

STATE OF SOUTH CAROLINA)

COUNTY OF ANDERSON)

State of South Carolina,)

vs.)

Rosmore Wayne Vilardi,)

Defendant.)

**IN THE COURT OF GENERAL SESSIONS
FOR THE TENTH JUDICIAL CIRCUIT**

**WARRANT NOS.: 2023A0410101937-940
INDICTMENT NOS: 2024-GS-04-0221AG,
-0222AG, -0223AG and -0224AG**

**MOTION TO EXCLUDE FOOTWEAR
IMPRESSION EVIDENCE**

The Defendant, Rosmore Vilardi, by and through the undersigned Counsel, moves the Court to exclude footwear impression evidence. Defendant Vilardi received discovery on Monday, February 16, 2026, reflecting emails between the prosecution and SLED on February 6 that new footwear testing needed to be done for the trial of this case. According to those emails, the initial expert in this matter who examined the footwear impression years ago is unavailable.

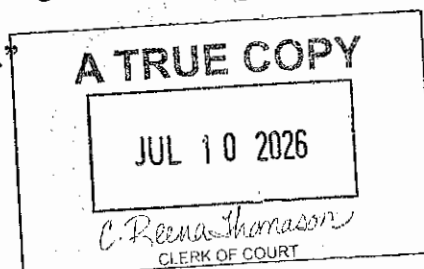
It appears Melinda Worley-Blackmon will be the expert at trial, and Defendant moves to exclude her (or any other expert's) testimony regarding footwear impressions.

RELEVANT FACTS

1. The crime scene and physical evidence

The Court is likely by now intimately familiar with the facts of this case. For efficiency and based on the number of filings in this matter, counsel has limited the facts of this motion to those relevant to the argument.

Between November 4 and 6, 2015, investigators from the Anderson County Sheriff's Office ("ACSO") processed the crime scene in this case. Investigator Blair Hill photographed the interior and was "looking for foot and shoe wear on the floor."



Impressions were documented at seven marker locations (Markers 1 through 7) along the hallway floor outside a bedroom. At Marker 6, investigators also documented blood drip stains overlapping a footwear impression. Importantly, no shoes belonging to any suspect were recovered from the crime scene or seized from any suspect in this case. The prosecution does not possess a “known” shoe to compare against the crime scene impressions. Instead, ACSO subsequently obtained *exemplar* shoes (two pairs of Asics Gel Speedstar 5 running shoes) for purposes of comparison. This distinction is central to this motion and the Court’s ultimate ruling.

2. The history of footwear analysis in this case.

The footwear impression evidence in this case has been the subject of approximately six separate examinations or reports by four different entities over a span of more than ten years. Each examination has been limited to class-level associations, and no examiner has been able to individualize any crime scene impression to a specific shoe. This history is relevant to the Court’s reliability analysis under Rule 702, SCRE.

a. Forensic ITC Services (July 2016)

On July 5–6, 2016, Dwane S. Hildebrand of Forensic ITC Services in Scottsdale, Arizona, received digital files from Officer Blair Hill via “Drop Box.” (Exhibit A) Hildebrand never examined the physical shoes or visited the crime scene. His task, as stated in his report, was to “[v]erify conclusions that the LCV crime scene footwear imprints could have been produced by the Asics Speedstar 5 outsole design.”

It is important to note that, according to the State, the way that law enforcement came up with the Asics Speedstar 5 outsole design is that Investigator Hill began looking at shoes online. He searched and searched all kinds of tennis shoes until seeing an Asics Speedstar 5 outsole design. Allegedly, it had nothing to do with seeing prior digital images of Mr. Vilardi in a pair of Asics.

Hildebrand concluded that the questioned imprints “correspond to the overall tread design” of the Asics Gel Speedstar 5 and “could have produced the questioned footwear imprints.” His invoice reflects a total charge of \$218.75. Hildebrand is now unavailable to testify.

b. FBI Laboratory, Quantico (August 2017).

On August 24, 2017, the FBI Laboratory issued a report in its Shoe Prints/Tire Treads discipline. Three digital images of footwear impressions (designated Pendleton1, Pendleton2, and Pendleton3) were submitted electronically by ACSO. (Exhibit B) The FBI’s conclusion was unequivocal: “The footwear impressions depicted in the Item 1 through Item 3 images *were not associated with a brand name and model of footwear* based on a search of the reference materials available in this laboratory.”

c. Three SLED BPA Reports (2016–2018).

Between December 2016 and September 2018, SLED issued three separate reports attempting to determine the temporal relationship between the blood drip stains and the footwear impressions at Marker 6.

S/A Jamie Johnson’s August 18, 2017 report concluded: “The deposition sequence in question cannot be conclusively determined.” Lt. Jeffrey A. Crooks’ September 27, 2018 report concluded: “Determination of the time frame between drip stain deposition and the creation of the footwear impression at Marker A was inconclusive.”

The prosecution’s inability to establish when the footwear impressions were made relative to the victims’ deaths is independently significant. The footwear evidence has been described within ACSO and the Solicitor’s Office as “a major consideration in moving forward with potential charges.”

d. SLED Footwear Examination Report (February 12–13, 2026)

On February 12–13, 2026, SLED's Latent Prints Department issued a new footwear examination report. The examiner compared crime scene photographs (Item 51) to two pairs of Asics Gel Speedstar 5 shoes: Item 36 (gold, men's size 11) and Item 50 (red, men's size 10), along with test impressions of each (Items 36.2 and 50.1). For every scene impression examined—Items 51.1 through 51.4, at Markers 3, 4, and 6—the examiner concluded that the impressions “correspond in outsole design” with both Item 36 and Item 50 left shoes. It is important to note these appear to be shoes that were purchased or obtained from a store, not shoes found in the evidence collection portion of this case.

Every finding was qualified with the same limitation: “Further examination cannot be conducted due to the quality.” The methodology was reported as ACE-V.

e. SLED Supplemental Footwear Examination—Law Enforcement Boots (February 13, 2026).

On February 13, SLED issued a supplemental report examining Item 52: Deputy J. Martin's “Belleville” tactical boots (size 13). Item 52 was described as having been “removed from Inv. B. Hill's working product.” The report concluded that at least one crime scene impression (Item 51.5, near Marker 3) “corresponds in combined class characteristics with Item 52 right shoe” and “could have been made by the Item 52 right shoe or another shoe that displays the same combined class characteristics.”

3. Designation of New Examiner.

The February 2026 SLED emails reveal the footwear evidence has now been assigned to Senior Special Agent Melinda A. Worley-Blackmon of the Latent Prints Department. Agent Worley-Blackmon was not previously identified as an examiner in this case. Her involvement appears to have been disclosed for the first time in discovery materials produced in February 2026.

According to her report, dated February 13, 2026, it is unclear what her conclusions are, and further testimony should be required to determine if this is proper expert testimony for a jury.

The defense has had no opportunity to speak with Agent Worley-Blackmon, to review her bench notes or examination worksheet, to assess her qualifications specific to this case, or to retain an expert to evaluate her methodology.

BASICS OF FOOTWEAR ANALYSIS

Footwear analysis is a method of feature comparison that typically involves an examination of a known object (a shoe) and a comparison between that known object and a complete or partial impression of a shoe print left at a crime scene.¹

“In a forensic footwear exam, the request made is to determine if a shoe was or was not the source of the impression,” and the analysis involves a “far more complex” process than “just a simple recognition of a shoe design.” Instead, it requires “a structured and methodical evaluation of many things related to the outsole design, the physical dimensions of that design, and the additional presence of any general wear and/or presence of any randomly acquired characteristics.”²

Footwear analysis, when done correctly, proceeds in a stepwise process of elimination, starting with the whole universe of footwear and progressing through increasingly individualized characteristics.³ The first step is to identify “class characteristics”—the general physical features

¹Executive Office of the President, President’s Council of Advisors on Science & Tech., Report to the President, Forensic Science in Criminal Courts: Ensuring Scientific Validity of Feature-Comparison Methods at 114 (Sept. 2016), available at <https://perma.cc/6BUL-Q8GM> (hereinafter “PCAST Report”) (last accessed February 19, 2026).

²William J. Bodziak, Forensic Footwear Evidence at 365 (2d ed. 2016).

³PCAST Report at 114.

of a shoe, such as its outsole design, physical size, and general wear.

The second major step is to identify “randomly acquired characteristics,” or RACs. RACs include “acquired cuts, scratches, tears, holes, and other void areas as well as stone holds, gum, tar, nails, or other debris embedded in the outsole.”⁴ This second step is the hallmark of footwear analysis. If an analyst cannot identify RACs, her analysis is significantly constrained, and she will be unable to offer a reliable opinion other than the observation about whether a pair of shoes shares class characteristics with the shoes that made the impression in question.

The identification of RACs requires the analyst to have access to the actual shoe that is suspected of having made the impression. RACs are, by definition, unique to a specific shoe, as they are features acquired randomly through use, and cannot be predicted or replicated by examining an exemplar shoe of the same make and model. Without a known shoe for comparison, an examiner is inherently limited to class-level observations. No amount of training, experience, or methodological rigor can overcome the fundamental limitation that class characteristics are shared by potentially thousands of shoes of the same make, model, and size.⁵

The accepted range of conclusions in footwear analysis, as published by the former Scientific Working Group for Shoeprint and Tire Tread Evidence (SWGTEAD), spans from “lacks sufficient detail” through “association of class characteristics” and “high degree of association” to “identification.” A conclusion of “association of class characteristics” means that there is correspondence in design and dimensions, but the analysis has not proceeded to the point of individualization. A conclusion of “identification,” meaning that correspondence of design, size,

⁴Bodziak, *Forensic Footwear Evidence* at 379.

⁵See *id.* at 366–67; see also PCAST Report at 114 (“the scientific basis for a high degree of confidence in pattern matching of this sort has not been established”).

wear, and RACs is sufficient to conclude that a specific shoe made the impression, is impossible without access to the actual shoe.⁶

ARGUMENT

1. Legal analysis for expert testimony.

This Court's gatekeeping function under Rule 702, SCRE, is "particularly important" where, as here, "the risk the jury might unknowingly or accidentally confuse" complicated scientific concepts and inadvertently accept the evidence based on confusion rather than its accuracy is significant. *State v. Phillips*, 430 S.C. 319, 334, 342 (2020).

To determine whether to admit expert testimony, a trial court must make three inquiries. First, it must determine whether the subject matter is beyond the ordinary knowledge of the jury and can be better explained by an expert witness. *Watson v. Ford Motor Co.*, 389 S.C. 434, 445 (2010); *Graves v. CAS Med. Sys., Inc.*, 401 S.C. 63, 74 (2012). Second, "the expert must have acquired the requisite knowledge and skill to qualify as an expert in the particular subject matter." *Id.* Third, the substance of the testimony must be reliable. Significantly, the familiar argument that a challenge to evidence goes to weight, not admissibility only applies after the trial court has vetted the matters of qualifications and reliability and admitted the evidence. *Gooding v. St. Francis Xavier Hosp.*, 326 S.C. 248, 252–53 (1997); *State v. White*, 382 S.C. 265, 274 (2009).

⁶See SWGTREAD, Range of Conclusions Standard for Footwear and Tire Impression Examinations (2013). SWGTREAD was the Scientific Working Group for Shoeprint and Tire Tread Evidence. It has been succeeded by the OSAC Footwear/Tire Subcommittee under NIST.
https://www.nist.gov/system/files/documents/2016/10/26/swgtread_10_range_of_conclusions_standard_for_footwear_and_tire_impression_examinations_201303.pdf
(last accessed February 19, 2026).

In determining reliability, the trial court must consider four factors: “(1) the publications and peer review of the technique; (2) prior application of the method to the type of evidence involved in the case; (3) the quality control procedures used to ensure reliability; and (4) the consistency of the method with recognized scientific laws and procedures.” *State v. Council*, 335 S.C. 1, 19 (1999).

2. The anticipated testimony is not necessary to assist the factfinder.

The State’s footwear examiner’s conclusion that the crime scene impressions “correspond in outsole design” with two exemplar pairs of Asics Gel Speedstar 5 shoes does not depend on any specialized expertise. It is a class-level observation that the tread pattern at the scene looks like the tread pattern on the exemplar shoes. This is exactly the kind of comparison a lay juror can make by examining photographs of the crime scene impressions and photographs of the shoe outsoles placed side by side.

The expert did not, and could not, identify any RACs, assess individualized wear patterns, or otherwise move beyond the most basic level of pattern recognition. The conclusions in this case do not describe any analysis that required scientific or technical expertise; they describe a visual comparison of general tread patterns. Where an expert’s opinion is based on personal observations rather than expert analysis, the expert should not be permitted to testify as an expert, even if she is qualified in the field. *State v. Douglas*, 380 S.C. 499, 502–03 (2009) (expert should not testify as expert when opinion is based on personal observations rather than expert analysis).

3. The anticipated testimony is not sufficiently reliable.

Even if this Court finds that the testimony could assist the fact finder, the testimony is unreliable under the *Council* factors for multiple independent reasons.

a. The absence of a known shoe renders individualization impossible.

The most fundamental problem with the State's footwear evidence is that no known shoe exists for comparison. The prosecution possesses only two exemplar pairs of Asics Gel Speedstar 5 shoes (Items 36 and 50), which were obtained by ACSO for purposes of comparison. They were not seized from any suspect or recovered from the crime scene. This means the examiner's analysis is inherently and permanently capped at the level of class characteristics.

The PCAST Report specifically identified this limitation, noting that class-characteristic-only comparisons have not been shown to have a scientifically valid basis for drawing conclusions about the source of an impression.⁷

b. The prosecution's own evidence demonstrates the limitation.

The February 2026 SLED report found that two different pairs of Asics Gel Speedstar 5 shoes (Item 36 (size 11) and Item 50 (size 10)) both "correspond in outsole design" with the same crime scene impressions. This is not surprising, because shoes of the same make and model share identical outsole designs because they are manufactured from the same molds. But it powerfully illustrates the point that if two different shoes in the prosecution's own possession both match, the examiner's testimony cannot reliably associate the impressions with any particular shoe.

c. The FBI could not even identify the brand.

The FBI Laboratory at Quantico maintains one of the largest footwear reference databases in the world. Despite that access, it searched its reference materials and concluded that the crime scene impressions "were not associated with a brand name and model of footwear." If the FBI, with its superior resources, could not match the impressions to any brand or model, the reliability of a subsequent state-level conclusion that the impressions "correspond" to a specific shoe model

⁷ PCAST Report at 114-15.

is seriously undermined.⁸ However, the state is asking the Court to believe that an investigator, who is unavailable, can match the impressions using a Google search.

d. The ITC examination was designed to confirm, not test.

The 2016 Forensic ITC Services report by Dwane Hilderbrand was, by its own terms, an exercise in verification bias. Hilderbrand's stated task was to "[v]erify conclusions that the LCV crime scene footwear imprints could have been produced by the Asics Speedstar 5 outsole design." He was not asked to independently determine what shoe made the impressions. Instead, he was asked to confirm a conclusion already reached by ACSO. He worked from digital images only and never examined the physical shoes or crime scene. He spent minimal time on this project, as evidenced by the bill of \$218.75 for his work.

e. Quality limitations pervade the evidence.

Every conclusion in the February 2026 SLED report is qualified with the statement that "[f]urther examination cannot be conducted due to the quality." This appears to be an acknowledgment that the crime scene impressions are of such limited quality that even the basic class-characteristic comparison is constrained. Under the SWGTREAD scale, the appropriate conclusion for impressions of this quality would be "limited association of class characteristics." This level of comparison provides essentially no probative value.

f. Law enforcement contamination of the scene.

The February 13, 2026, supplemental report confirms that a law enforcement officer's boots (Deputy J. Martin's Belleville tactical boots) left impressions near Markers 3 and 4, which are the same markers where the Asics impressions were found there is evidence in discovery that

other individuals entered into the crime scene. The boots were “removed from Inv. B. Hill’s working product,” suggesting they were in use at the crime scene. This raises serious questions about whether the scene was properly documented and protected from contamination, and whether other unidentified footwear impressions were introduced by investigators.

g. Institutional pressure and confirmation bias.

The discovery record reveals sustained institutional pressure from ACSO and SLED leadership to produce results supportive of the prosecution’s theory. Investigator Culbertson described the footwear evidence as central to “get[ting] the green light to move forward on an arrest.” SLED’s Chief Keel personally called the Anderson County Sheriff about the case. ACSO demanded an 8/30/17 deadline for the BPA report. Lt. Wallace directed S/A Johnson to “disregard swabs/DNA” and proceed with footwear analysis.

ACSO itself ordered a second pair of exemplar shoes “that were the same as the suspect shoes” an investigative decision that reveals the conclusion-driven nature of the analysis.

4. In the alternative, the anticipated testimony violates Rule 403, SCRE.

Even if this Court determines that the testimony satisfies Rule 702, it should be excluded under Rule 403 because its probative value is substantially outweighed by the danger of unfair prejudice and juror confusion. The risk is that the jury will hear testimony from a SLED forensic examiner using scientific-sounding methodology (“ACE-V”) and terminology (“corresponds in outsole design,” “combined class characteristics”) and accord the testimony far greater weight than it deserves.

In reality, the examiner’s conclusion tells the jury nothing more than this: the crime scene impressions were made by a shoe with a tread pattern similar to the Asics Gel Speedstar 5. The FBI, with its vastly superior resources, could not even narrow the impressions to that brand, let

alone to a specific shoe. The danger that the jury will treat this class-level observation as individualized forensic evidence connecting the defendant to the crime scene is substantial and unfair.

CONCLUSION

The State's footwear testimony should be excluded. Without a known shoe, the analysis is permanently limited to class characteristics which is a level of comparison that the NAS, PCAST, and the leading treatises have identified as scientifically insufficient for drawing reliable conclusions about the source of an impression. The FBI Laboratory itself could not associate these impressions with any brand or model. The prosecution's own evidence shows that two different shoes produce identical matches. And the examiner's report recently produced by a newly designated examiner, qualifies every conclusion with the acknowledgment that further analysis is impossible due to quality limitations.

In the alternative, if the Court finds that the testimony satisfies Rules 702 and 403, the defense respectfully requests that the testimony be limited. Specifically, the examiner should be prohibited from: (1) testifying that the crime scene impressions were made by, or are consistent with, the exemplar Asics Gel Speedstar 5 shoes, as distinguished from any other shoe sharing the same general outsole design; (2) using language that implies individualization or suggests a specific shoe made the impressions; and (3) offering any opinion beyond the bare observation that the crime scene impressions exhibit a tread pattern that is generally similar to the Asics Gel Speedstar 5 outsole design, while acknowledging that the FBI Laboratory was unable to associate the impressions with any specific brand or model.

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July 10, 2026

FITSNEWS

EXHIBIT A

UNCLASSIFIED



FBI Laboratory

2501 Investigation Parkway
Quantico, Virginia 22135

4940 Fowler Road
Redstone Arsenal, Alabama 35898

LABORATORY REPORT

To: Tracy A Call
Anderson County SC Sheriff's Office
305 Camson Road
Anderson, SC 29625

Date: August 24, 2017

Case ID No.: 95A-HQ-6760790

Lab No.: 2015-02664-2

Communication(s): November 9, 2015

Agency Reference(s):

Subject(s): Ross Vilardi; Amy Vilardi

Victim(s): Barbra Scott; Violet Taylor; Mike Scott; Cathey Scott

Discipline(s): Shoe Prints/Tire Treads

FBI Laboratory Evidence Designator(s):

- Item 1 Digital image depicting footwear impressions submitted electronically (Pendleton1)
- Item 2 Digital image depicting footwear impressions submitted electronically (Pendleton2)
- Item 3 Digital image depicting footwear impressions submitted electronically (Pendleton3)

This report contains the results of the footwear examinations.

Results of Examinations:

The footwear impressions depicted in the Item 1 through Item 3 images were not associated with a brand name and model of footwear based on a search of the reference materials available in this laboratory.

Remarks:

For questions about the content of this report, please contact Forensic Examiner Gilkerson, Eric at (703)632-7315.

The evidence is being retained.

UNCLASSIFIED

Vilardi 025778

UNCLASSIFIED

This report contains the opinions and interpretations of the issuing examiner(s) and is supported by records retained in the FBI files.

The work described in this report was conducted at the Quantico Laboratory.

A handwritten signature in black ink, appearing to read "Eric Gilkerson", with a long horizontal flourish extending to the right.

Gilkerson, Eric
Questioned Document Unit

FITSNEWS

EXHIBIT B

DEF EX001
STATE v VILARDI FOOTWEAR MOTION



Forensic ITC Services

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July 6, 2016

Officer Blair Hill
Anderson CO SO
305 Camsen Road
Anderson, SC 29625

RE: Footwear Examination
Anderson CO SO Case Number: 2015-20728
Forensic ITC Case Number: 16-0016

Officer Hill,

On July 5, 2016, I received via "Drop Box" attachment three (3) file folders from you. These file folders were visually examined and electronically copied.

Exhibit #1 Is a file folder labeled as "Asics Speedstar 5". This folder contains four (4) additional file folders, one (1) "jpg" digital image, and one (1) "pdf" file.

Exhibit #1-1 Is a file folder labeled as "Test impressions". This file folder contains one (1) file folder labeled as "Officer", two (2) "pdf" files labeled as Scan0011 and Scan0012, and eight (8) "jpg" digital images labeled as Scan0012, Scan0014, Scan0015, Scan0031, Scan0032, Scan0033, Scan0036, and Scan0037.

The file folder labeled as "Officer" contains two (2) "jpg" digital images labeled as Scan0034 and Scan0035.

Exhibit #1-2 Is a file folder labeled as "Test Speedstar 5 (M11) left". This folder contains 107 digital images of a shoe. The images are number DSC_2904 through DSC_3012 with DSC_2909 missing.

Exhibit #1-3 Is a file folder labeled as "Test Speedstar 5 (M10) left". This folder contains 57 digital images of a shoe. The images are number DSC_9007 through DSC_9018 and DSC_9078 through DSC_9122.

DEF EX002

STATE v VILARDI FOOTWEAR MOTION

Footwear Examination

Anderson CO SO Case Number: 2015-20728

Forensic ITC Case Number: 16-0016

- Exhibit #1-4** Is a file folder labeled as "Test Speedstar 5 (M10) right". This folder contains 56 digital images of a shoe. The images are number DSC_8951 through DSC_9006.
- Exhibit #1-5** Is a "jpg" digital images labeled as "asics-gel-speedstar-5-8(1)"
- Exhibit #1-6** Is a "pdf" file labeled as "Gel-Speedstar 5 (Anderson County Sheriff's Department 06 2016)".
- Exhibit #2** Is a file folder labeled as "Notes". This folder contains fourteen (14) "jpg" digital images labeled as Scan0017 through Scan0030.
- Exhibit #3** Is a file folder labeled as "Scene". This folder contains nineteen (19) "jpg" digital images labeled as DSC_2004, DSC_2005, DSC_2028, DSC_2030, DSC_2044, DSC_2071, DSC_2075, DSC_2077, DSC_2088, DSC_2100, DSC_2106, DSC_2129, DSC_2136, DSC_2137, DSC_2141, DSC_2143, DSC_2146, DSC_2149, and DSC_2181.

Examinations Requested:

Verify conclusions that the LCV crime scene footwear imprints could have been produced by the Asics Speedstar 5 outsole design.

Examinations Conducted:

The images submitted under Exhibit #1 (Asics-Speedstar 5) were examined and found to be those of an Asics Gel Speedstar 5. The images depicted under Exhibit #1 were compared to the questioned footwear imprints under Exhibit #3 (Scene).

It is the opinion of this examiner, that the questioned footwear imprints depicted under Exhibit #3 (Scene) corresponds to the overall tread design with the outsole design depicted on the Asics-Speedstar 5 submitted under Exhibit #1. The Asics Gel Speedstar 5 could have produced the questioned footwear imprints depicted within Exhibit #3.

Remarks:

All requested examinations have been completed. The electronically captured images will be retained by this office for any future comparisons you may desire.

DEF EX003
STATE v VILARDI FOOTWEAR MOTION

Footwear Examination
Anderson CO SO Case Number: 2015-20728
Forensic ITC Case Number: 16-0016

Should expert witness testimony be required in this case, please contact the offices of Forensic ITC Services as soon as possible in order for necessary travel arrangements to be made. Please refer to our case number 16-0016 when making inquiries. Subpoenas should be directed to "Dwane S. Hilderbrand".

Respectfully Submitted,



Dwane S. Hilderbrand, M.Ed
Certified Footwear Examiner
Certified Latent Print Examiner