



STATE OF DELAWARE
DEPARTMENT OF SAFETY AND HOMELAND SECURITY
DIVISION OF FORENSIC SCIENCE
200 South Adams Street
Wilmington, DE 19801

DNA Laboratory Report
CONFIDENTIAL

Case No.: FE2023-01933 **Report Date:** May 2, 2023
DNA No.: DNA23-146 **Complaint No.:** 32-23-017165
Suspect: Unknown **Agency:** Sgt. Thomas Orzechowski
Victims: Andrew Edelmann; Aida Pabon New Castle County Police Department
3601 N. DuPont Highway
New Castle, DE 19720

ITEMS SUBMITTED:

Items submitted by Sgt. Thomas Orzechowski on March 20, 2023:

DNA23-146A	One tape sealed envelope containing swabs of a deformed projectile
DNA23-146B	One tape sealed envelope containing swabs of the seal of a plastic baggie
DNA23-146C	One tape sealed envelope containing swabs from the grip of a firearm
DNA23-146D	One tape sealed envelope containing swabs from the trigger/trigger guard of a firearm
DNA23-146E	One tape sealed envelope containing swabs from the magazine release/safety of a firearm
DNA23-146F	One tape sealed envelope containing swabs from the (pull) charger of a firearm
DNA23-146G	One tape sealed envelope containing swabs from the cartridge of a firearm
DNA23-146H	One tape sealed envelope containing swabs from the bottom of magazine
DNA23-146I	One tape sealed envelope containing swabs from twenty-nine (29) cartridges
DNA23-146J	One tape sealed envelope containing swabs of a "Ziplock" bag top area (M#35)
DNA23-146K	One tape sealed envelope containing swabs of a "Ziplock" bag top area (M#58)
DNA23-146L	One tape sealed envelope containing swabs from the edges of a "fungi" chocolate box (front passenger floor)
DNA23-146M	One tape sealed envelope containing swabs from the edges of a "fungi" chocolate box (center console)
DNA23-146N	One tape sealed envelope containing a buccal reference from Andrew Edelmann



This laboratory is accredited by the American National Standards Institute National Accreditation Board (ANAB) in accordance with the recognized ISO/IEC 17025 standard. Refer to certificate and scope of accreditation FT-0103.

ITEMS SUBMITTED continued:

DNA23-146O	One tape sealed envelope containing a buccal reference from Aida Pabon
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Note: Evidence descriptions are based on the information provided by the submitting agency.

PRELIMINARY ANALYSIS RESULTS:

The Reduced Phenolphthalein Assay is a presumptive test for the presence of blood. Due to the case summary, the following samples were taken through for DNA extraction:

Sample	Description	Presence of blood
DNA23-146A1a	Swabs – deformed metal projectile	Indicated
DNA23-146B1a	Swabs – seal of plastic baggie	Negative
DNA23-146C1a	Swabs – grip of a firearm	Indicated
DNA23-146D1a	Swabs – trigger/trigger guard of a firearm	Negative
DNA23-146E1a	Swabs – magazine release/safety of a firearm	Negative
DNA23-146F1a	Swabs – (pull) charger of a firearm	Negative
DNA23-146G1a	Swabs – cartridge from a firearm	Negative
DNA23-146H1a	Swabs – bottom of magazine	Negative
DNA23-146I1a	Swabs – twenty-nine (29) cartridges	Indicated
DNA23-146J1a	Swabs – “Ziplock” bag top area (M#35)	Indicated
DNA23-146K1a	Swabs – “Ziplock” bag top area (M#58)	Negative
DNA23-146L1a	Swabs – edges of “fungi” chocolate box (front passenger floor)	Negative
DNA23-146M1a	Swabs – edges of “fungi” chocolate box (center console)	Indicated

DNA ANALYSIS CONCLUSIONS:

Human deoxyribonucleic acid (DNA) samples were amplified and typed using the Promega PowerPlex® Fusion 6C System (Amelogenin, D3S1358, D1S1656, D2S441, D10S1248, D13S317, Penta E, D16S539, D18S51, D2S1338, CSF1PO, Penta D, TH01, vWA, D21S11, D7S820, D5S818, TPOX, D8S1179, D12S391, D19S433, SE33, D22S1045, DYS391, FGA, DYS576 and DYS570). DYS391, DYS576, and DYS570 are male loci and will not be present in female samples. The detection methodology used for this system is capillary electrophoresis.

The reagent blank, positive, and negative control samples associated with the reported profiles produced the expected results, indicating that the analyses were performed successfully.

Note: It is possible that indications of additional contributors may exist below the current limits of detection.

(1) The following reference samples each produced single source DNA profiles:

Sample	Description
DNA23-146N1a	Andrew Edelmann
DNA23-146O1a	Aida Pabon

(2) The following evidentiary sample produced a single source DNA profile matching the known DNA profile of Aida Pabon:

Sample	Description	The probability of randomly selecting an unrelated individual with a DNA profile matching that of the following sample is:
DNA23-146A1a	Swabs – deformed metal projectile	1 in >8,000,000,000,000 (8 trillion)

- (3) The following evidentiary samples each produced a single source DNA profile matching the known DNA profile of Andrew Edelmann:

Sample	Description	The probability of randomly selecting an unrelated individual with a DNA profile matching that of the following sample is:
DNA23-146J1a	Swabs – “Ziplock” bag top area (M#35)	1 in >8,000,000,000,000 (8 trillion)
DNA23-146M1a	Swabs – edges of “fungi” chocolate box (center console)	1 in >8,000,000,000,000 (8 trillion)

- (4) The following evidentiary samples each produced a mixed DNA profile consistent with being a mixture of at least three individuals. Due to the complexity of these mixtures, no comparisons can be made:

Sample	Description
DNA23-146B1a	Swabs – seal of plastic baggie
DNA23-146K1a	Swabs – “Ziplock” bag top area (M#58)

- (5) The following evidentiary sample produced a mixed DNA profile consistent with being a mixture of two male individuals. The DNA profile of the major contributor to this mixture matches the known DNA profile of Andrew Edelmann. Due to the limited nature of the remaining profile, no conclusions can be made regarding the minor contributor to this mixture:

Sample	Description	The probability of randomly selecting an unrelated individual with a DNA profile matching that of the following sample is:
DNA23-146C1a	Swabs – grip of a firearm	1 in >8,000,000,000,000 (8 trillion)

- (6) The following evidentiary sample produced a mixed DNA profile consistent with being a mixture of three individuals, at least one of which is male. The DNA profile of the major contributor to this mixture matches the known DNA profile of Andrew Edelmann. Due to the limited nature of the remaining profile, no conclusions can be made regarding the minor contributors to this mixture:

Sample	Description	The probability of randomly selecting an unrelated individual with a DNA profile matching that of the following sample is:
DNA23-146D1a	Swabs – trigger/trigger guard of a firearm	1 in >8,000,000,000,000 (8 trillion)

- (7) The following evidentiary samples each produced a mixed DNA profile consistent with being a mixture of two individuals, at least one of which is male. Due to the lack of conclusive loci, these profiles are not suitable for comparison purposes:

Sample	Description
DNA23-146E1a	Swabs – magazine release/safety of a firearm
DNA23-146F1a	Swabs – (pull) charger of a firearm
DNA23-146H1a	Swabs – bottom of magazine

- (8) The following evidentiary sample produced a mixed DNA profile consistent with two individuals, at least one of which is male. Andrew Edelmann can be included as a potential DNA contributor to this mixture. Aida Pabon can be excluded as a DNA contributor to this mixture:

Sample	Description	The probability of randomly selecting an unrelated individual that can be included as a contributor to the mixture is:
DNA23-146I1a	Swabs – twenty-nine (29) cartridges	1 in 7,616,000,000 (7 billion, 616 million)

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- (9) The following evidentiary sample produced a mixed DNA profile consistent with being a mixture of two individuals, at least one of which is male. The DNA profile of the major contributor to this mixture matches the known DNA profile of Andrew Edelmann. Due to the limited nature of the remaining profile, no conclusions can be made regarding the minor contributor to this mixture:

Sample	Description	The probability of randomly selecting an unrelated individual with a DNA profile matching that of the following sample is:
DNA23-146L1a	Swabs – edges of “fungi” chocolate box (front passenger floor)	1 in >8,000,000,000,000 (8 trillion)

- (10) The following evidentiary sample did not produce a DNA profile:



Sample	Description
DNA23-146G1a	Swabs – cartridge from a firearm

DISPOSITION OF EVIDENCE:

- (1) Unless otherwise noted, the items submitted in this case are ready to be returned.
- (2) Unless otherwise noted, the extracts in this case will be ready for pick up at the time of evidence return.
- (3) In accordance with the National DNA Index System (NDIS) “DNA Acceptance Standards,” DNA23-146 has no eligible DNA profiles to be uploaded into the Combined DNA Index System (CODIS).

Additional information on CODIS can be found at <https://forensics.delaware.gov/>

NOTE: Contact a DFS Forensic Evidence Specialist, at (302) 577-3420, within 30 days of receiving this report to make an appointment for return of evidence.

	May 2, 2023
Paul Gilbert (analyst) Senior Forensic DNA Analyst	Date
	May 2, 2023
Jamie Armstrong (reviewer) State CODIS Administrator	Date