light Source	I used an alternating white light in an oblique direction to highlight fingerprint.
	Graphite Powder	I used Graphite Powder to develop the fingerprint, black.
W39B3T	Visual Examination	
	Cyanoacrylate Fuming	MVC FFLEX S1 120 Degrees C 80% Humidity 10 minute glue time 4 drops of Cyanoacrylate Cyanoacrylate lot number: 091024-04
	Powder Dusting	Black Powder Lot#: 102623-02
W3URGA	Powder Dusting	black powder with brush
WM6MKU	Visual Examination	
	Powder Dusting	
WQZBPN	Cyanoacrylate Fuming	Processed for 10min with 1.7grams of Cyanoacrylate at 80% humidity in out Capture BT fuming chamber.
WY6H6N	Powder Dusting	I used black powder and a brush to dust for latent prints.

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
WZPYPW	Powder Dusting	- Wear the personal protective equipment (PPE) to check if the package was well sealed; - Apply digital photography with camera canon 1100D for item 3; - Open item 3 containing one Quadrants A-D within the inside of the tin box; - Proceed with visual examination of the Quadrants A-D within the inside of the tin box; - Apply a digital photography with camera canon 1100D for the Quadrants A-D within the inside of the tin box; - Dusting with Black Powder by using camel hair brush after wearing appropriate PPE; - Apply digital photography with camera, reproduction table with ruler closer to the latent print for recording developed latent print; - Enhancement by using DCS-5 machine with forensic light source (FLS) e.g. Ring light; - Apply a digital photography using DCS-5 camera Nikon D6 to save image of enhanced latent print; - Processing time was about 40 minutes.
XK7X6B	Powder Dusting	Item 1 was treated for about 2 minutes with conventional black powder.
XMTCUL	Cyanoacrylate Fuming	Item was hung in the fuming chamber, cyanoacrylate was used, item was fumed for approximately 8.5 minutes, print was visible with the naked eye.
XXT3D9	Powder Dusting	Item 3 processed with fingerprint powder. Latent print developed in quadrant B.
Y376Y4	Visual Examination	Visually inspected the item for visible fingerprints and photographed, if any.
	Oblique lighting	Used a flashlight to visually inspect the item for visible fingerprints and photographed, if any.
	Cyanoacrylate Fuming	The item was placed within the fuming chamber along with a control for approximately 5 minutes and any visible fingerprints were photographed.
	Dye Stain	Rhodamine 6G was applied to the item and allowed to dry after the control was tested.
	Powder Dusting	Black powder was used to attempt to lift any fingerprints
YKLEZ6	Visual Examination	Include oblique lighting
	Alternate Light Source	Forensic light source
	Cyanoacrylate Fuming	
	Dye Stain	Rhodamine 6G
	Alternate Light Source	Viewed above dye stain under forensic light source
YQNLGT	Cyanoacrylate Fuming	Processing time – 20 minute, First step: observation of the object's four sections using both natural and artificial lighting and with magnifying glass. Second step: processing the object's four sections by Cyanoacrylate fuming gun, after which the fingerprint was developed in section B.

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
ZAJE3Q	Visual Examination	Latent visible but not captured
	FSIS examination	Latent captured - quadrant B
	Cyanoacrylate Fuming	Latent visible but not captured
	FSIS examination	Latent visible but not captured
	Dye Stain	R6G Latent captured - quadrant B
ZHDJVR	Powder Dusting	1. Visual examination 2. Reagent selection-black conventional powder
ZRYQB	Visual Examination	First, I made a visual examination to locate the latent print and it was not visible in the inside of the tin box.
	Alternate Light Source	Then I used an alternate white and blue light source obliquely to highlight the latent print but it was not visible.
	Powder Dusting	To develop the print I used black powder, a squirrel hairbrush and a marabou hairbrush, the latent print was visible in the letter B within the inside of the tin box.
ZVG8LZ	Visual Examination	Visually examined using a LED flashlight.
	Cyanoacrylate Fuming	CA fumed the tin box, had item open to fume the inside.
	Powder Dusting	Black powder was used to develop latent print.

Item 3 - Development Response Summary				Participants: 116
Methods Utilized				
Alternate Light Source	36	Physical Developer	0	Note: Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.
Cyanoacrylate Fuming	55	Powder Dusting	88	
DFO	0	Visual Examination	67	
Dye Stain	36	Wet Powder Suspension	0	
Ninhydrin	0	1,2-Indanedione	1	

Preservation Methods

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
2CK2TZ	[No Preservation Methods Reported.]	
2JFYHN	Photography	
2NDK87	Photography	Photographed after applying black powder for comparison quality photos
	Lifting	Lifted the print with latent lift tape and placed onto a lift card
	Scanning	Scanned the lift card (both sides) into the case record.
3EZQR4	Lifting	used lift tape to preserve developed latent print
3HMAW8	Photography	It was photographed with and without a metric witness before and after working on it to photo document it.
	Lifting	It was lifted with a clear plastic patch to preserve with the date, initials, and Quadrant where it was lifted. The latent print was lifted at 1:25 PM.
3JWHZZ	Photography	photographs were taken after CA Fuming with the use of white oblique light
	Photography	photographs were taken after Rhodamine 6G and Tracer laser
	Lifting	Tape lifts collected after black powder processing
3Z3JX9	Lifting	
49V9WN	Photography	- Se realiza secuencia fotográfica de la huella latente localizada en el ITEM. [Requested translation was not provided by time of publication.]
	Lifting	- Se recolecta la huella latente en un acetato de bisagra de fondo blanco. [Requested translation was not provided by time of publication.]
4A3QTY	Photography	
	Lifting	
4QBHWN	Photography	FSIS results; Crime-Lite AUTO results
	Lifting	Black powder results

TABLE 3 - Preservation Methods - Item 1

WebCode	Preservation Methods	Method Details
6HYNF2	Photography	After using powder and identifying a latent print in quadrant D, I applied book tape over the latent print. I labeled the tape as Lift #1 and photographed the lift.
	Lifting	I removed the book tape from the item and placed the tape on an acetate.
6LEHTD	[No Preservation Methods Reported.]	
6R27Q4	Photography	After developing the latent print with black magnetic powder, it was documented with photography with metric witness.
	Lifting	Use a white plastic patch with metric witness.
727BHK	Photography	Visual, white light (0 photos) Visual, RUVIS (1 photo) Lumicyano laser (0 photos) Lumicyano RUVIS (1 photo)
7EA2XX	Photography	
7HA6PK	Photography	Photographed after chemical processing of the developed latent print with scale.
	Lifting	Latent print lifted with magnetic fingerprint powder and preserved on a latent lift card.
7JQ463	Latent Print Powder Silk Black	The method used Latent Print Powder Silk Black and brush for the development the fingerprint and a transparent plastic patch was used for lifting and preserving the fingerprint it was identified with information about the case and number of the piece of evidence, initial, date and hour.
7NJ4JY	Photography	
7VF29M	Photography	
8RDKBH	Photography	Photographed all items with scale
	Lifting	Lift cards utilized.
9CGMLT	[No Preservation Methods Reported.]	
9FGXHT	Photography	I exam quality photographed the print.
	Lifting	I used tape to lift it onto a lift card.

TABLE 3 - Preservation Methods - Item 1

WebCode	Preservation Methods	Method Details
9GTUPH	Photography	The latent fingerprint was labelled using a white in colour sticky metric scale and general view photographs were taken of the item along with the enhanced latent fingerprint using a Canon EOS REBEL T6i camera along with a Canon EFS 18mm - 55mm lens. The latent fingerprint was then photographed with a Canon EFS REBEL T6i along with a Canon 60mm macro lens using a 1:1 ratio.
	Lifting	The enhanced latent fingerprint was lifted using a 4" transparent fingerprint lifting tape and was then placed on a white in colour latent fingerprint backing card which was then labelled, packaged and sealed and placed on temporary storage awaiting transportation to AFIS for comparison purposes.
9KA39C	Photography	Photography taken at each Stage - Prior to Fuming, After Fuming, After each Dye also.
9LLWQW	Lifting	Latent print lifted using book tape and placed on clear acetate.
9MXCKX	Lifting	Tape lift with book tape
9UCGUA	Photography	Photographed print using full spectrum imaging system (FSIS).
	Lifting	Used black latent finger print powder.
9W2NGR	Photography	Photographs were taken before and after application of fingerprint powder with a scale. The fingerprint lift card was also photographed.
	Lifting	Fingerprint was collected using a tape lift and then placed on a latent fingerprint card.
9XW8JT	Photography	Photography with Nikon D610 digital camera. Photos taken after Cyanoacrylate Fuming and after Rhodamine 6 G dye stain with the use of the FLS and an orange filter.
	Lifting	Standard black latent print powder, lift tape and latent print card.
A6RQXU	Photography	Photography: Photography was carried out on a Foster and Freeman DCS-5 system consisting of a Nikon D5 camera. For visible spectrum image capture a 52mm visible imaging colour balancing filter was used. Captured images were scaled, saved and printed to a 1:1.
AA9U6Y	Lifting	Tape lifting
AJBE8R	Photography	Digital photography of developed latent print.
	Lifting	Lifted developed latent print from item of evidence and transferred onto a latent print card for submittal.
AMCHXT	Lifting	Lift tape with card backer

TABLE 3 - Preservation Methods - Item 1

WebCode	Preservation Methods	Method Details
AN8ZYU	Photography	Nikon D800E, f/18, 2 sec., ISO 200, 105 mm
ARN37Z	Photography	The latent print was photo documented to preserve it.
	Lifting	The latent print was preserved, lifting with adhesive tape.
AZWWZT	Photography	
	Lifting	with white hinge lifter
CFKRPN	Photography	Photograph taken, with scale
	Lifting	Adhesive lifter used to collect print
CN26Q9	Lifting	
CQ47TQ	Photography	I used photography to document the results, if observed, after visual examination, cyanoacrylate fuming, and dye stain.
	Lifting	I used transparent tape, black powder, and a white lift card to preserve the lifted print.
CUGJ8F	Lifting	Photograph with scale, lift tape with Lift card
D6LBFD	Lifting	
DC7EMF	Lifting	
DE7MRQ	Lifting	Friction ridge detail from Quadrant D was lifted with tape and the tape was secured onto a white card
DH8QJD	Lifting	the print were photographed and lifting using lifting tape.
DL72ED	Photography	Photographing the latent print in metric dimensions where the alternative , light source has been applied
DZM38W	Photography	1: after cyanoacrylate photographed the mark with white light and preserved it . 2: After Dye Stain, Mark photographed using 445nm light with 495nm Filter
	Photography	
E9DYCB	Photography	CAE: Latent print was photographed with the Foster + Freeman Crimelite AUTO and DISCOVER using Diffuse Panel Light (DPL). RAM: Latent print was photographed with the Crimelite AUTO and DISCOVER at 475 nm with 550 LP (long pass) filter.

TABLE 3 - Preservation Methods - Item 1

WebCode	Preservation Methods	Method Details
EAJZ7D	Lifting	Lift tape to white fingerprint card
EG7FYU	Lifting	To lift the print, I utilized fingerprint tape. I placed the tape over the print and made sure there weren't air bubbles. Using a black marker, I placed an arrow to show orientation/direction on the tape not obscuring the possible fingerprint. I lifted the tape and placed it on a latent lift card. On the opposite side of the lift card, I included a sketch of the item and placed an "X" in the approximate location of where I lifted the print and added a brief description of the location. Additionally, I filled out the "case information" on the latent card. On my notes I indicated what locations I powdered on the plexiglass sheet and included how many latent lift cards I obtained. I scanned the case information side of the latent lift card and added it to my notes. I placed the lift card in a plastic/plastic evidence bag. I changed my gloves as needed and wore a mask the entirety of the process.
	[No Methods Reported.]	After lifting any possible fingerprints, I utilized one wet/one dry swabs to collect any possible biological evidence from quadrant D (the only quadrant where a lift was observed). To swab, I added water to one swab and applied the tip of the moistened swab to quadrant D and followed by swabbing the area with a dry swab. I placed both swabs back into the swab sleeve, and then into a coin envelope. I filled out the case information on the coin envelope, added a description and location of what I swabbed, and that I swabbed the area after post powdering processing. I packaged the coin envelope containing the swabs in a paper/plastic evidence bag. I completed a water control. I changed my gloves as needed and wore a mask the entirety of the process. After powdering, lifting, and swabbing item #1 was repackaged in the manila envelope and resealed.
EPZH6C	Photography	Photographed with ALS
	Lifting	
F2AHA4	Photography	Preserved latent with a canon DSLR, scale, and the following lighting techniques: CA fuming - ring light, direct lighting Dye stain - yellow filter, 450 nm light source
F4XRLQ	Lifting	Lifted with tape, secured to clear acetate
F73GQK	Photography	Used a Nikon D90 attached to a camera stand. Camera set to raw. Latent print image at least 1000 pixels per inch (ppi) and photographed in color.
	Lifting	Frosted tape was used to lift the impression away from the surface and then apply it to the lift card.
FDNCRN	Lifting	tape lift with a white card
FNP376	Photography	
	Lifting	

TABLE 3 - Preservation Methods - Item 1

WebCode	Preservation Methods	Method Details
FV7BWL	Photography	Item 1 was photographed with white light and again with RUVIS. Image of ridge detail was of higher quality using RUVIS.
G6AT64	Lifting	
GALVUK	Photography	Documented to scale with digital camera (5 images obtained)
	Lifting	black powder - 1 latent card obtained
H4ERGR	Lifting	The print was transferred to a plastic patch for preservation and future analysis.
H68F29	[No Preservation Methods Reported.]	
H93AV3	Lifting	
HW3EBA	Lifting	Lift tape to fingerprint card
J6YVPP	Lifting	(Bichromatic) - used to enhance the print (was able to visualize the print) - lifted the fingerprint using tape and placed lift onto the lift card - the rigid details were only visible on the edges therefore magnetic powder was used to make the friction rigid details more apparent
	Lifting	(Magnetic) - used to enhance the print (was able to visualize the print) - performed a re-lift using tape and placed lift onto the lift card - the rigid details were more apparent on lift card than it was using bichromatic
J92WPL	Lifting	Lift #1 developed and lifted from quadrant D of the plexiglass sheet
JCJYWR	Photography	The impression was documented through high-resolution digital photography.
	Lifting	A plastic adhesive patch was applied to lift and secure the fingerprint impression for long-term preservation and further analysis.
JJKBTN	Photography	Comparison quality photographs taken after powder development
	Lifting	Two-inch, frosted, lift tape utilized on area of powder adherence, Lift tape removed from item and applied to latent lift card, latent lift card information filled out
	Scanning	Latent Lift card scanned and uploaded into lab information management system
	Photograph Retention	Comparison photographs, along with all case photographs, uploaded into digital image management system

TABLE 3 - Preservation Methods - Item 1

WebCode	Preservation Methods	Method Details
JMJLNN	Photography	Once a print was identified to be present in quadrant D, I gathered my camera, flash, flash sync cord, shutter release cord, macro lens, tripod, and ruler placards to take 1:1 comparison photographs. To complete the set-up for 1:1 comparison photography, I connected the flash to my camera via a sync cord. I plugged my shutter release cord into my camera. I took off my normal lens and replaced it with a macro lens. I put my camera into my department decided comparison print settings. I filled out a ruler placard with the following: department report number, date, my initials/badge number, and an up arrow. I placed the ruler placard beside the identified print. I placed the item with the processed print where I wanted to photograph it. I mounted my camera to the tripod. Using an angle finder, I manipulated the camera on the tripod until it was on the same plane as the print. I photographed the print utilizing oblique lighting at various angles/positions. Oblique lighting was done using the flash. I uploaded the photos to our department photo system.
	Lifting	Once 1:1 photographs were completed, I gathered 1.5 inch clear tape and a lift card. I pulled a section of the tape from the roll and placed it over the print. I used my finger to smooth the tape over the surface of the print. I lifted the tape from the item and placed it on the blank side of a lift card. Beside the tape, on the blank side of the lift card I drew an up arrow, I wrote the department number, the number of the lift card out of the total, and my initials/badge number so that it was partially on the tape and partially on the card. On the opposite side of the card, I described in words and sketched where the print was located on the item, I wrote the department report number, date of incident, incident type, address of processing/collection location, initials and badge number, what number lift card this is/the total number of lift cards.
	Scanning	After I filled out the lift card, I scanned the lift card via a scanner. The scanner sent the scans to my email in the form of a PDF. I created a file for this specific case on my desktop. I opened my email, then the PDF, I converted the PDF to a JPEG and saved it to the designated file for this case. I uploaded the scans to my department report writing system.
	Evidence Packaging	After I scanned the lift card, I obtained a lift card envelope. I placed the lifts into the envelope. I filled out the envelope with the following information: department report number, date of incident, address of processing/collection location, the beat the location is in, the type of incident, my initials/badge number, and the total number of lifts collected. I sealed the envelope with evidence tape and signed the evidence tape with my initials/badge number and date I sealed. I entered the lift card as evidence in our department report writing system, this generated a barcode. I printed the barcode and placed it on the backside of the sealed envelope, I wrote my initials/badge number partially on the barcode and partially on the envelope itself. Since 1:1 comparison photographs were taken, I placed a blank barcode sticker on the backside of the envelope and I wrote on the sticker that there are photographs of the print that was lifted as well as the image numbers that correspond to it. I then placed the envelope in a drop box to be analyzed, I documented the drop time in my notes for this case.
JYWPAL	Photography	Exhibit 1.1A: One digital photograph of patent prints and one digital photograph of latent prints developed in quadrant D of the plexiglass sheet (Exhibit 1.1)

TABLE 3 - Preservation Methods - Item 1

WebCode	Preservation Methods	Method Details
KJ3JGJ	Photography	Photographed print after Cyanoacrylate fuming and with the Alternate light source after Rhodamine
	Lifting	Black powder - tape lift
KQD3DM	Lifting	Lifting tape used.
LEZ3JE	Photography	Photographed with a ring light near the camera lens.
	Photography	Photographed with back lighting.
	Photography	Photographed with an orange filter and 450nm lighting.
LFBZQ6	Photography	Photographed the item before, during, and after the chemical processing.
LG8HT7	Photography	
LMVZ7H	Lifting	Lifted powdered prints
	Scanning	Scanned lifts
MUPRRG	Photography	photographed at visual using bounced lighting and after dye stain/laser
	Lifting	regular lift tape
MX7UYL	Lifting	Lift tape applied to card
NWAYR4	Lifting	black powder result
	Photography	ALS results
NZ8F3C	Lifting	Lifting and collection on print collection cards per laboratory protocol.
P2HJDF	Photography	Exhibit 1.1A: one digital photograph of patent prints and one digital photograph of developed latent prints
PYEQGW	Lifting	
QCYLB2	Lifting	White sirchil and Fingerprint lifting tape
	Photography	camera
QPMFPC	Lifting	ONE LATENT LIFT CARD

TABLE 3 - Preservation Methods - Item 1

WebCode	Preservation Methods	Method Details
QYRWVC	Lifting	Tape lifted and placed on lift card to be preserved.
RGPKZF	Lifting	
RJTDWZ	Photography	using ALS at 455 nm and 365 nm
RNPWXY	Photography	
TC8HTB	Lifting	White gel lifter
TJ2GGY	Lifting	Lifted print using lift tape and adhering to department Latent Print Card
TJAN8D	Photography	Photography was utilized as the method of documentation of the ridge detail deemed suitable on Item 1 (1-LP1). A Nikon camera was used, along with a Coaxial lighting source to preserve 1-LP1 after the visual examination.
	Photography	Photography was utilized as the method of documentation of the ridge detail deemed suitable on Item 1 (1-LP1). A Nikon camera was used along with a Fiber Optic lighting source to preserve 1-LP1 after Cyanoacrylate fuming.
	Photography	Photography was utilized as the method of documentation of the ridge detail deemed suitable on Item 1 (1-LP1). A Nikon camera was used along with a Fiber Optic lighting source to preserve an overall photo of 1-LP1 after processing was completed.
TPY7NB	Photography	Quadrant D photographed during visual examination, CA fuming, and dye stain.
	Lifting	Print lifted after processing with black powder.
TVZHK8	Photography	photo x1 of quadrant D with light from below and black background after CA photo x1 of quadrant D with 450 nm ALS and yellow filter after BY40
U4KJCX	Lifting	
UG3QEW	Lifting	latent area was lifted using 2" lifting tape
UKXGK9	Photography	Digital camera used to capture 5 images total (4 after Cyanoacrylate fuming, 1 after Rhodamine 6G) of developed friction ridge
	Lifting	adhesive tape used to lift developed friction ridge (after black powder applied) and adhere to 1 latent print lift card
URL6GY	[No Preservation Methods Reported.]	

TABLE 3 - Preservation Methods - Item 1

WebCode	Preservation Methods	Method Details
UXMJZF	Lifting	Once the piece of evidence is properly exposed and documented it is lifted with a piece of plastic patch. to maintain the integrity of the latent print.
	Photography	we documented the latent print through photography, making sure to see the grooves and its characteristics. So, they could be submitted for further analysis.
V4TA67	Lifting	Prints were lifted using lifting tape and placed onto a white card.
V8AZ7V	Lifting	Tape Lift
VAP2MV	Lifting	Black Powder, Tape/Card
VEQD8E	Photography	Using Photo document the fingerprint, using a metric witness, before, during and after lifting it.
	Lifting	I used a plastic patch for footprint lifting.
W39B3T	Lifting	Print observed in section D Tape lift placed on lift card
W3URGA	Lifting	one lift with tape
WM6MKU	Lifting	
WQZBPN	Photography	I took photos of the latent print using our Full Spectrum Imaging System using a scale devise.
WY6H6N	Lifting	I used clear adhesive tape to lift the developed print from the surface and transferred it onto a lift card.
WZPPPW	Photography	- Apply a digital photography using DCS-5 camera Nikon D6 to save enhanced latent print - Latent print: Print enhanced latent print with DCS-5 printing machine; - Processing time for preservation was about 10 minutes;
XK7X6B	Lifting	The developed print was lifted with a plastic patch for preservation.
XMTCUL	[No Preservation Methods Reported.]	
XXT3D9	Lifting	Lifted latent print with the use of lifting tape
Y376Y4	Photography	Latent prints were documented using a digital camera and with a scale. An orange barrier lens was used when photographing with the forensic light source.
	Lifting	Once black powder was applied to the item, lifting tape was used to lift any fingerprints and placed onto a lift card.

TABLE 3 - Preservation Methods - Item 1

WebCode	Preservation Methods	Method Details
YKLEZ6	Photography	On development methods where latent prints were observed
	Lifting	Black powder
YQNLGT	Photography	Upon developing the fingerprint, it was photographed in its original state. Developed fingerprint was improved using feather duster fingerprint brush and then photographed again with and without scale.
	Lifting	The final step was lifting the fingerprint with tape.
ZAJE3Q	Photography	
ZHDJVR	Lifting	adhesive tape
ZRYQBB	Photography	I documented the fingerprint with photos before, during and after the lifting of the fingerprint.
	Lifting	I used a plastic adhesive patch for the lifting of the fingerprint.
ZVG8LZ	Photography	Documented Latent Print development with digital camera, using a macro lens.

Item 1 - Preservation Response Summary			Participants: 116
Methods Utilized			
Lifting	84	Note: Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.	
Photography	71		
Scanning	4		

TABLE 3 - Preservation Methods - Item 2

WebCode	Preservation Methods	Method Details
2CK2TZ	[No Preservation Methods Reported.]	
2JFYHN	Photography	
2NDK87	Photography	Photographed after applying black powder for comparison quality photos
	Lifting	Lifted the print with latent tape and placed onto a lift card
	Scanning	Scanned the lift card (both sides) into the case record.
3EZQR4	Lifting	lifting tape used to preserve developed latent print
3HMAW8	Photography	It was photographed with and without a metric witness before and after working on it to photo document it.
	Lifting	It was lifted with a clear plastic patch to preserve the date, initials, and Quadrant where it was lifted. The latent print was lifted at 1:48PM.
3JWHZZ	Photography	photographs were taken after CA Fuming with the use of white oblique light
	Photography	photographs were taken after Rhodamine 6G and Tracer laser
	Lifting	Tape lifts collected after black powder processing
3Z3JX9	Lifting	
49V9WN	Photography	- Se realiza secuencia fotográfica de la huella latente localizada en el ITEM. [Requested translation was not provided by time of publication.]
	Lifting	- Se recolecta la huella latente en un acetato de bisagra de fondo blanco. [Requested translation was not provided by time of publication.]
4A3QTY	Photography	
	Lifting	
4QBHWN	Photography	FSIS and Crime-Lite AUTO results
	Lifting	black powder results
6HYNF2	Photography	After using powder and identifying a latent print in quadrant A, I applied book tape over the latent print. I labeled the tape as Lift #2 and photographed the lift.
	Lifting	I removed the book tape from the item and placed the tape on an acetate.

TABLE 3 - Preservation Methods - Item 2

WebCode	Preservation Methods	Method Details
6LEHTD	[No Preservation Methods Reported.]	
6R27Q4	Photography	After developing the latent print with graphite black latent print powder, it was documented with photography with metric witness.
	Lifting	Use a white plastic patch with metric witness.
727BHK	Photography	Visual, white light (0 photos) Visual, RUVIS (1 photo) Lumicyano laser (0 photos) Lumicyano RUVIS (1 photo)
7EA2XX	Photography	
7HA6PK	Photography	Photographed after chemical processing of the developed latent print with scale.
	Lifting	Latent print lifted with fingerprint powder and preserved on a latent lift card.
7JQ463	Magnetic Latent Print Powder	The method used Magnetic Latent Print Powder for the development the fingerprint and a transparent plastic patch was used for lifting and preserving the fingerprint it was identified with information about the case and number of the piece of evidence, initial, date and hour.
7NJ4JY	Photography	
7VF29M	Photography	
8RDKBH	Photography	Photographed all items with scale
	Lifting	Lift cards utilized
9CGMLT	[No Preservation Methods Reported.]	
9FGXHT	Photography	I exam quality photographed the print.
	Lifting	I used tape to lift it onto a lift card.
9GTUPH	Photography	The latent fingerprint was labelled using a white in colour sticky metric scale and general view photographs were taken of the item along with the enhanced latent fingerprint using a Canon EOS REBEL T6i camera along with a Canon EFS 18mm - 55mm lens. The latent fingerprint was then photographed with a Canon EFS REBEL T6i along with a Canon 60mm macro lens using a 1:1 ratio.
	Lifting	The enhanced latent fingerprint was lifted using a 4" transparent fingerprint lifting tape and was then placed on a white in colour latent fingerprint backing card which was then labelled, packaged and sealed and placed on temporary storage awaiting transportation to AFIS for comparison purposes.

TABLE 3 - Preservation Methods - Item 2

WebCode	Preservation Methods	Method Details
9KA39C	Photography	Photography taken at each Stage - Prior to Fuming, After Fuming, After each Dye also.
9LLWQW	Lifting	Latent print lifted using book tape and placed on clear acetate.
9MXCKX	Lifting	Tape lift with book tape
9UCGUA	Photography	Photographed print using full spectrum imaging system (FSIS).
	Lifting	Used black latent finger print powder.
9W2NGR	Photography	Photographs were taken before and after application of fingerprint powder with a scale. The fingerprint lift card was also photographed.
	Lifting	Fingerprint was collected using a tape lift and then placed on a latent fingerprint card.
9XW8JT	Photography	Photography with Nikon D610 digital camera. Photos taken after Cyanoacrylate Fuming and after Rhodamine 6 G dye stain with the use of the FLS and an orange filter.
	Lifting	Standard black latent print powder, lift tape and latent print card.
A6RQXU	Photography	Photography: Photography was carried out on a Foster and Freeman DCS-5 system consisting of a Nikon D5 camera. For visible spectrum image capture a 52mm visible imaging colour balancing filter was used. Captured images were scaled, saved and printed to a 1:1.
AA9U6Y	Lifting	Tape lifting
AJBE8R	Photography	Digital photography of developed latent print.
	Lifting	Lifted developed latent print from item of evidence and transferred onto a latent print card for submittal.
AMCHXT	Lifting	Lift tape with card backer
AN8ZYU	Photography	Nikon D800E, f/18, 2 sec., ISO 200, 105 mm
ARN37Z	Photography	The latent print was photo documented to preserve it.
	Lifting	The latent print was preserved, lifting with adhesive tape.
AZWWZT	Photography	
	Lifting	with white hinge lifter

TABLE 3 - Preservation Methods - Item 2

WebCode	Preservation Methods	Method Details
CFKRPN	Photography	Photograph taken, with scale
	Lifting	Adhesive lifter used to collect print
CN26Q9	Lifting	
CQ47TQ	Photography	I used photography to document the results, if observed, after visual examination, cyanoacrylate fuming, and dye stain.
	Lifting	I used transparent tape, black powder, and a white lift card to preserve the lifted print.
CUGJ8F	Lifting	Photograph with scale, Lift tape and Lift Card
D6LBFD	Lifting	
DC7EMF	Lifting	
DE7MRQ	Lifting	Friction ridge detail from Quadrant A was lifted with tape and the tape was secured onto a white card
DH8QJD	Lifting	the print were photographed and lifting using lifting tape.
DL72ED	Photography	Photographing the latent print in metric dimensions where the alternative , light source has been applied
DZM38W	Photography	1: after cyanoacrylate photographed the mark with white light and preserved it . 2: After Dye Stain, Mark photographed using 445nm light with 495nm Filter.
E9DYCB	Photography	CAE: Latent print was photographed with the Foster + Freeman Crimelite AUTO and DISCOVER using oblique white light. RAM: Latent print was photographed with the Crimelite AUTO and DISCOVER at 475 nm with 550 LP (long pass) filter.
EAJZ7D	Lifting	Lift tape to white fingerprint card

TABLE 3 - Preservation Methods - Item 2

WebCode	Preservation Methods	Method Details
EG7FYU	Lifting	To lift the print, I utilized fingerprint tape. I placed the tape over the print and made sure there weren't air bubbles. Using a black marker, I placed an arrow to show orientation/direction on the tape not obscuring the possible fingerprint. I lifted the tape and placed it on a latent lift card. On the opposite side of the lift card, I included a sketch of the item and placed an "X" in the approximate location of where I lifted the print and added a brief description of the location. Additionally, I filled out the "case information" on the latent card. In this case, I was not satisfied with the first print I observed on the latent lift card. I re-powdered the initial print I observed in quadrant A and re-lifted the print following the procedures I mentioned above. On the latent lift cards (case information side), I indicated that I took multiple lifts of the same latent print by numbering the cards 1 of 2 and 2 of 2. On my notes I indicated what locations I powdered on the magnetic picture frame and included how many latent lift cards I obtained. I scanned the case information side of the latent lift card and added it to my notes. I placed the lift cards in a plastic/plastic evidence bag. I changed my gloves as needed and wore a mask the entirety of the process.
	[No Methods Reported.]	After lifting any possible fingerprints, I utilized one wet/one dry swabs to collect any possible biological evidence from quadrant A (the only quadrant where a lift was observed). To swab, I added water to one swab and applied the tip of the moistened swab to quadrant D and followed by swabbing the area with a dry swab. I placed both swabs back into the swab sleeve, and then into a coin envelope. I filled out the case information on the coin envelope, added a description and location of what I swabbed, and that I swabbed the area after post powdering processing. I packaged the coin envelope containing the swabs in a paper/plastic evidence bag. I completed a water control. I changed my gloves as needed and wore a mask the entirety of the process. After powdering, lifting, and swabbing item #2 was repackaged in the manila envelope and resealed.
EPZH6C	Photography	Photographed with ALS
	Lifting	
F2AHA4	Photography	Preserved latent with a canon DSLR, scale, and the following lighting techniques: Visible - ring light, direct lighting CA fuming - ring light, direct lighting Dye stain - yellow filter, 450 nm light source
F4XRLQ	Lifting	Lifted with tape, secured to clear acetate
F73GQK	Photography	Used a Nikon D90 attached to a camera stand. Camera set to raw. Latent print image at least 1000 pixels per inch (ppi) and photographed in color.
FDNCRN	Lifting	tape lift onto white cards
FNP376	Photography	
	Lifting	

TABLE 3 - Preservation Methods - Item 2

WebCode	Preservation Methods	Method Details
FV7BWL	Photography	Item 2 was photographed with white light and again with RUVIS. Image of ridge detail was of higher quality using RUVIS.
G6AT64	Lifting	
GALVUK	Photography	Documented to scale with digital camera (3 images obtained)
	Lifting	Black powder (1 latent card obtained)
H4ERGR	Lifting	The print was transferred to a plastic patch for preservation and future analysis.
H68F29	[No Preservation Methods Reported.]	
H93AV3	Lifting	
HW3EBA	Lifting	Lift tape to Lift card
J6YVPP	Lifting	- was able to visualize the print - lifted the fingerprint using tape and placed lift onto the lift card
J92WPL	Lifting	Lift #2 was developed and lifted from quadrant A of the magnetic picture frame
JCJYWR	Photography	The impression was documented through high-resolution digital photography.
	Lifting	A plastic adhesive patch was applied to lift and secure the fingerprint impression for long-term preservation and further analysis.
JJKBTN	Photography	Comparison quality photographs taken after powder development
	Lifting	Two-inch, frosted, lift tape utilized on area of powder adherence, Lift tape removed from item and applied to latent lift card, latent lift card information filled out
	Scanning	Latent Lift card scanned and uploaded into lab information management system
	Photograph Retention	Comparison photographs, along with all case photographs, uploaded into digital image management system

TABLE 3 - Preservation Methods - Item 2

WebCode	Preservation Methods	Method Details
JMJLNN	Photography	Once a print was identified to be present in quadrant A, I gathered my camera, flash, flash sync cord, shutter release cord, macro lens, tripod, and ruler placards to take 1:1 comparison photographs. To complete the set-up for 1:1 comparison photography, I connected the flash to my camera via a sync cord. I plugged my shutter release cord into my camera. I took off my normal lens and replaced it with a macro lens. I put my camera into my department decided comparison print settings. I filled out a ruler placard with the following: department report number, date, my initials/badge number, and an up arrow. I placed the ruler placard beside the identified print. I placed the item with the processed print where I wanted to photograph it. I mounted my camera to the tripod. Using an angle finder, I manipulated the camera on the tripod until it was on the same plane as the print. I photographed the print utilizing oblique lighting at various angles/positions. Oblique lighting was done using the flash. I uploaded the photos to my department photo system.
	Lifting	Once 1:1 photographs were completed, I gathered 1.5 inch clear tape and a lift card. I pulled a section of the tape from the roll and placed it over the print. I used my finger to smooth the tape over the surface of the print. I lifted the tape from the item and placed it on the blank side of a lift card. Beside the tape, on the blank side of the lift card I drew an up arrow, I wrote the department number, the number of the lift card out of the total, and my initials/badge number so that it was partially on the tape and partially on the card. On the opposite side of the card, I described in words and sketched where the print was located on the item, I wrote the department report number, date of incident, incident type, address of processing/collection location, initials and badge number, what number lift card this is/the total number of lift cards.
	Scanning	After I filled out the lift card, I scanned the lift card via a scanner. The scanner sent the scans to my email in the form of a PDF. I created a file for this specific case on my desktop. I opened my email then the PDF, I converted the PDF to a JPEG and saved it to the designated file for this case. I uploaded the scans to my department report writing system.
	Evidence Packaging	After I scanned the lift card, I obtained a lift card envelope. I placed the lifts into the envelope. I filled out the envelope with the following information: department report number, date of incident, address of processing/collection location, the beat the location is in, the type of incident, my initials/badge number, and the total number of lifts collected. I sealed the envelope with evidence tape and signed the evidence tape with my initials/badge number and date I sealed. I entered the lift card as evidence in our department report writing system, this generated a barcode. I printed the barcode and placed it on the backside of the sealed envelope, I wrote my initials/badge number partially on the barcode and partially on the envelope itself. Since 1:1 comparison photographs were taken, I placed a blank barcode sticker on the backside of the envelope and I wrote on the sticker that there are photographs of the print that was lifted as well as the image numbers that correspond to it. I then placed the envelope in a drop box to be analyzed. I documented the drop time in my notes for this case.
JYWPA	Photography	Exhibit 1.2A: Two digital photographs of patent prints and one digital photograph of latent prints developed in quadrant A of the magnetic picture frame (Exhibit 1.2)

TABLE 3 - Preservation Methods - Item 2

WebCode	Preservation Methods	Method Details
KJ3JGJ	Photography	Photographed print after Cyanoacrylate fuming and with the Alternate light source after Rhodamine
	Lifting	Black powder - tape lift
KQD3DM	Lifting	Lifting tape used.
LEZ3JE	Photography	Photographed with a flashlight near the camera lens.
	Photography	Back lighting.
	Photography	Photographed with an orange filter and 450nm lighting.
LFBZQ6	Photography	Photographed the item before, during, and after the chemical processing.
LG8HT7	Photography	
LMVZ7H	Lifting	Lifted powdered prints
	Scanning	Scanned lifts
MUPRRG	Photography	photographed at visual using bounced lighting and after dye stain/laser
	Lifting	regular lift tape
MX7UYL	Lifting	Lift tape applied to card
NWAYR4	Photography	ALS results
	Lifting	black powder result
NZ8F3C	Lifting	Lifting and collection on print collection cards per laboratory protocol.
P2HJDF	Photography	Exhibit 1.2A: one digital photograph of patent prints and one digital photograph of developed latent prints
PYEQGW	Lifting	
QCYLB2	Lifting	White sirchil and Fingerprint lifting tape
	Photography	camera

TABLE 3 - Preservation Methods - Item 2

WebCode	Preservation Methods	Method Details
QPMFPC	Lifting	ONE LATENT LIFT CARD
	Photography	2 IMAGES
QYRWVC	Lifting	Tape lifted and placed on lift card to be preserved.
RGPKZF	Lifting	
RJTDWZ	Photography	with ALS at 455 nm abnd 365 nm
RNPWXY	Photography	
TC8HTB	Lifting	White gel lifter
TJ2GGY	Lifting	Lifted print using lift tape and adhering to department Latent Print Card
TJAN8D	Photography	Photography was utilized as the method of documentation of the ridge detail deemed suitable on Item 2 (2-LP1). A Nikon camera was used, along with a Coaxial lighting source to preserve 2-LP1 after the visual examination.
	Photography	Photography was utilized as the method of documentation of the ridge detail deemed suitable on Item 2 (2-LP1). A Nikon camera was used along with a Fiber Optic lighting source to preserve 2-LP1 after Cyanoacrylate fuming.
	Photography	Photography was utilized as the method of documentation of the ridge detail deemed suitable on Item 2 (2-LP1). A Nikon camera was used along with a Green light laser (~532 nm) and orange filter were used to preserve 2-LP1 after chemical dye stain with Rhodamine 6G.
	Photography	Photography was utilized as the method of documentation of the ridge detail deemed suitable on Item 2 (2-LP1). A Nikon camera was used along with a Green light laser (~532 nm) and orange filter were used to preserve an overall photo 2-LP1 after processing was completed.
TPY7NB	Photography	Quadrant A photographed during visual examination, CA fuming, and dye stain.
	Lifting	Print lifted after processing with black powder.
TVZHK8	Photography	photo x1 of quadrant A with angled ring light after CA photo x1 of quadrant A with 450 nm ALS and yellow filter after BY40
U4KJCX	Lifting	
UG3QEW	Lifting	latent area was lifted using 2" lifting tape

TABLE 3 - Preservation Methods - Item 2

WebCode	Preservation Methods	Method Details
UKXGK9	Photography	Digital camera used to capture 5 total images (4 after Cyanoacrylate fuming, 1 after Rhodamine 6G) of developed friction ridge
	Lifting	Adhesive tape used to lift developed friction ridge (after black powder applied) and adhere to 1 latent print lift card
URL6GY	[No Preservation Methods Reported.]	
UXMJZF	Lifting	Once the piece of evidence is properly exposed and documented it is lifted with a piece of plastic patch. to maintain the integrity of the latent print.
	Photography	we documented the latent print through photography, making sure to see the groves and its characteristics. So, they could be submitted for further analysis.
V4TA67	Lifting	Prints were lifted using lifting tape and placed onto a white card.
V8AZ7V	Lifting	Tape lift
VAP2MV	Lifting	Black ink, tape/Card.
VEQD8E	Photography	Using Photo document the fingerprint, using a metric witness, before, during and after lifting it.
	Lifting	I used a plastic patch for footprint lifting.
W39B3T	Lifting	Print observed in section A Tape lift placed on lift card
W3URGA	Lifting	one lift with tape
WM6MKU	Lifting	
WQZBPN	Photography	I took photos of the latent print using our Full Spectrum Imaging System using a scale devise.
WY6H6N	Lifting	I used clear adhesive tape to lift the developed print from the surface and transferred it onto a lift card.
WZPYPW	Photography	- Apply digital photography with DCS-5 camera Nikon D6 to save enhanced image of the latent print; - Apply DCS-5 printer for printing enhanced latent print image; - Processing time was about 10 minutes;
XK7X6B	Lifting	The developed print was lifted with a plastic patch for preservation.
XMTCUL	[No Preservation Methods Reported.]	

TABLE 3 - Preservation Methods - Item 2

WebCode	Preservation Methods	Method Details
XXT3D9	Lifting	Lifted latent print with the use of lifting tape.
Y376Y4	Photography	Latent prints were documented using a digital camera and with a scale. An orange barrier lens was used when photographing with the forensic light source.
	Lifting	Once black powder was applied to the item, lifting tape was used to lift any fingerprints and placed onto a lift card.
YKLEZ6	Photography	On development methods where latent prints were observed
	Lifting	Black powder
YQNLGT	Photography	Upon developing the fingerprint, it was photographed in its original state. Developed fingerprint was improved using feather duster fingerprint brush and then photographed again with and without scale.
	Lifting	The final step was lifting the fingerprint with Gel tape.
ZAJE3Q	Photography	
ZHDJVR	Lifting	adhesive tape
ZRYQBB	Photography	First, I preserved the latent print by using photo documentation.
	Lifting	Then I used the plastic adhesive patch to lift the latent print.
ZVG8LZ	Photography	Documented Latent Print development with digital camera, using a macro lens.

Item 2 - Preservation Response Summary			Participants: 116
Methods Utilized			
Lifting	82	Note: Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.	
Photography	72		
Scanning	4		

TABLE 3 - Preservation Methods - Item 3

WebCode	Preservation Methods	Method Details
2CK2TZ	[No Preservation Methods Reported.]	
2JFYHN	Photography	
2NDK87	Photography	Photographed after applying black powder for comparison quality photos
	Lifting	Lifted the print with latent lift tape and placed onto a lift card
	Scanning	Scanned the lift card (both sides) into the case record.
3EZQR4	Lifting	lifting tape was used to preserve developed latent print
3HMAW8	Photography	It was photographed with and without a metric witness before and after working on it to photo document it.
	Lifting	It was lifted with a clear plastic patch to preserve the date, initials, and Quadrant where it was lifted. The latent print was lifted at 2:07PM.
3JWHZZ	Photography	photographs were taken after CA Fuming with the use of white oblique light
	Photography	photographs were taken after Rhodamine 6G and Tracer laser
	Lifting	Tape lifts collected after black powder processing
3Z3JX9	Lifting	
49V9WN	Photography	- Se realiza secuencia fotográfica de la huella latente localizada en el ITEM. [Requested translation was not provided by time of publication.]
	Lifting	- se recolecta la huella latente en un acetato de bisagra de fondo negro. [Requested translation was not provided by time of publication.]
4A3QTY	Photography	
	Lifting	
4QBHWN	Photography	FSIS II and Crime-Lite AUTO results
	Lifting	black powder results
6HYNF2	Photography	After using powder and identifying a latent print in quadrant B, I applied book take over the latent print. I labeled the tape as Lift #3 and photographed the lift.
	Lifting	I removed the book tape from the item and placed the tape on an acetate.

TABLE 3 - Preservation Methods - Item 3

WebCode	Preservation Methods	Method Details
6LEHTD	[No Preservation Methods Reported.]	
6R27Q4	Photography	After developing the latent print with Cyano Shot Activator Solution and Activator Crystal Canister, and graphite black latent print powder, it was documented with photography with metric witness.
	Lifting	Use a white plastic patch with metric witness.
727BHK	Photography	Visual, white light (0 photos) Visual, RUVIS (1 photo) Lumicyano laser (0 photos) Lumicyano RUVIS (1 photo)
7EA2XX	Photography	
7HA6PK	Photography	Photographed after chemical processing of the developed latent print with scale.
	Lifting	Latent print lifted with fingerprint powder and preserved on a latent lift card.
7JQ463	Magnetic Latent Print Powder	The method used Magnetic Latent Print Powder for the development the fingerprint and a transparent plastic patch was used for lifting and preserving the fingerprint it was identified with information about the case and number of the piece of evidence, initial, date and hour.
7NJ4JY	Photography	
7VF29M	Photography	
8RDKBH	Photography	Photographed all items with scale
	Lifting	Lift cards utilized.
9CGMLT	[No Preservation Methods Reported.]	
9FGXHT	Photography	I exam quality photographed the print (post powder processing).
	Lifting	I used tape to lift it onto a lift card.
9GTUPH	Photography	The latent fingerprint was labelled using a white in colour sticky metric scale and general view photographs were taken of the item along with the enhanced latent fingerprint using a Canon EOS REBEL T6i camera along with a Canon EFS 18mm - 55mm lens. The latent fingerprint was then photographed with a Canon EFS REBEL T6i along with a Canon 60mm macro lens using a 1:1 ratio.
	Lifting	The enhanced latent fingerprint was lifted using a 4" transparent fingerprint lifting tape and was then placed on a white in colour latent fingerprint backing card which was then labelled, packaged and sealed and placed on temporary storage awaiting transportation to AFIS for comparison purposes.

TABLE 3 - Preservation Methods - Item 3

WebCode	Preservation Methods	Method Details
9KA39C	Photography	Photography taken at each Stage - Prior to Fuming, After Fuming, After each Dye also.
9LLWQW	Lifting	Latent print lifted using book tape and placed on clear acetate.
9MXCKX	Lifting	1st lift: black gel lift 2nd lift: Tape lift with book tape
9UCGUA	Photography	Photographed print using full spectrum imaging system (FSIS) and used black latent finger print powder.
	Lifting	Used black latent finger print powder.
9W2NGR	Photography	Photographs were taken before and after application of fingerprint powder with a scale. The fingerprint lift card was also photographed.
	Lifting	Fingerprint was collected using a tape lift and then placed on a latent fingerprint card.
9XW8JT	Photography	Photography with Nikon D610 digital camera. Photos taken after Cyanoacrylate Fuming and after Rhodamine 6 G dye stain with the use of the FLS and an orange filter.
A6RQXU	Photography	Photography: Photography was carried out on a Foster and Freeman DCS-5 system consisting of a Nikon D5 camera. For visible spectrum image capture a 52mm visible imaging colour balancing filter was used. Captured images were scaled, saved and printed to a 1:1.
AA9U6Y	Lifting	Tape lifting
AJBE8R	Photography	Digital photography of developed latent print.
	Lifting	Lifted developed latent print from item of evidence and transferred onto a latent print card for submittal.
AMCHXT	Lifting	Lift tape with card backer
AN8ZYU	Photography	Nikon D800E, f/18, 2 sec., ISO 200, 105 mm
ARN37Z	Photography	The latent print was photo documented to preserve it.
	Lifting	The latent print was preserved, lifting with adhesive tape.
AZWWZT	Photography	
	Lifting	with white hinge lifter

TABLE 3 - Preservation Methods - Item 3

WebCode	Preservation Methods	Method Details
CFKRPN	Photography	Photograph taken, with scale
	Lifting	Adhesive lifter used to collect print
CN26Q9	Lifting	
CQ47TQ	Photography	I used photography to document the results, if observed, after visual examination, cyanoacrylate fuming, and dye stain.
	Lifting	I used transparent tape, black powder, and a white lift card to preserve the lifted print.
CUGJ8F	Lifting	Photograph with scale, Latent lift tape and card
D6LBFD	Lifting	
DC7EMF	Lifting	
DE7MRQ	Lifting	Friction ridge detail from Quadrant B was lifted with tape and the tape was secured onto a white card
DH8QJD	Lifting	the print were photographed and lifting using lifting tape.
DL72ED	Photography	Photographing the latent print in metric dimensions where the alternative , light source has been applied
DZM38W	Photography	1: after cyanoacrylate photographed the mark with white light and preserved it . 2: After Dye Stain, Mark photographed using 445nm light with 495nm Filter.
E9DYCB	Photography	CAE: Latent print was photographed with the Foster + Freeman Crimelite AUTO and DISCOVER using Diffuse Panel Light (DPL). RAM: Latent print was photographed with the Crimelite AUTO and DISCOVER at 475 nm with 550 LP (long pass) filter.
EAJZ7D	Lifting	Lift Tape to white fingerprint card.

TABLE 3 - Preservation Methods - Item 3

WebCode	Preservation Methods	Method Details
EG7FYU	Lifting	To lift the print, I utilized fingerprint tape. I placed the tape over the print and made sure there weren't air bubbles. Using a black marker, I placed an arrow to show orientation/direction on the tape not obscuring the possible fingerprint. I lifted the tape and placed it on a latent lift card. On the opposite side of the lift card, I included a sketch of the item and placed an "X" in the approximate location of where I lifted the print and added a brief description of the location. Additionally, I filled out the "case information" on the latent card. On my notes I indicated what locations I powdered on the tin box and included how many latent lift cards I obtained. I scanned the case information side of the latent lift card and added it to my notes. I placed the lift card in a plastic/plastic evidence bag. I changed my gloves as needed and wore a mask the entirety of the process.
	[No Methods Reported.]	After lifting any possible fingerprints, I utilized one wet/one dry swabs to collect any possible biological evidence from quadrant B (the only quadrant where a lift was observed). I also swabbed the exterior of the tin box. Although there were no fingerprints observed, it is implied that someone had to touch the exterior of the tin box in order to open the tin box (since a possible fingerprint was found on the interior), therefore there is a possibility of touch DNA on the exterior. To swab, I added water to one swab and applied the tip of the moistened swab to quadrant B and followed by swabbing the area with a dry swab. I placed both swabs back into the swab sleeve, and then into a coin envelope. I filled out the case information on the coin envelope, added a description and location of what I swabbed, and that I swabbed the area after post powdering processing. I packaged the coin envelope containing the swabs in a paper/plastic evidence bag. I completed a water control. After powdering, lifting, and swabbing item #3 was repackaged in the manila envelope and resealed. I changed my gloves as needed and wore a mask the entirety of the process.
EPZH6C	Photography Lifting	Photographed with ALS
F2AHA4	Photography	Preserved latent with a canon DSLR, scale, and the following lighting techniques: CA fuming - flashlight/room lighting, direct lighting Dye stain - yellow filter, 450 nm light source
F4XRLQ	Lifting	Lifted with tape, secured to clear acetate
F73GQK	Photography	Used a Nikon D90 attached to a camera stand. Camera set to raw. Latent print image at least 1000 pixels per inch (ppi) and photographed in color.
FDNCRN	Lifting	tape lift onto white cards
FNP376	Photography Lifting	

TABLE 3 - Preservation Methods - Item 3

WebCode	Preservation Methods	Method Details
FV7BWL	Photography	Item 3 was photographed with white light and again with RUVIS. Image of ridge detail was of higher quality using RUVIS.
G6AT64	Lifting	
GALVUK	Photography	Documented to scale w/ use of digital camera (3 images obtained)
	Lifting	Black Powder (1 latent card obtained)
H4ERGR	Lifting	The print was transferred to a plastic patch for preservation and future analysis.
H68F29	[No Preservation Methods Reported.]	
H93AV3	Lifting	
HW3EBA	Lifting	Lift tape to print card
J6YVPP	Lifting	- was able to visualize the print - lifted the fingerprint using tape and placed lift onto the lift card
J92WPL	Lifting	Lift #3 was developed and lifted from quadrant B of the tin box
JCJYWR	Photography	The impression was documented through high-resolution digital photography.
	Lifting	A plastic adhesive patch was applied to lift and secure the fingerprint impression for long-term preservation and further analysis.
JJKBTN	Photography	Comparison quality photographs taken after powder development
	Lifting	Two-inch, frosted, lift tape utilized on area of powder adherence, Lift tape removed from item and applied to latent lift card, latent lift card information filled out
	Scanning	Latent Lift card scanned and uploaded into lab information management system
	Photograph Retention	Comparison photographs, along with all case photographs, uploaded into digital image management system

TABLE 3 - Preservation Methods - Item 3

WebCode	Preservation Methods	Method Details
JMJLNN	Photography	Once a print was identified to be present in quadrant B, I gathered my camera, flash, flash sync cord, shutter release cord, macro lens, tripod, and ruler placards to take 1:1 comparison photographs. To complete the set-up for 1:1 comparison photography, I connected the flash to my camera via a sync cord. I plugged my shutter release cord into my camera. I took off my normal lens and replaced it with a macro lens. I put my camera into my department decided comparison print settings. I filled out a ruler placard with the following: department report number, date, my initials/badge number, and an up arrow. I placed the ruler placard beside the identified print. I placed the item with the processed print where I wanted to photograph it. I mounted my camera to the tripod. Using an angle finder, I manipulated the camera on the tripod until it was on the same plane as the print. I photographed the print utilizing oblique lighting at various angles/positions. Oblique lighting was done using the flash and a flashlight. I uploaded the photos to our department photo system.
	Lifting	Once 1:1 photographs were completed, I gathered 1.5 inch clear tape and a lift card. I pulled a section of the tape from the roll and placed it over the print. I used my finger to smooth the tape over the surface of the print. I lifted the tape from the item and placed it on the blank side of a lift card. Beside the tape, on the blank side of the lift card I drew an up arrow, I wrote the department number, the number of the lift card out of the total, and my initials/badge number so that it was partially on the tape and partially on the card. On the opposite side of the card, I described in words and sketched where the print was located on the item, I wrote the department report number, date of incident, incident type, address of processing/collection location, initials and badge number, what number lift card this is/the total number of lift cards.
	Scanning	After I filled out the lift card, I scanned the lift card via a scanner. The scanner sent the scans to my email in the form of a PDF. I created a file for this specific case on my desktop. I opened my email then the PDF, I converted the PDF to a JPEG and saved it to the designated file for this case. I uploaded the scans to my department report writing system along with my final notes.
	Evidence Packaging	After I scanned the lift card, I obtained a lift card envelope. I placed the lifts into the envelope. I filled out the envelope with the following information: department report number, date of incident, address of processing/collection location, the beat the location is in, the type of incident, my initials/badge number, and the total number of lifts collected. I sealed the envelope with evidence tape and signed the evidence tape with my initials/badge number and date I sealed. I entered the lift card as evidence in our department report writing system, this generated a barcode. I printed the barcode and placed it on the backside of the sealed envelope, I wrote my initials/badge number partially on the barcode and partially on the envelope itself. Since 1:1 comparison photographs were taken, I placed a blank barcode sticker on the backside of the envelope and I wrote on the sticker that there are photographs of the print that was lifted as well as the image numbers that correspond to it. I then placed the envelope in a drop box to be analyzed. I documented the drop time in my notes for this case.
JYWPAL	Photography	Exhibit 1.3A: One digital photograph of latent prints developed in quadrant B of the tin box (Exhibit 1.3)

TABLE 3 - Preservation Methods - Item 3

WebCode	Preservation Methods	Method Details
KJ3JGJ	Photography	Photographed print after Cyanoacrylate fuming and with the Alternate light source after Rhodamine
	Lifting	Black powder - tape lift
KQD3DM	Lifting	Lift tape used.
LEZ3JE	No prints	Side lighting
	Photography	Photographed with an orange filter and 450nm lighting.
LFBZQ6	Photography	Photographed the item before, during, and after the chemical processing.
LG8HT7	Photography	
LMVZ7H	Lifting	Lifted powdered prints
	Scanning	Scanned lifts
MUPRRG	Photography	photographed after dye stain/laser
	Lifting	regular lift tape
MX7UYL	Lifting	Lift tape applied to card
NWAYR4	Lifting	powder results
	Photography	ALS results
NZ8F3C	Lifting	Lifting and collection on print collection cards per laboratory protocol.
P2HJDF	Photography	Exhibit 1.3A: one digital photograph of developed latent prints
PYEQGW	Lifting	
QCYLB2	Lifting	White sirchil and Fingerprint lifting tape
	Photography	Camera
QPMPCF	Lifting	ONE LATENT LIFT CARD
	Photography	TWO DIGITAL IMAGES

TABLE 3 - Preservation Methods - Item 3

WebCode	Preservation Methods	Method Details
QYRWVC	Lifting	Tape lifted and placed on lift card to be preserved.
RGPKZF	Lifting	
RJTDWZ	Photography	of ALS results at 455 nm and 365 nm
	Lifting	black powder results
RNPWXY	Photography	
TC8HTB	Lifting	White gel lifter
TJ2GGY	Lifting	Lifted print using lift tape and adhering to department Latent Print Card
TJAN8D	Photography	Photography was utilized as the method of documentation of the ridge detail deemed suitable on Item 3 (3-LP1). A Nikon camera was used along with a Fiber Optic lighting source to preserve 3-LP1 after Cyanoacrylate fuming.
	Photography	Photography was utilized as the method of documentation of the ridge detail deemed suitable on Item 3 (3-LP1). A Nikon camera was used along with a Green light laser (~532 nm) and orange filter were used to preserve 3-LP1 after chemical dye stain with Rhodamine 6G.
	Photography	Photography was utilized as the method of documentation of the ridge detail deemed suitable on Item 3 (3-LP1). A Nikon camera was used along with a Green light laser (~532 nm) and orange filter were used to preserve an overall photo 3-LP1 after processing was completed.
TPY7NB	Photography	Quadrant B photographed during visual examination, CA fuming, and dye stain. Exterior hinge area photographed during dye stain.
	Photography	Print in quadrant B lifted after processing with black powder. Lift unsuccessful for print on exterior hinge area.
TVZHK8	Photography	photo x1 of quadrant B with angled ring light after CA photo x1 of quadrant B with 450 nm ALS and yellow filter after BY40
U4KJCX	Lifting	
UG3QEW	[No Methods Reported.]	latent area was lifted using 2" lifting tape

TABLE 3 - Preservation Methods - Item 3

WebCode	Preservation Methods	Method Details
UKXGK9	Photography	Digital camera used to capture 5 total images (4 after Cyanoacrylate fuming, 1 after Rhodamine 6G) of developed friction ridge
	Lifting	Adhesive tape used to lift developed friction ridge (after black powder applied) and adhere to 1 latent print lift card
URL6GY	[No Preservation Methods Reported.]	
UXMJZF	Photography	we documented the latent print through photography, making sure to see the groves and its characteristics. So, they could be submitted for further analysis.
V4TA67	Lifting	Prints were lifted using lifting tape and placed onto a white card.
V8AZ7V	Photography	DCS5
VAP2MV	Lifting	Black powder, Tape/Card
VEQD8E	Photography	Using Photo document the fingerprint before, using a metric witness, during and after lifting it.
	Lifting	I used a plastic patch for footprint lifting.
W39B3T	Lifting	Print observed in section B Tape lift placed on lift card
W3URGA	Lifting	one lift with tape
WM6MKU	Lifting	
WQZBPN	Photography	I took photos of the latent print using our Full Spectrum Imaging System using a scale devise.
WY6H6N	Lifting	I used clear adhesive tape to lift the developed print from the surface and transferred it onto a lift card.
WZPYPW	Photography	- Apply digital photography with DCS-5 camera Nikon D6 to save enhanced image of the latent print; - Apply DCS-5 printer for printing enhanced latent print image; - Processing time was about 10 minutes;
XK7X6B	Lifting	The developed print was lifted with a plastic patch for preservation.
XMTCUL	[No Preservation Methods Reported.]	
XXT3D9	Lifting	Lifted latent print with the use of lifting tape.

TABLE 3 - Preservation Methods - Item 3

WebCode	Preservation Methods	Method Details
Y376Y4	Photography	Latent prints were documented using a digital camera and with a scale. An orange barrier lens was used when photographing with the forensic light source.
	Lifting	Once black powder was applied to the item, lifting tape was used to lift any fingerprints and placed onto a lift card.
YKLEZ6	Photography	On development methods where latent prints were observed
	Lifting	Black powder
YQNLGT	Photography	Upon developing the fingerprint, it was photographed in its original state, then it was processed with Copper metallic non-magnetic powder and Squirrel hair brush. Developed fingerprint was photographed, then improved using feather duster fingerprint brush and photographed again with and without scale.
	Lifting	The final step was lifting the fingerprint with Gel tape.
ZAJE3Q	Photography	
ZHDJVR	Lifting	adhesive tape
ZRYQBB	Photography	First, I preserved the latent print by using photo documentation.
	Lifting	Then I used the plastic adhesive patch to lift the latent print.
ZVG8LZ	Photography	Documented Latent Print development with digital camera, using a macro lens.

Item 3 - Preservation Response Summary			Participants: 116
Methods Utilized			
	Lifting	78	Note: Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.
	Photography	71	
	Scanning	4	

Additional Comments

TABLE 4

WebCode	Additional Comments
49V9WN	se localizan 1 huella latente en cada uno de los ITEMS remitidos. [Requested translation was not provided by time of publication.]
6R27Q4	Excellent proficiency test and very good exercise to refresh the process of fingerprinting development.
7EA2XX	Item 1: Fingerprint detected by visual examination and photographed. Improvement by BY-40 staining, after CA fuming. Item 2: Fingerprint detected by visual examination and photographed. Improvement by BY-40 staining, after CA fuming. Item 3: Fingerprint detected by RUVIS and photographed. Improvement by CA fuming, after CA fuming.
9CGMLT	Report wording: The submitted items were processed with white magnetic powder (Item 1) and black magnetic powder (Items 2 and 3) to develop possible latent prints. Item 1 - A latent print impression was developed in quadrant D of the clear plexiglass sheet. Item 2 - A latent print impression was developed in quadrant A of the magnetic picture frame. Item 3 - A latent print impression was developed in quadrant B of the tin box.
9GTUPH	All prints were enhanced and photographed using appropriate techniques and lighting conditions. Lifts were successfully obtained however the lift for item 2 displayed partial smudging. Overall, the prints were preserved in a condition suitable for comparison.
9KA39C	Due to Level of training - each step and results checked by Senior Technician. Results returned one print for each Item tested; Item 1 - Box D; Item 2-Box A; and Item 3-Box B. Nil further prints developed with dye or other enhancement.
9MXCKX	Two lifts were performed on Item 3 as the first lift with the gel lift didn't lift the center of the latent print. The second lift with book tape was more successful in lifting a complete latent print.
9UCGUA	Photographed images were of better quality than the lifts. Photographed images were saved. I did not see a place to submit the photographed images.
A6RQXU	Photography: Photography was carried out on a Foster and Freeman DCS-5 system consisting of a Nikon D5 camera. A 52mm visible imaging colour balancing filter was fitted to the lens. The scale was checked before use by capturing a image of a calibrated ruler, scaled on the DCS software, printed and the printed image was manually checked against the calibrated ruler. Lighting was controlled by a Foster and Freeman 8x4 ring crime-lite. Overview shots were captured of all exhibits before and after treatment. All exhibits were tracked via a barcode system on a LIMS and all examination details were recorded on the same system.
AN8ZYU	Patterns referenced in the recovered latent print: ITEM 1: LOOP ITEM 2: WHORL ITEM 3: LOOP
DE7MRQ	After the friction ridge detail was lifted with tape, each item was re-powdered. Second tape lifts were obtained from Quadrant A of Item 2, and Quadrant B of Item 3.
FDNCRN	Given the size of these items, they would have been marked, photographed, and collected to be processed at the lab by the Identification Unit. If they had been processed on scene, items would have been photographed before and after processing, before friction ridge detail was collected.
JYWPAL	The evidence was chemically and physically processed for prints.
KQD3DM	Lift submitted to CLT Supervisor [Name].
LEZ3JE	Development showed that the surfaces were wiped down poorly before print was placed.
P2HJDF	The plexiglass sheet (Exhibit 1.1), the magnetic picture frame (Exhibit 1.2), and the tin box (Exhibit 1.3) were examined for patent prints and physically processed for latent prints using fingerprint powders. Prints were developed on the plexiglass sheet (Exhibit 1.1, Section D), the magnetic picture frame

TABLE 4

WebCode	Additional Comments
	(Exhibit 1.2, Section A), and the tin box (Exhibit 1.3, Section B). Documentation of these prints consists of five digital photographs (Exhibits 1.1A, 1.2A, and 1.3A) which were forwarded to the Latent Print Comparison Unit.
TJ2GGY	After visual examination, it was determined that Items 1, 2, and 3 were all non-porous. Due to the surface textures, cyanoacrylate ester fuming was chosen as the first step of latent print development. Finishing the fuming, it was decided that Black Powder dusting would be the most efficient secondary development process. Finally, when a latent print was developed, they were lifted using frosted fingerprint lifting tape.
V8AZ7V	Additional latent prints were observed and documented on the outside of the metal container (Item 03).
WQZBPN	All latent prints recovered in testing were suitable for comparison.
Y376Y4	Unrelated friction ridge detail was observed on the exterior of the tin box.
YKLEZ6	Additional latent prints observed on the exterior side of the metal box (Item 3)

-End of Report-
(Appendix may follow)

Test No. 25-5193: Latent Print Processing - Nonporous Surfaces

DATA MUST BE SUBMITTED BY **Sept. 02, 2025, 11:59 p.m. EDT** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A

WebCode: A82EW9

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 June 9, 2025, several items of evidence were recovered from a crime scene. Police have requested that you process the four quadrants within 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 a label displaying a CTS item number. Each item inside the packaging is marked with a grid, with sections labeled A, B, C, and D. A single latent print has been placed within a single labeled quadrant on each item.

- Do not process any packaging and protective material. Only process and report what is found within the marked grid.

Items Submitted (Sample Pack LPPN):

Item 1: Quadrants A-D within plexiglass sheet.

Item 2: Quadrants A-D within the white part of the magnetic picture frame.

Item 3: Quadrants A-D within the inside of the tin box. (Flat surface area only, excluding inner walls)

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 (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.**

Item 1

Item 2

Item 3

Results for Item 1:

Quadrants A-D within plexiglass sheet.

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.

☐ No preservation methods performed.

Method Used

Methodology-specific information

Results for Item 2:

Quadrants A-D within the white part of the magnetic picture frame.

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.

☐ No preservation methods performed.

Method Used

Methodology-specific information

Results for Item 3:

Quadrants A-D within the inside of the tin box. (Flat surface area only, excluding inner walls)

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.

☐ No preservation methods performed.

Method Used

Methodology-specific information

4.) Additional Comments

Note: Please use appropriate punctuation to indicate the end of sentences, sections, and statements in the free-form space below. Extra spacing and returns used for separation within your text will not transfer and may cause your information to be illegible in the Summary Report. The use of lists and tabular formats to deliver information is also cautioned against, as these do not transfer.

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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 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 ANAB and/or A2LA. (Accreditation Release section below must be completed.)
- ☐ This participant's data is **not** intended for submission to 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.

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Step 2: Complete the Laboratory Identifying Information in its entirety.

Authorized Contact Person and Title

Laboratory Name

Location (City/State)