



Latent Print Processing - Nonporous Surfaces

Test No. 24-5193 Summary Report

Each sample set contained three items of simulated crime scene evidence. Participants were asked to process each item for latent prints and report their findings. Data were returned from 102 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 set consisted of three items of simulated crime scene evidence. Each item was divided into labeled sections and contained one latent fingerprint. Participants were asked to process each item for latent fingerprints utilizing the method(s) deemed most appropriate for the substrate being examined.

SAMPLE PREPARATION: All substrates were cleaned with a wet paper towel and then dried 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 was processed in-house for latent prints to verify their durability and proper latent print location.

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

Item No.	Test Material	Enhancer	Print Location
1	Magnifying glass	Oil	D
2	CD Case	Oil	C
3	Notebook covers	Oil	B

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 set contained three items of evidence, which were divided into four sections (A-D), to be processed for latent prints: a magnifying glass (Item 1), a CD case (Item 2), and notebook covers (Item 3). During the creation of this test, latent prints were purposefully deposited in section "D" for Item 1, section "C" 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 be successful with the recovery of the deposited print on each item. Participants who did not develop a print on an item were therefore not flagged/marked as inconsistent or outliers to the consensus. See Manufacturer's Information for preparation details.

Of the 102 responding participants, 96 (94%) were able to successfully recover a latent print in the location where the print was deposited for all three items. Five participants did not test one item and one participant reported ridge detail in a section that differed from the consensus for two of the items.

For Item 1, 101 of 102 participants (99%) recovered a latent print in section "D" of the magnifying glass. 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 74 times) was the prevailing method of development reported by participants, followed by Cyanoacrylate Fuming (50), Alternate Light Source (34), and Dye Stain (31) methods. During preservation, Photography (reported 68 times) was the prevailing method reported, followed by the Lifting (56) method.

For Item 2, 101 of 102 participants (99%) recovered a latent print in section "C" of the CD case. One participant reported ridge detail in section "D" and was marked as an outlier. Visual Examination (reported 66 times) was most often reported by participants as the first step during the development stage. Powder Dusting (reported 73 times) was the prevailing method of development, followed by Cyanoacrylate Fuming (51), Alternate Light Source (35), and Dye Stain (33) methods. During preservation, Photography (reported 65 times) was the prevailing method reported, followed by the Lifting (57) method.

For Item 3, of those participants that tested this item, all recovered a latent print in section "B" of the notebook covers. Visual Examination (reported 59 times) was most often reported by participants as the first step during the development stage. Powder Dusting (reported 61 times) was the prevailing method of development reported by participants, followed by Cyanoacrylate Fuming (50), Dye Stain (36), and Alternate Light Source (35) methods. During preservation, Photography (reported 67 times) was the prevailing method reported, followed by the Lifting (40) method.

Print Location

TABLE 1 - Item 1: Magnifying glass

WebCode	Location	WebCode	Location	WebCode	Location
26QNG6	D	CJWGCV	D	LH89HM	D
2KJF27	D	CMCPZY	D	LNEYLT	D
2MPDFZ	D	CY7HFU	D	LWTMLM	D
3DECUZ	D	D6UKYK	D	LZRYHM	D
3G49D8	D	D97RYP	D	ME4WZR	D
3M7ETA	D	D9QYE2	D	MERZUN	D
3UNNG7	D	DBXQDM	D	MVCQUM	D
43CX47	D	DFR9KU	D	N6QZFY	D
6ATTK2	D	DFTHLJ	D	NR8H3H	D
6KR8MY	D	DR76QX	D	NTKE62	D
6ME9NZ	D	EG3A8T	D	NWZMTZ	D
6QDKJZ	D	EWV3RU	D	NYAR8P	D
77PH27	C	EYVDL9	D	P8UH7M	D
7EZJM8	D	F3VNG9	D	P9ABRA	D
7MXCV2	D	F4AMJP	D	PJTTJF	D
87KXWV	D	F8MMFG	D	R49CMH	D
8HVXKG	D	FDEUYP	D	R947KJ	D
8V8Z9Y	D	FGE7UP	D	RFMARL	D
9AEDLU	D	FGVPUA	D	RXXYMB	D
9C3DU7	D	FKUEHP	D	T4NXWJ	D
A9ME8V	D	FLBXHA	D	TAQ6CL	D
ALMDVT	D	G8N688	D	TARECC	D
ANEC9Q	D	GH6RHU	D	TH9DZJ	D
B4LQ4U	D	HVNW4V	D	TNCGMW	D
B79VTY	D	J6NGNF	D	TRBVBL	D
B7PNEL	D	JCVDPN	D	U4ZLF3	D
BLMZ3D	D	K299ZF	D	UJC7CA	D
BVUXNV	D	KJN6BM	D	UR9XK3	D
C7RX2Z	D	KTQZCJ	D	VW7A9V	D
CBH8VB	D	LCLRWH	D	WHRQRC	D

TABLE 1 - Item 1: Magnifying glass

WebCode	Location	WebCode	Location	WebCode	Location
WQ8ACB	D				
WQQQCQ	D				
WXRDT	D				
XPATG7	D				
XUFP27	D				
YKARMA	D				
YMYDM6	D				
YV9K4	D				
YZ8G4F	D				
ZA7W66	D				
ZALTEW	D				
ZAQDK8	D				

Item 1 - Location Response Summary		
Location	Total	Total Participants: 102
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	1	
D	101	
None	0	
Not Tested	0	

TABLE 1 - Item 2: CD Case

WebCode	Location	WebCode	Location	WebCode	Location
26QNG6	C	CY7HFU	C	LZRYHM	C
2KJF27	C	D6UKYK	C	ME4WZR	C
2MPDFZ	C	D97RYP	C	MERZUN	C
3DECUZ	C	D9QYE2	C	MVCQUM	C
3G49D8	C	DBXQDM	C	N6QZFY	C
3M7ETA	C	DFR9KU	C	NR8H3H	C
3UNNG7	C	DFTHLJ	C	NTKE62	C
43CX47	C	DR76QX	C	NWZMTZ	C
6ATK2	C	EG3A8T	C	NYAR8P	C
6KR8MY	C	EWV3RU	C	P8UH7M	C
6ME9NZ	C	EYVDL9	C	P9ABRA	C
6QDKJZ	C	F3VNG9	C	PJTTJF	C
77PH27	D	F4AMJP	C	R49CMH	C
7EZJM8	C	F8MMFG	C	R947KJ	C
7MXCV2	C	FDEUYP	C	RFMARL	C
87KXWV	C	FGE7UP	C	RXXYMB	C
8HVXKG	C	FGVPUA	C	T4NXWJ	C
8V8Z9Y	C	FKUEHP	C	TAQ6CL	C
9AEDLU	C	FLBXHA	C	TARECC	C
9C3DU7	C	G8N688	C	TH9DZJ	C
A9ME8V	C	GH6RHU	C	TNCGMW	C
ALMDVT	C	HVNW4V	C	TRBVBL	C
ANEC9Q	C	J6NGNF	C	U4ZLF3	C
B4LQ4U	C	JCVDPN	C	UJC7CA	C
B79VTY	C	K299ZF	C	UR9XK3	C
B7PNEL	C	KJN6BM	C	VW7A9V	C
BLMZ3D	C	KTQZCJ	C	WHRQRC	C
BVUXNV	C	LCLRWH	C	WQ8ACB	C
C7RX2Z	C	LH89HM	C	WQQQCQ	C
CBH8VB	C	LNEYLT	C	WXRDTG	C
CJWGCV	C	LWTMLM	C	XPATG7	C
CMCPZY	C			XUFP27	C

TABLE 1 - Item 2: CD Case

WebCode	Location	WebCode	Location	WebCode	Location
YKARMA	C				
YMYDM6	C				
YV9K4	C				
YZ8G4F	C				
ZA7W66	C				
ZALTEW	C				
ZAQDK8	C				

Item 2 - Location Response Summary		
Location	Total	Total Participants: 102
A	0	<i>NOTE: Tallies may not add up to the total number of participants, if a participant did not report a response.</i>
B	0	
C	101	
D	1	
None	0	
Not Tested	0	

TABLE 1 - Item 3: Notebook covers

WebCode	Location	WebCode	Location	WebCode	Location
26QNG6	B	CY7HFU	B	LZRYHM	B
2KJF27	B	D6UKYK	B	ME4WZR	B
2MPDFZ	Not Tested	D97RYP	Not Tested	MERZUN	B
3DECUZ	Not Tested	D9QYE2	B	MVCQUM	B
3G49D8	B	DBXQDM	B	N6QZFY	B
3M7ETA	B	DFR9KU	B	NR8H3H	B
3UNNG7	B	DFTHLJ	B	NTKE62	B
43CX47	B	DR76QX	B	NWZMTZ	B
6ATTK2	B	EG3A8T	B	NYAR8P	B
6KR8MY	B	EWV3RU	B	P8UH7M	B
6ME9NZ	B	EYVDL9	B	P9ABRA	B
6QDKJZ	B	F3VNG9	B	PJTTJF	B
77PH27	B	F4AMJP	B	R49CMH	B
7EZJM8	B	F8MMFG	B	R947KJ	B
7MXCV2	B	FDEUYP	B	RFMARL	B
87KXWV	Not Tested	FGE7UP	B	RXXYMB	B
8HVXKG	B	FGVPUA	B	T4NXWJ	B
8V8Z9Y	B	FKUEHP	B	TAQ6CL	B
9AEDLU	B	FLBXHA	B	TARECC	B
9C3DU7	B	G8N688	B	TH9DZJ	B
A9ME8V	B	GH6RHU	B	TNCGMW	B
ALMDVT	B	HVNW4V	B	TRBVBL	B
ANEC9Q	B	J6NGNF	B	U4ZLF3	B
B4LQ4U	B	JCVDPN	B	UJC7CA	B
B79VTY	B	K299ZF	B	UR9XK3	B
B7PNEL	B	KJN6BM	B	VV7A9V	B
BLMZ3D	B	KTQZCJ	B	WHRQRC	B
BVUXNV	B	LCLRWH	B	WQ8ACB	B
C7RX2Z	B	LH89HM	B	WQQQCQ	B
CBH8VB	B	LNEYLT	B	WXRDTG	B
CJWGCV	B	LWTMLM	B	XPATG7	B
CMCPZY	B			XUFP27	B

TABLE 1 - Item 3: Notebook covers

WebCode	Location	WebCode	Location	WebCode	Location
YKARMA	B				
YMYDM6	B				
YV9K4	Not Tested				
YZ8G4F	B				
ZA7W66	B				
ZALTEW	B				
ZAQDK8	B				

Item 3 - Location Response Summary		
Location	Total	Total Participants: 102
A	0	<i>NOTE: Tallies may not add up to the total number of participants, if a participant did not report a response.</i>
B	97	
C	0	
D	0	
None	0	
Not Tested	5	

Development Methods

TABLE 2 - Item 1

WebCode	Development Methods	Method Details
26QNG6	Visual Examination	Visually inspected with and without a flashlight (white light).
	Powder Dusting	Processed utilizing black powder.
2KJF27	Visual Examination	Optical detection techniques with: 1) White light lamp; 2) Scenoscope UV-254 nm light; 3) Forenscope UV-365 nm light. Positive optical inspection - One fingerprint detected in section D (a few ridges was also on the B section) and photographed using episcopic coaxial illumination with white light.
	Cyanoacrylate Fuming	The exhibit was placed in the chamber (MVC1000 Foster&Freeman), and a small quantity of liquid cyanoacrylate (about 0.22 g) was heated to around 80 to 100°C. After the treatment the same fingerprint was photographed again under UV-254 nm light.
	Powder Dusting	Use of fluorescent powders after cyanoacrylate fuming. Visual examination at 445 nm with a LP (Long Pass) 510 yellow filter.
2MPDFZ	Visual Examination	Used natural light as well as light from a regular flashlight with different intensity settings. Examined both sides of glass surfaces that were marked with Sections A-D.
	Powder Dusting	Used black magnetic powder to process entirety of glass surface.
3DECUZ	Visual Examination	Area of ridge detail was visible with ambient light.
	Powder Dusting	Processed with black powder.
3G49D8	Visual Examination	At 2015 hours on 08/28/24 the magnifying glass was observed with oblique lighting. [Initials] observed ridge detail on quadrant "D", and photographed the latent utilizing oblique lighting with a gooseneck light. Photos were taken on the Foster + Freeman DCS5 imaging system.
	Cyanoacrylate Fuming	The item was placed into the Foster + Freeman MVC FFLEX S Cyanoacrylate fuming chamber using 0.1 grams of Foster + Freeman Cyanobloom lot # 091923-02, at 120 degrees Celsius, 80% relative humidity, with a glue time of 10 mins. A plastic cover slip was used to apply a test print using a Sirchie Latent Print Standard Pad. A latent was observed on the magnifying glass in quadrant "D" after fuming, the test print was developed. The latent was photographed using oblique lighting after fuming.
	Alternate Light Source	After the latent was photographed with oblique lighting, it was additionally photographed using the Foster + Freeman Crimelite 82S reflective UV light to visualize the print.
	Dye Stain	After photographing with the 82S, the Dye Stain MBD lot # 081624-01 was applied to the item.
3M7ETA	Cyanoacrylate Fuming	
	Alternate Light Source	RUVIS
	Powder Dusting	Black powder
	Alternate Light Source	Ardrox

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
3UNNG7	Cyanoacrylate Fuming	Fuming of Cyanoacrylate. Count: 1 gram. Time: 40 minutes. Color: White.
43CX47	Cyanoacrylate Fuming	
	Powder Dusting	Black powder
	Dye Stain	Ardrox
	Alternate Light Source	yellow barrier filter, 415 nm, macro lens
6ATK2	Visual Examination	White light
	Alternate Light Source	FSIS II with 254nm with 254 filter, UV light with yellow filter, 450nm with orange filter, laser with laser filter
	Cyanoacrylate Fuming	white light, FSIS II with 254nm with 254 filter, UV light with yellow filter, 450nm with orange filter, laser with laser filter
	Dye Stain	Rhodamine 6G, Laser filter, and laser
	Powder Dusting	Black fingerprint powder
6KR8MY	Visual Examination	Oblique lighting
	Powder Dusting	Black powder
6ME9NZ	Visual Examination	Visible latent print observed on Item 1 during visual examination.
	Alternate Light Source	I observed the latent print utilizing an ALS kit.
	Cyanoacrylate Fuming	I fumed Item 1.
	Powder Dusting	I processed Item 1 utilizing black powder.
77PH27	Cyanoacrylate Fuming	fuming at 78% for 18 minutes
	Alternate Light Source	RUVIS
	Powder Dusting	Black powder
	Visual Examination	ridge detail in quadrant D
	Dye Stain	Ardrox
7EZJM8	Cyanoacrylate Fuming	Fuming chamber at 78% humidity for 18 minutes. Photographed a possible latent in quadrant D.
	Dye Stain	Ardrox
	Powder Dusting	Black powder
7MXCV2	Visual Examination	Visualization
	Powder Dusting	Magnetic powder with non-sterile wand
87KXWV	Visual Examination	With flashlight
	Powder Dusting	Black magnetic powder

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
8HVXKG	Powder Dusting	White powder
8V8Z9Y	Visual Examination	Conducted visual examination on item using the following ALS: white light, UV, 450, 505 (ROFIN ALS), laser (LaseR) and FSIS II (UV 254), with yellow, orange, laser and UV filters, prior to processing. (Positive +)
	Cyanoacrylate Fuming	Placed item in AirScience superfume cyanoacrylate chamber. Used white light (ROFIN ALS) and 254 UV (FSIS II) to visualize areas of ridge detail. (Positive +)
	Dye Stain	Used Rhodamine dye stain. Used 505 (ROFIN ALS) with a laser filter to visualize areas of ridge detail. (Positive +)
	Powder Dusting	Processed item using bi-chromatic powder. (Negative -)
9AEDLU	Visual Examination	
	Alternate Light Source	Crime Lite Auto
	Cyanoacrylate Fuming	Fume-A-Wand. Cyanoacrylate Ester Superglue Fuming Pellet. Lot# 070623 Kit #15 Pellet #P2
	Powder Dusting	Black powder
9C3DU7	Powder Dusting	Sirchie Silk Black powder was applied with a fiberglass brush
A9ME8V	Visual Examination	
	Alternate Light Source	
	Powder Dusting	black powder
ALMDVT	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	LOT CA 202404184, EXP 5/20/2025
	Alternate Light Source	
	Dye Stain	RHODAMINE 6G, LOT R6G-090624, EXP 3/6/25
	Alternate Light Source	
	Powder Dusting	Black Powder
ANEC9Q	Visual Examination	
	Cyanoacrylate Fuming	18 minutes @ 80% humidity
	Dye Stain	BY40
B4LQ4U	Visual Examination	Friction ridge detail was observed in Section D
	Powder Dusting	Entire item was powdered; friction ridge detail was lifted from Section D

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
B79VTY	Visual Examination	The magnifying glass was exposed to different lighting conditions in order to mark up any visible fingerprint: Primary Visual Examination: White light (CrimeScope CS-16-500W). Secondary Visual Examination: Ultraviolet Radiation at 254 nm (Scenescope Spex Forensics).
	Cyanoacrylate Fuming	The magnifying glass was transferred within a specialist superglue fuming cabinet and exposed to superglue vapour at high humidity (75-90%) and temperature (120°C) (processing time 40 minutes). Primary Visual Examination: White light (CrimeScope CS-16-500W) - White light (Crime-lite 82S). Secondary Visual Examination: Ultraviolet Radiation at 254 nm (Scenescope Spex Forensics).
	Dye Stain	Superglue Fluorescent Dye Staining (Basic Yellow 40): after 24 hours from superglue treatment, the BY40 dye solution was applied in an extracted fume cupboard by spraying. After 1 minute the item was washed with water by using a suitable applicator until excess dye was removed from the background. Fluorescence examination: CrimeScope CS-16-500W (blue light at 455nm with a longpass filter GG495AG Yellow); Crime-lite 82S Blue (420nm – 470nm) with a longpass filter GG495AG Yellow.
B7PNEL	Powder Dusting	Se inicia la intervención a las 11:56 am; llevando a cabo la fijación escrita y fotográfica del ítem, con testigo métrico e identificado. Se selecciona el reactivo adecuado, de acuerdo a la superficie del ítem, realizando la verificación del reactivo antes de aplicarlo directamente sobre la superficie del ítem. Se aplica el reactivo convencional de color blanco de forma uniforme sobre la superficie del ítem, con apoyo de una brocha de fibra de vidrio, hasta lograr el revelado mínimo de la huella. Localizando un fragmento con material lofoscópico al que se le asigna el número de identificación 1.1.D. [Requested translation was not provided by the time of publication.]
BLMZ3D	Powder Dusting	White powder
BVUXNV	Visual Examination	visual examination-also with white light and ALS
	Powder Dusting	magnetic powder dusting
C7RX2Z	Powder Dusting	1. MACROSCOPIC OBSERVATION. 2. PHOTOGRAPHIC DOCUMENTATION. 3. APPLICATION OF MAGNETIC POWDER REAGENT. 4. DEVELOPMENT. 5. PHOTOGRAPHIC DOCUMENTATION. 6. LIFTING OF THE INDICATION. 7. ACETATE TRANSPLANT. 8. PACKAGING. 9. REMITTANCE.
CBH8VB	Visual Examination	Visually examined the evidence prior to processing.
	Cyanoacrylate Fuming	The fuming cycle took about 10 minutes to complete.
	Dye Stain	Rhodamine 6G- Aqueous
	Alternate Light Source	Viewed with a green Laser Light Source.
	Powder Dusting	Magnetic Powder
	Powder Dusting	Black Powder
CJWGCV	Cyanoacrylate Fuming	Cyanoacrylate was applied in a gas chamber for 3 minutes
	Physical Developer (PD)	Hi-Fi magnetic powder was used, using magnetic pen

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
CMCPZY	Cyanoacrylate Fuming	The item were processed in approximately 35 minutes in the following order: the item was removed from the packaging, then place on the plataform to be fumed inside of the disposable fuming bag, then place one fingerprint on the inside of the bag within the preprinted circle, turn on the hot plate with cyanocrylate and wait to the test print inside the circle get set.
	Powder Dusting	Once the fixation was completed, the black latent powder was applied to the item.
CY7HFU	Visual Examination	Visually examined and used oblique lighting, no prints observed
	Alternate Light Source	Used laser, no prints observed
	Cyanoacrylate Fuming	Placed in fuming chamber for about 5 minutes, observed print in section D, 1 photograph taken
	Dye Stain	Used Rhodamine 6G as a dye stain and allowed to fully dry, observed print in section D, no photographs taken
	Alternate Light Source	Used laser after dye stain, observed print in section D, 3 photographs taken
	Powder Dusting	Used black powder to further develop and lift the latent print, observed print in section D, 1 latent lift card obtained
D6UKYK	Cyanoacrylate Fuming	I performed fuming on the item for 7 minutes using 2grams of cyanoacrylate and a latent print was developed in section D.
D97RYP	Visual Examination	
	Powder Dusting	
D9QYE2	Powder Dusting	Sirchie Silk Black powder was applied with a fiberglass brush
DBXQDM	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 CD followed by a rinse with distilled water. Viewed and photographed developed latent print using a 450 nm forensic light source with a yellow filter.
DFR9KU	Visual Examination	Natural light
	Alternate Light Source	ALS (400nm/700mn) - also fluorescence examination with band pass filters.
	Cyanoacrylate Fuming	10 mins, 120°C evaporation temp., 80% RH.
DFTHLJ	Visual Examination	Examination with LED flashlight.
	Cyanoacrylate Fuming	CA fuming for 9 minutes with 72% humidity.
	Dye Stain	Basic yellow 40 dye stain, visualized with the Rofin polilight flare 2 at 450nm.
DR76QX	Powder Dusting	Sirchie brand Silk Black powder was applied with a fiberglass brush
EG3A8T	Powder Dusting	Magnetic powder used on Item #1.

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
EYV3RU	Visual Examination	Use natural light and flashlight
	Cyanoacrylate Fuming	fumed for 15 minutes, let rest for 15 minutes
	Dye Stain	Used RAM
	Alternate Light Source	used on all items
	Powder Dusting	black powder, lifted print
EYVDL9	Powder Dusting	White powder
F3VNG9	Powder Dusting	White powder
F4AMJP	Visual Examination	Visual examination: 1 touch mark visualised in natural light - image capture requires alternative light sources - see Alternative Light Sources and Photography comments. 1 mark visualised and captured using DCS-5 with reflected Light-cube UV light
	Alternate Light Source	The following alternative High Intensity Light sources (HILs) were also used with corresponding filters: Forenteq Light-cube series: White (6500k), Violet (410 nm), Green (530 nm), Blue (447 nm), Blue-Green (470 nm), orange (590 nm) and Red (630 nm) UV (365 nm), (reflected UV with a BAADER Fully blocked Vis & IR U-Filter). 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 enhanced using Sirchie Black-Magnetic latent fingerprint powder and captured using DCS-5 and Light-cube white light - see Alternative Light Sources and Photography comments.
	Cyanoacrylate Fuming	No significant enhancement of mark. 0.8g SureLoc Cyanoacrylate used with Forenteq Megafume M61 cabinet with standard cyanoacrylate pre-set process as follows: 20 minutes humidify at 80% Relative Humidity. 0 min saturation. 15 min fuming at 80% Relative Humidity. 30 minute purge cycle. Full spectrum Light-cube examination as per Alternative Light Source comments.
	Dye Stain	Basic Yellow 40 (By40) ethanol-based fluorescent dye staining followed by High Intensity Light source examination using Blue, Green and UV lights. 1 mark captured using Crime-lite Blue light and DCS-5 camera system. - see Alternative Light Sources and Photography comments.
F8MMFG	Powder Dusting	Se inició con el procedimiento de inspección a las 11:54. Se aplicó reactivo convencional color blanco, con una brocha de fibra de vidrio, realizando el barrido sobre la superficie de cristal, localizando un fragmento con material lofoscópico, el cual fue asignado con el número 1.1.D. [Requested translation was not provided by the time of publication.]

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
FDEUYYP	Visual Examination	Using natural light, added light with a flashlight, and introducing oblique lighting, I observed the latent print in section D.
	Alternate Light Source	Using the Coherent TracER Forensic Laser, I introduced the alternate light source at 532nm to the magnifying glass. I was unable to further visualize the latent print using this method.
	Cyanoacrylate Fuming	I added a cup of warm water to a cyanoacrylate fuming chamber, put a tin pan on a warming plate, and using a large binder clip, suspended the magnifying glass within the chamber. I then added a dime-sized amount of cyanoacrylate to the tin plate, closed the chamber, and allowed the magnifying glass to be fumed for approximately 6-7 minutes. After 6 minutes, the vent was opened and heating plate was turned off, and after 7 total minutes the chamber door was opened to fully stop the fuming process. I observed the latent print in section D to be slightly white and opaque.
	Dye Stain	Using a laboratory wash bottle, I applied Rhodamine 6G on the glass portion of the magnifying glass, allowed it to dry fully, then used the Forensic Laser to view the print in section D. I observed some background fluorescence, so I did a methanol rinse, and applied more Rhodamine 6G as needed to develop the print for photographing.
	Powder Dusting	Using black powder, I dusted the item with a fiberglass brush.
FGE7UP	Visual Examination	Using a flashlight, I visually observed a latent print in quadrant D of the magnifying glass. Using a flashlight and photography, I documented the latent print with a scale.
	Alternate Light Source	Using an alternative light source, I did not observe the latent print fluoresce in quadrant D of the magnifying glass. Therefore, I did not document the latent print with photography.
	Cyanoacrylate Fuming	After CA fuming was conducted, I observed a latent print in quadrant D of the magnifying glass. Using photography, I documented the latent print with a scale.
	Dye Stain	After applying the Rhodamine 6G dye stain, the latent print was observed to be on quadrant D of the magnifying glass. Using photography, I documented the latent print with a scale.
	Powder Dusting	Using black powder, I processed the magnifying glass and attempted to lift the latent print. The latent print was lifted and put onto a latent lift card.
FGVPUA	Visual Examination	Used white light. Patent print observed in section D.
	Powder Dusting	Used Gray Powder with fiberglass brush. Latent developed in section D.
FKUEHP	Visual Examination	Ambient light and oblique angle light with a flashlight
	Powder Dusting	Black powder
FLBXHA	Visual Examination	Visual examination with ambient, oblique and fiberoptic lighting
	Cyanoacrylate Fuming	Fumed for approximately 5 to 10 minutes with 2.5 g of cyanoacrylate ester, with a hot plate temperature of 351 degrees F, and 50% relative humidity - then viewed using ambient lighting and a flashlight
	Dye Stain	Rhodamine 6G (R6G) dye stain was applied to the item, which was then viewed using a laser light source with green light (532 nm) and an orange filter

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
G8N688	Visual Examination	Flashlight and room lighting. Ridge detail that was suitable for documentation was visible at this stage.
	Cyanoacrylate Fuming	5 drops of CAE, hot plate temperature 125 degrees C, relative humidity 70%, 6 minutes of fume time in Air Science Safe Fume Cyanoacrylate Chamber (small).
	Visual Examination	Flashlight and room lighting after CAE fuming. Ridge detail that was suitable for documentation was visible at this stage.
	Dye Stain	Rhodamine 6G (MeOH) viewed with ~532 nm laser and orange filtered goggles.
	Visual Examination	Green light (~532 nm laser) with orange goggles after R6G dye stain. Ridge detail that was suitable for documentation was visible at this stage.
GH6RHU	Visual Examination	White light, 4 photos. RUVIS, 1 photo.
	Lumicyano	17 minutes at 75% humidity. Hot plate at 250 degrees Fahrenheit. White light, 0 photos. RUVIS, 0 photos. LASER, 3 photos.
HVNW4V	Powder Dusting	fluorescent yellow powder was applied with a fiberglass brush
J6NGNF	Visual Examination	Oblique lighting with a flashlight
	Powder Dusting	Black fingerprint powder
JCVDPN	Visual Examination	Did visual examination of item #1 with and without ambient light from a flashlight.
	Powder Dusting	Used black powder processing with sterile brush on exterior front & rear of item #1.
K299ZF	Visual Examination	Visual exam
	Cyanoacrylate Fuming	CA 15 minutes
	Dye Stain	BY40 Dye stain, 450 nm alt-light - orange filter
KJN6BM	Visual Examination	Processing time was approximately a minute, and a flash light was used at oblique angles to identify areas of interest. The front and back sides of the Magnifying glass were observed.
	Powder Dusting	I used a brush to apply a Bichromatic powder to both sides of the Magnifying glass. Processing time was approximately a minute or two.
KTQZCJ	Visual Examination	Oblique lighting
	Powder Dusting	Black Powder
LCLRWH	Visual Examination	This item was visually examined utilizing a magnifying glass and an LED flashlight. A finger impression was observed on this item in section D.
	Cyanoacrylate Fuming	This item was cyanoacrylate fumed in a fuming chamber.
	Powder Dusting	This item was processed with black fingerprint powder.

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
LH89HM	Visual Examination	The chain of custody is received with three (3) items duly packed and sealed. Item No.1 corresponding to a magnifying glass, which was photographically documented. Upon visual examination, it was observed that it was divided into four segments identified with the letters A, B, C and D.
	Cyanoacrylate Fuming	The item was introduced into the portable cyanoacrylate chamber for vaporization and plasticization of papillary traces.
	Powder Dusting	Black reactive powder was applied.
LNEYLT	Powder Dusting	Sirchie Silk Black powder was applied with a fiberglass brush
LWTMLM	Visual Examination	White light.
	Cyanoacrylate Fuming	9 minute fume time. Allow for at least 24 hours for CA to fix.
	Visual Examination	White light.
	Dye Stain	RAM
	Alternate Light Source	blue-green ALS with orange filter
LZRYHM	Visual Examination	white light, UV light (254 nm)
	Cyanoacrylate Fuming	MVC1000 - Foster & Freeman 0.15 gr Cyanoacrylate Cyanoacrylate Fumigation 25 min @120 °C - 80 % HR
	Visual Examination	white light (best condition), UV light (254 nm)
ME4WZR	Powder Dusting	Regular black magnetic powder was applied with a magnetic brush
MERZUN	Cyanoacrylate Fuming	Visual vision and alternating light crime Lite 2-400-700 nm. White, 45 minutes using cyanoacrylate using Foster +Freeman MVC-3000-D3 – chamber
MVCQUM	Visual Examination	Conducted VIS with ambient and White Lighting.
	Cyanoacrylate Fuming	Conducted CAE processing with the Air Science Safefume (Model: ARV33) Chamber. Utilized FSIS (Full Spectrum Imaging System) device with the UV (ultraviolet) light and a White Light to visualize evidence.
	Dye Stain	Conducted Rhodamine 6G (R6G) processing by performing the spray method and allowing the item to air dry. Utilized the TracER LASER (Light Amplification by Stimulated Emission of Radiation) and an orange barrier (goggles) to visualize.
N6QZFY	Visual Examination	
	Alternate Light Source	RUVIS
	Cyanoacrylate Fuming	
NR8H3H	Magnetic Powder	Visually inspected. Print seen in area d. Processed to develop using magnetic powder. Lifted with lift tape and applied to card. Time to process - 1 minute.
NTKE62	Powder Dusting	White Powder

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
NWZMTZ	Visual Examination	Visual examination of Item 1 utilizing ambient lighting and flashlight.
	Cyanoacrylate Fuming	Hot plate temperature 351 degrees, 7-minute fume time, relative humidity 50%
	Dye Stain	Utilized Rhodamine 6G (H2O) as the chemical dye stain of choice (due to likely sharpie on item). Viewed under laser at 532nm wavelength (Green laser) with orange filter/goggles.
NYAR8P	Powder Dusting	Sirchie Silk Black powder was applied with a fiberglass brush
P8UH7M	Powder Dusting	black carbonic powder
P9ABRA	Visual Examination	Visual examination in room light with flashlight
	Powder Dusting	Black powder and fiberglass brush
PJTTJF	Visual Examination	Using a flashlight, I observed a latent print within quadrant D of the magnifying glass. Digital Photography was used to preserve the latent print. The latent print was photographed with and without scale.
	Alternate Light Source	Using a forensic light source, I observed a latent print within quadrant D of the magnifying glass. However, the observed latent print was not able to be captured using digital photography. No latent print images were able to be obtained at this stage.
	Cyanoacrylate Fuming	Using Cyanoacrylate ester (Lot number: 202404184), I placed a control and the magnifying glass within a mounted fuming chamber. A positive control was obtained. I observed a latent print located within quadrant D of the magnifying glass. Digital Photography was used to preserve the latent print. The latent print was photographed with and without scale.
	Dye Stain	Using Rhodamine 6G (Lot number: R6G-062724), I covered the control and the magnifying glass in the cyanoacrylate fluorescent dye stain. A positive control was obtained. Using a forensic light source, I observed a latent print located within quadrant D of the magnifying glass.
	Alternate Light Source	Using a forensic light source, Digital Photography was used to preserve the latent print. The latent print was photographed with and without scale.
	Powder Dusting	Using black powder, I processed the magnifying glass for latent prints. I obtained two latent print lift cards from quadrant D of the magnifying glass.
R49CMH	Visual Examination	
	Cyanoacrylate Fuming	MVC FFLEX S. 120 degrees Celsius. 80% humidity. 10 minute glue time. 4 drops Cyanoacrylate lot#091923-02.
	Powder Dusting	Bichromatic powder lot#052223-01
R947KJ	Cyanoacrylate Fuming	
	Alternate Light Source	RUVIS
	Powder Dusting	black powder
	Dye Stain	Ardrox

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
RFMARL	Cyanoacrylate Fuming	
	Alternate Light Source	RUVIS
	Powder Dusting	black powder
	Dye Stain	Ardrox
RXXYMB	Visual Examination	
	Powder Dusting	
T4NXWJ	Cyanoacrylate Fuming	The portable cyanoacrylate chamber was used and left to act for ten minutes. The black magnetic powder was used.
TAQ6CL	Powder Dusting	Sirchie Silk Black powder was applied with a fiberglass brush
TARECC	Visual Examination	Visual exam with room lighting and flashlights
	Alternate Light Source	Crime Lite 2 400-430nm with yellow glasses 420-470nm with orange glasses
	Powder Dusting	black powder
TH9DZJ	Visual Examination	
	Powder Dusting	Magnetic powder
TNCGMW	Visual Examination	Patent prints observed - 2 minutes photographing
	Powder Dusting	Processing time - 2 minutes
TRBVBL	Powder Dusting	Sirchie Silk Black powder was applied with a fiberglass brush
U4ZLF3	Cyanoacrylate Fuming	Item was placed into the fuming chamber, using cyanoacrylate in an attempt to develop any suitable fingerprints. Item was exposed for approximately nine (9) minutes.
UJC7CA	Visual Examination	White light
	Alternate Light Source	Ultraviolet light
	Alternate Light Source	ALS515nm
	Cyanoacrylate Fuming	CApture BT Fuming Chamber. Approx. 20 minutes. Test prints passed.

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
UR9XK3	Alternate Light Source	The Polilight was utilised to conduct a visual examination. White light. Results - Latent 1 identified on item 1 section D. Photographs taken
	Cyanoacrylate Fuming	The items placed in the Foster & Freeman MVC1000 Cyanoacrylate cabinet for fuming. 15min glue cycle
	Alternate Light Source	The Polilight was utilised to conduct a visual examination - White light. Latent photographed
	Dye Stain	Rhodamine R6G applied to items using a spray bottle in the fume hood. Allowed to dry in fume hood for approx 15mins
	Alternate Light Source	The Polilight was utilised to conduct a visual examination - 505nm with orange filter. All latents photographed
	Dye Stain	Ardrox applied to items using a spray bottle in the fume hood. Allowed to dry in fume hood for approx 1hr.
	Alternate Light Source	The Polilight was utilised to conduct a visual examination - 350nm with clear filter. All latents photographed
VW7A9V	Powder Dusting	White powder
WHRQRC	Cyanoacrylate Fuming	We placed the trace No.1 in the cyanoacrylate chamber until the control print was revealed. We could observe an imprint in section D of the trace No.1.
	Powder Dusting	Then we processed trace No. 1 with black reactive powder, highlighting the print in section D of trace No. 1.
WQ8ACB	Visual Examination	Visually examined the glass surfaces of the magnifying glass.
	Powder Dusting	Bichromatic powder used on glass surfaces.
WQQQCQ	Visual Examination	
	Alternate Light Source	440 nm
	Cyanoacrylate Fuming	80%RH. 7 min fuming
	Dye Stain	BY40
	Dye Stain	Crystal Violet
WXRDT	Powder Dusting	
XPATG7	Powder Dusting	Item processed for latent prints utilizing black powder with fiberglass fingerprint brush
XUFP27	Visual Examination	Possible suitable FRD observed in quadrant D
	Powder Dusting	With regular black powder
	Visual Examination	area of quadrant D was enhanced
YKARMA	Visual Examination	Visual examination under white light
	Cyanoacrylate Fuming	Examined under white light and with FSIS using UV light
	Dye Stain	R6G used and visualized under LASER with an orange filter (goggles)
YMYDM6	Powder Dusting	positive results achieved with black powder

TABLE 2 - Development Methods - Item 1

WebCode	Development Methods	Method Details
YV9K4	Visual Examination	Ambient light and a flashlight.
	Powder Dusting	Standard Black Powder.
	Visual Examination	Ambient light and a flashlight.
YZ8G4F	Powder Dusting	Sirchie Silk Black powder was applied with a fiberglass brush
ZA7W66	Visual Examination	Visual examination with white light source, various angles.
	Cyanoacrylate Fuming	MVC cabinet, RH 85%, Temp 120 °C, cyanoacrylate ester (2.5g), Fume for 10 mins.
ZALTEW	Cyanoacrylate Fuming	9:30 minutes in the fuming chamber. Examined under UV light to photograph.
ZAQDK8	Visual Examination	observed all sides
	Powder Dusting	Processing time: > 1 min; Bichromatic powder; processed both sides

Item 1 - Development Response Summary				Participants: 101
Methods Utilized				
Alternate Light Source	34	Physical Developer	1	Note: Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.
Cyanoacrylate Fuming	50	Powder Dusting	74	
DFO	0	Visual Examination	67	
Dye Stain	31	Wet Powder Suspension	0	
Ninhydrin	0	1,2-Indanedione	0	

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
26QNG6	Visual Examination	Visually inspected with and without a flashlight (white light).
	Powder Dusting	Processed utilizing black powder.
2KJF27	Visual Examination	Optical detection techniques with white lamp. Positive optical inspection - One fingerprint detected in section C.
	Cyanoacrylate Fuming	The exhibit was placed in the chamber (MVC1000 Foster&Freeman), and a small quantity of liquid cyanoacrylate (about 0.22 g) was heated to around 80 to 100°C. After the treatment the same fingerprint was photographed again under UV-254 nm light;
	Dye Stain	The cyanoacrylate-treated item was: 1) Immersed in the basic yellow 40 staining solution for 10 to 20 sec.; 2) Washed thoroughly with running water; 3) Dried at room temperature; 4) Examined in the luminescence mode: excitation 445 nm, observation with LP (Long Pass) 510 yellow filter.
2MPDFZ	Visual Examination	Used natural light as well as light from a regular flashlight with different intensity settings. Examined all plastic surfaces of CD case to include interior and exterior.
	Powder Dusting	Used black magnetic powder to process all plastic surfaces of CD case (interior and exterior)
3DECUZ	Visual Examination	Area of ridge detail was visible with ambient light.
	Powder Dusting	Processed with black powder.
3G49D8	Visual Examination	At 2015 hours on 08/28/24 the CD case was observed with oblique lighting. [Initials] observed ridge detail on the inside of the CD case in quadrant "C", and photographed the latent utilizing a coaxial box light with a red filter on it. Photos were taken on the Foster + Freeman DCS5 imaging system.
	Cyanoacrylate Fuming	The item was placed into the Foster + Freeman MVC FFLEX S Cyanoacrylate fuming chamber using 0.1 grams of Foster + Freeman Cyanobloom lot # 091923-02, at 120 degrees Celsius, 80% relative humidity, with a glue time of 10 mins. A plastic cover slip was used to apply a test print using a Sirchie Latent Print Standard Pad. A latent was observed on the CD case in quadrant "C" after fuming, the test print was developed. The latent was photographed using the coaxial box light again after fuming.
	Alternate Light Source	After the latent was photographed with the coaxial box with neutral light, it was additionally photographed using the Foster + Freeman Crimelite 82S reflective UV light to visualize the print.
	Dye Stain	After photographing with the 82S, the Dye Stain MBD lot # 081624-01 was applied to the item.
3M7ETA	Cyanoacrylate Fuming	
	Alternate Light Source	RUVIS
	Powder Dusting	black powder
	Dye Stain	
3UNNG7	Cyanoacrylate Fuming	Fuming of Cyanoacrylate. Count: 1 gram. Time: 40 minutes. Color: White.

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
43CX47	Cyanoacrylate Fuming	
	Powder Dusting	black powder
	Dye Stain	Ardrox
	Alternate Light Source	yellow barrier filter, 415 nm, macro lens
6ATK2	Visual Examination	White light
	Alternate Light Source	FSIS II with 254nm with 254 filter, UV light with yellow filter, 450nm with orange filter, laser with laser filter
	Cyanoacrylate Fuming	white light, FSIS II with 254nm with 254 filter, UV light with yellow filter, 450nm with orange filter, laser with laser filter
	Dye Stain	Rhodamine 6G, Laser filter, and laser
	Powder Dusting	black fingerprint powder
6KR8MY	Visual Examination	Oblique lighting
	Powder Dusting	Black powder
6ME9NZ	Visual Examination	Visible latent print observed on Item 2 during visual examination.
	Alternate Light Source	I observed the latent print utilizing an ALS kit.
	Cyanoacrylate Fuming	I fumed Item 2.
	Powder Dusting	I processed Item 2 utilizing black powder.
77PH27	Cyanoacrylate Fuming	fuming chamber at 78% humidity for 18 minutes
	Alternate Light Source	RUVIS
	Powder Dusting	Black powder
	Dye Stain	Ardrox
	Alternate Light Source	CrimeScope
7EZJM8	Cyanoacrylate Fuming	Fuming at 78% for 18 minutes. Latent print in quadrant C photographed
	Dye Stain	Ardrox
	Alternate Light Source	
	Powder Dusting	black powder
7MXCV2	Visual Examination	Visualization
	Powder Dusting	Magnetic powder with non-sterile wand
87KXWV	Visual Examination	With flashlight
	Powder Dusting	Black magnetic powder
8HVXKG	Powder Dusting	White Powder

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
8V8Z9Y	Visual Examination	Conducted visual examination on item using the following ALS: white light, UV, 450, 505 (ROFIN ALS), laser (LaseR), FSIS II (UV 254) and a coaxial light box, with yellow, orange, laser and UV filters, prior to processing. (Positive +)
	Cyanoacrylate Fuming	Placed item in AirScience superfume cyanoacrylate chamber. Used white light (ROFIN ALS), 254 UV (FSIS II), and a coaxial light box to visualize areas of ridge detail. (Positive +).
	Dye Stain	Used Rhodamine dye stain. Used laser (LaseR) with a laser filter to visualize areas of ridge detail. (positive +)
	Powder Dusting	Processed item using bi-chromatic powder. (Positive +)
9AEDLU	Visual Examination	
	Alternate Light Source	Crime Lite Auto
	Cyanoacrylate Fuming	Fume-A-Wand. Cyanoacrylate Ester Superglue Fuming Pellet. Lot# 070623 Kit #15 Pellet #P2
	Powder Dusting	Black powder
9C3DU7	Powder Dusting	Sirchie Silk Black powder was applied with a fiberglass brush
A9ME8V	Visual Examination	
	Alternate Light Source	
	Powder Dusting	black powder
ALMDVT	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	LOT CA202404184, EXP 5/20/2024
	Alternate Light Source	
	Dye Stain	RHODAMINE 6G, LOT R6G-090624, EXP 3/6/2025
	Alternate Light Source	
	Powder Dusting	Black Powder
ANEC9Q	Visual Examination	
	Cyanoacrylate Fuming	18 minutes @ 80% humidity
	Dye Stain	BY40
B4LQ4U	Visual Examination	Friction ridge detail was observed in Section C
	Powder Dusting	The entire item was powdered; friction ridge detail was lifted from Section C

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
B79VTY	Visual Examination	The CD case was exposed to different lighting conditions in order to mark up any visible fingerprint: Primary Visual Examination: White light (CrimeScope CS-16-500W); Secondary Visual Examination: Ultraviolet Radiation at 254 nm (Scenescope Spex Forensics)
	Cyanoacrylate Fuming	The CD case was transferred within a specialist superglue fuming cabinet and exposed to superglue vapour at high humidity (75-90%) and temperature (120°C) (processing time 40 minutes). Primary Visual Examination: White light (CrimeScope CS-16-500W) - White light (Crime-lite 82S). Secondary Visual Examination: Ultraviolet Radiation at 254 nm (Scenescope Spex Forensics).
	Dye Stain	Superglue Fluorescent Dye Staining (Basic Yellow 40): after 24 hours from superglue treatment, the BY40 dye solution was applied in an extracted fume cupboard by spraying. After 1 minute the item was washed with water by using a suitable applicator until excess dye was removed from the background. Fluorescence examination: CrimeScope CS-16-500W (blue light at 455nm with a longpass filter GG495AG Yellow); Crime-lite 82S Blue (420nm – 470nm) with a longpass filter GG495AG Yellow.
B7PNEL	Powder Dusting	Se inicia la intervención a las 11:56 am; llevando a cabo la fijación escrita y fotográfica del ítem, con testigo métrico e identificado. Se selecciona el reactivo adecuado, de acuerdo a la superficie del ítem, realizando la verificación del reactivo antes de aplicarlo directamente sobre la superficie del ítem. Se aplica el reactivo magnético color negro, de forma uniforme sobre la superficie del ítem y con apoyo de un aplicador, hasta lograr el revelado mínimo de la huella. Localizando un fragmento con material lofoscópico al que se le asigna el número de identificación 2.1.C. [Requested translation was not provided by the time of publication.]
BLMZ3D	Powder Dusting	White powder
BVUXNV	Visual Examination	visual examination-white light and ALS
	Powder Dusting	magnetic powder dusting
C7RX2Z	Powder Dusting	1. MACROSCOPIC OBSERVATION. 2. PHOTOGRAPHIC DOCUMENTATION. 3. APPLICATION OF MAGNETIC POWDER REAGENT. 4. DEVELOPMENT. 5. PHOTOGRAPHIC DOCUMENTATION. 6. LIFTING OF THE INDICATION. 7. ACETATE TRANSPLANT. 8. PACKAGING. 9. REMITTANCE.
CBH8VB	Visual Examination	Visually examined the evidence prior to processing.
	Cyanoacrylate Fuming	The fuming cycle took about 10 minutes to complete.
	Dye Stain	Rhodamine 6G- Aqueous
	Alternate Light Source	Viewed with a green Laser Light Source.
	Powder Dusting	Magnetic Powder
	Powder Dusting	Black Powder
CJWGCV	Cyanoacrylate Fuming	Cyanoacrylate was applied in a gas chamber for 3 minutes
	Physical Developer (PD)	Hi-Fi magnetic powder was used, using magnetic pen

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
CMCPZY	Cyanoacrylate Fuming	The item were processed in approximately 40 minutes in the following order: the item was removed from the packaging, then hang the item to be fumed on the clip inside of the disposable fuming bag, then place one fingerprint on the inside of the bag within the preprinted circle, turn on the hot plate with cyanocrylate and wait to the test print inside the circle get set.
	Powder Dusting	Once the fixation was completed, the black latent powder was applied to the item.
CY7HFU	Visual Examination	Visually examined and used oblique lighting, no prints observed
	Alternate Light Source	Used laser, no prints observed
	Cyanoacrylate Fuming	Placed in fuming chamber for about 5 minutes, observed print in section C, 2 photographs taken
	Dye Stain	Used Rhodamine 6G as a dye stain and allowed to fully dry, observed print in section C, no photographs taken
	Alternate Light Source	Used laser after dye stain, observed multiple prints on interior CD case in sections B and C and exterior CD case in sections A-D, 6 photographs taken
	Powder Dusting	Used black powder to further develop and lift the latent print, 1 latent lift card obtained from section C
D6UKYK	Cyanoacrylate Fuming	I performed fuming on the item for 7 minutes using 2grams of cyanoacrylate and a latent print was developed in section C.
D97RYP	Visual Examination	
	Powder Dusting	
D9QYE2	Powder Dusting	Sirchie Silk Black powder was applied with a fiberglass brush
DBXQDM	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 CD followed by a rinse with distilled water. Viewed and photographed developed latent print using a 450 nm forensic light source with a yellow filter.
DFR9KU	Visual Examination	Natural light
	Alternate Light Source	ALS (400nm/700nm) + fluorescence examination with band pass filters.
	Cyanoacrylate Fuming	10 mins, 120°C evap. temp of CNA, 80%RH.
DFTHLJ	Visual Examination	Examination with LED flashlight.
	Cyanoacrylate Fuming	CA fuming for 9 minutes with 72% humidity.
	Dye Stain	Basic yellow 40 dye stain, visualized with the Rofin polilight flare 2 at 450nm.
DR76QX	Powder Dusting	Sirchie brand Silk Black powder was applied with a fiberglass brush
EG3A8T	Powder Dusting	A mixture of magnetic powder and black powder was used on Item #2.

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
EYV3RU	Visual Examination	used natural light and flashlight
	Cyanoacrylate Fuming	fumed for 15 minutes, let rest for 15 minutes
	Dye Stain	RAM used on item
	Alternate Light Source	used on items
	Powder Dusting	black powder with negative results
EYVDL9	Powder Dusting	White powder
F3VNG9	Powder Dusting	White powder
F4AMJP	Visual Examination	Visual examination: 1 touch mark visualised in natural light - image capture requires alternative light sources - see Alternative Light Sources and Photography comments. 1 mark visualised and captured using DCS-5 and a Light-cube white light.
	Alternate Light Source	The following alternative High Intensity Light sources (HILs) were also used with corresponding filters: Forenteq Light-cube series: White (6500k), Violet (410 nm), Green (530 nm), Blue (447 nm), Blue-Green (470 nm), orange (590 nm) and Red (630 nm) UV (365 nm), (reflected UV with a BAADER Fully blocked Vis & IR U-Filter). 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 enhanced using Sirchie Black-Magnetic latent fingerprint powder and captured using DCS-5 and Light-cube white light - see Alternative Light Sources and Photography comments.
	Cyanoacrylate Fuming	No significant enhancement of mark. 0.8g SureLoc Cyanoacrylate used with Forenteq Megafume M61 cabinet with standard cyanoacrylate pre-set process as follows: 20 minutes humidify at 80% Relative Humidity. 0 min saturation. 15 min fuming at 80% Relative Humidity. 30 minute purge cycle. Full spectrum Light-cube examination as per Alternative Light Source comments.
	Dye Stain	Basic Yellow 40 (By40) ethanol-based fluorescent dye staining followed by High Intensity Light source examination using Blue, Green and UV lights. 1 mark captured using Crime-lite Blue light and DCS-5 camera system. - see Alternative Light Sources and Photography comments.
F8MMFG	Powder Dusting	Se inició con el procedimiento de inspección a las 11:54. Se aplicó reactivo magnético color negro, con un aplicador magnético, realizando el barrido sobre la superficie plástica, localizando un fragmento con material lofoscópico, el cual fue asignado con el número 2.1.C. [Requested translation was not provided by the time of publication.]

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
FDEUYF	Visual Examination	Using natural light, added light with a flashlight, and introducing oblique lighting, I observed the latent print in section C.
	Alternate Light Source	Using the Coherent TracER Forensic Laser, I introduced the alternate light source at 532nm to the CD case. I was unable to further visualize the latent print using this method.
	Cyanoacrylate Fuming	I added a cup of warm water to a cyanoacrylate fuming chamber, put a tin pan on a warming plate, and using a large binder clip, suspended the CD case within the chamber. I then added a dime-sized amount of cyanoacrylate to the tin plate, closed the chamber, and allowed the CD case to be fumed for approximately 6-7 minutes. After 6 minutes, the vent was opened and heating plate was turned off, and after 7 total minutes the chamber door was opened to fully stop the fuming process. I observed the latent print in section C to be slightly white and opaque.
	Dye Stain	Using a laboratory wash bottle, I applied Rhodamine 6G on the glass portion of the CD case, allowed it to dry fully, then used the Forensic Laser to view the print in section C. I observed some background fluorescence, so I did a methanol rinse, and applied more Rhodamine 6G as needed to develop the print for photographing.
	Powder Dusting	Using black powder, I dusted the item with a fiberglass brush.
FGE7UP	Visual Examination	Using a flashlight, I visually observed a latent print in quadrant C of the clear CD case. Using a flashlight and photography, I documented the latent print with a scale.
	Alternate Light Source	Using an alternative light source, I did not observe the latent print fluoresce in quadrant C of the clear CD case. Therefore, I did not document the latent print with photography.
	Cyanoacrylate Fuming	After CA fuming was conducted, I observed a latent print in quadrant C of the clear CD case. Using photography, I documented the latent print with a scale.
	Dye Stain	After applying the Rhodamine 6G dye stain, the latent print was observed to be partially washed away on quadrant D of the magnifying glass. Using photography, I documented the latent print with a scale.
	Powder Dusting	Using black powder, I processed the clear CD case and attempted to lift the latent print. The latent print was unable to be lifted.
FGVPUA	Visual Examination	Used white light. Patent print observed in section C.
	Powder Dusting	Used Gray Powder with fiberglass brush. Latent developed in section C.
FKUEHP	Visual Examination	Ambient light and oblique angle light with a flashlight
	Powder Dusting	Black powder
FLBXHA	Visual Examination	Visual examination with ambient, oblique and fiberoptic lighting
	Cyanoacrylate Fuming	Fumed for approximately 5 to 10 minutes with 2.5 g of cyanoacrylate ester, with a hot plate temperature of 351 degrees F, and 50% relative humidity - then viewed using ambient lighting and a flashlight
	Dye Stain	Rhodamine 6G (R6G) dye stain was applied to the item, which was then viewed using a laser light source with green light (532 nm) and an orange filter

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
G8N688	Visual Examination	Flashlight and room lighting. Ridge detail that was suitable for documentation was visible at this stage.
	Cyanoacrylate Fuming	5 drops of CAE, hot plate temperature 125 degrees C, relative humidity 70%, 6 minutes of fume time in Air Science Safe Fume Cyanoacrylate Chamber (small).
	Visual Examination	Flashlight and room lighting after CAE fuming. Ridge detail that was suitable for documentation was visible at this stage.
	Dye Stain	Rhodamine 6G (MeOH) viewed with ~532 nm laser and orange filtered goggles.
	Visual Examination	Green light (~532 nm laser) with orange goggles after R6G dye stain. Ridge detail that was suitable for documentation was visible at this stage.
GH6RHU	Visual Examination	White light, 3 photos. RUVIS, 0 photos.
	Lumicyano	17 minutes at 75% humidity. Hot plate at 250 degrees Fahrenheit. White light, 0 photos. RUVIS, 0 photos. LASER, 3 photos.
HVNW4V	Powder Dusting	fluorescent yellow powder was applied with a fiberglass brush
J6NGNF	Visual Examination	Oblique lighting with a flashlight
	Powder Dusting	Black fingerprint powder
JCVDPN	Visual Examination	Did visual examination of item #2 with and without ambient light from a flashlight.
	Powder Dusting	Used black powder processing with sterile brush on exterior and interior item #2.
K299ZF	Visual Examination	Visual exam
	Cyanoacrylate Fuming	CA 15 minutes
	Dye Stain	BY40 Dye stain, 450 nm alt-light - orange filter
KJN6BM	Visual Examination	Processing time was approximately a minute, and a flash light was used at oblique angles to identify areas of interest. The interior and exterior sides of the plastic CD case were observed.
	Powder Dusting	I used a brush to apply a Bichromatic powder to the interior and exterior sides of the Plastic CD case. Processing time was approximately a minute or two.
KTQZCJ	Visual Examination	Oblique lighting
	Powder Dusting	Black powder
LCLRWH	Visual Examination	This item was visually examined utilizing a magnifying glass and an LED flashlight. A finger impression was observed on this item in section C.
	Cyanoacrylate Fuming	This item was cyanoacrylate fumed in a fuming chamber.
	Powder Dusting	This item was processed with black fingerprint powder.

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
LH89HM	Visual Examination	The chain of custody is received with three (3) items duly packed and sealed. Item No. 2 corresponding to a CD case, which was photographically documented. Upon visual examination, it was observed that it was divided in its internal part into four segments identified with the letters A, B, C and D.
	Cyanoacrylate Fuming	The item was introduced into the portable cyanoacrylate chamber for vaporization and plasticization of papillary traces.
	Powder Dusting	Black reactive powder was applied.
LNEYLT	Powder Dusting	fluorescent yellow powder was applied with a fiberglass brush
LWTMLM	Visual Examination	White light
	Cyanoacrylate Fuming	9 minutes fume time, allow for at least 24 hours for CA to fix.
	Visual Examination	White light
	Dye Stain	RAM
	Alternate Light Source	blue-green ALS with orange filter
LZRYHM	Visual Examination	white light, UV light (254 nm), IR light (800 nm)
	Cyanoacrylate Fuming	MVC1000 - Foster & Freeman. 0.15 gr Cyanoacrilate. Cyanoacrilate Fumigation 25 min @120 °C - 80 % HR
	Visual Examination	white light, UV light (254 nm), IR light 800 nm (best condition)
ME4WZR	Powder Dusting	Regular black magnetic powder was applied with a magnetic brush
MERZUN	Cyanoacrylate Fuming	Visual vision and alternating light crime Lite 2-400-700 nm. White, 45 minutes using cyanoacrylate using Foster +Freeman MVC-3000-D3 – chamber
MVCQUM	Visual Examination	Conducted VIS with ambient and White Lighting.
	Cyanoacrylate Fuming	Conducted CAE processing with the Air Science Safefume (Model: ARV33) Chamber. Utilized FSIS (Full Spectrum Imaging System) device with the UV (ultraviolet) light and a White Light to visualize evidence.
	Dye Stain	Conducted Rhodamine 6G (R6G) processing by performing the spray method and allowing the item to air dry. Utilized the TracER LASER (Light Amplification by Stimulated Emission of Radiation) and an orange barrier (goggles) to visualize.
N6QZFY	Visual Examination	
	Alternate Light Source	RUVIS
	Cyanoacrylate Fuming	
NR8H3H	Magnetic Powder	Visually inspected. No apparent latent print viewed. Processed inside and outside of case with magnetic powder. Latent print developed in area c. Lifted with lift tape and applied to lift card. Process time = 2 minutes.
NTKE62	Powder Dusting	Black Powder

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
NWZMTZ	Visual Examination	Visual examination of Item 2 with ambient room lighting and flashlight. Utilized the Coaxial lighting as well during the photography stage.
	Cyanoacrylate Fuming	CAE. Hot plate temperature 351 degrees, 7-minute fume time, relative humidity 50%
	Dye Stain	Utilized Rhodamine 6G (H2O) as the chemical dye stain of choice (due to likely sharpie on item). Viewed under laser at 532nm wavelength (Green laser) with orange filter/goggles.
NYAR8P	Powder Dusting	Sirchie Silk Black powder was applied with a fiberglass brush
P8UH7M	Powder Dusting	black carbonic powder
P9ABRA	Visual Examination	Visual examination in room light with flashlight
	Powder Dusting	Black powder and fiberglass brush
PJTTJF	Visual Examination	Using a flashlight, I observed a latent print within section C of the compact disc (CD) case. However, the observed print was not able to be captured using digital photography. No latent print images were able to be obtained at this stage.
	Alternate Light Source	Using a forensic light source, I was not able to observe any latent prints on the compact disc (CD) case. No latent print images were able to be obtained at this stage.
	Cyanoacrylate Fuming	Using Cyanoacrylate ester (Lot number: 202404184), I placed a control and the compact disc (CD) case within a mounted fuming chamber. A positive control was obtained. I observed a latent print located within section C of the compact disc (CD) case. Digital Photography was used to preserve the latent print. The latent print was photographed with and without scale.
	Dye Stain	Using Rhodamine 6G (Lot number: R6G-062724), I covered the control and the interior and exterior of the compact disc (CD) case in the cyanoacrylate fluorescent dye stain. A positive control was obtained. Using a forensic light source, I observed a latent print located within section C and a latent print within section B of the compact disc (CD) case.
	Alternate Light Source	Using a forensic light source, Digital photography was used to preserve the latent prints. The latent prints were photographed with and without scale.
	Powder Dusting	Using black powder, I processed the compact disc (CD) case for latent prints. I obtained two total latent print lift cards from sections C and B on the interior of the compact disc (CD) case.
R49CMH	Visual Examination	
	Cyanoacrylate Fuming	MVC FFLEX S. 120 degrees Celsius. 80% humidity. 10 minute glue time. 4 drops Cyanoacrylate lot#091923-02.
	Powder Dusting	Bichromatic powder lot#052223-01
R947KJ	Cyanoacrylate Fuming	
	Alternate Light Source	RUVIS
	Powder Dusting	black powder
	Dye Stain	Ardrox

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
RFMARL	Cyanoacrylate Fuming	
	Alternate Light Source	RUVIS
	Powder Dusting	
	Dye Stain	Ardrox
RXXYMB	Visual Examination	
	Powder Dusting	
T4NXWJ	Cyanoacrylate Fuming	The portable cyanoclrirate chamber was used and left to act for ten minutes. Black magnetic powder was used.
TAQ6CL	Powder Dusting	Sirchie Silk Black powder was applied with a fiberglass brush
TARECC	Visual Examination	Visual exam with room lighting and flashlights
	Alternate Light Source	Crime Lite 2 400-430nm with yellow glasses 420-470nm with orange glasses
	Powder Dusting	black powder
TH9DZJ	Visual Examination	
	Powder Dusting	Magnetic Powder
TNCGMW	Visual Examination	Patent prints observed - 2 minutes - photographing
	Powder Dusting	Processing time - 2 minutes
TRBVBL	Powder Dusting	Sirchie Silk Black powder was applied with a fiberglass brush
U4ZLF3	Cyanoacrylate Fuming	Item was placed into the fuming chamber, using cyanoacrylate in an attempt to develop any suitable fingerprints. Item was exposed for approximately nine (9) minutes.
UJC7CA	Visual Examination	White light
	Alternate Light Source	Ultraviolet light
	Alternate Light Source	ALS515nm
	Cyanoacrylate Fuming	CApture BT Fuming Chamber. Approx. 20 minutes. Test prints passed. Ridge detail was also visible on exterior of Item 2 (CD case) after Cyanoacrylate Fuming. This ridge detail was disregarded because it was not within sections A, B, C, or D.
	Powder Dusting	Black powder used. In addition to the complete latent impression in section C, minimal fragments of ridge detail on the extreme edges of sections A and D were also observed and photographically preserved. However, this ridge detail appeared to be unintentional and was therefore disregarded. Section C, that contained the complete latent impression, was selected as my answer.

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
UR9XK3	Alternate Light Source	The Polilight was utilised to conduct a visual examination. White light. Results - Latent 2 identified on item 2 section C. Photographs taken
	Cyanoacrylate Fuming	The items placed in the Foster & Freeman MVC1000 Cyanoacrylate cabinet for fuming. 15min glue cycle
	Alternate Light Source	The Polilight was utilised to conduct a visual examination - White light. Latent 4 identified on item 2 (outside of CD case - section A). All latents photographed
	Dye Stain	Rhodamine R6G applied to items using a spray bottle in the fume hood. Allowed to dry in fume hood for approx 15mins
	Alternate Light Source	The Polilight was utilised to conduct a visual examination - 505nm with orange filter. All latents photographed
	Dye Stain	Ardrox applied to items using a spray bottle and rinsed under water. Allowed to dry in fume hood for approx 1hr.
	Alternate Light Source	The Polilight was utilised to conduct a visual examination - 350nm with clear filter. All latents photographed.
WV7A9V	Powder Dusting	white powder
WHRQRC	Cyanoacrylate Fuming	We placed the trace No.1 in the cyanoacrylate chamber until the control print was revealed. We were able to observe an imprint in section C of trace No.1.
	Powder Dusting	Then we processed trace No. 1 with black reactive powder, highlighting the print in section C of trace No. 1.
WQ8ACB	Visual Examination	Visually examined the interior and exterior surfaces of the CD case.
	Powder Dusting	Bichromatic powder used on plastic surface, both interior and exterior.
WQQQCQ	Visual Examination	
	Alternate Light Source	440 nm
	Cyanoacrylate Fuming	80%RH. 7 min fuming
	Dye Stain	BY40
	Dye Stain	Crystal Violet
WXRDGT	Powder Dusting	
XPATG7	Powder Dusting	Item processed for latent prints utilizing black powder with fiberglass fingerprint brush
XUFP27	Visual Examination	possible suitable FRD observed
	Powder Dusting	with regular black powder
	Visual Examination	area was enhanced
YKARMA	Visual Examination	Visual examination under white light
	Cyanoacrylate Fuming	Examined under white light and with FSIS using UV light
	Dye Stain	R6G used and visualized under LASER with an orange filter (goggles)

TABLE 2 - Development Methods - Item 2

WebCode	Development Methods	Method Details
YMYDM6	Cyanoacrylate Fuming	using cyano and a fuming chamber with positive result
YV9K4	Visual Examination	Ambient light and a flashlight.
	Powder Dusting	Standard Black powder.
	Visual Examination	Ambient light and a flashlight.
YZ8G4F	Powder Dusting	Sirchie Coin Box Galvanic powder was applied with a fiberglass brush
ZA7W66	Visual Examination	Visual examination with white light source, various angles.
	Cyanoacrylate Fuming	MVC cabinet, RH 85%, Temp 120 °C, cyanoacrylate ester (2.5g), Fume for 10 mins.
ZALTEW	Cyanoacrylate Fuming	9:30 minutes in the fuming chamber. Examined under UV light to photograph.
ZAQDK8	Visual Examination	observed all sides
	Powder Dusting	Processing time: > 1 min; Bichromatic powder; processed both sides

Item 2 - Development Response Summary				Participants: 101
Methods Utilized				
Alternate Light Source	35	Physical Developer	1	Note: Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.
Cyanoacrylate Fuming	51	Powder Dusting	73	
DFO	0	Visual Examination	66	
Dye Stain	33	Wet Powder Suspension	0	
Ninhydrin	0	1,2-Indanedione	0	

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
26QNG6	Visual Examination	Visually inspected with and without a flashlight (white light).
	Powder Dusting	Processed utilizing black powder.
2KJF27	Visual Examination	Optical detection techniques with: 1) White light lamp; 2) Scenescope UV-254 nm light; 3) Crimescope: forensic light source from 365 to 700 nm. No fingerprint detected.
	Cyanoacrylate Fuming	The exhibit was placed in the chamber (MVC1000 Foster&Freeman), and a small quantity of liquid cyanoacrylate (about 0.22 g) was heated to around 80 to 100°C. After the treatment one fingerprint was developed in section B of the cover (front part). Four further fingerprints were detected on the cover: two on the back side of C section and other two in the back side of D section.
	Dye Stain	The cyanoacrylate-treated items (back and front cover) were: 1) Immersed in the basic yellow 40 staining solution for 10 to 20 sec.; 2) Washed thoroughly with running water; 3) Dried at room temperature; 4) Examined in the luminescence mode: excitation 445 nm, observation with LP (Long Pass) 510 yellow filter.
3G49D8	Visual Examination	At 2015 hours on 08/28/24 the notebook was observed with oblique lighting. [Initials] observed potential ridge detail on the front cover of the notebook in quadrant "B".
	Alternate Light Source	The Foster + Freeman Crimelite 82S reflective UV light was used to visualize an area of interest and photographs of the area were attempted with the Foster + Freeman DCS5 imaging system.
	Cyanoacrylate Fuming	After visualization with the 82S and photographing with the Foster + Freeman DCS5 imaging system, the item was placed into the Foster + Freeman MVC FFLEX S Cyanoacrylate fuming chamber using 0.1 grams of Foster + Freeman Cyanobloom lot # 091923-02, at 120 degrees Celsius, 80% relative humidity, with a glue time of 10 mins. A plastic cover slip was used to apply a test print using a Sirchie Latent Print Standard Pad. An area of ridge detail was observed on the front cover of the notebook in quadrant "B".
	Alternate Light Source	After processing with Cyanobloom, the item was photographed using the Foster + Freeman Crimelite 82S reflective UV light to visualize the print.
	Dye Stain	After photographing with the 82S, the Dye Stain MBD lot # 081624-01 was applied to the item.
3M7ETA	Cyanoacrylate Fuming	
	Alternate Light Source	RUVIS
	Powder Dusting	black powder
	Dye Stain	
3UNNG7	Cyanoacrylate Fuming	uming of Cyanoacrylate. Count: 1 gram. Time: 40 minutes. Color: White.

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
43CX47	Cyanoacrylate Fuming	
	Powder Dusting	black powder
	Dye Stain	ardrox
	Alternate Light Source	yellow barrier filter, 415 nm, macro lens
6ATK2	Visual Examination	White light
	Alternate Light Source	FSIS II with 254nm with 254 filter, UV light with yellow filter, 450nm with orange filter, laser with laser filter
	Cyanoacrylate Fuming	white light, FSIS II with 254nm with 254 filter, UV light with yellow filter, 450nm with orange filter, laser with laser filter
	Powder Dusting	black fingerprint powder
6KR8MY	Visual Examination	Oblique lighting
	Powder Dusting	Black powder
6ME9NZ	Visual Examination	Visible latent print observed on Item 3 during visual examination.
	Cyanoacrylate Fuming	I fumed Item 3.
	Dye Stain	I utilized Ardrex to stain the latent print to photograph the latent print while utilizing an ALS kit and orange lens filter on the camera.
77PH27	Cyanoacrylate Fuming	Fuming at 78% humidity for 18 minutes
	Alternate Light Source	RUVIS
	Powder Dusting	Black powder
	Dye Stain	Ardrox
	Alternate Light Source	CrimeScope
7EZJ8	Cyanoacrylate Fuming	fuming chamber at 78% for 18 minutes
	Dye Stain	Ardrox
	Powder Dusting	black powder
7MXCV2	Visual Examination	Visualization
	Powder Dusting	Magnetic powder with non-sterile wand
8HVXKG	Powder Dusting	White Powder

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
8V8Z9Y	Visual Examination	Conducted visual examination on item using the following ALS: white light, UV, 450, 505 (ROFIN ALS), laser (Laser) and FSIS II (UV 254), with yellow, orange, laser and UV filters, prior to processing. (Negative -)
	Cyanoacrylate Fuming	Placed item in AirScience superfume cyanoacrylate chamber. Used white light (ROFIN ALS) and 254 UV (FSIS II) to visualize areas of ridge detail. (Positive +)
	Dye Stain	Used Rhodamine dye stain. Used 505 (ROFIN ALS) with a laser filter to visualize areas of ridge detail. (Positive +)
	Powder Dusting	Processed item using bi-chromatic powder. (Negative -)
9AEDLU	Visual Examination	
	Flashlight	Side lighting
	Alternate Light Source	Crime Lite Auto
	Cyanoacrylate Fuming	Fume-A-Wand. Cyanoacrylate Ester Superglue Fuming Pellet. Lot# 070623 Kit #15 Pellet #P2
	Powder Dusting	Bichromatic powder
9C3DU7	Powder Dusting	Fluorescent red magnetic powder was applied with a magnetic brush
A9ME8V	Visual Examination	
	Alternate Light Source	with yellow filter
	Powder Dusting	white powder
ALMDVT	Visual Examination	
	Alternate Light Source	
	Cyanoacrylate Fuming	LOT CA202404184, EXP 5/20/2025
	Alternate Light Source	
	Dye Stain	RHODAMINE 6G, LOT R6G-090624, EXP 3/6/2024
	Alternate Light Source	
ANEC9Q	Visual Examination	
	Cyanoacrylate Fuming	18 minutes @ 80% humidity
	Dye Stain	BY40
B4LQ4U	Visual Examination	No friction ridge detail was observed
	Powder Dusting	The cover was powdered; friction ridge detail was lifted from Section B

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
B79VTY	Visual Examination	The notebook was exposed to different lighting conditions in order to mark up any visible fingerprint: Primary Visual Examination: White light (CrimeScope CS-16-500W); Secondary Visual Examination: Ultraviolet Radiation at 254 nm (Scenescope Spex Forensics)
	Cyanoacrylate Fuming	The notebook was transferred within a specialist superglue fuming cabinet and exposed to superglue vapour at high humidity (75-90%) and temperature (120°C) (processing time 40 minutes). Primary Visual Examination: White light (CrimeScope CS-16-500W). Secondary Visual Examination: Ultraviolet Radiation at 254 nm (Scenescope Spex Forensics).
	Dye Stain	Superglue Fluorescent Dye Staining (Basic Yellow 40): after 24 hours from superglue treatment, the BY40 dye solution was applied in an extracted fume cupboard by spraying. After 1 minute the item has been washed with water by using a suitable applicator until excess dye was removed from the background. Fluorescence examination: CrimeScope CS-16-500W (455nm with a longpass filter GG495AG Yellow); Crime-lite 82S Blue (420nm – 470nm) with a longpass filter GG495AG Yellow.
B7PNEL	Powder Dusting	Se inicia la intervención a las 11:56 am; llevando a cabo la fijación escrita y fotográfica del ítem, con testigo métrico e identificado. Se selecciona el reactivo adecuado, de acuerdo a la superficie del ítem, realizando la verificación del reactivo antes de aplicarlo directamente sobre la superficie del ítem. Se aplica el reactivo magnético color gris, de forma uniforme sobre la superficie del ítem y con apoyo de un aplicador, hasta lograr el revelado mínimo de la huella. Localizando un fragmento con material lufoscópico al que se le asigna el número de identificación 3.1.B. [Requested translation was not provided by the time of publication.]
BLMZ3D	Powder Dusting	White powder
BVUXNV	Visual Examination	Visual examination-white light and ALS
	Powder Dusting	Magnetic powder dusting
C7RX2Z	Powder Dusting	1. MACROSCOPIC OBSERVATION. 2. PHOTOGRAPHIC DOCUMENTATION. 3. APPLICATION OF MAGNETIC POWDER REAGENT. 4. DEVELOPMENT. 5. PHOTOGRAPHIC DOCUMENTATION. 6. LIFTING OF THE INDICATION. 7. ACETATE TRANSPLANT. 8. PACKAGING. 9. REMITTANCE.
CBH8VB	Visual Examination	Visually examined the evidence prior to processing.
	Cyanoacrylate Fuming	The fuming cycle took about 10 minutes to complete.
	Dye Stain	Rhodamine 6G- Aqueous
	Alternate Light Source	Viewed with a green Laser Light Source.
	Powder Dusting	Dual tone powder
CJWGKY	Physical Developer (PD)	The fluorescent red hi fi magnetic powder was used, using a magnetic pen.

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
CMCPZY	Cyanoacrylate Fuming	The item were processed in approximately 45 minutes in the following order: the item was removed from the packaging, then hang the item to be fumed on the clip inside of the disposable fuming bag, then place one fingerprint on the inside of the bag within the preprinted circle, turn on the hot plate with cyanoacrylate and wait to the test print inside the circle get set.
	Powder Dusting	Once the fixation was completed, the black latent powder was applied to the item.
CY7HFU	Visual Examination	Visually examined and used oblique lighting, no prints observed
	Alternate Light Source	Used laser, no prints observed
	Cyanoacrylate Fuming	Placed in fuming chamber for about 5 minutes, print observed in section B, 2 photographs taken
	Dye Stain	Used Rhodamine 6G as a dye stain and allowed to fully dry, print observed in section B, no photographs taken
	Alternate Light Source	Used laser after dye stain, print observed in section B, 1 photograph taken
	Powder Dusting	Used black powder to further develop latent print, print observed in section B, latent lift card attempted but was unsuccessful
D6UKYK	Cyanoacrylate Fuming	I performed fuming on the item for 7 minutes using 2grams of cyanoacrylate and a latent print was developed in section B.
D9QYE2	Powder Dusting	Fluorescent green magnetic powder was applied with a magnetic brush
DBXQDM	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 CD followed by a rinse with distilled water. Viewed and photographed developed latent print using a 450 nm forensic light source with a yellow filter.
DFR9KU	Visual Examination	Natural light
	Alternate Light Source	light range 400nm - 700nm, and fluorescence examination with band pass filters
	Cyanoacrylate Fuming	10 mins, 120°C evap. temp. of CNA, 80%RH
	Visual Examination	Ruvis UVA digital camera 254 nm with quartz narrow band filter
	Dye Stain	Basic Yellow, 2% in ethanol based solution, commercial product by BVDA
DFTHLJ	Visual Examination	Examination with LED flashlight.
	Cyanoacrylate Fuming	CA fuming for 9 minutes with 72% humidity.
	Dye Stain	Basic yellow 40 dye stain, visualized with the Rofin polilight flare 2 at 450nm.
DR76QX	Powder Dusting	Fluorescent red magnetic powder was applied with a magnetic brush
EG3A8T	Powder Dusting	Magnetic powder used on Item #3.

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
EYW3RU	Visual Examination	used natural light and flashlight
	Cyanoacrylate Fuming	fumed for 15 minutes, let rest for 15 minutes
	Dye Stain	RAM on item
	Alternate Light Source	used on item
	Powder Dusting	black powder with negative results
EYVDL9	Powder Dusting	White powder
F3VNG9	Powder Dusting	White powder
F4AMJP	Visual Examination	No marks visualised using natural light. Alternative light sources required - see Alternative Light Sources comments. 1 touch mark visualised using Light-cube Blue, Green, UV and Violet lights. - insufficient detail for image capture.
	Alternate Light Source	The following alternative High Intensity Light sources (HILs) were also used with corresponding filters: Forenteq Light-cube series: White (6500k), Violet (410 nm), Green (530 nm), Blue (447 nm), Blue-Green (470 nm), orange (590 nm) and Red (630 nm) UV (365 nm), (reflected UV with a BAADER Fully blocked Vis & IR U-Filter). 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 Sirchie Aluminium latent fingerprint powder and captured using DCS-5 and Light-cube white light - see Alternative Light Sources and Photography comments.
	Cyanoacrylate Fuming	No significant enhancement of mark. 0.8g SureLoc Cyanoacrylate used with Forenteq Megafume M61 cabinet with standard cyanoacrylate pre-set process as follows: 20 minutes humidify at 80% Relative Humidity. 0 min saturation. 15 min fuming at 80% Relative Humidity. 30 minute purge cycle. Full spectrum Light-cube examination as per Alternative Light Source comments.
	Dye Stain	Basic Yellow 40 (By40) ethanol-based fluorescent dye staining followed by High Intensity Light source examination using Blue, Green and UV lights. 1 mark captured using Crime-lite Blue light and DCS-5 camera system. - see Alternative Light Sources and Photography comments.
F8MMFG	Powder Dusting	Se inició con el procedimiento de inspección a las 11:54. Se aplicó reactivo magnético color gris, con un aplicador magnético, realizando el barrido sobre la superficie plastificada, localizando un fragmento con material lofoscópico, el cual fue asignado con el número 3.1.B. [Requested translation was not provided by the time of publication.]

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
FDEUYP	Visual Examination	Using natural light, added light with a flashlight, and introducing oblique lighting, I observed the latent print in section B.
	Alternate Light Source	Using the Coherent TracER Forensic Laser, I introduced the alternate light source at 532nm to the notebook. I was unable to further visualize the latent print using this method.
	Cyanoacrylate Fuming	I added a cup of warm water to a cyanoacrylate fuming chamber, put a tin pan on a warming plate, and using a large binder clip, suspended the notebook within the chamber. I then added a dime-sized amount of cyanoacrylate to the tin plate, closed the chamber, and allowed the notebook to be fumed for approximately 6-7 minutes. After 6 minutes, the vent was opened and heating plate was turned off, and after 7 total minutes the chamber door was opened to fully stop the fuming process. I observed the latent print in section B to be slightly white and opaque.
	Dye Stain	Using a laboratory wash bottle, I applied Rhodamine 6G on the glass portion of the notebook, allowed it to dry fully, then used the Forensic Laser to view the print in section B
	Powder Dusting	Using black powder, I dusted the item with a fiberglass brush.
FGE7UP	Visual Examination	Using a flashlight, I visually observed a latent print in quadrant B of the black notebook cover. Using a flashlight and photography, I documented the latent print with a scale.
	Alternate Light Source	Using an alternative light source, I did not observe the latent print fluoresce in quadrant B of the black notebook cover. Therefore, I did not document the latent print with photography.
	Cyanoacrylate Fuming	After CA fuming was conducted, I observed a latent print in quadrant B of the black notebook cover. Using photography, I documented the latent print with a scale.
	Dye Stain	After applying the Rhodamine 6G dye stain, the latent print was observed to be on quadrant B of the black notebook case. Using photography, I documented the latent print with a scale.
	Powder Dusting	Using black powder, I processed the black notebook case and attempted to lift the latent print. The latent print was unable to be lifted due to the texture of the notebook cover.
FGVPUA	Visual Examination	Used white light. Circular void with no ridges observed in section B.
	Powder Dusting	Used Gray Powder with fiberglass brush. Latent developed in section B.
FKUEHP	Visual Examination	Ambient light and oblique angle light with a flashlight
	Powder Dusting	Black powder
FLBXHA	Visual Examination	Visual examination with ambient and oblique lighting
	Cyanoacrylate Fuming	Fumed for approximately 5 to 10 minutes with 2.5 g of cyanoacrylate ester, with a hot plate temperature of 351 degrees F, and 50% relative humidity - then viewed using ambient lighting and a flashlight, and a laser light source with blue light (445 nm) and an orange filter
	Dye Stain	Rhodamine 6G (R6G) dye stain was applied to the item, which was then viewed using a laser light source with green light (532 nm) and an orange filter

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
G8N688	Visual Examination	Flashlight and room lighting. No ridge detail was located at this stage.
	Cyanoacrylate Fuming	5 drops of CAE, hot plate temperature 125 degrees C, relative humidity 70%, 6 minutes of fume time in Air Science Safe Fume Cyanoacrylate Chamber (small).
	Visual Examination	Flashlight and room lighting after CAE fuming. Ridge detail that was suitable for documentation was visible at this stage.
	Dye Stain	Rhodamine 6G (MeOH) viewed with ~532 nm laser and orange filtered goggles.
	Visual Examination	Green light (~532 nm laser) with orange goggles after R6G dye stain. Ridge detail that was suitable for documentation was visible at this stage.
GH6RHU	Visual Examination	No latent prints observed.
	Lumicyano	17 minutes at 75% humidity. Hot plate at 250 degrees Fahrenheit. White light, 0 photos. RUVIS, 0 photos. LASER, 3 photos.
HVNW4V	Powder Dusting	fluorescent yellow powder was applied with a fiberglass brush
J6NGNF	Visual Examination	Oblique lighting with a flashlight
	Powder Dusting	Silver fingerprint powder
JCVDPN	Visual Examination	Did visual examination of item #3 with and without ambient light from a flashlight.
	Powder Dusting	Used magnetic powder with sterile wand on the exterior and interior of the front and rear covers of item #3.
K299ZF	Visual Examination	Visual
	Cyanoacrylate Fuming	CA 15 minutes
	Dye Stain	BY40 Dye stain, 450 nm alt-light - orange filter
KJN6BM	Visual Examination	Processing time was approximately a minute, and a flash light was used at oblique angles to identify areas of interest. The interior and exterior sides of the Small notebook were observed.
	Powder Dusting	I used a magnetic wand to apply a Magnetic powder to the interior and exterior sides of the Small notebook. Processing time was approximately a minute or two.
KTQZCJ	Visual Examination	Oblique lighting
	Powder Dusting	Black powder
LCLRWH	Visual Examination	This item was visually examined utilizing a magnifying glass and an LED flashlight.
	Cyanoacrylate Fuming	This item was cyanoacrylate fumed in a fuming chamber. A finger impression was developed on this item in section B.
	Dye Stain	This item was dye stained with RAY reagent (Rhodamine, Ardrex, and Basic Yellow).
	Alternate Light Source	After being dye stained with RAY, this item was examined under green (532 nm) and blue (445 nm) laser light.

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
LH89HM	Visual Examination	The chain of custody is received with three (3) items duly packed and sealed. Item No. 3 corresponding to a notebook, which was photographically documented. Upon visual examination, it was observed that the front and back covers were divided into four segments identified with the letters A, B, C and D.
	Cyanoacrylate Fuming	The item was introduced into the portable cyanoacrylate chamber for vaporization and plasticization of papillary traces.
	Powder Dusting	Black reactive powder was applied.
LNEYLT	Powder Dusting	fluorescent yellow powder was applied with a fiberglass brush
LWTMLM	Visual Examination	White light.
	Cyanoacrylate Fuming	9 minutes of fume time, allow for at least 24 hours for CA to fix.
	Visual Examination	white light
	Dye Stain	RAM
	Alternate Light Source	blue-green ALS with orange filter
LZRYHM	Visual Examination	white light, UV light (254 nm), UV (365 nm)
	Cyanoacrylate Fuming	MVC1000 - Foster & Freeman. 0.15 gr Cyanoacrilate. Cyanoacrilate Fumigation 25 min @120 °C - 80 % HR
	Visual Examination	white light, UV light (254 nm), BLUE light 450nm+Yellow Filter (Best condition)
ME4WZR	Powder Dusting	Fluorescent green magnetic powder was applied with a magnetic brush
MERZUN	Cyanoacrylate Fuming	Visual vision and alternating light crime Lite 2-400-700 nm. White, 45 minutes using cyanoacrylate using Foster +Freeman MVC-3000-D3 – chamber, after cyanoacrylate we use magnetic silver powder.
MVCQUM	Visual Examination	Conducted VIS with ambient and White Lighting.
	Cyanoacrylate Fuming	Conducted CAE processing with the Air Science Safefume (Model: ARV33) Chamber. Utilized FSIS (Full Spectrum Imaging System) device with the UV (ultraviolet) light and a White Light to visualize evidence.
	Dye Stain	Conducted Rhodamine 6G (R6G) processing by performing the spray method and allowing the item to air dry. Utilized the TracER LASER (Light Amplification by Stimulated Emission of Radiation) and an orange barrier (goggles) to visualize.
N6QZFY	Dye Stain	by40
NR8H3H	Magnetic Powder	Visually inspected. No apparent print viewed. Processed to develop using magnetic powder. Print developed in area B. Lifted with lift tape and applied to lift card. Process time = 2 minutes
NTKE62	Powder Dusting	White Powder

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
NWZMTZ	Visual Examination	Visually examined Item 3 with ambient room lighting and flashlight. Ridge detail was not visible at the visual exam.
	Cyanoacrylate Fuming	Hot plate temperature 351 degrees, 7-minute fume time, relative humidity 50%
	Dye Stain	Utilized Rhodamine 6G (H2O) as the chemical dye stain of choice (due to likely sharpie on item). Viewed under laser at 532nm wavelength (Green laser) with orange filter/goggles.
NYAR8P	Powder Dusting	fluorescent yellow powder was applied with a fiberglass brush
P8UH7M	Powder Dusting	Magnetic gray powder
P9ABRA	Visual Examination	Visual examination in room light with flashlight
	Powder Dusting	Silver/gray powder and fiberglass brush
PJTTJF	Visual Examination	Using a flashlight, I observed a latent print within section B of the notebook cover. However, the observed latent print was not able to be captured using digital photography. No latent print images were able to be obtained at this stage.
	Alternate Light Source	Using a forensic light source, I observed a latent print within section B of the notebook cover. However, the observed latent print was not able to be captured using digital photography. No latent print images were able to be obtained at this stage.
	Cyanoacrylate Fuming	Using Cyanoacrylate ester (Lot number: 202404184), I placed a control and the notebook within a mounted fuming chamber. A positive control was obtained. I observed a latent print located within section B of the notebook cover. Digital Photography was used to preserve the latent print. The latent print was photographed with and without scale.
	Dye Stain	Using Rhodamine 6G (Lot number: R6G-062724), I covered the control and the notebook covers in the cyanoacrylate fluorescent dye stain within a fume hood. A positive control was obtained. Using a forensic light source, I observed a latent print located within section B of the notebook cover.
	Alternate Light Source	Using a forensic light source, Digital Photography was used to preserve the latent print. The latent print was photographed with and without scale.
	Powder Dusting	Using black powder, I processed the notebook covers for latent prints. No latent prints were obtained.
	R49CMH	Visual Examination
Cyanoacrylate Fuming		MVC FFLEX S. 120 degrees Celsius. 80% humidity. 10 minute glue time. 4 drops Cyanoacrylate lot#091923-02.
Alternate Light Source		UV light applied via Crime Lite 82 S
R947KJ	Cyanoacrylate Fuming	
	Alternate Light Source	RUVIS
	Powder Dusting	black powder
	Dye Stain	ardrox

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
RFMARL	Cyanoacrylate Fuming	
	Alternate Light Source	RUVIS
	Powder Dusting	
	Dye Stain	Ardrox
RXXYMB	Powder Dusting	
T4NXWJ	Cyanoacrylate Fuming	The cyanoclrirate chamber was used and left to act for ten minutes. Ultraviolet light of 590 nm was used to search for papillary traces. Black magnetic powder was used. The mikrozil kit was used to lift the papillary trace.
TAQ6CL	Powder Dusting	Fluorescent green magnetic powder was applied with a magnetic brush
TARECC	Visual Examination	Visual exam with room lighting and flashlights
	Alternate Light Source	Crime Lite 2 400-430nm with yellow glasses 420-470nm with orange glasses
	Powder Dusting	black powder
TH9DZJ	Visual Examination	
	Powder Dusting	Magnetic Powder
TNCGMW	Visual Examination	No patent prints observed - 1 minute
	Powder Dusting	Processing time - 2 minutes
TRBVBL	Powder Dusting	Sirchie fluorescent yellow powder was applied with a fiberglass brush
U4ZLF3	Cyanoacrylate Fuming	Item was placed into the fuming chamber, using cyanoacrylate in an attempt to develop any suitable fingerprints. Item was exposed for approximately nine (9) minutes.
UJC7CA	Visual Examination	White light
	Alternate Light Source	Ultraviolet light
	Alternate Light Source	ALS515nm
	Cyanoacrylate Fuming	CAapture BT Fuming Chamber. Approx. 20 minutes. Test prints passed.

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
UR9XK3	Alternate Light Source	The Polilight was utilised to conduct a visual examination. White light. Results - Latent 3 identified on item 3 section B, Photographs taken.
	Cyanoacrylate Fuming	The items placed in the Foster & Freeman MVC1000 Cyanoacrylate cabinet for fuming. 15min glue cycle
	Alternate Light Source	The Polilight was utilised to conduct a visual examination - White light. Photographs taken
	Dye Stain	Rhodamine R6G applied to items using a spray bottle in the fume hood. Allowed to dry in fume hood for approx 15mins
	Alternate Light Source	The Polilight was utilised to conduct a visual examination - 505nm with orange filter. Photographs taken
	Dye Stain	Ardrox applied to items using a spray bottle and rinsed under water. Allowed to dry in fume hood for approx 1hr.
	Alternate Light Source	The Polilight was utilised to conduct a visual examination - 350nm with clear filter. Photographs taken
W7A9V	Powder Dusting	white powder
WHRQRC	Cyanoacrylate Fuming	We placed the trace No.1 in the cyanoacrylate chamber until the control print was revealed. We could observe an imprint in section B of the trace No.1.
	Powder Dusting	Then we processed trace No. 1 with gray magnetic powder, highlighting the print in section C of trace No. 1.
WQ8ACB	Visual Examination	Visually examined the front and back covers of the notebook. Surface appeared textured.
	Powder Dusting	Black magnetic powder used on exterior surfaces of notebook.
WQQQCQ	Visual Examination	
	Alternate Light Source	440 nm
	Cyanoacrylate Fuming	80%RH. 7 min fuming
	Dye Stain	BY40
	Dye Stain	Crystal Violet
WXR DGT	Powder Dusting	
XPATG7	Cyanoacrylate Fuming	The item was processed for latent prints utilizing cyanoacrylate fuming and rhodamine dye stain and examined under an alternate light source.
XUFP27	Visual Examination	nothing observed
	Powder Dusting	with regular black powder
	Visual Examination	possible suitable FRD seen
YKARMA	Visual Examination	Visual examination under white light
	Cyanoacrylate Fuming	Examined under white light and with FSIS using UV light
	Dye Stain	R6G used and visualized under LASER with an orange filter (goggles)

TABLE 2 - Development Methods - Item 3

WebCode	Development Methods	Method Details
YMYDM6	Cyanoacrylate Fuming	cyano/fuming chamber 1 positive result achieved
YZ8G4F	Powder Dusting	Sirchie fluorescent yellow powder was applied with a fiberglass brush
ZA7W66	Visual Examination	Visual examination with white light source, various angles.
	Cyanoacrylate Fuming	MVC cabinet, RH 85%, Temp 120 °C, cyanoacrylate ester (2.5g), Fume for 10 mins.
ZALTEW	Cyanoacrylate Fuming	9:30 minutes in the fuming chamber. Examined under UV light to photograph.
ZAQDK8	Visual Examination	observed all sides
	Powder Dusting	Processing time: > 1 min; Magnetic powder; processed both sides

Item 3 - Development Response Summary				Participants: 96
Methods Utilized				
Alternate Light Source	35	Physical Developer	1	Note: Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.
Cyanoacrylate Fuming	50	Powder Dusting	61	
DFO	0	Visual Examination	59	
Dye Stain	36	Wet Powder Suspension	0	
Ninhydrin	0	1,2-Indanedione	0	

Preservation Methods

TABLE 3 - Item 1

WebCode	Preservation Methods	Method Details
26QNG6	Photography	Performed 1:1 Comparison print photography
	Lifting	Lifted print utilizing stretchy lift tape and then placed onto a latent lift card.
2KJF27	Photography	Under white light: NIKON D7500 - 60 mm lens - 1/2 sec. f/18- ISO 400. Under UV-254 nm light: NIKON D7500 - 35 mm lens - 1/2 sec. f/13 - ISO 125. Under forensic light: NIKON D7500 - 60 mm lens - 1/13 sec. f/8- ISO 400
2MPDFZ	Photography	Performed general photography of item as well as examination quality photos of observed ridge detail before and after powdering.
	Lifting	Used tape lift to preserve one developed area of ridge detail (Section D) and collected onto one lift card.
3DECUZ	Photography	Photography was done prior to powdering and after powdering.
	Lifting	Lift tape, placed onto transparency sheet.
3G49D8	Photography	Using the 8x4 on the DCS5, the latent in quadrant "D" was observed and photographed with a 445 nm light and orange filter using the DCS5. This photo was printed and submitted.
3M7ETA	Photography	Used ALS with macro lens, yellow filter, RAW and JPEG
3UNNG7	Photography	Semi-professional digital camera, model T15. 90-degree angle.
43CX47	Photography	With ALS yellow barrier filter, 415 nm, macro lens, jpeg/raw, photoshop
6ATK2	Photography	Nikon D850 camera (+ with superglue). FSIS II camera with 254 nm and 254 nm filter (+). Nikon D850 camera with laser and laser filter (+Rhodamine)
	Lifting	tape, black powder with white backing card
6KR8MY	Lifting	Scaled & lifted with tape, put on backing card with sketch
6ME9NZ	Lifting	I collected one (1) latent lift card (labeled Item 4) from Item 1.
77PH27	Photography	Photographed after dye stain
	Lifting	
	Photography	photographed latent lift
7EZJM8	Photography	with ALS
7MXCV2	Photography	Photography of item
	Photography	Photography of patent print
	Lifting	Lift with lifting tape, retained with lifting tape on fingerprint card

TABLE 3 - Preservation Methods - Item 1

WebCode	Preservation Methods	Method Details
87KXWV	Photography Lifting	After both visual examination and powder dusting Two (2) tape lifts taken and put onto two (2) lift cards
8HVXKG	Lifting	Black Gel-Lifter
8V8Z9Y	Photography	Used Nikon D850 digital camera and FSIS II.
9AEDLU	Lifting	One lift collected on one card
A9ME8V	Photography Lifting	
ALMDVT	Photography Lifting	LATENT IMAGES DOCUMENTED WITH SCALE (1) LIFT OBTAINED
ANEC9Q	Photography	photo after CA and photo after BY40 with 450nm ALS and yellow filter
B4LQ4U	Lifting	Friction ridge detail was lifted and preserved on a latent lift card
B79VTY	Photography	The fingermark was captured with a digital reflex camera (105 mm lens)
B7PNEL	Photography Lifting	Se realiza la documentación fotográfica con tomas de primer y primerísimo plano, con testigo métrico, conservando la identificación asignada inicialmente. [Requested translation was not provided by the time of publication.] Se evalúa y selecciona el tipo de levantador de acuerdo al tipo de la superficie del ítem, empleando cinta convencional y transportándolo a una superficie de acetato, para su posterior documentación fotográfica, recolección, embalaje y etiquetado, conservando la identificación asignada inicialmente. Hora de recolección: 12:20 pm. [Requested translation was not provided by the time of publication.]
BLMZ3D	Lifting	Gel lifters
BVUXNV	Photography Lifting	Comparison photographs of patent results Collection of prints using evidence lift tape
C7RX2Z	Lifting	1. PLACE ADHESIVE TAPE ON THE DEVELOPED FINGERPRINT. 2. LIFTING. 3. TRANSPLANT.
CBH8VB	Photography Photography Photography Lifting Lifting	One overall photograph and four detail photographs were taken after visual examination. Three photographs were taken after fuming. Two photographs were taken after R6G was applied with a green Laser Light Source. One lift was taken after Magnetic Powder. One lift was taken after Black Powder.

TABLE 3 - Preservation Methods - Item 1

WebCode	Preservation Methods	Method Details
CJWGCV	Lifting	It was made using white Mikrosill
	Photography	Before and after carrying out the survey of the lophoscopic evidence, it was documented photographically with and without a metric witness.
CMCPZY	Photography	The item was photographed and then, specifically of the latent finger print located in one of the quadrants with and without the ruler.
	Lifting	Once they photographed, they put a piece of lifting tape over the latent print, and lift it up, and then transplanting into a card.
CY7HFU	Photography	Photographs were taken of visible latent prints after cyanoacrylate fuming method and Rhodamine 6G method
	Lifting	One latent print was lifted after black powder dusting method
D6UKYK	Photography	I preserved the recovered latent print using our full spectrum imaging system with a scale device. The digital image is saved to our system and burned to a disc to be sent for examination if needed.
D97RYP	Photography	
	Lifting	
DBXQDM	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.
DFR9KU	F+F DCS-5	Digital photography.
DFTHLJ	Photography	Two photographs taken with a Canon Rebel one at CA fuming and one at dye stain.
EG3A8T	Lifting	Lifted the latent print using "Sirchie" frosted latent tape then affixed the latent tape to a latent card. I processed the section a second time and was able to lift the print again for a double lift.
EWW3RU	Photography	Photography using alternate light source
	Lifting	use black powder and lifted the print onto card
EYVDL9	Lifting	Lift #1 developed and lifted from section D of the magnifying glass
F3VNG9	Lifting	Adhesive lift tape
F4AMJP	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. For reflected UV image capture a BAADER Fully blocked Vis & IR U-Filter was used. Captured images were scaled, saved and printed to a 1:1.

TABLE 3 - Preservation Methods - Item 1

WebCode	Preservation Methods	Method Details
F8MMFG	Photography	Se realizó la fijación fotográfica del indicio con el fragmento con material lofoscópico localizado, marcado como 1.1.D, utilizando un testigo métrico. [Requested translation was not provided by the time of publication.]
	Lifting	Se realizó el levantamiento con cinta adhesiva tipo cristal, individualizándolo, para posteriormente trasladarlo a un soporte de acetato transparente y embalarlo en una bolsa plástica, sellada y etiquetada, conservando la identificación inicial del ítem. Hora de recolección: 12:20. [Requested translation was not provided by the time of publication.]
FDEUYF	Photography	Using a digital camera, with a macro lens attached, and on an adjustable tripod, to document the observed latent fingerprint in section D. While using visual examination and a forensic light source, though I observed a latent print, all attempts to document the print were unsuccessful. I documented the print when possible/visible enough to capture on camera and obtained 1 photograph after cyanoacrylate fuming and 1 photograph after Rhodamine 6G was applied and developed.
	Lifting	After developing with black powder, I attempted to lift the print with lifting tape in section D but was unsuccessful.
FGE7UP	Photography	Photography used to document the latent prints on quadrant D of the magnifying glass.
	Lifting	Used to lift latent prints from black powder processing on quadrant D of the magnifying glass.
FGVPUA	Photography	Digital photographs taken at patent stage and gray powder latent development stage.
FKUEHP	Lifting	Fingerprint lifting tape
FLBXHA	Photography	Photography was used to document the latent print. Photos of 1-LP1 were captured after visual examination using a fiberoptic light source, and after improvement with cyanoacrylate fuming using a flashlight light source, and again after further improvement with rhodamine 6G dye stain using a laser light source with green light (532 nm) and an orange filter.
G8N688	Photography	Photographed after each visual examination. After the first visual examination photographed with coaxial lighting. After CAE fuming photographed with flashlight lighting. After R6G dye staining photographed with green light (~532 nm laser) and orange filter
GH6RHU	Photography	See above. [Table 2: Development Methods - Item 1]
J6NGNF	Photography	Photographs taken using oblique lighting with a flashlight, after dusting, and of the fingerprint lift card
	Lifting	Tape lift
JCVDPN	Photography	Did comparison photography on developed print.
	Lifting	Lifted the print with lifting tape and placed tape on lifting card to retain it.
	Scanning	Scanned the lift cards collected into the laboratory information management system.

TABLE 3 - Preservation Methods - Item 1

WebCode	Preservation Methods	Method Details
K299ZF	Photography	Photography at each step. Flashlight, backlight, ALT light
KJN6BM	Lifting	Once the latent print was developed with powder, I applied lift tape to the surface of the Magnifying glass; capturing the developed print. The tape was then placed on a white lift card, and sealed in an envelope.
KTQZCJ	Lifting	Lift Tape with card backer
LCLRWH	Photography	The finger impression in section D was illuminated with an LED flashlight and images of sufficient quality for identification were captured of the impression utilizing a digital camera with a macro lens.
LH89HM	Photography	It is photographically documented
	Lifting	Transparent adhesive tape was used and it was placed in a white portalatente.
LWTMLM	Photography	developed impression photographed after application of RAM
LZRYHM	Photography	DCS5 Foster & Freeman (reflex camera)
MERZUN	Photography	
MVCQUM	Photography	Photographed with White Light at VIS step and documented as 1L1_VIS, photographed with FSIS - UV at CAE step and documented as 1L1_FSIS, and photographed with LASER at R6G step and documented as 1L1_R6G.
N6QZFY	Photography	
NR8H3H	Lifting	Developed latent print lifted with lift tape and preserved in lift card.
NTKE62	Lifting	Tape was utilized to lift the latent print.
NWZMTZ	Photography	Photography was used to capture the suitable latent print (1-LP1) after Cyanoacrylate fuming. 1-LP1 was not suitable at Visual exam, and did not improve after R6G.
P8UH7M	Lifting	item 1
	Photography	item 1
P9ABRA	Photography	Photographs taken before and after application of fingerprint powder with scale. Tape lift was also photographed prior to lifting fingerprint from item.
	Lifting	Fingerprint was collected using tape lift and then placed on a latent lift card.
PJTTJF	Photography	Six latent print images were obtained from quadrant D of the magnifying glass at the visual examination stage. Four latent print images were obtained from quadrant D of the magnifying glass at the cyanoacrylate fuming stage. Four latent print images were obtained from quadrant D of the magnifying glass at the cyanoacrylate dye stain/forensic light source stage.
	Lifting	Two latent print lift cards were obtained from the glass of the magnifying glass (Quadrant D)
R49CMH	Lifting	Print observed in section D. Tape lift placed on lift card

TABLE 3 - Preservation Methods - Item 1

WebCode	Preservation Methods	Method Details
R947KJ	Photography Lifting	of RUVIS results lift in quadrant D to lift card
RFMARL	Photography Lifting Photography	of RUVIS results of black powder print and placed on a lift card with photoshop of ardrox results
T4NXWJ	[No Methods Reported.]	Biosafety equipment was used (gloves, disposable caps, masks, disposable gown and disposable shoes). Use of the portable cyanoclorate chamber. Use of the cyanoclorate reagent. The papillary trace is fixed by means of photographic views. Use of transparent adhesive tape to collect and preserve the papillary traces on a white portalatente. Packing and sealing of the trace.
TARECC	Lifting	Lifted powdered prints and then scanned lifts
TH9DZJ	Lifting	Tape lift and placed onto a card
TNCGMW	Photography	Exhibit 01A: one digital photograph of patent prints and one digital photograph of latent prints
U4ZLF3	Photography	The Full Spectrum Imaging System (FSIS) was used.
UJC7CA	Photography	
UR9XK3	Photography	At each stage of the examination, photographs were taken for recording purposes.
W7A9V	Lifting	Lifted latent prints with book tape & transferred onto acetates.
WHRQRC	Photography Lifting	Photographic views were taken of the area where the papillary trace and the papillary trace were highlighted. Transparent tape was used to lift the papillary trace and then placed in a white holder.
WQ8ACB	Lifting	Standard tape placed over observed ridge detail and transferred to white index card for preservation.
WQQQCQ	Photography	
WXRDTG	Lifting	Tape. No ridge detail was identified on item #1 the magnifying glass. I lifted from the section that had a smudge mark on it. Our crime scene unit does not utilize anything other than powder. No additional enhancement methods were utilized.
XPATG7	Lifting	1 latent lift was placed onto a white fingerprint card utilizing 2 inch transparent fingerprint tape

TABLE 3 - Preservation Methods - Item 1

WebCode	Preservation Methods	Method Details
XUFP27	Photography	
	Lifting	with tape and placed on contrasting backing card
YKARMA	Photography	Photographed after visual exam and Cyanoacrylate fuming using side lighting with white light.
YMYDM6	Lifting	lift tape and print card
YW9K4	Photography	DSLR camera with a macro lens and a quadrapod. Used both ambient light and oblique lighting with a flashlight.
	Lifting	Tape lifted onto one (1) lift card with a white background.
ZA7W66	Photography	foster & freeman DCS-5
ZAQDK8	Lifting	Lift tape

Item 1 - Preservation Response Summary			Participants: 89
Methods Utilized			
	Lifting	56	Note: Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.
	Photography	68	
	Scanning	1	

TABLE 3 - Preservation Methods - Item 2

WebCode	Preservation Methods	Method Details
26QNG6	Photography	Performed 1:1 Comparison print photography
	Lifting	Lifted print utilizing stretchy lift tape and then placed onto a latent lift card.
2KJF27	Photography	White light: NIKON D7500 - 60 mm lens - 1/125 sec. f/1.- ISO 200. UV-254 nm light: NIKON D7500 - 35 mm lens - 1 sec. f/13 - ISO 125. Forensic light: NIKON D7500 - 60 mm lens - 1/4 sec. f/8- ISO 400
2MPDFZ	Photography	Performed general photography of item as well as examination quality photos of observed ridge detail before and after powdering.
	Lifting	Used tape lift to preserve one developed area of ridge detail (Section C) and collected onto one lift card.
3DECUZ	Photography	Photography done prior to powdering and after powdering.
	Lifting	Lift tape, placed onto transparency sheet.
3G49D8	Photography	Using the 8x4 on the DCS5, the latent in quadrant "C" was observed and photographed with a 445 nm light and orange filter using the DCS5. This photo was printed and submitted.
3M7ETA	Lifting	lifted after black powder
3UNNG7	Photography	Semi-professional digital camera, model T15. 90-degree angle.
43CX47	Lifting	black powder lift
	Photography	with ALS yellow barrier filter, 415 nm, macro lens, jpeg/raw, photoshop
6ATTK2	Photography	Nikon D850 camera (+ white light and + with superglue). FSIS II camera with 254 nm and 254 nm filter (+). Nikon D850 camera with laser and laser filter (+Rhodamine)
	Lifting	tape, black powder with white backing card
6KR8MY	Lifting	Scaled & lifted with tape, put on backing card with sketch
6ME9NZ	Lifting	I collected one (1) latent lift card (labeled Item 5) from Item 2.
77PH27	Lifting	
7EZJM8	Photography	with and without ALS
7MXCV2	Photography	Photography of item
	Photography	Photography of patent print
	Lifting	Lift with lifting tape, retained with lifting tape on fingerprint card
87KXWV	Photography	After both visual examination and powder dusting
	Lifting	One (1) tape lift put onto one (1) lift card
8HVXKG	Lifting	Tape Lift w/ book tape

TABLE 3 - Preservation Methods - Item 2

WebCode	Preservation Methods	Method Details
8V8Z9Y	Photography	Used Nikon D850 digital camera and FSIS II.
	Lifting	Area of ridge detail lifted with tape after the application of bi-chromatic powder and placed on a fingerprint latent lift card.
9AEDLU	Lifting	One lift collected on one card
A9ME8V	Photography	
	Lifting	
ALMDVT	Photography	LATENT IMAGES DOCUMENTED WITH SCALE
	Lifting	(1) LATENT OBTAINED
ANEC9Q	Photography	photo after VIS Exam. Photo after CA fuming. 2 photos after BY40 with 450nm ALS and yellow filter
B4LQ4U	Lifting	Friction ridge detail was lifted and preserved on a latent print card
B79VTY	Photography	The fingermark was captured with a digital reflex camera (105 mm lens)
B7PNEL	Photography	Se realiza la documentación fotográfica con tomas de primer y primerísimo plano, con testigo métrico, conservando la identificación asignada inicialmente. [Requested translation was not provided by the time of publication.]
	Lifting	Se evalúa y selecciona el tipo de levantador de acuerdo al tipo de la superficie del ítem, empleando cinta convencional y transportándolo a una superficie de acetato, para su posterior documentación fotográfica, recolección, embalaje y etiquetado, conservando la identificación asignada inicialmente. Hora de recolección: 12:35 pm. [Requested translation was not provided by the time of publication.]
BLMZ3D	Lifting	Gel lifter
BVUXNV	Photography	photography of patent print results
	Lifting	collection of prints with evidence lifting tape
C7RX2Z	Lifting	1. PLACE ADHESIVE TAPE ON THE DEVELOPED FINGERPRINT. 2. LIFTING. 3. TRANSPLANT.
CBH8VB	Photography	One overall photograph and one detail photograph were taken after visual examination.
	Photography	Two photographs were taken after fuming.
	Photography	One photograph was taken after R6G was applied with a green Laser Light Source.
	Lifting	One lift was taken after Magnetic Powder.
	Lifting	One lift was taken after Black Powder.

TABLE 3 - Preservation Methods - Item 2

WebCode	Preservation Methods	Method Details
CJWGKY	Photography	Before and after carrying out the survey of the lophoscopic evidence, it was documented photographically with and without a metric witness.
	Lifting	It was made using white Mikrosill
CMCPZY	Photography	The item was photographed and then, specifically of the latent finger print located in one of the quadrants with and without the ruler.
	Lifting	Once they photographed, they put a piece of lifting tape over the latent print, and lift it up, and then transplanting into a card.
CY7HFU	Photography	Photographs were taken of visible latent prints after cyanoacrylate fuming method and Rhodamine 6G method
	Lifting	One latent print was lifted after black powder dusting method
D6UKYK	Photography	I preserved the recovered latent print using our full spectrum imaging system with a scale device. The digital image is saved to our system and burned to a disc to be sent for examination if needed.
D97RYP	Photography	
	Lifting	
DBXQDM	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.
DFR9KU	F+F DCS-5	digital photography
DFTHLJ	Photography	Three photographs taken with a Canon Rebel one at visual, one at CA fuming and one at dye stain.
EG3A8T	Lifting	Lifted the latent print using "Sirchie" frosted latent tape then affixed the latent tape to a latent card.
EWV3RU	Photography	photos were taken but no latent of comparable value was developed. could see grease smudge from finger in quadrant C
EYVDL9	Lifting	Lift #2 was developed and lifted from section C on the interior side of the plastic CD case
F3VNG9	Lifting	Adhesive lift tape
F4AMJP	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. For reflected UV image capture a BAADER Fully blocked Vis & IR U-Filter was used. Captured images were scaled, saved and printed to a 1:1.

TABLE 3 - Preservation Methods - Item 2

WebCode	Preservation Methods	Method Details
F8MMFG	Photography	Se realizó la fijación fotográfica del indicio con el fragmento con material lofoscópico localizado, marcado como 2.1.C, utilizando un testigo métrico. [Requested translation was not provided by the time of publication.]
	Lifting	Se realizó el levantamiento con cinta adhesiva tipo cristal, individualizándolo, para posteriormente trasladarlo a un soporte de acetato transparente y embalarlo en una bolsa plástica, sellada y etiquetada, conservando la identificación inicial del ítem. Hora de recolección: 12:35. [Requested translation was not provided by the time of publication.]
FDEUYF	Photography	Using a digital camera, with a macro lens attached, and on an adjustable tripod, to document the observed latent fingerprint in section C. While using visual examination and a forensic light source, though I observed a latent print, all attempts to document the print were unsuccessful. I documented the print when possible/visible enough to capture on camera and obtained 1 photograph after cyanoacrylate fuming and 1 photograph after Rhodamine 6G was applied and developed.
	Lifting	After developing with black powder, I attempted to lift the print with lifting tape in section C but was unsuccessful.
FGE7UP	Photography	Photography used to document the latent prints on quadrant C of the clear CD case.
	Lifting	Attempted to lift latent prints from black powder processing on quadrant C of the clear CD case.
FGVPUA	Photography	Digital photographs taken at patent stage and gray powder latent development stage.
FKUEHP	Lifting	Fingerprint lifting tape
FLBXHA	Photography	Photography was used to document the latent print. Photos of 2-LP1 were captured after visual examination using a fiberoptic light source, and after improvement with cyanoacrylate fuming using a flashlight light source, and again after further improvement with rhodamine 6G dye stain using a laser light source with green light (532 nm) and an orange filter.
G8N688	Photography	Photographed after each visual examination. After the first visual examination photographed with coaxial lighting. After CAE fuming photographed with flashlight lighting. After R6G dye staining photographed with green light (~532 nm laser) and orange filter
GH6RHU	Photography	See above. [Table 2: Development Methods - Item 2]
J6NGNF	Photography	Photographs taken using oblique lighting with a flashlight, after dusting, and of the fingerprint lift card
	Lifting	Tape lift
JCVDPN	Photography	Did comparison photography on developed print to retain it.
	Lifting	Lifted the print with lifting tape and placed tape on lifting card.
	Scanning	Scanned the lift cards collected into the laboratory information management system.

TABLE 3 - Preservation Methods - Item 2

WebCode	Preservation Methods	Method Details
K299ZF	Photography	Photography at each step. Flashlight, backlight, ALT light
KJN6BM	Lifting	Once the latent print was developed with powder, I applied lift tape to the surface of the Plastic CD case; capturing the developed print. The tape was then placed on a white lift card, and sealed in an envelope.
KTQZCJ	Lifting	Lift tape with card backer
LCLRWH	Photography	The finger impression in section C was illuminated with an LED flashlight and images of sufficient quality for identification were captured of the impression utilizing a digital camera with a macro lens.
LH89HM	Photography	It is photographically documented
	Lifting	Transparent adhesive tape was used and it was placed in a white portalatente.
LWTMLM	Photography	The impression was visible before processing and was photographed. It was photographed again after the application of RAM.
LZRYHM	Photography	DCS5 Foster & Freeman (reflex camera)
MERZUN	Photography	
MVCQUM	Photography	Photographed with White Light at VIS step and documented as 2L1.
N6QZFY	Photography	
NR8H3H	Lifting	Developed print lifted with lift tape and applied to lift card.
NTKE62	Lifting	Tape was utilized to lift the latent print.
NWZMTZ	Photography	Item 2 (2-LP1) was photographed after visual examination, and Cyanoacrylate fuming. R6G did not improve 2-LP1, and therefore it was not photographed after this step.
P8UH7M	Lifting	item 2
	Photography	item 2
P9ABRA	Photography	Photographs taken before and after application of fingerprint powder with scale. Tape lift was also photographed prior to lifting fingerprint from item.
	Lifting	Fingerprint was collected using tape lift and then placed on a latent lift card.
PJTTJF	Photography	Eight latent print images were obtained at the cyanoacrylate fuming stage. Four images were obtained from section C on the interior of case and four images were obtained from the exterior of case. Sixteen latent print images were obtained at the cyanoacrylate dye stain/forensic light source stage. Four images were obtained from section C on the interior of case and four images were obtained from the exterior of case. Four images were obtained from section B on the interior of case and four images were obtained from the exterior of case.
	Lifting	Two latent print lift cards were obtained from the compact disc (CD) case. One card obtained from section C on the interior of the compact disc (CD) case and one card obtained from section B on the interior of the compact disc (CD) case.

TABLE 3 - Preservation Methods - Item 2

WebCode	Preservation Methods	Method Details
R49CMH	Lifting	Print observed in section C. Tape lift placed on lift card
R947KJ	Photography	of RUVIS results
	Lifting	black powder lift to lift card
RFMARL	Photography	of RUVIS results
	Lifting	black powder ridge detail to lift card
T4NXWJ	[No Methods Reported.]	Biosafety equipment was used (gloves, disposable caps, disposable gowns, disposable shoes and mask). Use of the portable cyanoclorate chamber, with cyanoclorate reagent. Use of the transparent adhesive tape to collect and preserve the papillary trace on a white portalatente. Packing and sealing of the trace.
TARECC	Lifting	Lifted powdered prints and then scanned lifts
TH9DZJ	Lifting	Tape lift placed on a lift card
TNCGMW	Photography	Exhibit 02A: one digital photograph of patent prints and two digital photographs of latent prints
U4ZLF3	Photography	The Full Spectrum Imaging System (FSIS) was used.
UJC7CA	Photography	
UR9XK3	Photography	At each stage of the examination, photographs were taken for recording purposes.
VW7A9V	Lifting	Lifted latent prints with book tape & transferred onto acetates.
WHRQRC	Photography	Photographic views were taken of the area where the papillary trace and the papillary trace were highlighted.
	Lifting	Transparent tape was used to lift the papillary trace and then placed in a white holder.
WQ8ACB	Lifting	Standard tape placed over observed ridge detail and transferred to white index card for preservation.
WQQQCQ	Photography	
WXRDTG	Lifting	Tape
XPATG7	Lifting	1 latent lift was placed onto a white fingerprint card utilizing 2 inch transparent fingerprint tape
XUFP27	Photography	
	Lifting	with tape and placed on contrasting backing card
YKARMA	Photography	Photographed after visual examination using side lighting and white light and photographed after cyanoacrylate fuming using the FSIS and UV light.

TABLE 3 - Preservation Methods - Item 2

WebCode	Preservation Methods	Method Details
YMYDM6	Photography	DSCS camera to photograph
YV9K4	Photography	DSLR camera with a macro lens and a quadrapod. Used both ambient light and oblique lighting with a flashlight.
	Lifting	Tape lifted onto one (1) lift card with a white background.
ZA7W66	Photography	foster & freeman DCS-5
ZAQDK8	Lifting	Lift tape

Item 2 - Preservation Response Summary			Participants: 89
Methods Utilized			
	Lifting	57	Note: Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.
	Photography	65	
	Scanning	1	

TABLE 3 - Preservation Methods - Item 3

WebCode	Preservation Methods	Method Details
26QNG6	Photography	Performed 1:1 Comparison print photography.
	Lifting	Lifted print utilizing stretchy lift tape and then placed onto a latent lift card.
2KJF27	Photography	UV-254 nm light: NIKON D7500 - 35 mm lens - 4/5 sec. f/13 - ISO 125. Forensic light: NIKON D7500 - 60 mm lens - 8 sec. f/8- ISO 400
3G49D8	Photography	Using the 8x4 on the DCS5, the latent in quadrant "B" was observed and photographed with a 445 nm light and orange filter using the DCS5. This photo was printed and submitted.
	Powder Processing	After the above listed methods of recovery, [Initials] applied black powder and magnetic powder to the area of interest.
	Lifting	[Initials] attempted to lift the latent in quadrant "B", but no ridge detail was observed on the tape.
3M7ETA	Photography	with ALS, macro lens, yellow filter RAW + JPEG
3UNNG7	Photography	Semi-professional digital camera, model T15. 90-degree angle.
43CX47	Photography	with ALS yellow barrier filter, 415 nm, macro lens, jpeg/raw, photoshop
6ATTK2	Photography	FSIS II with 254 nm, Nikon D805 with laser and laser filter (+ Rhodamine)
6KR8MY	Lifting	Scaled & lifted with tape, put on backing card with sketch
6ME9NZ	Photography	I photographed Item 3, and transferred those photographs onto one (1) DVD labeled Item 6.
77PH27	Photography	latent photographed
7EZJM8	Photography	with and without ALS
7MXCV2	Photography	Photography of item
	Photography	Photography of patent print
	Lifting	Lift with lifting tape, retained with lifting tape on fingerprint card
8HVXKG	Lifting	Black Gel Lift
8V8Z9Y	Photography	Used Nikon D850 digital camera and FSIS II.
9AEDLU	Lifting	Two lifts collected on one card
A9ME8V	Photography	
	Lifting	
ALMDVT	Photography	LATENT IMAGES DOCUMENTED WITH SCALE
ANEC9Q	Photography	photo after CA. photo after BY40 with 450nm ALS and yellow filter
B4LQ4U	Lifting	The friction ridge detail was lifted and preserved on a latent print card

TABLE 3 - Preservation Methods - Item 3

WebCode	Preservation Methods	Method Details
B79VTY	Photography	The fingerprint was captured with a digital reflex camera (105 mm lens)
B7PNEL	Photography	Se realiza la documentación fotográfica con tomas de primer y primerísimo plano, con testigo métrico, conservando la identificación asignada inicialmente. [Requested translation was not provided by the time of publication.]
	Lifting	Se evalúa y selecciona el tipo de levantador de acuerdo al tipo de la superficie del ítem, empleando cinta siliconada y transportándolo a una superficie de acetato, para su posterior documentación fotográfica, recolección, embalaje y etiquetado, conservando la identificación asignada inicialmente. Hora de recolección: 13:06 pm. [Requested translation was not provided by the time of publication.]
BLMZ3D	Lifting	Gel lifter
BVUXNV	Photography	photography of patent print results
	Lifting	collection using evidence lifting tape
C7RX2Z	Lifting	1. PLACE ADHESIVE TAPE ON THE DEVELOPED FINGERPRINT. 2. LIFTING. 3. TRANSPLANT.
CBH8VB	Photography	Two overall photographs were taken after visual examination.
	Photography	Three photographs were taken after fuming.
	Photography	Two photographs were taken after dye stain with a green Laser Light Source.
CJWGCV	Lifting	It was made using white Mikrosill
	Photography	Before and after carrying out the survey of the lophoscopic evidence, it was documented photographically with and without a metric witness.
CMCPZY	Photography	The item was photographed and then, specifically of the latent finger print located in one of the quadrants with and without the ruler.
	Lifting	Once they photographed, they put a piece of lifting tape over the latent print, and lift it up, and then transplanting into a card.
CY7HFU	Photography	Photographs were taken of visible latent prints after cyanoacrylate fuming method and Rhodamine 6G method
	Lifting	Black powder and latent lift card attempted in section B but was unsuccessful
D6UKYK	Photography	I preserved the recovered latent print using our full spectrum imaging system with a scale device. The digital image is saved to our system and burned to a disc to be sent for examination if needed.
DBXQDM	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.
DFR9KU	Ruvis	digital photography
	Photography	digital photography, excitation light blue narrow band filter (60/80 nm) centered at 445 nm, yellow band pass filter.

TABLE 3 - Preservation Methods - Item 3

WebCode	Preservation Methods	Method Details
DFTHLJ	Photography	Two photographs taken with a Canon Rebel one at CA fuming and one at dye stain.
EG3A8T	Lifting	Lifted the latent print using "Sirchie" frosted latent tape then affixed the latent tape to a latent card. I processed the section a second time and was able to develop the print again and used "Scotch" clear plastic tape to lift the print. The plastic tape was then affixed to a latent card for a double lift.
EWV3RU	Photography	photographs with alternate light source
EYVDL9	Lifting	Lift #3 was developed and lifted from section B on the exterior side of the notebook cover
F3VNG9	Lifting	Gel lift
F4AMJP	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. For reflected UV image capture a BAADER Fully blocked Vis & IR U-Filter was used. Captured images were scaled, saved and printed to a 1:1.
F8MMFG	Photography	Se realizó la fijación fotográfica del indicio con el fragmento con material lofoscópico localizado, marcado como 3.1.B, utilizando un testigo métrico. [Requested translation was not provided by the time of publication.]
	Lifting	Se realizó el levantamiento con cinta adhesiva tipo gel, individualizándolo, para posteriormente trasladarlo a un soporte de acetato transparente y embalarlo en una bolsa plástica, sellada y etiquetada, conservando la identificación inicial del ítem. Hora de recolección: 13:06. [Requested translation was not provided by the time of publication.]
FDEUYP	Photography	Using a digital camera, with a macro lens attached, and on an adjustable tripod, to document the observed latent fingerprint in section B. While using visual examination and a forensic light source, though I observed a latent print, all attempts to document the print were unsuccessful. I documented the print when possible/visible enough to capture on camera and obtained 1 photograph after cyanoacrylate fuming and 1 photograph after Rhodamine 6G was applied and developed.
	Lifting	After developing with black powder, I attempted to lift the print with lifting tape in section B and obtained 1 latent lift card.
FGE7UP	Photography	Photography used to document the latent prints on quadrant B of the black notebook cover.
	Lifting	Attempted to lift latent prints from black powder processing on quadrant B of the black notebook cover.
FGVPUA	Photography	Digital photographs taken at gray powder latent development stage.
FKUEHP	Lifting	Fingerprint lifting tape

TABLE 3 - Preservation Methods - Item 3

WebCode	Preservation Methods	Method Details
FLBXHA	Photography	Photography was used to document the latent print. Photos of 3-LP1 were captured after cyanoacrylate fuming using a laser light source with blue light (445 nm) and an orange filter, and again after further improvement with rhodamine 6G dye stain using a laser light source with green light (532 nm) and an orange filter.
G8N688	Photography	Photographed after second visual examination post CAE fuming and after final visual examination post R6G dye staining. After CAE fuming photographed with combined flashlight and coaxial lighting. After R6G dye staining photographed with green light (~532 nm laser) and orange filter
GH6RHU	Photography	See above. [Table 2: Development Methods - Item 3]
J6NGNF	Photography	Photographs taken using oblique lighting with a flashlight, after dusting, and of the fingerprint lift card
	Lifting	Tape lift
JCVDPN	Photography	Did comparison photography on developed print.
	Lifting	Lifted the print with lifting tape and placed tape on lifting card to retain it.
	Scanning	Scanned the lift cards collected into the laboratory information management system.
K299ZF	Photography	Photography after Cyanoacrylate fuming and BY40 Dye stain. Flashlight & Ring light (overhead at a specific angle), ALT lighting
KJN6BM	Lifting	Once the latent print was developed with magnetic powder, I applied (Diff) lift tape to the surface of the Small notebook; capturing the developed print. The tape was then placed on a white lift card, and sealed in an envelope.
KTQZCJ	Lifting	Lift tape with card backer
LCLRWH	Photography	Utilizing a digital camera with a macro lens with an OCB filter attached, images of sufficient quality for identification were captured of the dye stained finger impression in section B, under green (532 nm) and blue (445 nm) laser light.
LH89HM	Photography	It is photographically documented
	Lifting	Transparent adhesive tape was used and it was placed in a white portalatente.
LWTMLM	Photography	developed impression photographed after application of RAM
LZRYHM	Photography	DCS5 Foster & Freeman (reflex camera)
MERZUN	Photography	
MVCQUM	Photography	Photographed with FSIS - UV at CAE step and documented as 3L1_FSIS and photographed with LASER at R6G step and documented as 3L1_R6G.
N6QZFY	Photography	
NR8H3H	Lifting	Developed latent print lifted with lift tape and preserved on lift card.
NTKE62	Lifting	Tape was utilized to lift the latent print.

TABLE 3 - Preservation Methods - Item 3

WebCode	Preservation Methods	Method Details
NWZMTZ	Photography	3-LP1 deemed suitable after Cyanoacrylate fuming (CAE) and improved with Dye Stain. Photographs were taking after CAE and Dye stain steps.
P8UH7M	Photography	item 3
P9ABRA	Photography	Photographs taken before and after application of fingerprint powder with scale. Tape lift was also photographed prior to lifting fingerprint from item.
	Lifting	Fingerprint was collected using tape lift and then placed on a latent lift card of a contrast with the silver/gray powder.
PJTTJF	Photography	Four latent print images from section B on the exterior side of the notebook cover were obtained at the cyanoacrylate fuming stage. Four latent print images from section B on the exterior side of the notebook cover were obtained at the cyanoacrylate dye stain/forensic light source stage.
	Lifting	Using black powder, I processed the notebook covers for latent prints. Lift attempted; no latent prints were obtained.
R49CMH	Photography	Print observed in section B. Photographed and enhanced with DCS5. Photo printed out
R947KJ	Photography	ALS results
RFMARL	Photography	RUVIS results
	Lifting	of black powder results to latent lift card
	Photography	and photoshop of ardrox results
T4NXWJ	[No Methods Reported.]	Safety equipment (gloves, mask, caps, gowns and disposable shoes) was used. Use of the portable cyanoclrirate chamber, with cyanoclrirate reagent. Use of the Mikrozil kit to collect the papillary trace and transparent adhesive tape to preserve the papillary trace in a white portalatente. Packaging and sealing of the trace.
TARECC	Lifting	Lifted powdered prints and then scanned lifts
TH9DZJ	Lifting	Tape lift placed on a lift card
TNCGMW	Photography	Exhibit 03A: one digital photograph of latent prints
U4ZLF3	Photography	The Full Spectrum Imaging System (FSIS) was used.
UJC7CA	Photography	
UR9XK3	Photography	At each stage of the examination, photographs were taken for recording purposes.
VW7A9V	Lifting	Lifted latent prints with book tape & transferred onto acetates.
WHRQRC	Photography	Photographic views were taken of the area where the papillary trace and the papillary trace were highlighted.
	Lifting	Clear gel tape was used to lift the papillary trace and then placed in a white holder.

TABLE 3 - Preservation Methods - Item 3

WebCode	Preservation Methods	Method Details
WQ8ACB	Lifting	Diff tape placed over observed ridge detail and transferred to white index card for preservation.
WQQQCQ	Photography	
WXRDT	Lifting	Tape 2 separate lifts
	Photography	First lift collected all the texture and clouded the ridge detail. Surface re powdered comparison photographs were taken and a secondary lift was collected.
XPATG7	[No Methods Reported.]	The latent print developed in section B lacked sufficient detail for comparison
XUFP27	Photography	
	Lifting	used a rubber lifter due to the surface of the notebook cover
YKARMA	Photography	Photographed after cyanoacrylate fuming using the FSIS and UV light
YMYDM6	Photography	used the DSCS camera to preserve the LP development
ZA7W66	Photography	foster & freeman DCS-5
ZAQDK8	Lifting	Diff lift tape

Item 3 - Preservation Response Summary			Participants: 84
Methods Utilized			
	Lifting	40	Note: Methods listed are the preloaded options for selection via the CTS Portal and do not reflect all answers provided by participants.
	Photography	67	
	Scanning	1	

Additional Comments

TABLE 4

WebCode	Additional Comments
3G49D8	Additional latents were observed on the interior and exterior of the CD case, as well as on the inside of the notebook, but were not submitted due to not being within the quadrants required of the Latent Print Proficiency Test.
6ATTK2	This data was retracted at the request of a technical lead and manager to add additional items to methodology specific information.
7EZJM8	Additional processing with black powder yielded negative results.
A9ME8V	As a member of the CSR team, items such as these would have been photographed on scene, collected and turned over to the agency to submit to the latent print unit.
ANEC9Q	When processing item 2, CD case, it was initially assumed that the marker marking the quadrants was on the exterior of the CD case. The photo taken during VIS exam and the photo taken after CA were from the exterior. After BY40 was applied it was realized that the print and markings were actually on the interior of the CD case and all black markings came off the CD case with the applied BY40. Also, there was extra ridge detail (a delta) in a separate quadrant (possibly Quadrant B) that could be seen on the interior of the CD case and could have been left through a glove. Thus taking 2 pictures (Quadrant C and Quadrant B to document ridge detail). I wore gloves the entire time while handling the evidence and never even opened the CD case until BY40 step. Both of these prints were on the interior of the case.
B7PNEL	En la sección 1.) "Para cada artículo, ¿en qué sección (A, B, C, D) se recuperó el detalle de la cresta latente?", de este formulario; no existe en la selección de opciones el inciso "C", en su lugar aparecen las letras "do", por lo que se seleccionó esa opción para el Artículo 2, pero se refiere a la sección "C". [Requested translation was not provided by the time of publication.]
BLMZ3D	Minor minutia was found on item 1 (magnifying glass) No minutia was found on item 3 (notebook) an oval smudge was seen, lifted and reported.
CJWGCV	3 lophoscopic fragments were recovered, one for each item sent.
CY7HFU	Multiple latent prints were developed on the interior and exterior of Lab Item 2. Latent print on Lab Item 3 unable to be lifted after black powder dusting due to texture of item.
F4AMJP	Item 1 (Magnifying Glass) and Item 2 (CD case) were kept intact for this examination. Item 3 (Notebook) had one of its covers removed in order to treat it with By40 without staining the paper. This was done to a) preserve evidence, and b) expedite drying times.
F8MMFG	En la sección 1.) Para cada artículo, ¿en qué sección (A, B, C, D) se recuperó el detalle de la cresta latente? de este formulario, no existe en la selección de opciones el inciso "C", en su lugar aparecen las letras "do", por lo que se seleccionó esa opción para el Artículo 2, pero se refiere a la sección "C". [Requested translation was not provided by the time of publication.]
FGVPUA	For Item 2, the CD case: The sides of the CD case must have been pressed together during packaging or transport, as ridge detail from Section C was impressed and transferred to Section B in mirror image format. However, it was faint and only a portion of the edges of the print were transferred over. It was obvious that the test print was in Section C, not intended for Section B.
FKUEHP	Item 1, latent ridge detail was observed and recovered. Item 2, latent ridge detail was observed and recovered. Item 3, impression was observed and recovered, latent lift appears to have possible FRD
G8N688	One issue encountered during processing is that a total of six latent prints were developed on Item 2 the CD case. I selected quadrant "C" for where the ridge detail was recovered as this was the only print suitable for documentation throughout the entire test- four additional prints were located after CAE fuming and one additional print was located after R6G fuming (all five additional prints found on the CD case were suitable for documentation after R6G fuming). There were additional areas of ridge detail on the CD case that were not suitable for documentation. Additional Print Locations: One print

TABLE 4

WebCode	Additional Comments
	was found on the interior side of the CD case in quadrant "A", two prints were found on the exterior side of the CD case in quadrant "B", one print was found on the exterior side of the CD case in quadrant "C", and one print was found on the exterior side of the CD case in quadrant "D".
K299ZF	Item 1 , magnifying glass had a secondary print in section. A. It was extremely light and may have been placed through a latex glove. Since the print from section D looked more deliberately placed on the glass D was my answer. Item 1 was handled by me with gloves and only on the magnifying glasses handle. I think the print was inadvertently left behind by the test maker.
LH89HM	Once the papillary traces are highlighted and placed in a portalatente, they are identified as portalatente No1, No2 and No3; they are packed, sealed and their respective chain of custody is carried out.
P8UH7M	For the item 3 only made the photography for better quality.
TNCGMW	The magnifying glass (Exhibit 01), the CD case (Exhibit 02), and the notebook (Exhibit 03) were examined for patent prints and physically processed for latent prints using fingerprint powder. Prints were developed on the magnifying glass (Exhibit 1, Section D), the CD case (Exhibit 2, Section C), and the notebook (Exhibit 3, Section B). Documentation of these prints consists of six digital photographs (Exhibits 01A-03A) and were forwarded to the [Laboratory].

-End of Report-
(Appendix may follow)

Test No. 24-5193: Latent Print Processing - Nonporous Surfaces

DATA MUST BE SUBMITTED BY **Oct. 15, 2024, 11:59 p.m. EDT** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A

WebCode: W99K98

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 July 15, 2024, several items of evidence were recovered from a crime scene. Police have requested that you process each item of evidence for latent prints. These items will not undergo additional testing in other departments, so you may use destructive testing if necessary.

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

Packaging and protective material are not intended to be processed.

Items Submitted (Sample Pack LPPN):

Item 1: Magnifying glass, divided into sections A-D.

Item 2: CD case, divided into sections A-D.

Item 3: Notebook (back & front covers), divided into sections A-D.

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

1.) For each item, in which section (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:

Magnifying glass, divided into sections A-D.

1-1.) Date Samples Received:

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

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

Method Used

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

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

No preservation methods performed.

Method Used

Methodology-specific information

Results for Item 2:

CD case, divided into sections A-D.

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:

Notebook (back & front covers), divided into sections A-D.

3-1.) Date Samples Received:

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

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

Method Used

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

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

No preservation methods performed.

Method Used

Methodology-specific information

4.) Additional Comments

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

RELEASE OF DATA TO ACCREDITATION BODIES

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

CTS submits external proficiency test data directly to 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.

ANAB Certificate No.

A2LA Certificate No.

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

Authorized Contact Person and Title

Laboratory Name

Location (City/State)