STATE OF SOUTH CAROLINA COUNTY OF COLLETON	COURT OF GENERAL SESSIONS FOURTEENTH JUDICIAL CIRCUIT
State of South Carolina, v. Richard Alexander Murdaugh, Defendant.	Indictment Nos. 2022-GS-15-00592, -593, -594, and -595 **MOTION IN LIMINE TO PRECLUDE TESTIMONY ON A QUESTION OF LAW**

Defendant Richard Alexander Murdaugh, by and through undersigned counsel, hereby moves to preclude the State from offering evidence on how the Court of Common Pleas would or should have ruled upon a pending motion in a civil proceeding to which Mr. Murdaugh is a party. The State has argued in motion practice that Mr. Murdaugh murdered his wife Maggie and son Paul to gain a continuance of a motion to compel discovery in a civil case. According to the State, the motion would have been granted and would have revealed his alleged financial crimes. *See* State's Mot. Limine, Dec. 16, 2022; Reply Supp. State's Mot. Limine, Dec. 28, 2022. The State's argument merely illustrates the prosecution's lack of experience in civil discovery. Personal injury plaintiff's lawyers routinely make intrusive requests for defendants' financial information. Courts routinely follow the law and refuse to compel production of financial information until (and unless) a prima facie case is made for punitive damages, and even then, courts only compel production of a net worth statement, not a complete asset listing. Few people knew this as well as Alex Murdaugh. And this is exactly what happened with the motion to compel financial information from Parker's Corporation in the same civil case—it was denied.

I. Background

On February 23, 2019, Mr. Murdaugh's son Paul allegedly consumed alcoholic beverages purchased using his older brother Buster's driver's license while out with a group of friends. At that time Paul was about six weeks shy of his 20th birthday. Later that night, the group of friends

were operating a boat when it crashed into a bridge piling. Mallory Beach was thrown from the boat and killed.

Only one week later, on March 20, 2019, Mark Tinsley, Esq., filed a hastily drafted dram shop complaint on behalf of Ms. Beach's estate against nine defendants: Parker's Corporation (a gas station where Paul allegedly purchased beer with Buster's driver's license), Luther's Rare and Well Done, LLC (a restaurant that allegedly served alcoholic beverages to the group of friends), Kristy Wood and James Wood (who allegedly allowed the group of friends to consume alcohol at their home) Mr. Murdaugh (who allegedly was negligent in supervising his adult sons), Mr. Murdaugh's son Buster (who allegedly allowed Paul to use his driver's license), Mr. Murdaugh's father Randolph (who allegedly allowed the group of friends to consume alcohol on property he owned through a real estate trust), and the real estate trust owned by Mr. Murdaugh's father. Mr. Tinsley did not allege Paul was operating the boat. The allegations against Mr. Murdaugh were only that he was negligent:

> u. In knowingly and willfully allowing his minor son, under the age of twenty-one (21), to use Richard Alexander Murdaugh, Jr.'s drivers license to purchase and consume alcohol;
>
> v. In failing to supervise his son when he knew or should have known that the minor was using another's license to purchase and consume alcohol; and
>
> w. In such other and further particulars as the evidence in trial may show;

Complaint ¶ 32, *Beach v. Gregory M. Parker, Inc.*, Case No. 2019-CP-25-00111 (Hampton Cty. Ct. Com. Pl. Mar. 20, 2019). Of course, although Paul was at the time of the boat crash below the minimum age to purchase alcoholic beverages, he was 19 years old—almost 20 years old—and not a "minor." *E.g.*, S.C. Code §§ 16-15-375(3), 63-19-20(1), 63-7-20(5). The only allegations against Mr. Murdaugh were that he was negligent in allowing his adult son Paul use the license of

his adult son Buster to purchase beer at a gas station, and in failing to supervise his adult son.[1] Of course, parents do not have a general duty to "supervise" their adult offspring. Adults are responsible for their own actions.

During the *Beach* litigation Mr. Tinsley served discovery requests for, *inter alia*, financial information regarding Parker's Corporation and Mr. Murdaugh. When those requests were not answered to Mr. Tinsley's satisfaction, he moved the Court to compel production. On January 21, 2020, Mr. Tinsley moved to compel, *inter alia*, "information indicating the percentage of gross and net resulting from the sale of alcoholic beverages and the total gross sales and net sales for the business on an annual basis for each of the proceeding three years" (his Request for Production No. 17) and "for Parker's the amount of alcohol sales by month for each of the past five (5) years for this store and companywide" (his Interrogatory No. 8). On October 16, 2020, Mr. Tinsley moved to compel an ocean of financial information from Mr. Murdaugh, including lists of every asset he had (including retirement accounts that by statute cannot be seized to satisfy a judgment), every transaction he had engaged in during the past year-and-a-half, copies of his tax returns going back several years, his loan applications going back several years, and identities of his banks and accountants.

The Court never ruled on the motion before the murders of Maggie and Paul, which brought a level of scrutiny to Mr. Murdaugh's finances that swiftly led to the appointment of a receivership on November 4, 2021, and multiple indictments later that month. But on October 7, 2021, the Court ruled on the motion to compel Parker's Corporation, ruling with regard to RFP 17, "Parkers is not required to produce the requested information," and with regard to Interrog 8, "Plaintiff is

[1] On the last day of the statute of limitations and over eight months after Maggie and Paul were murdered, Mr. Tinsley amended the complaint to allege Paul was operating the boat and to add a negligent entrustment claim against Mr. Murdaugh regarding the boat.

not entitled to this information at this point in the litigation." Order, *Beach*, Case No. 2019-CP-25-00111, Oct. 7, 2021. Although the store that sold the alcohol was not required to disclose financial information about its alcohol sales, according to the State Mr. Murdaugh for some reason would be required to give a list of every asset he ever had, even assets immune from execution, because he somehow was negligent in supervising his adult sons' social activities.

II. Legal Standard

Generally, a motion in limine seeks a pretrial evidentiary ruling to prevent the disclosure of potentially prejudicial matter to the jury. *State v. Smith*, 337 S.C. 27, 32, 522 S.E.2d 598, 600 (1999). The State has intimated that it will call Mr. Tinsley to testify as to how Judge Hall would rule on the motion to compel. Presumably he would testify as an expert witness since he has no direct knowledge of how Judge Hall would rule on a motion. (Even if Judge Hall had told Mr. Tinsley his intentions *ex parte*, which, of course, he did not, that would be inadmissible hearsay from a fact witness.) A jury is properly presented with relevant, opinion testimony from an expert when such testimony "will assist the trier of fact to understand the evidence or to determine a fact in issue." Rule 702, SCE. This determination is a prerequisite to the admission of opinion testimony under Rule 702. *See State v. Council*, 335 S.C. 1, 20, 515 S.E.2d 508, 518 (1999).

III. Argument

A. The law does not allow a civil plaintiff to obtain prejudgment discovery of a defendant's finances before a prima facie showing of an entitlement to punitive damages.

"Defendant cites to two cases as though they support his assertion that there are limitations to prejudgment discovery into a tort defendant's financial situation, but neither case even remotely implies such a proposition." State's Reply Supp. Mot. Limine 11. That can only be read to mean that the prosecution sincerely believes there are no limitations to prejudgment discovery into a tort defendant's financial situation. As explained below—and as every lawyer who actually practices

civil litigation knows—that belief is incorrect. Given the publicity surrounding this case, the ruling the prosecution seeks—that there are no limits to prejudgment discovery into a tort defendant's finances—would have profoundly disruptive consequences for tort litigation in South Carolina.

"Parties may obtain discovery regarding any matter, not privileged, which is relevant to the subject matter involved in the pending action, whether it relates to the claim or defense of the party seeking discovery or to the claim or defense of any other party . . . ." Rule 26(b)(1), SCRCP. A listing of a party's personal assets generally is not relevant to a claim that the party committed a tort. In the *Beach* case, whether Mr. Murdaugh negligently failed to supervise his adult son Paul when Paul went to a convenience store obviously has nothing to do with the identity of Mr. Murdaugh's bank accounts. But punitive damages were sought, and "the wealth of a defendant is a relevant factor in assessing punitive damages." *Branham v. Ford Motor Co.*, 390 S.C. 203, 239, 701 S.E.2d 5, 24 (2010). However, "a party is not obligated to produce evidence of its financial status 'unless and until [the party requesting the information] establishes a prima facie case that he is entitled to punitive damages.'" *Santandreu v. Colonial Mgmt. Grp., LP*, No. CV 3:16-3042-TLW, 2018 WL 11462187, at *9 (D.S.C. May 25, 2018) (quoting *Holcombe v. Helena Chem. Co.*, No. 2:15-cv-2852-PMD, 2017 WL 713920, at *1 (D.S.C. Feb. 23, 2017)); *see also Nix v. Holbrook*, No. 5:13-cv-2173-JMC, 2015 WL 791213, at *3 (D.S.C. Feb. 25, 2015) (declining to compel production of defendant's financial records until after plaintiff established the factual viability of his claim for punitive damages). Generally, a prima facie showing has been made "if the plaintiff's punitive damages claim survives summary judgment." *Santandreu*, 2018 WL 11462187, at *9.

As a matter of law, Mr. Tinsley could not make a prima facie showing in support of punitive damages under the allegations of the complaint operative on June 7, 2021. Mr. Tinsley's allegations against Mr. Murdaugh on June 7, 2021, failed to state any cognizable claim against Mr.

Murdaugh. Even if they had been earlier amended to state a claim, a pleading is always an insufficient basis for financial discovery. A prima facie showing in support of punitive damages requires a least a scintilla of evidence regarding the scienter necessary for punitive damages, which is why a plaintiff's claim for punitive damages must survive summary judgment before the plaintiff is entitled to financial discovery in support. *See id.* at *10 (denying motion to compel financial information where the defendant "has not yet challenged [plaintiff's] claim for punitive damages in a motion for summary judgment," noting "[n]o cases are cited where a motion to compel discovery of financial information relevant to punitive damages was granted prior to the summary judgment stage" and "discovery as to punitive damages has not yet been completed.").

Even when a prima facie showing for punitive damages is made, the only financial discovery that must be provided is a net worth statement:

> This Court has approved the use of a defendant's net worth as a proper guide in assessing the "ability to pay" factor.
>
> . . .
>
> Because the United States Supreme Court has discovered that a state court's punitive damages award implicates federal substantive due process, this Court is not the final arbiter of determining what financial evidence is proper in assessing punitive damages. Evidence concerning net worth appears the safest harbor. *Honda Motor* speaks directly to "net worth." 512 U.S. at 432, 114 S.Ct. 2331. Consideration of a defendant's net worth is well-rooted in the common law of punitive damages. *State Farm v. Campbell*'s cautionary observation that "reference to [the defendant's] assets ... ha[s] little to do with the actual harm sustained by the [plaintiff]" militates against venturing beyond net worth and extrapolations from net worth. *State Farm*, 538 U.S. at 427, 123 S.Ct. 1513. The retrial shall be confined to such evidence.

Branham, 390 S.C. at 239–40, 701 S.E.2d at 24–25. There would never be a basis to compel the complete asset listing Mr. Tinsley requested before trial. Such information can only be sought in supplemental proceedings to enforce a judgment. *See S.C. Code* § 15-39-310; *Johnson v. Serv. Mgmt., Inc.*, 319 S.C. 165, 167, 459 S.E.2d 900, 902 (Ct. App. 1995), *aff'd*, 324 S.C. 198, 478

S.E.2d 63 (1996) ("If a judgment is unsatisfied, the judgment creditor may institute supplementary proceedings to discover assets.").

Because the law does not allow prejudgment discovery into a tort defendant's financial situation before a prima facie showing is made for punitive damages, Judge Hall denied a motion to compel financial information from Beach defendant Parker's Corporation on October 7, 2021, the Court ruled on the motion to compel Parker's Corporation to produce financial information, ruling "Plaintiff is not entitled to this information at this point in the litigation." Order, *Beach*, Case No. 2019-CP-25-00111, Oct. 7, 2021. The ruling as to Mr. Murdaugh obviously would have been the same.

B. The Court must assume the Court of Common Pleas would follow the law when deciding any motion.

Judge Hall is required to apply the law when ruling on any motion before him. Canon 2(A), CJC, Rule 501, SCACR ("A judge shall respect and comply with the law.") This Court cannot allow the State to argue another circuit judge would fail to "respect and comply with the law" in a still-pending matter involving the same defendant just because doing so might advance its theory of the case at bar. *See* Canon 1, CJC, Rule 501, SCACR ("A judge shall uphold the integrity and independence of the judiciary.") This would be true in any civil case but it is especially true in a criminal case, where the State itself is a party and the independence of the judiciary therefore is impugned by having the Executive Branch tell a jury how a court should have ruled in a still-pending case.

The State's argument is offensive to the judiciary. The State argues,

> Evidence to be introduced at trial will show that the movant in the motion to compel, represented by Mark Tinsley, would not have settled for a mere tax return and cocktail napkin scribbling of Defendant's balances, as Tinsley was concerned that Defendant was hiding assets after Defendant's civil counsel told him in September 2020 that Defendant was broke and could not pay the settlement demanded. (Witness G 3/9/22 SGJ Testimony pp. 155-61; Exhibit 5).

Judge Hall would order production of whatever information the law requires to be produced. What a party's counsel "would not have settled for" is totally irrelevant. For the State to argue that notwithstanding the law, Judge Hall would order production of financial records irrelevant to the tort case before him merely because Mr. Tinsley "would not have settled for" anything less is offensive to the dignity of the judiciary and an attack on Judge Hall's integrity. The State further argues Judge Hall was expected "to grant Tinsley's request . . . also because the presiding judge in the civil matter had fairly attended to the case." It is unclear what idiosyncratic quality the State believes Judge Hall has that would have motivated him to rule any differently than any other circuit judge. All circuit judges "fairly attend" to the cases before them.

Finally, in support of its request to be permitted to tell the jury how a judge should have ruled in a pending case, the State also offers yet another insult to the judiciary: "An objection on relevance grounds can limit only the most excessive discovery request, and even where limits exist, trial courts are generally unwilling to recognize and enforce them." Reply Supp. Mot. Limine 9. Here the State openly asserts Judge Hall would be "unwilling to recognize and enforce" limits the law puts on the scope of discovery in a civil case. Lawyers have been suspended from practice for making assertions like this. *E.g.*, *In re Wilkins*, 777 N.E.2d 714, 716 (Ind. 2002), *judgment modified on reh'g*, 782 N.E.2d 985 (Ind. 2003) (suspending appellate lawyer for arguing in a brief that an appeals court ruled on a basis other than its own sincere view of the requirements of the law). For "authority," the state uses selective quotations to misrepresent by omission the Supreme Court's opinion in *Oncology and Hematology Associates of South Carolina, LLC.* 387 S.C. 380, 692 S.E.2d 920 (2010). In that case, the Supreme Court said,

> CCC contends the information and documents required under the discovery orders are not remotely relevant to resolution of the issue before the ALC. We agree.

We are keenly aware that the scope of discovery is broad. Rule 26(b)(1), SCRCP, provides:

> Parties may obtain discovery regarding any matter, not privileged, which is relevant to the subject matter involved in the pending action ... [and][i]t is not ground for objection that the information sought will be inadmissible at the trial if the information sought appears reasonably calculated to lead to the discovery of admissible evidence.

Yet, there are limits, which we see trial courts generally unwilling to recognize and enforce. SRHS's discovery requests of CCC and its business partners are abusive and beyond the pale.

Our willingness to review a discovery order by way of a writ of certiorari will be as rare as the proverbial "hen's tooth." We have no desire to micromanage discovery orders. *It is our hope that in resolving this matter, we will speak to trial courts generally.* While discovery serves as an important tool in the truth-seeking function of our legal system, we are concerned that "discovery practice" has become a cottage industry and the merits of a claim are being relegated to a secondary status.

Id. at 387–88, 692 S.E.2d at 924 (emphasis added). Clearly, the Supreme Court was chastising trial courts for failing to enforce limits to discovery. It is extraordinary that the prosecution would choose to misquote that decision as authority for the proposition that trial courts are expected to ignore the law when it comes to discovery requests.

C. The Court instructs the jury on the law.

The facts—i.e., the submissions to Judge Hall in support of the requested relief—are undisputed. Even the parties submitting those facts did not dispute them—Mr. Tinsley did request financial information which Mr. Murdaugh's insurance-company-appointed lawyers did refuse to provide because they knew the law did not allow Mr. Tinsley to demand financial information.[2]

[2] The lawyers were the late John Tiller, a highly respected lawyer named South Carolina Litigator of the Year in 2012 by Benchmark Litigation, awarded the "Worthy Adversary Award" in 2016 by the South Carolina Association for Justice, and recognized with the "Gold Compleat Lawyer Award" in 2018 by the University of South Carolina School of Law Alumni Council, and Amy Bower, now an Assistant United States Attorney, both then at Haynesworth Sinkler Boyd, the third-largest law firm in South Carolina.

How Judge Hall would have applied the law to undisputed facts is a question of law for the Court. To allow the State instead to present evidence to the jury about how another circuit judge would rule on a motion in a civil case still pending against Mr. Murdaugh would be unprecedented.

D. The State cannot bootstrap an argument about how the Court of Common Pleas would have ruled on a pending motion into an argument about Mr. Murdaugh's "state of mind" regarding how it would have ruled.

To the extent the State wants to argue that Mr. Murdaugh though the motion to compel would be granted, and that the consequences would go beyond a net worth statement, what he thought could only be known by Mr. Murdaugh or his counsel. The State of course cannot call them to testify. Instead, the State proposes to call opposing counsel to testify about what Mr. Murdaugh thought should happen in a civil case that is still pending against Mr. Murdaugh. This is, once again, absurd. The State does not believe Mr. Tinsley has any factual knowledge of Mr. Murdaugh's state of mind. Certainly, he does not have any percipient knowledge that Mr. Murdaugh—former president of the South Carolina Association of Justice, the main association of plaintiff's lawyers in South Carolina—was unaware of a basic principle of discovery in tort litigation well known to every plaintiff's lawyer. This is not what the State wants Mr. Tinsley to testify about. The State wants Mr. Tinsley to testify as an expert about how Judge Hall would have ruled on a pending motion, to persuade the jury that Mr. Murdaugh was afraid of the ruling that was going to happen that he murdered his family to get the motion continued.

This testimony is inadmissible. It fails Rule 702 because it does not assist the trier of fact because the issue presented is a question of law, not fact. Mr. Tinsley doubtlessly would testify that Judge Hall would grant any motion he decided to make. That puffery would confuse the jury by having a lawyer testify about what the law is, rather than being instructed on the law by the presiding judge, and its nonexistent probative value would be entirely outweighed by the unfair prejudice to Mr. Murdaugh.

IV. Conclusion

For the foregoing reasons, the Court should preclude the State from offering evidence on how the Court of Common Pleas would or should have ruled upon a pending motion in any civil proceeding to which Mr. Murdaugh is or was a party.

Respectfully submitted,

By: _____

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January 24, 2023
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STATE OF SOUTH CAROLINA COUNTY OF COLLETON	)))	IN THE COURT OF GENERAL SESSIONS FOURTEENTH JUDICIAL CIRCUIT
The State of South Carolina, Plaintiffs, vs. Richard Alexander Murdaugh, Defendant.		Indictment Nos. 2022GS1500592 – 00595 **CERTIFICATE OF SERVICE**

I, Holli Miller, paralegal to the attorney for the Defendant, Richard A. Harpootlian, P.A., with offices located at 1410 Laurel Street, Columbia, South Carolina 29201, hereby certify that on January 24, 2023 did serve by hand delivering the following documents to the below mentioned person:

Document: Motion in Limine to Preclude Testimony on a Question of Law

Served: Creighton Waters, Esquire
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Holli Miller

STATE OF SOUTH CAROLINA COUNTY OF COLLETON	IN THE COURT OF GENERAL SESSIONS FOURTEENTH JUDICIAL CIRCUIT
The State of South Carolina, vs. Richard Alexander "Alex" Murdaugh, Defendant.	Indictment Nos. 2022-GS-15-00592 2022-GS-15-00593 2022-GS-15-00594 2022-GD-15-00595 **MOTION IN LIMINE TO PRECLUDE OPINION TESTIMONY FROM TOM BEVEL REGARDING ALLEGED BLOOD SPATTER STAINS, OR ALTERNATIVELY, FOR A *COUNCIL* HEARING**

Richard Alexander Murdaugh ("Murdaugh"), by and through undersigned counsel, moves the Court to preclude the State from introducing expert opinion testimony from Tom Bevel ("Bevel") asserting that Murdaugh's t-shirt seized from him by SLED on the night of the murders has high velocity blood spatter stains indicating that Murdaugh was in close proximity to Paul and/or Maggie at the moment they were shot. Bevel's blood spatter opinion testimony must be excluded under *State v. Council*, 335 S.C. 1, 19, 515 S.E.2d 508, 517 (1999) and its progeny because Bevel's methodology in reaching his conclusions, and the substance of those conclusions are not reliable. Moreover, Bevel's blood spatter opinion testimony directly contradicts the State's scientific forensic serology and DNA testing which failed to detect human blood anywhere on Murdaugh's shirt and failed to detect Paul's DNA. Accordingly, his opinion testimony does not aid the trier of fact to understand the evidence or to determine a fact in issue and is properly excluded. Furthermore, any probative value such evidence or testimony may have – which Murdaugh denies – is substantially outweighed by the danger of unfair prejudice, confusion of the issues and misleading the jury and must be excluded under South Carolina Rule of Evidence 403.

Murdaugh hereby incorporates the arguments and exhibits in his Motion to Compel and Motion for Sanctions that are on file in the Court record in support of this motion in limine. These previously filed motions establish that Bevel's blood spatter opinion testimony is unreliable and must be precluded. To the extent the Court concludes the existing record is insufficient to make such a ruling, Murdaugh requests a *Council* evidentiary hearing to be conducted outside the presence of the jury prior to the State offering Bevel's blood spatter opinion testimony. See, *State v. Phillips*, 430 S.C. 319, 341, 844 S.E.2d 651, 662 (2020) ("The trial court should have [conducted an evidentiary hearing prior to the expert testifying and] required the State to present the factual and scientific information necessary to establish the foundation required by Rule 702. The trial court also should have conducted an on-the-record balancing of probative value and the danger of confusion of the issues and misleading the jury required by Rule 403.")

Respectfully submitted,

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January 22, 2023
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STATE OF SOUTH CAROLINA	)	IN THE COURT OF GENERAL SESSIONS
	)	FOURTEENTH JUDICIAL CIRCUIT
COUNTY OF COLLETON	)	

The State of South Carolina,

Plaintiffs,

vs.

Richard Alexander Murdaugh,

Defendant.

Indictment Nos. 2022GS1500592 – 00595

CERTIFICATE OF SERVICE

I, Holli Miller, paralegal to the attorney for the Defendant, Richard A. Harpootlian, P.A., with offices located at 1410 Laurel Street, Columbia, South Carolina 29201, hereby certify that on January 23, 2023 did serve by hand delivering the following documents to the below mentioned person:

Document: Motion in Limine to Preclude Opinion Testimony from Tom Bevel Regarding Alleged Blood Spatter Stains, or Alternatively, for a *Council* Hearing

Served: Creighton Waters, Esquire
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STATE OF SOUTH CAROLINA COUNTY OF COLLETON	IN THE COURT OF GENERAL SESSIONS FOURTEENTH JUDICIAL CIRCUIT
The State of South Carolina, vs. Richard Alexander "Alex" Murdaugh, Defendant.	Indictment Nos. 2022-GS-15-00592 2022-GS-15-00593 2022-GS-15-00594 2022-GD-15-00595 **MOTION IN LIMINE TO EXCLUDE BLOOD SPATTER TESTIMONY OF DEPUTY KENNETH LEE KINSEY**

Richard Alexander Murdaugh ("Murdaugh"), by and through undersigned counsel, moves the Court to preclude the State from offering any testimony of Deputy Kenneth Lee Kinsey regarding blood spatter on a white T-shirt Murdaugh was wearing the night his wife and son were murdered, because Deputy Kinsey states that "[a]fter consideration of [Tom Bevel's] opinion, analysis reports, and follow-up experimentation [by Tom Bevel], this expert cannot render an opinion on" whether "the blood stains on Alex's white t-shirt [are] consistent with back spatter from a gunshot." Without an opinion on whether the stains are "blood stains" or whether the stains are "consistent with back spatter from a gunshot," any expert opinion testimony he would offer regarding the stains would not assist the trier of fact; and therefore, such expert opinion should be excluded because it will unfairly confuse and mislead the jury. *See* Rules 403 & 702, SCRE; *see State v. Council*, 335 S.C. 1, 20, 515 S.E.2d 508, 518 (1999). This is especially true because SLED's HemaTrace testing results confirmed the stains ***are not*** human blood. Accordingly, Deputy Kinsey's testimony should be precluded because it is not relevant, fails to assist the trier of fact, and will only result in confusion of the pertinent issues being presented to the jury.

FACTS & PROCEDURAL HISTORY

On the night of the murders of Maggie and Paul Murdaugh, SLED collected the white cotton T-shirt Mr. Murdaugh was wearing when he discovered Maggie and Paul's bloody bodies. The murder scene was gruesome; there was a large amount of blood on and around their bodies which transferred onto Mr. Murdaugh's hands and clothing when he frantically checked them for signs of life. As part of its examination of the T-shirt, SLED tested cuttings taken from the front, upper two-thirds of the t-shirt (which the State claims are spatter) for the presence of DNA (ex: skin cells, tissue, organs, muscle, brain cells, bone, teeth, hair, saliva, mucus, perspiration, fingernails, etc.). The DNA test is highly sensitive and can detect "trace" DNA amounts as low as one nanogram or less, which can be transferred between persons through casual touch or even merely by being in close proximity. The cuttings generally tested positive for Maggie's DNA with Paul either excluded or not considered because of his relatedness to the other contributors. None tested positive for Paul's DNA. Two weeks later, the cuttings were then tested by SLED for hemoglobin – a test specifically tailored to identify the presence of human blood. ***Every cutting tested negative for human blood***. Given that the stains are not human blood, there is no reason to believe the positive DNA tests are related to the stains at all.

Despite these test results, the State's expert Mr. Bevel inexplicably continues to maintain the stains contained in the cuttings from the upper two-thirds of the t-shirt are blood spatter. *See* Expert Report and Suppl. Report (attempting to disprove the HemaTrace testing conducted by a scientist in SLED'S state-of-the-art forensic laboratory with results he obtained from testing performed by himself, at home, and which contradicts multiple peer-reviewed, published academic articles), attached hereto as **Exhibits A & B**, respectively. Anticipating a challenge to the admissibility of Mr. Bevel's blood spatter opinion, the State provided the defense with Deputy

Kenneth Lee Kinsey's expert report on January 13, 2022 – approximately one week before trial. The report, which was issued January 9, 2023 (just weeks after the defense pointed out the glaring deficiencies in the State and Bevel's compliance with the requisite Rule 5 disclosures), expressly relies on – and essentially parrots – Mr. Bevel's report. *See* Kinsey Report, attached hereto as **Exhibit C**. [1]

Deputy Kinsey's report is organized around the same 12 "investigative questions" Mr. Bevel used in his report and essentially paraphrases Mr. Bevel's opinions on those questions with one notable exception regarding blood spatter. In response to "IQ-4: Are the blood stains on Alex's white t-shirt consistent with back spatter from a gunshot," Deputy Kinsey repeats Mr. Bevel's phrase about "100 plus" stains, then opines, "the smaller stains that are present after treatment with LCV appear to be high velocity impact stains . . . only caused by a gunshot or high speed machinery." He then pivots 180-degrees to conclude: "***After consideration of the original opinion, analysis reports, and follow-up experimentation, this expert cannot render an opinion on IQ-4 above.***" *Id.* at 6.

[1] To the extent Deputy Kinsey might say his report is an independent review of evidence independent of Mr. Bevel's report, no required disclosures have been made. Mr. Murdaugh made a Rule 5 request on July 15, 2022, which requires the State to produce to Mr. Murdaugh all "books, papers, documents, photographs, tangible objects, buildings or places, or copies or portions thereof, which are within the possession, custody or control of the prosecution, and which are material to the preparation of his defense." Rule 5(a)(1)(C), SCRCrimP. The State has produced no draft reports, communications, notes, or analyses by, to, or regarding Deputy Kinsey. Deputy Kinsey's report was even produced as a scan of printed hard copy so it would not even have metadata. Not one email to or from Deputy Kinsey has been produced. Such documents are encompassed by the Rule 5 request, and the State's failure to comply with Rule 5 warrants their exclusion.

In conjunction with its motion to exclude Mr. Bevel from providing opinion testimony regarding blood spatter, the defense files the present motion to preclude Deputy Kinsey from presenting the same.

ARGUMENT

Given the absence of an opinion from Deputy Kinsey that the stains he examined are human blood, any expert opinion testimony he has regarding whether the stains are high velocity impact spatter only caused by a gunshot or high speed machinery should be precluded because it is not relevant, fails to assist the trier of fact, and will only result in confusion of the pertinent issues being presented to the jury.

A jury is properly presented with relevant, opinion testimony from an expert when such testimony "will assist the trier of fact to understand the evidence or to determine a fact in issue." Rule 702, SCE. This determination is a prerequisite to the admission of opinion testimony under Rule 702. *See State v. Council*, 335 S.C. 1, 20, 515 S.E.2d 508, 518 (1999). Furthermore, evidence deemed admissible under Rule 702, must also pass muster under Rule 403 prior to its presentation to a jury. When the probative value of expert opinion testimony is substantially outweighed by its potential for unfair prejudice, confusion of the issues, or misleading the jury, it should be excluded. Rule 403, SCRE; *see also Council*, 335 S.C. at 1, 515 S.E.2d at 517 (citing *State v. Ford*, 301 S.C. 485, 490, 392 S.E.2d 781, 784 (S.C. 1990)).

Essential to the analysis before the Court in rendering its decision on the present motion is the fact that Deputy Kinsey does not opine that the stains presented to him by the State for blood spatter analysis ***are in fact human blood.*** Thus, his opinion that "the smaller stains that are present after treatment with LCV appear to be high velocity impact stains . . . only caused by a gunshot or high speed machinery" is irrelevant and cannot be based upon a reasonable degree of certainty

when the stains on which he is opining have tested negative for human blood. It is immaterial that the T-shirt stains appear in a pattern consistent with high-velocity impact blood spatter when there is no opinion the stains are in fact human blood.

Not only is Deputy Kinsey's testimony irrelevant; it does not assist the trier of fact in understanding the pertinent issues in this case and is therefore inadmissible under Rule 702, SCRE. The State seeks to present expert opinion testimony regarding blood spatter from Deputy Kinsey to support its crime scene reconstruction. It is essential to the State's theory that the cuttings from the upper part of the T-shirt have blood spatter. Recognizing Mr. Bevel's testimony may be excluded for the litany of reasons set forth in defendant's motion for sanctions and his motion in limine regarding Mr. Bevel's testimony, the State is attempting to back door in Mr. Bevel's blood spatter testimony through Deputy Kinsey. While it is true Deputy Kinsey ultimately concludes he cannot render an opinion on whether "the blood stains on Alex's white t-shirt [are] consistent with back spatter from a gunshot," his report contains opinions that are necessarily misleading in light of the absence of an opinion by him that the stains are in fact human blood. For example, he opines that some of the stains "appear to be high velocity impact stains...[and] based on [his] experience are only caused by a gunshot or high speed machinery." He then explains that "high speed machinery" as used in his opinion is "any mechanism with enough disruptive force to distribute and project blood over 100fps." *Id.* at 6. Such information does not assist the trier of fact in its determination of Mr. Murdaugh's innocence or guilt when Deputy Kinsey does not ultimately opine the pattern is blood spatter, much less that the underlying stains are human blood.

Deputy Kinsey's testimony would not assist the trier of fact; instead, it would mislead and confuse the jury and therefore it is properly excluded under Rule 403, SCRE. It is misleading and confusing to present the jury with blood spatter opinion testimony tied to Deputy Kinsey's

experience when Deputy Kinsey is not opining the stains are human blood. This is especially true when the jury will be presented with evidence the stains tested negative for human blood *in testing done by SLED*. SLED treated the T-shirt with LCV because no blood was visible on it. SLED does not know what caused the resulting oxidation pattern. Blood catalyzes the oxidation of LCV, which is why LCV is a *presumptive* test for blood—i.e., a test identifying something that might be blood. But the oxidation could be from detergent residue. Or it could even be old fish guts (Murdaugh sometimes wore the T-shirt when fishing). That is why SLED performed HemaTrace tests to determine whether the LCV oxidation pattern was caused by the presence of human blood. HemaTrace is a highly sensitive immunochromatographic test specific to human blood—a *confirmatory* test that definitively says something is or is not human blood. This is why SLED's "DNA Casework Operations Manual" says that when a presumptive test is positive, but HemaTrace is negative, the report should simply state "no human blood identified."

When Murdaugh's T-shirt was tested with HemaTrace, the results were negative for human blood not once, not twice, not thrice, not four times, not five times, not six times, not seven times, not eight times, not nine times, not ten times, not eleven times, but twelve times—zero-for-twelve. Accordingly, Mr. Murdaugh requests the Court preclude the State from presenting expert opinion testimony from Deputy Kinsey related to whether the pattern of staining on Mr. Murdaugh's T-shirt is consistent with blood spatter caused by the gunshots that killed Maggie and Paul.

Finally, to the extent that Deputy Kinsey bases his opinions on the Photoshop enhancements performed by Mr. Bevel, presenting those opinions at trial would be prohibited under the Confrontation Clause. The Sixth Amendment's Confrontation Clause guarantees that, "[i]n all criminal prosecutions, the accused shall enjoy the right ... to be confronted with the witnesses against him." U.S. Const. amend. VI. In *Crawford v. Washington*, the 541 U.S. 36

(2004), the U.S. Supreme Court held the admission of testimonial hearsay against an accused violates the Confrontation Clause if (1) the declarant is unavailable to testify at trial and (2) the accused has had no prior opportunity to cross-examine the declarant. *Id.* at 59. "The touchstone for determining whether an expert is giving an independent judgment or merely acting as a transmitter for testimonial hearsay is whether an expert is applying his training and expertise to the sources before him, thereby producing an original product that can be tested through cross-examination." *United States v. Palacios*, 677 F.3d 234, 243 (4th Cir. 2012) (quoting *United States v. Johnson*, 587 F.3d 625, 635 (4th Cir.2009)) (internal quotation marks omitted).

In *State v. McCray*, 413 S.C. 76, 90, 773 S.E.2d 914, 921–22 (Ct. App. 2015), the South Carolina Court of Appeals ruled that a defendant's Confrontation Clause right was violated when the State's DNA expert, who was the peer reviewer for the analysis conducted by another agent, was permitted to testify. The testifying DNA expert was not present when the tests were conducted and her opinion was based solely upon the test results. Under these circumstances, the Court of Appeal's concluded that the testifying DNA expert merely served as a conduit to introduce the results of the DNA tests conducted by another analyst. 413 S.C. at 91. To the extent Deputy Kinsey's opinions regarding high velocity impact spatter are derived from Mr. Bevel's Photoshop enhancements of photographs of the T-shirt, his opinion testimony regarding high velocity impact spatter must be excluded.

CONCLUSION

Based on the foregoing, the Court should grant Defendant's motion in limine to preclude any testimony from Dr. Kinsey regarding blood spatter because it is not relevant, it fails to assist the trier of fact because it is not based upon a reasonable degree of certainty, and it will undoubtedly result in unnecessary confusion of the pertinent issues being presented to the jury.

Respectfully submitted,

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Attorneys for Richard Alexander Murdaugh

January 22, 2023
Columbia, South Carolina

State of South Carolina v. Richard Alexander Murdaugh
Indictment Nos. 2022-GS-15-00592, -593, -594, and -595
Motion in Limine to Exclude Blood Spatter testimony of Deputy Kenneth Lee Kinsley

EXHIBIT A

(Bevel Report)

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Ref: Homicide Investigation of Paul and Margaret Murdaugh
BGA Case 2022-01 SC

As requested by your office a physical evidence and scene analysis has been conducted on the above case.

Crime Scene Reconstruction (CSR) is defined as the forensic science discipline, which employs the scientific method of analysis to identify the best explanation and sequence of objective actions for the incident in question. Information from all sources such as scene documentation, physical evidence, lab analysis, autopsy, photographs, and statements, are considered in identifying viable hypotheses that are possible within the context and limited universe of this crime scene. CSR provides for formal objective analysis versus subjective analysis of complex issues and in a holistic approach.

Should additional evidence or information become available, the analyst will consider its importance and *may* revise portions of the event analysis.

The physical evidence analysis is then used, as a benchmark, upon which any statements may be compared against.

Victims: Margaret Murdaugh
WF, 220 lbs., 5'9"
DOD: 06-07-2021, DOB: 09-15-1968

Paul Murdaugh
WM 176 lbs., 5'9"
DOD: 06-07-2021, DOB: 04-14-1999

Husband/Father to victims: Richard Alexander Murdaugh
DOB: 05-27-1968

Location: 4147 Moselle Road Islandton, SC 29929
Near dog kennels on this property

Incident Date: June 07, 2021

Direct Mailing Address: Billing Address: 7601 Sunset Soil Ave. Edmond, OK 73034
Voice: 405-447-4469 • Email: bevelgardner@cox.net

Brief Case Synopsis:

Alex Murdaugh stated that he drove to the dog kennel on his property and found his son and wife shot and non-responsive. Alex touched both victims in checking them for life signs. Alex stated he tried to roll Paul but could not. He called 911 to report the deaths and drove to his house to get a shotgun for protection and drove back to the scene to wait for first responders to arrive.

The following information was considered in this analysis:

First Interview with Alex Murdaugh – 34:45 mins.
Crime Scene Investigation Summary – 46 pages
Autopsy Report for Paul Murdaugh – 6 pages
Autopsy Report for Margaret Murdaugh – 8 pages
DNA Report of June 25, 2021 – 18 pages
DNA Report of July 25, 2021 – 17 pages
Evidence processing EP – 449 photos
Evidence processing – 357 photos
Paul autopsy photos – 34 photos
Margaret autopsy photos – 38 photos
L21-09074 Lab photos of Shotgun – 30 photos
Firearms Report July 23, 2021, -10 pages
Mercedes GLS processing – 138 photos
Lab photos of victim's clothing – 200 photos
Evidence processing – 25 photos
Trace evidence report June 15, 2021 – 3 pages
Trace evidence report June 18, 2021 – 2 pages
Trace evidence report September 2021 – 2 pages
Trace evidence report October 25, 2021 – 2 pages
David Greene body cam recording – 57 mins.
L21-09074 Photos of inside feed room – 304 photos
View Alex t-shirt, shorts & cuttings at Norman, OK Police Lab 1501 W Lindsey 03-10-2022
Forensic mannequins with dowel rods placed corresponding to the autopsy for bullet paths were used for an understanding of possible body positions when deceased were shot

Evidence collected to include:

1 - shotshell wad located on floor in the feed room
2 - 1 cartridge case S&B .300 AAC BLK, on gravel between overhang and kennels
3 – 1 cartridge S&B, on gravel between overhang and kennels
4 - 1 cartridge S&B, where gravel meets grass between overhang and kennels
5 – 1 cartridge S&B, on the dirt near the female's right side
6 - 1 cartridge S&B, on the dirt near the female's right side

8 – Tire impressions consistent with dog's caretaker' vehicle
12 – Brain matter in grass between gravel and female
13 – Possible bullet strike in gravel between the overhang and dog kennels with metal fragments recovered
#18 gunshot residue (GSR) kit from Richard Murdaugh
#19 white t-shirt
#20 pair of green shorts
#21 pair of red/yellow/white Nike tennis shoes
#8 one fired bullet near tire impression in dirt
#9-10 two fired 12 GA shotshells
#12 one fired bullet from dog bedding
#13 One buckshot pellet from table storage room window
#22 Benelli Model Super Black Eagle 3, semiautomatic 12 GA with one unfired shotshell
Item 35-39 Five (5) fired 300 Blackout cartridges from ground at side entrance door
48 birdshot pellets from left shoulder and head of Paul
One piece of plastic from shoulder and head of Paul
One combination wad from left axilla of Paul
Scene diagram (See PP #1)

Gunshot wounds to Margaret:

1. Gunshot to left side of torso and head (See PP #2-3)
   Injury to left breast, left side of lower jaw of face and ear, skull & brain
   Path upward, no exit identified

2. Gunshot to left wrist (See PP #4)
   entrance on dorsal of left wrist
   Trajectory: back to front, upward, exit ventral of left forearm

3. Gunshot to left thigh (See PP #5)
   Entrance on anteromedial aspect of left thigh. No soot, there is stippling up to 2" surrounding the entry
   Exit back of left thigh, path front to back, left to right, downward

4. Gunshot back of head (See PP #6)
   Entrance right occipital scalp
   Injury to scalp, right occipital skull, brainstem & cerebellum, and right side of upper back
   Trajectory: Downward

5. Gunshot to upper abdomen (See PP #7)
   Entrance on right side of front of abdomen, no soot, sparse stippling, up to 3" above entry
   Exit on left side of lower back, trajectory – back, right to left, downward

Gunshot wounds to Paul: (A and B used in autopsy report)

A. Shotgun wound of shoulder and head (See PP #8)
   1. Entrance on left shoulder & left side of neck
   2. Trajectory: left to right, upward, slightly front to back, Exit right side of apex of head, no soot or gunshot residue
   3. Multiple pellets and fragments of plastic wadding recovered
   4. Aspiration of blood into upper airway

B. Shotgun wound to chest (See PP #9-11)
   1. Entrance on left anterior chest wall, cookie-cutter pattern
   2. Exit defect anterolateral of left side of chest in left axillary, frag of pink wadding
   3. Deformed plastic wadding from exit wound defect
   4. Trajectory: right to left, Path continues through left arm
   5. Stippling to right side of entry wound

Storage/feed room evidence that assists in Paul's position when shot: (See PP #12-21)

1. Directional bloodstains and tissue found on:
   - entry door
   - door threshold
   - door frame
   - above door on wall and ceiling
   - items sitting on shelf to right (NW) of door as entering
   - passive blood drips on the floor
   - spatter on an opened dog food sack
   - spatter on Emmerson white item possibly a refrigerator
   - footwear impressions in blood
   - blood spatter on all the items on shelf and floor in front of the window (See PP #21-23)

2. Other physical evidence that assists in Paul's position when shot include: (See PP #20-22)
   - hair on top of door and on wall (See PP #20)
   - two twelve gage (GA) spent shotgun shells on floor behind door if in open position (See PP #22)
   - twelve windows panes on south wall with seven pellet defects (See PP #21)

- shotgun wound to left shoulder and head (See PP #8-11)
- shotgun wound to right chest continuing through upper arm (See PP #9-11)

- shotshell plastic wad on floor beside the dog food sack (See PP #23-24)
- skull fragments and tissue on floor (See PP #23-24)
- brain tissue on walk outside entry door (See PP #18)
- Paul's resting body position is face down just outside the door threshold with his right foot and shoe on the interior of the threshold and his left foot and shoe on the exterior of the door threshold (See PP #18)
- Shoe sole impressions in blood in two different locations (See PP #24)
- Appears to be blood on the soles of Paul's New Balance tennis shoes (See PP #17
- Shotgun wadding on right side of door threshold (See PP #15, 24)

3. ***Area of origin for directional bloodstains*** (See PP #25)

- Placing a line along the long axis of directional bloodstains identifies an area of origin where the blood source had to be to create the stains as found on the door, ceiling, and items on the shelf

Investigative Question – 1 (IQ-1) Which shotgun wounds to Paul occurred first and second?

Data IQ-1:

1. The shot to Paul's head that allows the brain to fall to the floor outside the entry door would ***not*** allow Paul to walk forward to the door, but would allow him to fall forward through the open entry door (See PP #18)
2. The shot to Paul's chest and arm would allow taking steps forward after shot
3. There are passive blood drips on the floor by the blue dog food sack and yellow marker #1 that are moving toward the entry door (See PP #16)
4. Tiny blood spatter and some tissue is on most of the items to southeast (SE) of marker #1 toward the broken windowpanes (See PP #21)
5. The exiting pellets out of the left upper arm would be inline with the broken windowpanes if Paul is located just SE of marker #1 and turned to his left (See PP #21)
6. The shot to the chest could ***not*** create the blood volume and direction of stains on the entry door and the ceiling above the door with the door in an open position (See PP #20, 25)
7. The shot to the head could create the blood volume and direction of stains on the entry door and the ceiling above the door while the door is in an open position (See PP #20, 25)
8. Hair on door, ceiling and floor in proximity of the door could only have come from the head wound.

Opinion IQ-1 The shotgun wound to the chest and through the upper left arm occurred first, then Paul moved toward the entry door and was shot a second time to his upper left shoulder continuing to his face and exiting out the apex of his head. This shot produced the blood spatter on the door and the ceiling above the door.

IQ-2: Where is the shooter positioned for the two shots to Paul?

Data IQ-2:

1. Both fired shotshells are found on the floor inside the storage room
2. With Paul's body in an upright standing position and turned toward his left near the yellow marker #1 it is possible to get a correct trajectory alignment from the open doorway, but the shotgun must be extended past the door threshold for the ejected fired shotshell to land on the interior of the room.
3. The directional blood spatter on the door and to the ceiling above the door places Paul's head in front of the top left panel of the open door.
4. The second shot to Paul's upper left shoulder and into his face and out the top of his head positions Paul upright just inside the doorway, thus the shooter must move from the first shooting position to outside the west edge of the door. The trajectory from down to up striking the upper left shoulder and head requires the long axis of the shotgun to be angled upward. This is consistent with the directional blood spatter on the door and ceiling of the storage/feed room and consistent with Paul falling forward through the doorway onto the concrete walkway with his head coming to rest on the gravel. The large mass of brain material on the cement separates from Paul's head as he is falling forward.

Opinion IQ-2: The first shot places the shooter in the doorway with the shotgun extended sufficiently past the door threshold. The long axis of the shotgun must be in line with the shot to the chest and exiting pellets creating the defects to the seven (7) windowpanes.

The second shot places the shooter outside the doorway toward the west edge of the doorframe. The shotgun must be angled from the hip area upward to get a corresponding trajectory and directional blood spatter on the door and ceiling.

IQ-3: Can the sequence of shots to Margaret's body be identified?

Data IQ-3:

1. Margaret has five (5) different gunshot wounds
2. Four (4) wounds have different trajectories, except for wounds #1 & #2 are associated to one projectile which hits the wrist bone causing a hairline fracture that causes the projectile to tumble as it exits the forearm then hits the breast still tumbling

3. Six fired cartridge cases are in a walking cane handle shaped pattern showing movement
during shooting (See PP #1)
4. Margaret and the shooter both show movement during the shooting
5. None of the five (5) wounds establish an identified three (3) defect points for a trajectory path beyond the body
The shot to the lower part of the doghouse on the S side of the doghouse does not align with any of the exiting projectile's wounds unless Margaret's body is low to the ground. (See PP #1, 26)
6. Shots #3 and #5 have stippling around the entry wound requiring a near end-of-muzzle position to entry wound (See PP #7-27)
8. The end-of-muzzle for all other shots were farther away from the entry wounds since no stippling was detected around the wound sites.
9. Shot #1 to left side has a close weapon long axis to torso trajectory path with a steep upward trajectory, but no stippling or soot identified*
10. Gunshot #2 to left wrist is associated with shot #1 wound but has no stippling or soot on first contact with the body
11. Bullet defects associated with this series of shots include the doghouse, an animal cage and wall to the NE of her body position, and metal bullet fragments in gravel
12. The ATV has multiple blood stains/tissue on the front of the vehicle consistent with a shooting as the victim was forward or in front of the ATV (See PP #28-29)
13. Investigators used a metal detector and sifted soil at Margaret's location checking for any projectiles with nothing found

*The trajectory path of wound #1 places the long axis of the weapon in line with the skin graze on the abdomen, the wrist, the breast, lower jaw, skull, and brain which places Margaret's body in one (1) of three (3) possible positions for this shot.

1) The body upright and bent backwards such as leaning back over the hood of the ATV
2) The body bent at the waist forward, gravity pulling the body downward such as the breast, with the shooter to the left of Margaret and the shot misses her side and hits her abdomen for the graze shot then her wrist, breast, and face
3) The body in a prone position with the weapon held close to the ground and in line with the long axis of the body

The position to best comport with all physical evidence is #2 bent at the waist and shot from her left side and behind her.

Opinion IQ-3: Due to the perceived movement of both the shooter and victim during the shooting and no observed three (3) defect points for aligning a body position for each shot is not possible.

IQ-4: Are the bloodstains on Alex's white t-shirt consistent with back spatter from a gunshot?

Data IQ-4:
1. Eight (8) areas that are positive for blood using LCV on front of t-shirt (See PP #30-32)
2. Approximately 40+ misting size blood spatter
3. Edges of stains appear slightly diffuse from the application LCV and or body sweat

Opinion IQ-4: Some of the stains on the white t-shirt are consistent with transfers and 100+ stains are consistent with spatter on the front of the t-shirt (See PP #30-32)

IQ-5: Are the 100+ spatter stains on the front of t-shirt the result of using the t-shirt to wipe the face?

Data IQ-5:
1. In the Greene bodycam the front bottom of the t-shirt is observed to be pulled up over the face to wipe the face (See PP #33)
2. The front bottom of the t-shirt has transfer type blood staining consistent with wiping a sweaty face that has blood on the face, but spatter stains do not contact the face as the spatter stains areas folds over in contact with the t-shirt below the face
3. If the spatter areas did contact the face the transfer of blood onto the t-shirt would look very similar to the transfer on the front bottom of the shirt and they do not
4. If the t-shirt is raised high enough for the spatter stain areas to contact the face, then the front bottom edge of the t-shirt will not have transfer blood on it, and it is the only area with transfers in a large enough area to be consistent with wiping the face

Opinion 1Q-5: The 100+ spatter stains on the front of the t-shirt are ***not*** from wiping the face with the t-shirt.

IQ-6: What type of blood staining would be expected to be on the face from checking two deceased bodies for a pulse or trying to roll one body over to its back but failing to do so?

Data IQ-6:
1. As neither person is alive, and no CPR is attempted there will be no expectorate blood forced out of the mouth, nose or wounds
2. In attempting to roll Paul's body over and letting go the blood on the cement or gravel when the body falls into any blood accumulated on the cement or gravel the impact will produce spinning type stains on the cement and none on the gravel and if any spatter stains occurred, they will be directed to the shoes, legs or shorts if kneeling and won't rise high enough to cover the front of the t-shirt

   In handling the bodies, the hands may get blood on them and would create transfer patterns if still wet

   blood onto anything they touch, but this will not create spatter stains

Opinion IQ-6: The only blood patterns expected from handling the bodies would create transfer patterns.

IQ-7: Can the position of the shooter for Margaret's shooting be identified.

Data IQ-7:

1. Extrapolating backwards for bullet defects in fixed objects, doghouse, animal cage and workshop wall, will give a direction and general area where the shooter would have been when shooting
2. Marker #13 shows a bullet strike in gravel, consistent with the beginning of the cartridge trail leading to Margaret's body position
3. Margaret has five (5) bullet wounds. If #1 and #2 are associated with the same shot, then four (4) bullets struck Margaret leaving two (2) of the six (6) fired shots missing her
4. While expended shell cases can bounce (less likely on dirt, grass, or gravel) or be kicked with people moving around the crime scene, the location and pattern of their placement should still be considered
5. Six (6) fired S&B .300 cartridges are found forming a cane with hock/handle extending from the E, moving to W and then going to the N next to Margaret's body position
6. Two (2) of the entry wounds to Margaret have stippling around the wound, #3 left thigh and #5 upper abdomen, placing the end-of-muzzle closer to the victim than the other three wounds
7. The weapon for the .300 is not known. The most common rifle used in America firing .300 is an AR 15 which ejects the fired cartridge cases forward and to the right

Opinion IQ-7: Due to the great amount of movement by both Margaret and the shooter along with the lack of three (3) defect points to identify possible trajectory paths the shooter's shooting position is generally to the left along the path of the fired cartridge cases and next to Margaret's body for wounds #1 & 2.

IQ-8: How does environmental factors and physical manipulation of the shirt effect the stains observed?

Data IQ-8:

1. Once bloodstains are dry and set, they will remain the same geometric shape
2. If bloodstains get very sufficiently wet from water such as being immersed in a sink or soaked by rain, or from body sweat the stains, which have not dried and set (Approximately 12-18 hours) the stains may appear diffused along the outside edges depending on how much moisture is present
3. Physical manipulation of the shirt after the stains are dry and set will have little to no effect on the shape of the stains

Opinion IQ-8: Many different factors can affect and alter bloodstains before they completely dry and become "set or fixed" on clothing. Once the stains are completely dry and are set, in most instances will look the same over time even after washing and handling them.

IQ-9: Would the shooter for either victim get blood back spatter on their person or clothing?

Data IQ-9:

1. Mist size bloodstains from back spatter can travel up to four (4) feet from the source
2. Tissue or blood mixed with tissue can travel farther than four (4) feet due a heaver mass
3. If the distance from the shooter's body is greater than four (4) feet to the victim, mist spatter is not generally expected to get on the shooter unless the spatter is above the shooter then gravity pulling the spatter downward can create an arc pattern
4. In long barrel weapons such as shotguns and rifles the distance to the shooter is measured from the end-of-muzzle back to the trigger area along with how far away the end-of-muzzle is from the entry wound, an angled barrel versus a 90 degree angle may place the shooter closer to the entry wound
5. The best gage to determine if back spatter will get on the shooter is to determine the amount of back spatter on the weapon(s) (if available) and on surfaces surrounding the victim when shot
6. Are there intervening objects between the victim and shooter such as a wall or the victim's clothing
7. When there is an exit wound the majority of spatter created will go in the direction the projectile(s) are traveling creating forward spatter with a volume generally greater than the back spatter
8. Back spatter is common in a shooting if a second shot hits an already bleeding area from a first shot
9. Back spatter is more likely in a shotgun wound due to multiple pellets following each other after the wound is created

Opinion IQ-9: For the first shot to Paul the shooter is farther than four (4) feet from Paul, thus no back spatter is expected to land on the shooter or his clothing.

For the second shot to Paul there is an exit wound directing most of the spatter in the same direction as the force which is away from the shooter for the majority of spatter.

Since the trajectory of this shot is upwards resulting in some of the spatter, tissue, and hair to be deposited on areas above the victim, it can be expected due to gravity along with blood impacting these areas with sufficient force secondary spatter may also have been created raining down back into the scene and potentially on the shooter.
Margaret's #1 shot to her breast, lower jaw of face, ear, and head, the M.E. states "no exit identified." There is no soot or stippling. The shooter is likely four (4) feet away or farther. From the shooter's position to this shot I would look for spatter on their clothing.

Margaret's #2 wound is to her wrist with an exit and is associated with wound #1.

For Margaret's five shots #3 & #5 have stippling around the entry wound which places the shooter and the end-of-muzzle closer to these two entry wounds. Shot #3 to the left thigh and #5 to the upper abdomen both have exit wounds sending the majority of blood spatter away from the shooter.

Margaret's #4 wound is to her back of head striking the skull, brainstem and cerebellum and right side of the upper back likely from bullet fragments or skull continuing to the upper back shoulder. The majority of blood spatter will be in the direction of force away from the shooter.

Only one shot from Paul is likely to create back spatter, the shot to his shoulder and head. The shooter is certainly in a close enough range to get spatter on their clothing and the clothing would be examined for spatter. The weapon is likely to have blood spatter and/or tissue on it, if found.

Only one shot for Margaret, her head, is likely to produce back spatter, but the primary force is away from the shooter and the shooter is likely at the four (4) foot range or farther.

In this double shooting I would always look for back spatter on the weapons and possibly into the barrel if the weapon(s) and if the weapons are known and available. I would also examine the clothing of the shooter if the clothing worn at the time of the shooting is known and available, and if the weapons are known and available. For there to be spatter on the shooter or their clothing it is certainly possible given the facts and circumstances surrounding this incident.

IQ-10: Does the physical evidence support a struggle between Paul and the shooter given the shot to his chest?

Data IQ-10:

1. Stippling to the right side of the wound is observed on the clothing or skin of Paul's chest wound
2. Paul's upper torso is canted to his left relative to the long axis of the shotgun at the instant of discharge
3. Paul's body is in an upright position at the instant of discharge
4. The shotgun's ejection port is at least past the entry door threshold

Opinion IQ-10: There is no physical evidence to identify a struggle for the chest shot.

IQ-11: Could the shooter be prone or kneeling on the cement at the time of the shoulder-head shot?

Data IQ-11: 1. If the shooter is prone on the cement shooting upward to get the correct trajectory from the shoulder to the head, Paul would have to lean his body to his left
2. In #1 above body's position the correct placement of Paul's head is not possible to correspond with the spatter on the door, wall and ceiling
3. A kneeling position is more likely to position the shooter and Paul to get the correct trajectory and spatter to the door, wall and ceiling
4. A shooter from either position would have to instantly move at the discharge of the weapon before spatter from the wound lands on the ground, this is not impossible but is improbable

Opinion IQ-11: The best explanation to comport with the physical evidence is with the shooter in standing position to the S side of the open doorway

IQ-12: What is the best explanation for how the cell phone dislodged from Paul's back pocket?

Data IQ-12: 1. The back pocket reportedly is where Paul's cell phone was carried
2. The elastic at the top of the pocket will assist in preventing the phone from falling from the pocket
3. The elastic pocket top has transfer blood on the top edge of the pocket consistent with a bloody finger grabbing the pocket to pull the pocket open

Opinion IQ-12: The phone may be taken from the pocket by a person with blood on their fingers transferring blood onto the elastic pocket top when removing the phone.

****IQ-9: Above*** The t-shirt has been evaluated by six (6) recognized Bloodstain Pattern experts all agreeing the best explanation for the stains on the shirt are spatter from approximately the bottom third up to the top of the shirt and transfers on the bottom third down to the hem of the t-shirt. All agree they cannot identify some other mechanism to create the distribution and sizes of the questioned stain spatter.

If you have any questions on this report, please contact me at the above listed contact numbers.

Respectfully,

Tom Bevel
Certified Crime Scene Reconstructionist (awaiting 2nd recertification test under development)

Technical review by Ken Martin

Attachment PP

State of South Carolina v. Richard Alexander Murdaugh
Indictment Nos. 2022-GS-15-00592, -593, -594, and -595
Motion in Limine to Exclude Blood Spatter testimony of Deputy Kenneth Lee Kinsley

EXHIBIT B

(Bevel Supplemental Report)

Tom Bevel, President
Ross M. Gardner, Vice President

Partners:
Tom "Grif" Griffin
Craig Gravel
Jonathyn Priest

Bevel, Gardner & Associates Inc.
A forensic education and consulting group.
www.bevelgardner.com

Associates:
Ken Martin
Cele Rossi
Kim Duddy

Sunday, December 18, 2022

David H. Owen
dowen@sled.sc.gov

Addendum to 20-22 SC March 29, 2022

On December 01, 2022, I received a lab report via email dated November 10, 2021, in reference to the above referenced case regarding the results of Forensic Scientist Sara Zapata's HemaTrace (HT) conformation tests on the Murdaugh t-shirt.

The report noted that twelve (12) areas of the t-shirt tested were negative for the presence of human blood.

This new information was provided by David Owen on a conference call detailing the negative HT test results. Based upon my training, experience of bloodstain back spatter cases, in experimentation, using oblique lighting and magnification and/or microscopy some visible bloodstains may be found along with the sub-millimeter misting stains not visible to the unaided eye. These findings lead to the chemical testing of the area in question not only to enhance the visible bloodstains but also to visualize those not readily visible (latent) bloodstain. This additional information may also allow for determination of the pattern type(s) and distribution of said pattern(s).

Additional information was given on a conference call with David Owen in reference the 11-10-2021 HT test results being negative. In my experience of past bloodstain back spatter cases and experimentation, using oblique lighting and magnification and/or microscopy some visible bloodstains are found along with the sub-millimeter misting stains that may not be visible to the unaided vision. This finding leads to chemical enhancement to show all the bloodstain distribution pattern.

In accordance with best practices, and with knowledge of this new information, I devised and conducted experiments assessing the results as it related to my opinion submitted in my original report. The experiments were conducted using known human blood that was misted onto white cotton t-shirt squares. The known human blood that was misted onto the test cotton squares were then tested with HemaTrace.

1. A control test with known human blood used in the experiments using HT produced a positive result.
2. Using the known human blood source mist bloodstains were created onto the shirt material.
3. Five (5) approximately 6 X 6-inch test squares with known bloodstains found were cut from the shirt.
4. Nothing was done to square #1 except HT testing with positive results before LCV processing.

Billing Address: 7601 Sunset Sail Ave., Edmond, OK 73034
Voice: 405-447-4469 • Email: bevelgardner@cox.net

5. Square #1 was then processed with LCV.
6. Square #2 was misted with sterile water to wet the material due to reported misting rain and sweat possibly diluting any blood on the shirt in question while at the scene. The degree of dampness from the scene is not known.
7. Square #3 had no misting of water added to the square.
8. Square #4 had no misting of water added to the square.
9. Square #5 had no misting of water added to the square.
10. All test squares were allowed to completely dry for twenty-four (24) hours after the LCV processing.
11. All test squares were sprayed with LCV and allowed to completely dry over a twenty-four (24) hour period.
12. Recommended sample sizes for HT testing is 3mm squared.
13. None of the blood on the test squares measured 3mm squared as they were misted.

Opinion on the first completed report and then considering new information and testing.

The opinion given based on the information known at the time was that the size and distribution of stains on the t-shirt worn by Mr. Murdaugh are consistent with a disruptive force. With the LCV test being positive for blood added to the probability that the stains came from a disruptive force consistent with a back spatter blood event such as the discharge of a firearm. I stand by this opinion.

The additional information that no blood was HT tested before the LCV processing, but only after the LCV processing all twelve (12) areas tested with HT produced negative results, must be considered in my analysis. Unknown to me is whether oblique lighting, magnification or microscopy was used in the search for bloodstains on the t-shirt in question prior to the LCV processing.

Opinion:

The original opinion based on the information available at the time is still correct.

Considering the additional information and my testing with known human blood using HT on the spatter sized stains on the test white t-shirt squares all produced negative results for human blood after LCV processing.

While there is not a conformation test for human blood on the questioned white t-shirt my testing with known human blood confirmed human blood only before LCV processing and negative for human blood after LCV processing.

Possible variables as to why human blood would test negative with the HT testing is dilution from reported misting rain and sweat while being worn along with the small misting sized stains used for the testing which is much smaller than the recommended 3mm squared.

Respectfully,

Tom Bevel Technical review by K. Martin
Attachment PP

State of South Carolina v. Richard Alexander Murdaugh
Indictment Nos. 2022-GS-15-00592, -593, -594, and -595
Motion in Limine to Exclude Blood Spatter testimony of Deputy Kenneth Lee Kinsley

EXHIBIT C

(Kinsey Report)

STATE OF SOUTH CAROLINA)
)
COUNTY OF COLLETON)
)
) **AFFIDAVIT AND PRELIMINARY**
State vs Richard Alexander Murdaugh-(22-GS -15-00592 through -595)) **EXPERT OPINIONS OF**
) **DR. KENNETH LEE KINSEY**
)
)

1. My name is Dr. Kenneth Lee Kinsey. I am over twenty-one (21) years of age, of sound mind, and in all respects qualified to represent my expert opinions and submit this Affidavit.

2. I am currently employed as the Chief Deputy of the Orangeburg County Sheriff's Office. In my current role, I manage all daily operations, conduct internal affairs investigations, conduct criminal investigations as well as train law enforcement staff. I manage an annual budget of approximately $9.5 million dollars and serve as direct supervisor to all Sheriff's Office employees.

3. I earned a doctorate degree (Ph.D.) in Criminal Justice in May of 2019 from Walden University. My dissertation research "Use of Force and Perceptions of Public Attitude Held by Police Trainers[1]" utilizes a quantitative analysis to determine the psychological influences of officer motivation from those responsible for providing instruction to police officers such as Academy Instructors, Departmental Training Officers and Field Training Officers.

4. In December of 2011, I earned a master's degree (M.S.) from Troy University in Criminal Justice. I received my bachelor's degree (B.S.) in May of 1991 from Clemson University in Parks, Recreation, and Tourism Management with an emphasis in Resource Management.

5. I have qualified as an expert witness in Crime Scene Investigations/Reconstruction, Latent Fingerprint Identification/Processing, Footwear Comparison/Identification, Blood Stain Pattern Analysis, and Fabric Impression Examination. Additionally, the following credentials certify me as an expert to review this case: I was previously certified as a Crime Scene Investigator (#1632) by the International Association for Identification, Successful completion of all SLED proficiency training and annual requirements, Leadership and Strategic Planning Training from the U.S. Attorney's Office, Special Weapons and Tactics Training form York County's Sheriff's Office, NRA Law Enforcement Handgun Instructor, South Carolina Criminal Justice Academy Firearms & Patrol Rifle Instructor, Forensic Examination of Violent Crime Scenes for Ron Smith & Associates and Training in Homicide, Capital Crimes and Punishment from the Regional Organized Crime Information Center, and my knowledge and experience of police policies, practices and customs developed during my extensive law enforcement career.

[1] Kinsey, Kenneth Lee, "Use of Force and Perceptions of Public Attitude Held by Police Trainers" (2019). *Walden Dissertations and Doctoral Studies. 6911.* https://scholarworks.waldenu.edu/dissertations/6911

6. Additionally, I have gained vast experience conducting crime scene investigations throughout my 30 year law enforcement career, serving in the following capacities: criminal investigator (to include property and violent crimes), violent crimes investigator (OCSO), crime scene and latent prints (OCSO and SLED), and assisting all agencies in the 1st circuit on request.
7. I have actively processed over 800 death scenes in my career, as primary or back-up, and I currently attend and assist with many scenes in my jurisdiction. Additionally, I have assisted by reconstruction and/or evidence processing in several thousand other cases where I did not respond as primary or back-up crime scene investigator.
8. I have attended over 200 autopsies throughout South Carolina for the purpose of identifying and gathering forensic evidence.
9. In addition to my current assignment, and the former positions described above I have also held the following: Class 1 Administrative Major for the Orangeburg County Sheriff's Office, Class 1 Chief Investigation for Dorchester County Solicitor's Office, Special Agent II and S.W.A.T. for the South Carolina Law Enforcement Division as well as Lieutenant of the Special Operations Division for the Orangeburg County Sheriff's Office.

10. In addition to the various law enforcement training and instruction I provide, I also serve as an Adjunct Professor at Claflin University, where I have been teaching Crime Scene Investigations and other CJ related classes since 2012.

11. My involvement in this matter is made at the direction of Chief Attorney S. Creighton Waters, South Carolina Attorney General's Office. I was advised to review and answer twelve (12) investigative questions as were requested in the Bevel report. The following includes my professional assessment of the criteria:

DOCUMENTS/EVIDENCE REVIEWED

- David Greene BWC recording June 7, 2021
- Sled Crime Scene Inv. Summary (46 pg)
- 1st interview of Alex Murdaugh (34:35)
- Autopsy Report for Paul Murdaugh (6 pg)
- Photos from Autopsy of Paul Murdaugh (34)
- Autopsy Report for Margaret Murdaugh (8 pg)
- Photos from Autopsy of Margaret Murdaugh (38)
- DNA Report June 25, 2021 (18 pg)
- DNA Report July 25, 2021 (17 pg)
- CS Photos/Evidence Processing – (449)
- CS Photos/Evidence Processing – (357)
- L21-09074 Lab Photos of Shotgun (30)
- FA Report July 23, 2021 (10 pg)
- Mercedes GLS Processing Photos (138)
- Lab Photos of Victim's Clothing (200)
- Evidence Processing- (25)

  Trace Reports (4)
- 1. June 15, 2021
- 2. June 18, 2021
- 3. September 20, 2021

- 4. October 25, 2021
- Visual Observation of Alex Murdaugh shirt at SLED Forensics Laboratory (Did not Handle) December 8, 2022
- Visit to 4147 Mozelle Ln (December 12, 2022)
- Consultation at MUSC w/ Dr. Riemer (12/16/22)
- (12) page Report titled "Homicide Investigation of Paul and Margaret Murdaugh BGA Case 2022-01 SC": Issued by Tom Bevel of Bevel Gardner & Associates (03/29/22)
- 3 page Bevel Addendum (12/18/2022)

OVERVIEW OF INITIAL CRIME SCENE 4147 MOZELLE LN.

The double homicide took place at a k-9 kennel on the large property owned by Alex Murdaugh (**Attachment-1**). It was my understanding that the property had been utilized as an outdoor/hunting retreat by previous owners. The property is very large with small pines, hardwoods, open fields, a large house (residence), a smaller house, a repurposed airplane hangar, and separate k-9 kennel. The property also contained several outbuildings and sheds that I viewed from a distance but did not examine. Paul Murdaugh had been shot two times with a shotgun in the confines of a feed/mudroom that was connected to several covered but outdoor dog runs (**Attachment-2**). Paul was discovered on the covered sidewalk outside the door of this room and was discovered prone (face-down) on the cement walkway (**Attachment-3**). Maggie Murdaugh was a short distance away and was located NW at the end of the repurposed hanger that is now a covered shed. Maggie Murdaugh was also prone (face-down) and had succumbed to several gunshots from a rifle (**Attachment-4**). Alex Murdaugh reported that he had discovered the two victims upon his return to the property.

Gunshot Wounds to Margaret Murdaugh:

Documented as (1-5). The numerical assignment does not note sequence of wounds received.

1. Gunshot to anatomical left side of torso. Grazing wound to the abdomen with projectile travelling upward through the left breast. Bullet continues into the lower left jaw, face, and ear. Bullet proceeds into the brain with no apparent exit located. Terminal/immediate death.
2. Gunshot to left wrist. Entrance on dorsal side with an exit on ventral side (non-fatal).
3. Gunshot to left thigh. Entrance of wound is medial front to back, downward at a left to right angle. Exit wound is apparent on the back of thigh. This wound contains stippling (2 in.), no soot (non-fatal).
4. Gunshot to back of scalp/head. Anatomical right, terminal/immediate severe brain injury. Exits head and travels into upper shoulder/back area at a downward trajectory.
5. Gunshot to upper abdomen. Entrance on anatomical right side of abdomen (rt. To left, front to back). Potentially fatal but not immediate. Severe organ damage. Exit wound on lower left side of back. This wound contains stippling (3 in.), no soot. Similar angle to wound number 3.

Gunshot Wounds to Paul Murdaugh:

Documented as (A and B). The alphabet assignment does not note sequence of wounds received.

A. Shotgun wound to shoulder and head (small game # shot). Entrance on top of left shoulder travelling in anatomical left to right direction. Enters left side of neck and proceeds into head. Brain was severed and exited through the anatomical right side of head. Upward trajectory, slightly front to back. Brain was completely detached from head. No soot/stippling. Terminal/immediate death.

B. Shotgun wound to chest (buckshot). Entrance on anatomical left side of chest near midline. Stippling is present on anatomical left side of entrance wound. Left to right trajectory exiting left side of chest and underarm. Pink plastic wad is present in exit chest wound. Shot spreads and continued through left upper arm.

Twelve (12) Investigative Questions

IQ-1: What is the order of the shotgun wounds to Paul Murdaugh (shot sequence)?
IQ-2: Where is the shooter positioned for the two (2) shots to Paul?

IQ-1 & 2 Opinion:

The shot along the midline of Paul's chest was the first wound that he sustained. The second and final shot was to his left shoulder, into his jaw, and exiting his head.

First wound:

a. This shot was delivered from several feet away as Paul stood just shy of the approximate center of the feed room (**Attachment-5**).
b. His position was facing slightly SW at the time of the buckshot penetration. After entry (large, angled wound), the buckshot travelled subcutaneously across his left chest and exited under his arm.
c. Most of the shot then entered the underside of the left arm and exited again on the outside of the upper arm.
d. This position is supported by the continued path of at least seven (7) buckshot pellets that continued through the windowpanes at the rear of the feed room (**Attachment-6**).
e. An open shot cup or wad was visible at the exit point under the left arm.
f. 90 or near 90-degree blood drops on the cement show that Paul was still standing but moving slowly toward the door (**Attachment-7**).
g. Partial FW impressions in the blood droplets supports Paul's movement towards the door.

h. Blood and body fluids, the continued path of buckshot through the windowpanes, and the location of the fired shotshell behind the door would place the shooter standing in or slightly outside the room's door approximately midline of the feed room, with the breach of the shotgun inside the room (Attachment-8).

Second Wound:

A. The second wound to Paul occurred at the threshold of the feed room door and was immediately terminal (Attachment-9).
B. This shot was unlike the first wound in that this wound was produced by a shotshell of small shot, commonly referred to as birdshot, BB shot, or chill shot.
C. The shot to Paul's head entered along the top of his left shoulder, and into his left cheek area at an angle upward into the brain before exiting the top right portion of the head.
D. Paul's height of 5'8", and the sharp angle upwards, approximately 135 degrees up would support that Paul's left side was dipping slightly, and head slightly forward as he was standing or exiting the feed room at the time of the second shot.
E. Blood, tissue, blood volume, and body fluids on the door, and specifically the upper door frame, directionality, void areas to the west side of door frame (Attachment-10), spatter documented on the SW side of shelved items inside the door (Attachment-11), and the position of the severed brain would place the shooter outside the door to the west side of entry.
F. The length of the shotgun would be needed for a reasonable degree of certainty, but it is unlikely that the shooter was standing with a shouldered weapon at the time of the second discharge.

IQ-3: Can the sequence of shots to Margaret's body be identified?

Margaret has (5) gunshot wounds. Gunshots wound 3 (left thigh) and gunshot wound 5 (upper abdomen) have similar range, stippling, and trajectory. These two wounds would generally not cause immediate death or immobility. Gunshot wound 2 (left wrist) may or may not be a continuation of gunshot wound 1 (anatomical left side). Gunshot 2 would also be considered not lethal in most cases if it is not a continuation of the upward left torso wound. Gunshot wound 2 could be the results of the projectile located in the doghouse due to its lack of incapacitation and the unknown movements of Margaret and the shooter. Estimates to ejector direction and range are not sufficient without test firing the same weapon with same ammunition to measure with certainty. The location of cartridge casings would only provide a possible location of the shooter and Margaret and are subjective due to their unknown movements. Therefore, I must base my opinion on the physical location and position of the deceased, bullet path of known wounds, and physical damage caused by those wounds

- Gunshot wounds 1 and 4 would cause immediate incapacitation and would cease all movement.
- Lacking evidence that Margaret's body had been moved or manipulated, the evidence suggests that gunshot wound 2, 3, and 5 were the first series of shots delivered to Margaret.
- The exact sequence can't be determined except these three wounds were received in an upright or semi-upright position prior to the two wounds that were immediately fatal.
- There was no evidence that Margaret's body was supine, or had been moved or manipulated (blood pool, blood run).
- There were no projectiles located in the soil underneath the deceased that would suggest a near 90 degrees shot downward.

IQ-3: Opinion

It is my opinion that gunshot wound 1 would have been delivered after 2,3, and 5 from Margaret's left side, and from behind. This shooter position would explain the grazing wound to her abdomen, path through the left breast, jaw, and into her head. Margaret's position would have been prone or nearly prone holding herself up on her knees and at least her right hand with her shoulders and head down. Gunshot wound 2 would be included in this sequence if it is not the projectile in the doghouse. The final shot (#4) would have been from a distance and travelling through the crown of Margaret's head and into her upper back (opposite direction of gunshot wound 1).

IQ-4: Are the blood stains on Alex's white t-shirt consistent with back spatter from a gunshot?

- 100 plus stains on the front of the neck area of white t-shirt (transfers/projected blood stains)
- -1mm
- Enhanced w/Leuco Crystal Violet (LCV)
- Cutting already taken
- Evidence processing photos/reports/analysis

IQ-4: Opinion

The front of the white t-shirt contains what appears to be transfer and spatter stains. The lower and larger stains are not spatter of any speed but transfer from another object (See IQ-5: Opinion). The smaller stains that are present after treatment with LCV appear to be high velocity impact stains. These stains are characterized as being -1mm in size, and based on my experience are only caused by a gunshot or high speed machinery. High speed machinery would not necessarily be defined in this case as a drill or similar object but by any mechanism with enough disruptive force to distribute and project blood over 100 fps. After consideration of the original opinion, analysis

reports, and follow-up experimentation, this expert cannot render an opinion on IQ-4 above.

IQ-5: Are the 100+ spatter stains on the front of t-shirt the result of using the t-shirt to wipe the face?

- The photographs of the t-shirt exhibit at least two distinct types of blood stains, and in two areas.
- The first would be the multiple small stains near the top neck and chest area of the garment.
- The larger stain at or near the front bottom would be the second type blood stain.
- BWC video depicts Alex Murdaugh wiping his face and forehead with the second/bottom area, with his hands on the inside of the garment.

IQ-5: Opinion

It is my opinion that the bottom stain is representative of a transfer of spatter from one area to the shirt by way of a wipe. A wipe is when an object meets another object that already contains blood (BWC video). Alex Murdaugh wiped his face and forehead with the area of the t-shirt that now contains the larger stain. The shirt in this case could have wiped the blood from the face/forehead. The 100 + smaller stains at the top of the shirt at the neck/chest area are distinctly different and do not represent a transfer from wiping the face.

IQ-6: What type of blood staining would be expected to be on the face from checking two deceased bodies for a pulse or trying to roll one body over to its back but failing to do so?

- Both victim's received immediate and terminal wounds.
- No heartbeat (pumping blood).
- No expectorated blood.
- Attempting to roll body would produce elongated type spatter stains but only low and at shoe level.

IQ-6: Opinion

In my opinion, the only type of blood stain that would be expected to be on the face would be a transfer (swipe) pattern from checking for signs of life (body-hand-face).

IQ-7: Can the position for the shooter for Margaret's shooting be identified?

Margaret has (5) gunshot wounds. Gunshots wound 3 (left thigh) and gunshot wound 5 (upper abdomen) have similar range, stippling, and trajectory. These two wounds would generally not cause immediate death or immobility. Gunshot wound 2 (left wrist) may or may not be a continuation of gunshot wound 1 (anatomical left side). Gunshot 2 would also be considered not lethal in most cases if it is not a continuation of the upward left torso wound. Gunshot wound 2 could be the results of the projectile located in the doghouse due to its lack of incapacitation and the unknown movements of Margaret and the shooter.

IQ-7: Opinion

It is my opinion that an exact position of the shooter cannot be determined in relation to Margaret. The most accurate information available to narrow down the position of the shooter's position is the physical location and position of the deceased, bullet path of known wounds, stippling or lack thereof, and physical damage caused by those wounds. Estimates to ejector direction and range are not sufficient without test firing the same weapon with same ammunition to measure with certainty. The location of cartridge casings would only provide a possible location of the shooter and Margaret and are therefore subjective due to their unknown movements (IQ-3, Kinsey, 2022).

IQ-8: How does environmental factors and physical manipulation of the shirt affect the stains observed?

- Environmental factors such as (extreme) heat, humidity, moisture, mold, mildew, and physical manipulation of a wet garment can affect the appearance of blood stains on a garment prior to the garment being dried.
- Shape and type of stain would remain constant after garment is sufficiently dried but could fade or darken in appearance over time if not properly dried, packaged, and stored in controlled conditions.

IQ-8: Opinion

In my opinion, environmental factors can affect the appearance of blood stains on a garment if the garment is exposed to harsh conditions and if the garment is not properly dried and handled. Blood stains that are present on garments that have been properly dried, packaged, processed, and are (fixed) will retain their shape, but may fade over time if exposed to the described extreme conditions as stated above.

IQ9: Would the shooter for either victim get blood back spatter on their person or clothing?

Paul

- **Distance of shooter (several ft.), lack of blood and tissue letting, and angle of Paul would likely not produce back spatter on shooter for gunshot wound (#1).**
- **Birdshot close to muzzle end of weapon (#2).**
- **Possibility of back spatter on (#2) if shotgun was shouldered due to shot direction, gravity, and scattering of small pellets inside open wounds.**
- **Proportionately more blood and tissue blow back would be expected if shooter was closer to the muzzle end of weapon.**

Margaret

- **Two gunshot wounds exhibited stippling (#3 & #5).**
- **Neither were close proximity to each other.**
- **Remaining wounds were from a distance greater that would be expected to project blood.**

IQ-9: Opinion

It is my opinion that the fatal shot to Paul's shoulder, face, and head would likely produce enough back spatter (#2), and would be within range to contaminate the shooter. This amount would produce very small droplets (-1mm/ +100 fps) of projected blood in the direction of the shooter if shouldering the weapon and firing in a parallel to the ground position. The likely presence of blood droplets and other tissue would increase in quantity if the shooter was not behind the stock, but was positioned closer to the muzzle end of the weapon (increase in angle, gravity).

Additionally, the only gunshot wound on Margaret that would be sufficient to produce back spatter would be GSW (#4), due to distance, clothing, or precise entry of bullet (Single projectile vs. shotgun pellets). However, this wound would not project blood and tissue far enough in most cases to contaminate the shooter.

IQ 10: Does the physical evidence support a struggle between Paul and the shooter given the shot to his chest?

- **Stippling on anatomical left side of chest wound.**
- **Paul is angled.**

IQ-10: Opinion

I identified no physical evidence that would suggest or support a struggle between Paul and the shooter.

IQ-11: Could the shooter be prone or kneeling on the cement at the time of the shoulder-headshot?

IQ-11: Opinion

G. Paul's height of 5'8", and the sharp angle upwards, approximately 135 degrees up would support that Paul's left side was dipping slightly, and head slightly forward as he was standing or exiting the feed room at the time of the second shot.

H. **Blood, tissue, blood volume, and body fluids on the door, and specifically the upper door frame, directionality, void areas to the west side of door frame, spatter documented on the SW side of shelved items inside the door, and the position of the severed brain would place the shooter outside the door to the west side of entry.**

The length of the shotgun would be needed for a reasonable degree of certainty, but it is unlikely that the shooter was standing with a shouldered weapon at the time of the second discharge (IQ-1 & 2 Opinion: Kinsey, 2022)

IQ-12: What is the best explanation for how the cell phone dislodged from Paul's back pocket?

- **Reported to have been carried in rear pocket.**
- **Elastic on top.**
- **Located and documented on pocket.**
- **Blood transferred inside top band of pocket.**
- **Was not removed from pocket by Paul after second gunshot wound.**

IQ-12: Opinion

It is my opinion that the phone was removed from Paul's rear pocket by someone other than Paul, and after the fatal shot. The blood stain inside of pocket was produced during phone's retrieval, and prior to phone's placement on top of the rear pocket.

I specifically reserve the right to amend, alter, and/or supplement this Affidavit and my Expert Opinions contained herein should new information become available.

I hereby render the above expert opinions (11 pages + the following A-L Attachments) regarding the homicides of Paul and Maggie Murdaugh, occurring June 6, 2021. The undersigned, under the pains and penalties of perjury, affirms that the foregoing facts are true to the best of my abilities.

Dr. Kenneth Lee Kinsey

THUS, DONE and SIGNED before me, NOTARY PUBLIC, this 9th day of January, 2023.

Melissa G Bochette
(Print)

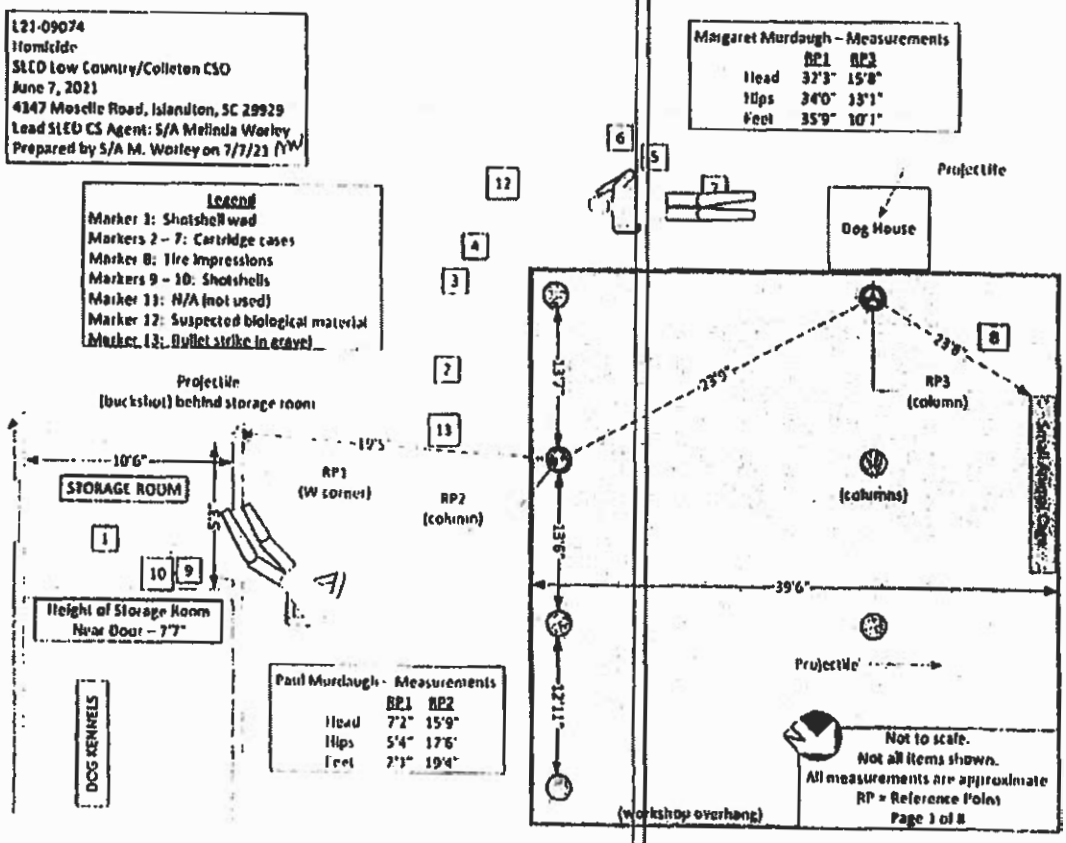
Melissa G. Bochette
(Signed)

MELISSA G. BOCHETTE NOTARY PUBLIC SOUTH CAROLINA My Comm. Exp. 12-14-2031

Notary Public South Carolina
My Commission Expires Dec. 14, 2031


MELISSA G. BOUCHETTE
NOTARY
PUBLIC
SOUTH CAROLINA
My Comm Exp.
12-14-2031

Attachment 1



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STATE OF SOUTH CAROLINA	)	IN THE COURT OF GENERAL SESSIONS
	)	FOURTEENTH JUDICIAL CIRCUIT
COUNTY OF COLLETON	)	

The State of South Carolina, Plaintiffs, vs. Richard Alexander Murdaugh, Defendant.	Indictment Nos. 2022GS1500592 – 00595 **CERTIFICATE OF SERVICE**

I, Holli Miller, paralegal to the attorney for the Defendant, Richard A. Harpootlian, P.A., with offices located at 1410 Laurel Street, Columbia, South Carolina 29201, hereby certify that on January 23, 2023 did serve by hand delivering the following documents to the below mentioned person:

Document: Motion in Limine to Exclude Blood Spatter Testimony of Deputy Kenneth Lee Kinsey

Served: Creighton Waters, Esquire
Office of The Attorney General
Rembert C. Dennis Building
Post Office Box 11549
Columbia South Carolina 29211-1549
cwaters@scag.gov

Holli Miller

JAN 23 2023 AM9:01
COLLETON CO GS, REBECCA H.HILL

STATE OF SOUTH CAROLINA COUNTY OF COLLETON	IN THE COURT OF GENERAL SESSIONS FOURTEENTH JUDICIAL CIRCUIT
The State of South Carolina, vs. Richard Alexander "Alex" Murdaugh, Defendant.	Indictment Nos. 2022-GS-15-00592 2022-GS-15-00593 2022-GS-15-00594 2022-GS-15-00595 **MOTION IN LIMINE TO PRECLUDE OR LIMIT FIREARM BALLISTIC OPINION TESTIMONY, OR ALTERNATIVELY, FOR A *COUNCIL* HEARING**

Richard Alexander Murdaugh ("Murdaugh"), by and through undersigned counsel, moves the Court to preclude, or limit, the introduction of firearms identification evidence and the purported expert opinion testimony of Paul S. Greer ("Greer"), or, alternatively, for a *Council* hearing pursuant to South Carolina Rule Evidence 702. *See State v. Council*, 335 S.C. 1, 19, 515 S.E.2d 508, 517 (1999). The Court should preclude such evidence because neither Greer's methodology in reaching his conclusions, nor the substance of those conclusions is reliable. Accordingly, his opinion testimony does not aid the trier of fact to understand the evidence or to determine a fact in issue and is properly excluded. Furthermore, any probative value such evidence or testimony may have – which Murdaugh denies – is substantially outweighed by the danger of unfair prejudice, confusion of the issues and misleading the jury and must be excluded under South Carolina Rule of Evidence 403.

FACTS

Maggie and Paul Murdaugh were found murdered on June 7, 2021, on their family property located at 4147 Moselle Road, Islandton, S.C. At the crime scene, the ballistic evidence around Paul's body included one shot cup and one shot wad (collectively Item 1), two 12 gauge shotshells

(Items 9-10), as well as bullet jacket fragments (collectively Item 11), a fired bullet (Item 12), a buckshot pellet (Item 13) and birdshot pellets (collectively Item 14). The Colleton County Sherriff's Office identified six .300 Blackout caliber cartridges around Maggie's body (Items 2-7) and one bullet (Item 8).

Law enforcement also confiscated fired .300 Blackout caliber cartridge cases (Items 35-39) from the ground at the side entrance of the house on the Moselle property—approximately 300 yards from the crime scene. Additional .300 cartridge cases (Items 108-124, 126-128), as well as 12 gauge shotshells (Items 125, 129-135) were found in an area by a pond near Moselle Road in a field which was frequented by the Murdaugh family and guests for target practice.

All of the above evidence, as well as four 12 gauge shotguns (Items 22, 30, 31, and 32) and one 300 Blackout caliber rifle (Item 33) collected from the Moselle property were submitted to the Firearms Department at SLED for forensic examination. The laboratory then fired laboratory-supplied ammunition through each shotgun and rifle to create test specimens. Greer then examined and compared the various items of firearms ballistic evidence submitted from the crime scene with the test specimens created by the lab using the naked eye and a microscope. Based on the observable, physical characteristics of the items submitted to the lab, he concluded that some of the .300 cartridges retrieved from the firing range and near the residence were fired and/or loaded into, extracted, and ejected by the .300 Blackout rifle taken from the property. *See SLED Firearms Report*, CA No. 31210061 (July 23, 2021), at 7, attached hereto as **Exhibit A**. While he was unable to conclude the .300 Blackout cartridges found beside Maggie's body (Items 2-7) were fired by the .300 Blackout retrieved from the residence (Item 33), he reported that "[m]atching individual identifying characteristics were found in the mechanism marks of Items 2-7, [spent shell cartridges found at the crime scene], and Items 35-37, 39, 108, 113, 116-117, and 122, [cartridges found at

the shooting range and near the residence], to conclude that these Items were loaded into, extracted, and ejected from the same firearm at some previous time." Id.

ARGUMENT

The Court should preclude the State's ballistic expert from testifying that the .300 Blackout cartridges found at the crime scene were fired from the same weapon that fired .300 Blackout cartridges at the shooting range and near the residence because there are not any reliable studies or any scientific proof that every .300 black-out rifle makes tool marks on fired cartridges that are unique from every other .300 black-out rifle manufactured in the world. Moreover, the field of tool mark analysis is inherently subjective and not scientifically valid. Alternatively, the Court should conduct a *Council* hearing to ensure the proffered evidence is scientifically and substantively reliable and will assist the trier of fact. Whereas here, the conclusions drawn by Mr. Greer are not based on methods that are scientifically valid or reliable, such evidence is properly excluded under Rule 702. Additionally, given the unreliable nature of such evidence and the import a jury attributes to expert testimony, such evidence should also be excluded because any probative value it might offer is substantially outweighed by the danger of unfair prejudice, confusion of the issues and misleading the jury. *See* Rule 403, SCRE.

"When admitting scientific evidence under Rule 702, SCRE, the trial judge must find the evidence will assist the trier of fact, the expert witness is qualified, and the underlying science is reliable." *Council*, 335 S.C. at 20, 515 S.E.2d at 518. In determining whether evidence is admissible pursuant to Rule 702, SCRE, the Court "must assess not only (1) whether the expert's *method* is reliable (i.e., valid), but also (2) whether the *substance* of the expert's testimony is reliable." *State v. Warner*, 430 S.C. 76, 86, 842 S.E.2d 361, 265 (Ct. App. 2020) (internal citations omitted). The Court's determination of reliability requires consideration of "(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." *Council*, 335 S.C. at 1, 515 S.E.2d at 517 (citing *State v. Ford*, 301 S.C. 485, 392 S.E.2d 781 (1990)). The proponent of scientific evidence has the burden of providing the Court with the factual and scientific information needed for the Court to carry out its gatekeeping function. *See State v. Phillips*, 430 S.C. 319, 334, 844 S.E.2d 651, 659 (2020). If the Rule 702 evidence is deemed relevant and reliable, the Court must then consider whether the probative value of the evidence is substantially outweighed by its potential for unfair prejudice, confusion of the issues, or misleading the jury. *Council*, 335 S.C. at 1, 515 S.E.2d at 517 (citing *Ford*, 301 S.C. 485, 392 S.E.2d 78).

1. **Firearms analysis is neither scientifically valid nor reliable; thus, the ballistics evidence should be excluded.**

Firearms analysis is a "feature-comparison" method that attempts to determine whether a questioned sample is likely to have come from a known source based on shared features." *See* Addendum to the PCAST Report on Forensic Science in Criminal Courts, available at: https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/PCAST/pcast_forensics_addendum_finalv2.pdf (last visited January 15, 2023). It is an inherently subjective forensic field given the methodology depends largely, if not exclusively, on examiner judgment. *Id.* For this reason, authoritative scientific bodies conducting objective reviews of firearms analysis have concluded it is neither scientifically valid nor reliable.

In 2009, the National Research Council of the National Academy of Sciences[1], issued a report (the "NAS Report"), identifying the following issues which plague the reliability of firearms analysis:

- "[E]ven with more training and experience using newer techniques, the decision of the toolmark examiner remains a subjective decision based on unarticulated standards and no statistical foundation for estimation of error rates." *Id.* at 153-154.
- "Sufficient studies have not been done to understand the reliability and repeatability of the methods." *Id.* at 154.
- The Association of Firearm and Tool Mark Examiners' (AFTE) theory of identification does not address "questions regarding variability, reliability, repeatability, or the number of correlations needed to achieve a given degree of confidence." *Id.* at 155.

See Nat'l Res. Council, Nat'l Academies, *Strengthening Forensic Science in the United States: A Path Forward* (2009), available at https://www.ojp.gov/pdffiles1/nij/grants/228091.pdf (last visited January 15, 2023).

A second objective critique of this discipline was presented in a report issued by the President's Council of Advisors on Science and Technology in 2016 ("PCAST Report").[2] Like the

[1] The National Academy of Science is the premier scientific organization in the United States. Its current membership totals approximately 2,400 members and 500 international members, of which approximately 190 are Nobel prize-winners. The NRC committee of the NAS that studied firearm examination was composed of scientists and scholars selected for their ability to evaluate forensic science. These experts included forensic practitioners, crime laboratory directors, statisticians, engineers, and materials scientists. *See* https://www.nasonline.org/ (last visited January 15, 2023). The conclusions set forth in the NAS Report represent a consensus opinion of the top scientific minds in this country.

[2] The President's Council of Advisors on Science and Technology (PCAST) is an advisory group of the Nation's leading scientists and engineers, appointed by the President to augment the science and technology advice available to him from inside the White House and from cabinet departments and other Federal agencies. PCAST is consulted about, and often makes policy recommendations concerning, the full range of issues where understandings from the domains of science, technology, and innovation bear potentially on the policy choices before the President. *See* https://obamawhitehouse.archives.gov/administration/eop/ostp/pcast/about (last visited January 15, 2023); https://www.whitehouse.gov/pcast/ (last visited January 15, 2023).

NAS Report, it concluded that firearms analysis as a field "still falls short of the scientific criteria for foundational validity." Specifically, the PCAST Report raised the following concerns:

- The AFTE's "theory of identification" that "two toolmarks have a 'common origin' when their features are in 'sufficient agreement'" is circular. *Id.* at 60 ("[AFTE] declares that an examiner may state that two toolmarks have a "common origin" when their features are in "sufficient *agreement.*" It then defines "sufficient agreement" as occurring when the examiner considers it a "practical impossibility" that the toolmarks have different origins.")

- Relying on "training and experience" and "uniqueness" in lieu of empirical demonstration of accuracy. *Id.* at 60-61. (Practitioners' "honest belief that they are able to make accurate judgments about identification based on their training and experience" is a "fallacy"; " '[e]experience is an inadequate foundation for drawing judgments about whether two sets of features could have been produced by (or found on) different sources" and "'training' is an even weaker foundation."

- Firearms analysis has never been satisfactorily validated. *Id.* at 64 ("There is no known study assessing "the overall firearm and toolmark discipline's ability to correctly/consistently categorize evidence by class characteristics, identify subclass marks, and eliminate items using individual characteristics.")

See The White House, President Barack Obama, Office of Science and Technology, Report to the President, *Forensic Science in Criminal Courts: Ensuring Scientific Validity of Feature-Comparison Methods* (Sept. 2016) ("PCAST Report"), available at https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/PCAST/pcast_forensic_science_report_final.pdf (last visited January 15, 2023).

In short, two independent, non-partisan groups comprised of accomplished experts have each issued reports – which rely on countless other scientific reports – reflecting a consensus in the scientific community that the evidence the State intends to introduce has not been validated and is unreliable. Thus, the firearms report and testimony of Mr. Greer should be excluded.

2. Alternatively, the Court should conduct a *Council* hearing to determine whether to suppress all such evidence or impose limitations on Greer's testimony.

To the extent the Court is not persuaded to preclude such evidence based solely on the extensive reporting presented by the scientific community, it should hold a *Council* hearing and only admit that evidence which is relevant, comports with Rule 702, and passes muster under Rule 403. It is imperative that in fulfilling its gate-keeping function the Court determine the reliability of the expert testimony being presented. *Council,* 335 S.C. at 20, 515 S.E.2d at 518. Whereas here, the State intends to introduce testimony that individual characteristics of certain groups of cartridge cases found at or near Moselle can be attributed to a specific gun, the Court should preclude or at the very least limit such testimony because of the confusion firearms examiners have not arrived at either strict rules for determining whether a microscopic pattern on a toolmark is an individual or a subclass characteristic or strict rules as to which tools or manufacturing processes do or do not produce toolmarks with subclass characteristics. Accordingly, the State should not be permitted to present evidence that the cartridges in issue came from a certain gun to the exclusion of all others.

When examining samples, firearms analysts compare the markings that are created on the samples when the internal parts of a firearm make contact with the brass and lead that comprise ammunition. Examiners classify these marking into three categories. "Class characteristics" are features that can be associated with a certain group (i.e., markings that appear on all cartridge cases fired from the same make and model of gun). "Subclass characteristics" are markings that can be attributed to a small group of firearms from a specific production lot (i.e., markings left on cartridge cases fired from one of a group of guns mass-produced at the same time). These markings are produced by the manufacturing process, such as when a worn or dull tool is used to cut barrel rifling (i.e., markings left on all cartridge cases fired from guns in that specific production lot).

"Individual characteristics" are the microscopic markings and textures examiners claim are unique to a single firearm. The task of the firearms examiner is to identify the individual characteristics of microscopic toolmarks apart from class and sub-class characteristics and then to assess the extent of agreement in individual characteristics in the sets of toolmarks to permit the identification of an individual firearm. *See NAS* Report at 153.

It is apparent, and the AFTE concedes, that such an exercise involves subjective qualitative judgments by examiners and the accuracy of the assessments is highly dependent on their skill and training. In the present case, the State has not offered any information on the qualifications of Mr. Greer, let alone the methodology used to arrive at his conclusions. Nor, has the State—because it cannot—provided any studies supporting its conclusion – that certain cartridge casings came from specific firearms to the exclusion of all others.

Following the release of the NAS Reports and PCAST reports, Courts have begun to limit the testimony of firearms evidence to the extent it is presented to state opinions that an expert is 100% certain a cartridge came from a specific gun or that a cartridge is a "match' to a specific gun to the exclusion of all others. *See, e.g., United States v. Davis,* No. 4:18-cr-00011, 2019 WL 4306971, at *8 (W.D. Va. Sept. 11, 2019) (permitting FTM expert to testify as to similarities/consistencies in recovered cartridge cases, but precluding testimony that markings indicate a "match" or that cartridges were fired from same firearm); *United States v. Medley*, No. 17 Cr. 242, ECF No. 85 at 54 (S.D. Md. Apr. 24, 2018) (transcript of oral ruling) (holding the court will not allow expert to express opinion that cartridges found at crime scene were fired from the same gun as that associated with the defendant or to express confidence level as to his opinion); *United States v. Adams*, 444 F.Supp.3d 1248, 1266–1267 (D. Or. 2020) (holding expert cannot say "match" or that cartridges were fired from same firearm; expert permitted to testify regarding only

class characteristics); *People v. Ross*, 68 Misc. 3d 899, 918 (N.Y. Sup. Ct. June 30, 2020) (limiting testimony to class characteristics only); *United States v. Tibbs*, No. 2016-CF1-19431, 2019 WL 4359486, at *24 (D.C. Super. Ct. Sept. 5, 2019) (recognizing the weakness in AFTE Journal's peer reviewed articles and holding expert may only testify that bullet fragment and shell casing are "consistent with" being fired from recovered firearm; that recovered firearm "cannot be excluded" as source of bullet and bullet fragment, but cannot testify that bullet and fragment were definitively fired from recovered firearm); *United States. v. Shipp*, 422 F. Supp. 3d 762, 783 (E.D.N.Y. 2019) (expert cannot say "match" or that cartridges were fired from same firearm); *State v. Gibbs*, No. 1819003017, 2019 WL 6709058, at *5 (Del. Super. Ct. Dec. 9, 2019) ("The expert is precluded from testifying to being 100% certain as to his findings [and] if he testifies to a 'match,' the expert may not testify to conclusions that suggest there is a match to 'the exclusion of all other firearms in the world' or that it is a 'practical impossibility' that any other gun could have fired the recovered material. He may not testify within a reasonable degree of 'scientific' certainty and may not state his conclusions regarding a 'match' with any degree of certainty.").[3] This trending limitation in federal and state courts is arising because of the growing recognition in the judiciary of the critique amongst the scientific community when examiners express opinions based on perceived individual characteristics. As recently explained in *People v. Ross*, 68 Misc. 3d 899, 129 N.Y.S.3d 629 (N.Y. Sup. Ct. 2020),

> Even if an expert is using reliable principles to examine for class characteristics, there is little reliable basis for extrapolating further from other marks seen under a microscope. The expert's opinions must be limited if there is simply too great an analytical gap between the data and the opinion proffered. *At a foundational level,*

[3] Although South Carolina has not adopted the *Daubert* approach, South Carolina's *Council* test has been held to be "extraordinarily similar" to the federal test. *See Warner*, 430 S.C. at 86, 842 S.E.2d at 366 (citing Young, *How Do You Know What You Know?*, 15 S.C. Law. Rev. 28, 31 (2003)). Accordingly, opinions utilizing this framework are instructive.

> *beyond comparing class characteristics forensic toolmark practice lacks adequate scientific underpinning and the confidence of the scientific community as a whole.*
>
> A significant flaw in the forensic method is the potential for subclass characteristics to mimic individual characteristics and obscure the true reason for what may appear to the examiner to be a unique match: "[b]ullets fired from different guns may have significantly similar markings, reflecting class or subclass, rather than individual characteristics." Both the literature and the forensic science expert confirmed that subclass characteristics remain an unknown for the examiner under ordinary circumstances. Such a void can lead to an erroneous conclusion that there is "agreement" or "consistency" if the examiner mistakes a subclass characteristic for an individual one on discharged shell casings or bullets.

Id. at 916–917 (internal citations omitted) (emphasis added); *see also United States v. Taylor*, 663 F. Supp. 2d 1170, 1177 (D.N.M. 2009).

Such limitation is appropriate when characteristics on a cartridge case claimed by the examiner to be "individual" can derive from any of several sources, including the manufacturing processes, subsequent materials handling and processing, and use or servicing of the firearm. Without personal knowledge of the "individual" and subclass characteristics produced by a particular manufacturing run, or even a known sample for comparison, an examiner does not have sufficient information to differentiate between the two phenomena for most forming processes. Thus, Courts have appropriately limited the testimony of a firearms expert seeking to testify to a conclusion "matching" (to the exclusion of all others) a certain firearm to cartridge casings based on the examiner's findings concerning individual characteristics of the firearm.

In the present matter, the examiner did not present any findings based on "class characteristics." Rather, Mr. Greer offers testimony that the "matching individual identifying characteristics" found on certain cartridge cases submitted for his review can be definitely tied to specific firearms. *See* Ex. A at 7. As set forth above in scientific reports and case law from across the country, such testimony should not be allowed because Mr. Greer's conclusion remains inherently subjective and is derived from a method with unarticulated standards and no statistical

foundation for estimation of error rates. Such evidence cannot be deemed to satisfy the reliability requirements of *Council* and Rule 702; therefore it is properly excluded, or alternatively, limited.

Moreover, even if the State's ballistic evidence provided from Mr. Greer was admissible under Rule 702 – which it is not – the minimal probative value (if any) that a jury could gleam from Mr. Greer's testimony is substantially outweighed by the potential for unfair prejudice, confusion of the issues, and misleading the jury.

CONCLUSION

Based on the foregoing, the Court should grant Defendant's motion in limine to preclude, or limit the ballistics evidence and testimony of Mr. Greer. Alternatively, the Court should hold a *Council* hearing and only admit that evidence which is relevant, comports with Rule 702, and passes muster under Rule 403.

Respectfully submitted,

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January 23, 2023
Columbia, South Carolina

EXHIBIT A

(SLED Firearms Report, July 23, 2021)

SOUTH CAROLINA LAW ENFORCEMENT DIVISION

FORENSIC SERVICES LABORATORY REPORT

HENRY D. MCMASTER
Governor

MARK A. KEEL
Chief

July 23, 2021

David Owen, III
South Carolina Law Enforcement Division
4400 Broad River Road
Columbia, SC 29210

FIREARMS DEPARTMENT
SLED LAB: L21-09074
Your Case No: 31210061
Incident Date: 6/7/2021
[V-Deceased] Paul Murdaugh
[V-Deceased] Margaret Murdaugh
[W] Richard Murdaugh

This is an official report of the South Carolina Law Enforcement Division Forensic Services Laboratory and is to be used in connection with an official criminal investigation. These examinations were conducted under your assurance that no previous examinations of person(s) or evidence submitted in this case have been or will be conducted by any other laboratory or agency.

Mark A. Keel, Chief
South Carolina Law Enforcement Division

ITEMS OF EVIDENCE:

Item: 1 One shot cup and one wad component, listed as "...from Marker 1".
RESULTS:
See Item 69 results.

Item: 1.1 Reddish-brown debris swabbed from Item 1.
RESULTS:
Item 1.1 was returned without further analysis.

Item: 1.2 Fibrous material removed from Item 1.
RESULTS:
Item 1.2 was returned without further analysis.

Item: 2 One fired 300 Blackout caliber cartridge case, listed as "...from Marker 2".
Item: 3 One fired 300 Blackout caliber cartridge case, listed as "...from Marker 3".
Item: 4 One fired 300 Blackout caliber cartridge case, listed as "...from Marker 4".
Item: 5 One fired 300 Blackout caliber cartridge case, listed as "...from Marker 5".
RESULTS:
See Item 128 results.

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P.O. Box 21398, Columbia, South Carolina 29221-1398 Phone (803) 896-7300 Fax (803) 896-7351

Item: 6 One fired 300 Blackout caliber cartridge case, listed as "...from Marker 6".
Item: 7 One fired 300 Blackout caliber cartridge case, listed as "...from Marker 7".
RESULTS:
See Item 128 results.

Item: 8 One fired bullet, listed as "...near tire tire impression at Marker 8".
RESULTS:
See Item 137 results.

Item: 9 One fired 12 gauge shotshell, listed as "...from Marker 9".
Item: 10 One fired 12 gauge shotshell, listed as "...from Marker 10".
RESULTS:
See Item 135 results.

Item: 11 One fired bullet jacket fragment, three bullet jacket fragments, and one piece of lead, listed as "...from defect in ground (gravel) (Marker 13)".
Item: 12 One fired bullet, listed as "...from bedding inside doghouse".
RESULTS:
See Item 137 results.

Item: 13 One buckshot pellet, listed as "...from table below storage room window".
Item: 14 Twenty-four birdshot pellets listed as "...from dog food storage room".
RESULTS:
See Item 104 results.

Item: 14.1 Reddish-brown debris swabbed from Item 14.
RESULTS:
Item 14.1 was returned without further analysis.

Item: 22 One Benelli Model Super Black Eagle 3 semiautomatic shotgun, 12 gauge, serial number U573210E17, with one unfired 12 gauge shotshell, one unfired 16 gauge shotshell, and accessory. *Please note that the accessory was not listed on the submission documents.*
RESULTS:
Item 22 was physically examined. The shotgun was test fired and found to be in working order. The 12 gauge shotshell was the correct gauge for use in the shotgun. The 16 gauge shotshell was not correct for use in the shotgun.

No analysis was performed on the accessory.

Item: 22.4 Reddish-brown debris swabbed from the right side of the Item 22 receiver.
RESULTS:
Item 22.4 was forwarded to the DNA Department.

Item: 22.5 Reddish-brown debris swabbed from the left side of the Item 22 receiver, above manufacturer information.
RESULTS:
Item 22.5 was forwarded to the DNA Department.

Item: 22.6 Test specimens fired by Item 22 using Laboratory supplied ammunition.
RESULTS:
The test specimens were packaged for return to your Agency for long term storage as evidence.

Item: 22.7 The unfired 12 gauge shotshell submitted as Item 22 test fired in the Item 22 shotgun.
RESULTS:
This test specimen was used for comparisons purposes and was packaged for return with the other evidence.

Item: 22.8 Reddish-brown debris swabbed from under the forearm on the magazine tube and receiver area.
RESULTS:
Item 22.8 was returned without further analysis.

Item: 30 One Mossberg Model 835 "ULTI-MAG" pump-action shotgun, 12 gauge, serial number UM613411, with one unfired 12 gauge shotshell, listed as "...(previously on pool table)..."
RESULTS:
Item 30 was physically examined. During test firing, the first shotshell was loaded from the magazine tube and successfully test fired. After firing, the next available shotshell in the magazine tube had to be manually removed. The shotshell was then fed into the chamber with the lifter and fired. This issue did not prevent test firing and no further analysis was performed.

Item: 30.2 Test specimens fired by Item 30 using Laboratory supplied ammunition.
RESULTS:
The test specimens were packaged for return to your Agency for long term storage as evidence.

Item: 31 One Browning Model Auto-5 Light Twelve semiautomatic shotgun, 12 gauge, serial number 03867NV211.
RESULTS:
Item 31 was physically examined. During test firing, the shotgun did not extract and eject the fired shotshells. The shotshells had to be removed from the chamber by manually cycling the firearm. This issue did not prevent test firing and no further analysis was performed.

Item: 31.2 Test specimens fired by Item 31 using Laboratory supplied ammunition.
RESULTS:
The test specimens were packaged for return to your Agency for long term storage as evidence.

Item: 32 One Benelli Model Super Black Eagle II semiautomatic shotgun, 12 gauge, serial number U391148, with two unfired 12 gauge shotshells and one accessory .
RESULTS:
Item 32 was physically examined. The shotgun was test fired and found to be in working order. The unfired shotshells were the correct gauge for use in the shotgun.

No analysis was performed on the accessory.

Item: 32.2 Test specimens fired by Item 32 using Laboratory supplied ammunition.
RESULTS:
The test specimens were packaged for return to your Agency for long term storage as evidence.

Item: 32.3 Debris swabbed from inside the choke of Item 32.
RESULTS:
Item 32.3 was returned without further analysis.

Item: 33 One Palmetto State Armory Model PA-15 semiautomatic rifle, 300 Blackout caliber, serial number PA068237, with accessory.
RESULTS:
Item 33 was physically examined. The rifle was test fired using the Item 34 magazine. During test firing, the first available cartridge in the magazine was fed and chambered correctly. The cartridge was successfully test fired, and extracted and ejected from the rifle. As the firearm cycled, the next available cartridge from the magazine failed to feed into the chamber. The bolt had to be manually cycled in order to feed the next cartridge. This issue did not prevent test firing and no further analysis was performed.

No analysis was performed on the accessory.

Item: 33.2 Test specimens fired by Item 33 using Laboratory supplied ammunition.
RESULTS:
The test specimens were packaged for return to your Agency for long term storage as evidence.

Item: 33.3 Test specimens cycled through Item 33 using Laboratory supplied ammunition.
RESULTS:
The test specimens were packaged for return to your Agency for long term storage as evidence.

Item: 34 One magazine and twenty-six unfired 300 Blackout caliber cartridges.
RESULTS:
Item 34 was physically examined. The magazine was a correct magazine assembly for use in the Item 33 rifle and in other similar type firearms. The unfired cartridges were the correct caliber for use in the Item 33 rifle and in other firearms chambered for 300 Blackout caliber cartridges.

Item: 35 One fired 300 Blackout caliber cartridge case, listed as "...from ground at side entrance door".
Item: 36 One fired 300 Blackout caliber cartridge case, listed as "...from ground at side entrance door".
Item: 37 One fired 300 Blackout caliber cartridge case, listed as "...from ground at side entrance door".
Item: 38 One fired 300 Blackout caliber cartridge case, listed as "...from ground at side entrance door".
Item: 39 One fired 300 Blackout caliber cartridge case, listed as "...from ground at side entrance door".

RESULTS:
See Item 128 results.

Item: 66 Three fired bullet jacket fragments and seven pieces of lead, listed as "...from Margaret Murdaugh at autopsy".

RESULTS:
See Item 137 results.

Item: 67 Forty-eight birdshot pellets, listed as "...from left shoulder and head of Paul Murdaugh at autopsy".

RESULTS:
See Item 104 results.

Item: 68 One piece of plastic, listed as "...from left shoulder and head of Paul Murdaugh at autopsy".

RESULTS:
Item 68 was physically and microscopically examined. It could not be determined whether Item 68 was part of a wad or wad component at some prior time, or if it originated from another source. No marks of value suitable for identification were found, and it was concluded that Item 68 was unsuitable for identification.

Item: 69 One combination wad, listed as "...from left axilla of Paul Murdaugh at autopsy".

RESULTS:
Items 1 and 69 were physically examined and microscopically compared with each other and test wads fired by the Item 22 and 30 – 32 shotguns. Based on their observable, physical characteristics, Items 1 and 69 were most consistent with wads/wad components loaded into some 12 gauge shotshells. Items 1 and 69 bore some striated markings; however, their origin could not be determined and the results of these comparisons were inconclusive. It could not be determined whether Items 1 and 69 were fired by Items 22, 30, 31, 32, or by another firearm or firearms. Items 1 and 69 may not be suitable for identification with other firearms related evidence.

Sufficient differences in class characteristics were found to conclude that Items 1 and 69 were not fired by the Item 33 rifle.

Item: 104 One birdshot pellet, listed as "...found with Paul Murdaugh's clothing".

RESULTS:
Items 13, 14, 67, and 104 were physically and microscopically examined. From these examinations, the following conclusions were reached:

- Based on its observable, physical characteristics, Item 30 was most consistent with being a Number 0 or larger buckshot pellet. No marks of value suitable for identification were found, and it was concluded that Item 13 was unsuitable for identification with other firearms related evidence.
- Based on their observable, physical characteristics, Items 14, 67, and 104 were most consistent with being Number 2 birdshot pellets. No marks of value suitable for identification were found, and it was concluded that Items 14, 67, and 104 were unsuitable for identification with other firearms related evidence.

Sufficient differences in class characteristics were found to conclude that Items 13, 14, 67, and 104 were not fired by the Item 33 rifle.

Item: 108 One fired 300 Blackout caliber cartridge case, listed as "...from to the left of shooting chair (near field)".

Item: 109 One fired 300 Blackout caliber cartridge case, listed as "...collected from right front corner (near field)".

Item: 110 One fired 300 Blackout caliber cartridge case, listed as "...from in front of shooter's chair under table (near field)".

Item: 111 One fired 300 Blackout caliber cartridge case, listed as "...from in front of chair at table (near field)".

Item: 112 One fired 300 Blackout caliber cartridge case, listed as "...from under shooting table (near field)".

Item: 113 One fired 300 Blackout caliber cartridge case, listed as "...from in front of right shooting table leg (near field)".

Item: 114 One fired 300 Blackout caliber cartridge case, listed as "...from near right leg of shooting table in front of chair (near field)".

Item: 115 One fired 300 Blackout caliber cartridge case, listed as "...from the front of and to the right of shooting table leg (near field)".

Item: 116 One fired 300 Blackout caliber cartridge case, listed as "...from to the right halfway between leg and wall (near field)".

Item: 117 One fired 300 Blackout caliber cartridge case, listed as "...from near right leg of shooting table near chair (near field)".

Item: 118 One fired 300 Blackout caliber cartridge case, listed as "...from by right wall (near field)".

Item: 119 One fired 300 Blackout caliber cartridge case, listed as "...from right front part of front wall (near field)".

Item: 120 One fired 300 Blackout caliber cartridge case, listed as "...from right side of shooting platform (near field)".

Item: 121 One fired 300 Blackout caliber cartridge case, listed as "...from right of shooting chair by platform (near field)".

RESULTS:

See Item 128 results.

Item: 122 One fired 300 Blackout caliber cartridge case, listed as "...from right side near wall (near field)".

Item: 123 One fired 300 Blackout caliber cartridge case, listed as "...from right side chair platform (near field)".

Item: 124 One fired 300 Blackout caliber cartridge case, listed as "...from right wall near sandbags (near field)".

RESULTS:
See Item 128 results.

Item: 125 One fired 12 gauge shotshell, listed as "...collected near field". *Item 125 was originally submitted as "...8..." fired shotshells. This evidence was itemized for identification and reporting purposes. See Items 129 – 135.*

RESULTS:
See Item 135 results.

Item: 126 One fired 300 Blackout caliber cartridge case, listed as "...from right front corner".

Item: 127 One fired 300 Blackout caliber cartridge case, listed as "...from right and to the front of right table leg".

Item: 128 One fired 300 Blackout caliber cartridge case, listed as "...collected from right near front wall".

RESULTS:
Items 2 – 7, 35 – 39, 108 – 124 and 126 – 128 were physically examined and, where appropriate, microscopically compared with each other and test cartridge cases fired by the Item 33 rifle. From these examinations and comparisons, the following conclusions were reached:

- Matching individual identifying characteristics were found on Items 38, 109 – 110, 121, 126, 127 and test cartridge cases fired by the Item 33 rifle. It was concluded that these Items were fired by Item 33.
- Due to insufficient corresponding individual identifying characteristics, the results of comparisons of Items 2 – 7, 35 – 37, 39, 108, 111 – 120, 122 – 124, and 128 with each other and test cartridge cases fired by the Item 33 rifle were inconclusive. It could not be determined whether these Items were fired by Item 33 or by another firearm or firearms with similar rifling characteristics. These Items may or may not be suitable for identification with other firearms related evidence.
- Matching individual identifying characteristics were found in the mechanism marks of Items 111, 114 – 115, 118 – 119, 123, 128 to conclude that these Items were loaded into, extracted, and ejected from the Item 33 rifle at some previous time.
- Matching individual identifying characteristics were found in the mechanism marks of Items 2 – 7, 35 – 37, 39, 108, 113, 116 – 117, and 122 to conclude that these Items were loaded into, extracted, and ejected from the same firearm at some previous time.

Sufficient differences in class characteristics were found to conclude that Items 2 – 7, 35 – 37, 39, 108, 111 – 120, 122 – 124, and 128 were not fired by any of the Item 22, 30, 31, or 32 shotguns.

Item: 129 One fired 12 gauge shotshell, originally submitted as/with Item 125.
Item: 130 One fired 12 gauge shotshell, originally submitted as/with Item 125.
Item: 131 One fired 12 gauge shotshell, originally submitted as/with Item 125.
Item: 132 One fired 12 gauge shotshell, originally submitted as/with Item 125.
Item: 133 One fired 12 gauge shotshell, originally submitted as/with Item 125.
Item: 134 One fired 12 gauge shotshell, originally submitted as/with Item 125.
Item: 135 One fired 12 gauge shotshell, originally submitted as/with Item 125.

RESULTS:

Items 9 – 10, 125, and 129 – 135 were physically examined and, where appropriate, microscopically compared with test shotshells fired by the Item 22 and 30 – 32 shotguns. From these examinations and comparisons, the following conclusions were reached:

- Matching individual identifying characteristics were found, and it was concluded that Items 9 – 10 were fired by the same firearm.
- Due to insufficient corresponding individual identifying characteristics, the results of comparisons of Items 9 – 10 with test shotshells fired by the Item 22 shotgun were inconclusive. It could not be determined whether Items 9 – 10 were fired by Item 22 or by another firearm with similar characteristics. Items 9 – 10 may be suitable for identification with other firearms related evidence.
- Sufficient differences in class and/or individual characteristics were found to conclude that Items 9 – 10 were not fired by the Item 30, 31, or 32 shotguns.
- Due to their damaged and weathered condition, the results of comparisons of Items 125 and 129 – 135 with each other, Items 9 – 10, and test shotshells fired by the Item 22 and 30 – 32 shotguns were inconclusive. It could not be determined whether Items 125 and 129 – 135 were fired by the firearm that fired Items 9 – 10, the Item 22, 30, 31, or 32 shotguns, or by another firearm or firearms with similar characteristics. Items 125 and 129 – 135 may not be suitable for identification with other firearms related evidence.

Sufficient differences in class characteristics were found to conclude that Items 9 – 10, 125, and 129 – 135 were not fired by the Item 33 rifle.

Item: 137 One piece of lead, listed as "...from hair on the Item 92 dress".

RESULTS:

Items 8, 11 – 12, 66, and 137 were physically examined and, where appropriate, microscopically compared with each other and test bullets fired by the Item 33 rifle. From these examinations and comparisons, the following conclusions were reached:

- Based on their observable, physical characteristics, Items 8 and 12 were most consistent with bullets loaded into some 300 Blackout caliber cartridges.
- Marks of value were found on Item 8 and it was concluded that it may be suitable for identification with other firearms related evidence.
- Due to damage, Item 12 was unsuitable for identification with other firearms related evidence; however, it may be suitable for elimination purposes based on class characteristics.
- Due to damage and their size, the caliber or calibers of Items 11, 66, and 137 could not be determined.
- Due to damage and limited marks of value found on the Item 11 fired bullet jacket fragment and the Item 66 fired bullet jacket fragments, it was concluded that these Items may or may not be suitable for identification with other firearms related evidence.
- No marks of value were found on the Item 11 bullet jacket fragments, the Item 11 piece of lead, and the Item 66 pieces of lead, and it was concluded that these Items were unsuitable for identification with other firearms related evidence.
- Item 137 bore some striated markings; however, their origin could not be determined and it was concluded that this Item was unsuitable for identification with other firearms related evidence.
- Due to damage and insufficient corresponding individual identifying characteristics, the results of comparisons of Item 8, the Item 11 fired bullet jacket fragment, and the Item 66 fired bullet jacket fragments with each other and test bullets fired by the Item 33 rifle were inconclusive. Although some limited similarities were noted on Item 8 and one of the Item 66 fired bullet jacket fragments, it could not be determined whether Item 8, the Item 11 fired bullet jacket fragment, and the Item 66 fired bullet jacket fragments were fired by Item 33 or by another firearm or firearms with similar rifling characteristics.

Sufficient differences in class characteristics were found to conclude that Item 8, the Item 11 fired bullet jacket fragment, and the Item 66 fired bullet jacket fragments were not fired by the Item 22 and 30 – 32 shotguns.

Items 3, 9, 10, and 33 were entered into the Integrated Ballistics Identification System (IBIS). These exhibits will automatically be correlated with exhibits from SC, GA, NC, and VA. Should any investigative leads be developed, your Agency will be notified. Please retain the evidence for a minimum of two years in order to maintain its availability for future comparisons related to IBIS activity.

This report contains the conclusions, opinions and interpretations of the analyst whose signature appears below.

Technical records supporting the conclusions in this report are available upon request. Afford sufficient time for production.

Paul S. Greer

Paul S. Greer
Forensic Scientist

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STATE OF SOUTH CAROLINA	)	IN THE COURT OF GENERAL SESSIONS
	)	FOURTEENTH JUDICIAL CIRCUIT
COUNTY OF COLLETON	)	
The State of South Carolina, Plaintiffs, vs. Richard Alexander Murdaugh, Defendant.		Indictment Nos. 2022GS1500592 – 00595 **CERTIFICATE OF SERVICE**

I, Holli Miller, paralegal to the attorney for the Defendant, Richard A. Harpootlian, P.A., with offices located at 1410 Laurel Street, Columbia, South Carolina 29201, hereby certify that on January 23, 2023 did serve by hand delivering the following documents to the below mentioned person:

Document: Motion in Limine to Preclude or Limit Firearm Ballistic Opinion Testimony, or Alternatively, for a *Council* Hearing

Served: Creighton Waters, Esquire
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Holli Miller

JAN 23 2023 PM4:01
COLLETON CO GS, REBECCA H.HILL

STATE OF SOUTH CAROLINA COUNTY OF COLLETON	)	IN THE COURT OF GENERAL SESSIONS FOR THE FOURTEENTH JUDICIAL CIRCUIT
State of South Carolina, v. Richard Alexander Murdaugh, Defendant.	)	Case Nos: 2022-GS-15-00592 2022-GS-15-00593 2022-GS-15-00594 2022-GS-15-00595 **STATE'S RESPONSE TO MOTION TO PRECLUDE OR LIMIT FIREARMS BALLISTICS EVIDENCE**

Murdaugh argues that the Court should prevent the SLED firearms identification expert from testifying in his opinion that the fired casings from the Blackout rounds that killed Maggie were cycled through the same weapon that cycled weathered casings found on the property.

Prior to admitting expert testimony under Rule 702, the trial court must determine whether the substance of the testimony is reliable. State v. Roy Lee Jones, 423 S.C. 631, 637, 817 S.E.2d 268, 270 (2018). In cases involving "scientific" evidence, it considers the four *Council* factors: (1) whether the expert's methodology has been published and subjected to peer review, (2) has previously been applied in similar situations, (3) includes quality control procedures, and (4) is consistent with recognized scientific laws and procedures. State v. Council, 335S.C. 1, 20, 515 S.E.2d 508, 517 (2001). In contrast, the same "formulaic approach" does not apply when a party offers nonscientific, or experience-based expert testimony. Roy Lee Jones, 423 S.C. at 638-39, 817 S.E.2d at 272.

Regardless of the type of expert testimony, the trial court must act as a "gatekeeper" to ensure reliability of the evidence. State v. White, 382 S.C. 265, 270, 676

S.E.2d 684, 686 (2009). But the "gatekeeping" role does not mean the trial court decides if the expert is "correct." Roy Lee Jones, 423 S.C. at 640-41, 817 S.E.2d at 272. In fact, the trial court must be careful to avoid doing so. Id. Only the jury gets to accept or reject the expert's opinion. Id. Instead, "[t]rial courts are tasked only with determining whether the basis for the expert's opinion is sufficiently reliable such that it be may offered into evidence." Id. Stated differently, "the trial judge must remain at the gatepost and not tread on the advocate's or the jury's turf." State v. Warner, 430 S.C. 76, 87, 842 S.E.2d 361, 366 (Ct. App. 2020) *overturned on other grounds*, 436 S.C. 395, 872 S.E.2d 638 (2022). Once a party demonstrates that "the expert's testimony consists of a reliable method faithfully and reliably applied, the gate of admissibility should be opened." Id.

Historically, a witness skilled in firearm and toolmark identification examination may testify that a particular bullet or shell casing came from a particular gun. *See* State v. Hackett, 215 S.C. 434, 444-47, 55 S.E.2d 696 701-02 (1949); State v. Bullock, 235 S.C. 356, 378-79, 111 S.E.2d 657, 668 (1960)(proof that defendant's gun fired bullet that struck 2nd victim was admissible because it showed whoever fired that bullet also killed the deceased in the same shooting). This type of testimony has been regularly admitted in South Carolina for years. Hackett; Bullock. In Hackett, our Supreme Court set forth that this type of expert testimony was reliable and explained the process by which the expert reaches his opinion:

> Thereafter, on March 3, 1948, the sheriff, accompanied by a deputy, carried the pistol, the bullet and the two discharged shells to Washington, and turned these exhibits over to Mr. Zimmers, a technical ballistics expert with the Federal Bureau of Investigation. The examination was made by Mr. Zimmers on the same day. The sheriff and his deputy returned to Greenwood with these exhibits and they were put into a shoe box and placed in the vault in the office of the county treasurer of Greenwood County.

It is now common knowledge that by means of the science of ballistics, it may often be determined that a bullet was fired from a certain pistol, and it is the modern tendency of our courts to allow the introduction of expert testimony to show that the bullet which killed the deceased was fired from a particular pistol or rifle, where it is first definitely shown that the witness by whom such testimony is offered is, by experience and training, qualified to give an expert opinion in the field of ballistics. 22 C.J.S. Criminal Law, § 565, page 876; 26 Am.Jur., § 440, page 460. The weight of such testimony is for the determination of the jury.

Before giving his testimony concerning the comparison tests which he made, Mr. Zimmers, the technical ballistics expert, who had seven years experience in the firearms department of the Federal Bureau of Investigation, testified at length as to his qualifications and training. He stated that he had been a witness as a technical ballistics expert in about eighty cases, and he described in minute detail the tests upon which he predicated his unqualified opinion that the bullet which had been taken from the body of Mr. Hunt was fired from appellant's pistol. He explained that he had fired several test bullets from this pistol for the purpose of comparison. He testified in part as follows:

'A. The first thing I did was to examine the bullet superficially to determine whether it could have been fired in this gun, and when I determined that was so, I then proceeded to test the bullet and cartridge cases and compared that with the bullet and cartridge cases submitted by Sheriff White and that was carried out on an instrument known in the Fire-Arms Identification Department as a comparison microscope. That instrument consists of two separate and distinct compound microscopes which are joined by a common eye piece. By having the two eye-pieces it is possible to view simultaneously two separate and distinct objects which are placed on the two separate stages of this compound microscope.

'In so doing it is possible to examine the pattern of the microscopic marks which appear on the bullets which are fired from a particular weapon. The pattern of the microscopic markings if they are duplicated on both, that is on a bullet which is removed from the person's body, and a bullet or bullets which are fired from the suspect's weapon, it is possible then to identify that particular weapon as having fired the bullet submitted for comparison, and such an examination as that was conducted in this case.

'The examination is based on these microscopic markings found on the surface of the bullet by virtue of the marks imparted to the bullet as it passes thru the gun barrel. When a weapon is manufactured, the manufacturer will insert in the gun barrel a definite turn that is referred to as 'lands' and 'grooves'. The grooves are the portion which are cut into the gun barrel in a

> spiral motion so that any projectile fired thru the gun barrel will have imparted to its surface the spiral motion to give the true trajectory while the bullet is in flight. The tools used in making these lands and grooves will impart to the surface of the gun barrel certain imperfections as the tools used are pulled thru and along the gun barrel on the machining operation, which leaves small pits and lines on the inside of the gun barrel, and each of these will in turn impart to a bullet fired thru the barrel of the gun a pattern of scratches which are characteristic to that gun barrel and to no other gun barrel. In addition to such marks left by the tool used to manufacture the gun barrel there are other marks which can be imparted by virtue of dust, rust, corrosion or anything else which might get into the gun barrel because the user has not taken care of it. By virtue of the aggregate number of imperfections on the inside of a gun barrel, and the manner in which these imperfections get there, it is safe to conclude that there could be no two weapons which will impart to the surface of a bullet the same pattern of microscopic markings.
>
> 'It has found by scientific tests that it is not possible for two weapons to exist that impart the same pattern of microscopic markings. It is similar in this respect to finger printing examination where it has not yet been found that any two persons have identical fingerprints. The same is true of weapons, each leaves its own identifying marks characteristic to that weapon alone and no other weapon can impart similar markings.'
>
> Mr. Zimmers gave detailed testimony as to the ejector and extractor markings of the weapon and the pattern imparted to the discharged shells, and fully explained to the jury by photographs magnified thirty times, the special and peculiar indentations made by the firing pin of appellant's pistol upon the cap in the cartridge case.

State v. Hackett, 215 S.C. 434, 444–47, 55 S.E.2d 696, 701–02 (1949).

Even though this type of expert testimony has been readily admitted and found reliable, it came under challenge in other jurisdictions from criminal defense attorneys beginning around 2004-05, and increased with the National Academy of Research of the National Academy of Sciences ("the NAR") reports in 2008 [called the Ballistic Imaging Report] and 2009 [called the Strengthening Forensic Science Report][1] and then the

[1] The NAR reports are also referred to in case opinions as the NAS reports. For uniformity's sake, the State will use "NAR" in this brief but reference which report by the year 2008 or 2009.

President's Counsel of Advisors on Science and Technology ("P-CAST") report issued during the Obama Justice Department in 2016.[2] These 3 reports criticized the science of firearm identification and stated further studies needed to be done before its validity could be accepted. However, after the early challenges and the issuance of these reports, as will be discussed in detail below, these reports themselves came under criticism, flaws were found in these reports and those who issued them, and the further blind studies recommended by the reports and case opinions were in fact conducted, which verified that firearms identification was in fact valid.

As a result, recently, after the 2008/2009 NAR reports and the 2016 P-CAST report, the majority of courts have rejected the arguments raised in the early challenges, those raised after the reports were issued, and that now raised here, including both state and federal courts. State v. Miller, 852 S.E.2d 704 (N.C. App. 2020), *appeal dismissed*, 856 S.E.2d 108 (N.C. 2021); State v. Griffin, 834 S.E.2d 435 (N.C. Ct. App. 2019); Ficklin v. Commonwealth, 2022 WL 3640906 (Ky. April 18, 2022)(*Unpublished*); Williams v. Commonwealth, 2020 WL 1488775 (Ky. Ct. App. 2020)(*Unpublished*)(citing Garrett v. Commonwealth, 534 S.W.3d 217 (Ky. 2017)); Missouri v. Mills, 623 S.W.3d 717 (Mo. Ct. App. 2021); People v. Rodriguez, 106 N.E.3d 436, 442-45, 447, 449-51 (Ill. 2018); State v. Boss, 577 S.W.3d 509, 518-19 (Mo. App. W.D. 2019. *See* Nebraska v. Wheeler, 956

[2] Green only dealt with the admissibility of a particular expert's testimony that he found a match "to the exclusion of all other guns." The court found based on that expert's lack of professional certification, failure to follow national standards or his own police departments standards in conducting his comparison, his lack of proficiency testing, and the lack of testability of the method being conducted at the time, but which could have been done, and lack of note taking, and other deficiencies, the expert would only be allowed to testify to the consistencies he noted in the compared evidence not visible to the jury. Id.; United States v. Harris, 502 F.Supp. 3d 28, n. 4 (D.D.C. 2020)(distinguishing Green); United States v. Perkins, 342 Fed. Appx. 403 (10th Cir. 2009) (explaining the holding in Green)(*Not selected for publication in Federal Reporter*)

S.W.2d 708 (Neb. 2021) State v. Lee, 217 So.3d 1266 (La. Ct. App. 4th Cir. 2017); State v. Goudeau, 372 P.3d 945 (Ariz. 2016); State v. Williams, 814 S.E.2d 925 (N.C. Ct. App. 2018)(*Unpublished*); United States v. Otero, 849 F.Supp.2d 425, 437-38 (D.N.J. 2012), *aff'd* 557 F.App'x 146 (3rd Cir. 2014). These courts allowed an expert to testify that based on his expertise and training, and on his examination of test evidence against the evidence from the crime scene, a particular bullet or shell casing was a match with or came from a particular weapon. Id. (above); United States v. Casey, 928 F.Supp. 2d. 397 (D. Puerto Rico 2013)(2008 and 2009 NAR reports did not prevent firearms expert from giving his opinion or to the certainty of his opinion of a match).

In State v. Miller, 852 S.E.2d 704 (N.C. App. 2020), *appeal dismissed*, 856 S.E.2d 108 (N.C. 2021), the Court rejected the very argument being made here. Miller, like Murdaugh here, has cited to cases from other jurisdictions and the NAR and P-CAST reports to exclude the State's firearms expert's testimony that shell casings from the defendant's gun matched those at the crime scene. The State's expert was questioned about the P-CAST report and testified she disagreed with elements of the report and that that report should be viewed with caution as the report was created by academics rather than firearms examiners. She then testified how she conducts her microscopic comparison and she had previously done so in 350 to 400 examinations. She testified her work was not rushed and a peer reviewer looked over her examination results and concurred in her findings. The trial court admitted the evidence under Rule 702, N.C.R.E., in its discretion finding the expert's opinion was the product of reliable principles and methods which she applied in this particular case based on her testimony under extensive foundation and *voir dire* questioning. The trial court understood that some scholars have

questioned the reliability of this sort of testimony, and the court weighed that against the expert's explanation of her principles and methods and her testimony about why she believed them to be reliable. The Court found the trial court's determination that the expert's testimony satisfied Rule 702's three-pronged test, despite some evidence from Miller challenging the reliability of this type of expert testimony, was not arbitrary; it was a reasoned decision. Id. The dissent would not have allowed the expert to testify her error rate was zero, without testimony of the general error rate in her field. Id. Again, the appeal to the North Carolina Supreme Court was dismissed. Likewise, in State v. Griffin, 834 S.E.2d 435 (N.C. App. 2019), the Court again affirmed the admission of the very type of evidence admitted in this case. Id.

Miller and Griffin followed a series of unpublished opinions from the North Carolina Court of Appeals affirming the admission of this exact type of testimony challenged here. State v. Williams, 814 S.E.2d 925 (N.C. App. 2018)(*Unpublished*); State v. McGraw, 779 S.E.2d 787 (N.C. Ct. App. 2015)(*Unpublished*). Williams was decided after Daubert v. Merrell Cow Pharmaceuticals, Inc., 509 U.S. 579 (1993) was recently adopted by the North Carolina Legislature and McGraw was decided under the standard prior to Daubert.[3] Like Miller, *supra*, both Courts found expert testimony identifying a fired component to a particular weapon was admissible over challenges raised pursuant to the P-CAST and the NAR reports in Williams and the NAR 2008 report and other documents in McGraw. The experts did not have to testify as appellant suggested to a reasonable

[3] South Carolina has not adopted Daubert or Frye v. United States, 293 F.1013 (1923). *See* State v. Council, 335 S.C. 1, 515 S.E.2d 508 (1999); State v. Jones, 273 S.C. 723, 259 S.E.2d 120 (1979); State v. Ford, 301 S.C. 485, 392 S.E.2d 781 (1990); Rule 702, 703, 704, and 403, S.C.R.E. *See also* Kumho Tire Co. v. Carmichael, 526 U.S. 137 (1999).

degree of scientific certainty, a reasonable degree of ballistics certainty, or that the evidence was only consistent. The trial court's instructions to the jury regarding expert testimony, cross-examination of the expert, and the availability of a defense expert were found sufficient to challenge the expert before the jury. McGraw; Williams; *See also* State v. Dinkins, 319 S.C. 415, 462 S.E.2d 59 (1995)(similar).

Murdaugh cites mostly unpublished orders or oral rulings such as one from the District of Columbia, United States v. Tibbs, 2019 WL 4359486 (D.C. Super. Ct. Sept. 5, 2019) (trial order). See also Williams v. United States, 210 A.3 734 (D.C. 2019). However, recently, the Kentucky Court of Appeals refused to follow those decisions finding the expert testimony as admitted in this case had long been admissible under Kentucky law and was still admissible; and, recognized that its state Supreme Court had likewise held that this testimony was admissible after the 2009 NAR and 2016 P-CAST studies were issued. Williams v. Commonwealth, 2020 W.L. 1488775 (Ky. Ct. App. 2020) (*Unpublished*) (citing Garrett v. Commonwealth, 534 S.W.3d 217 (Ky. 2017). Specifically, in Garrett, 517 S.W.3d at 222-23, the appellant argued that a firearm and toolmark expert should not be allowed to testify that a particular bullet came from a particular gun, relying on the NAR 2009 report. In a decision that occurred after both the 2009 NAR and the 2016 P-CAST reports, the Kentucky Supreme Court held the testimony was admissible under Daubert criteria. Garrett, 517 S.W.3d at 22-23. As the Kentucky Court of Appeals held in Williams, *supra* (2020), and as the Kentucky Supreme Court held in Garrett, *supra* (2017), "the proper avenue for the defendant to address his concerns about the methodology and reliability of the expert witness's testimony was through cross-examination as well as testimony from his own expert witness." Id., citing Garrett, 534

S.W.3d at 223; *See also* Council, 335 S.C. at 21-22; 515 S.E.2d at 519 (same); Dinkins, 319 S.C. at 418; 462 S.E.2d at 69 (same). More recently, the Supreme Court of Kentucky followed its decision in Garrett again in Ficklin v. Commonwealth, 2022 WL 3640906 (April 18, 2022)(*Unpublished*). Ficklin raised the 2009 NAR and 2016 P-CAST reports in opposition to the firearms examiners' testimony that 2 particular fired shell casings came from the same gun. The Court upheld the validity of the science of firearms identification, finding the trial court did not abuse his discretion in admitting the expert's testimony, and affirmed the admission of the testimony. Id. The Court held the fact that the expert did not testify consistent with the 2009 NAR report's recommendation that his opinion was within a reasonable degree of scientific certainty was not preserved for appeal. Id.

Defendant may claim that he should be allowed to cross-examine the State's firearms expert with the NAR and P-CAST reports, and second that the trial court should have held a Daubert hearing and excluded the expert's testimony that a shell casing found at the crime scene came from a particular gun. The Court held the appellant was not allowed to cross-examine the expert with the NAR or P-CAST reports because he offered no expert testimony as to those reports' reliability, simply the reports and other courts that had accepted them, and the State's expert testified both the NAR and P-CAST reports were flawed and not reliable and not conducted by those in the appropriate field of expertise. Id., citing State v. Carter, 559 S.W.3d 92, 96 (Mo. App. W.D. 2018)(excluding NAR and P-CAST reports where no foundation was laid as to their reliability as learned treatises and State's expert testified they were not reliable). Further, the Court found the firearms expert's testimony was sufficiently reliable and was properly admitted. The expert could testify that in his expert *opinion* the shell casing was a match to a particular

gun, but the weight to be given to his testimony was for the jury after thorough cross-examination as had occurred in this case. Mills, 623 S.W.3d 730-32, *referencing* State v. Boss, 577 S.W.3d 509, 518-19 (Mo. App. W.D. 2019)(holding firearm and toolmark examination evidence was sufficiently reliable to be admitted over a challenge based on the 2009 NAR report, even if the results somewhat relied on "subjective analysis' and the examiner's expertise and experience, and the expert could testify to their conclusions regarding the same of a match; defendant could cross-examine expert or call his own expert; weight and credibility of the expert's testimony was for the jury).

Nebraska agreed. *See* Nebraska v. Wheeler, 956 S.W.2d 708 (Neb. 2021)(finding state's firearms expert was qualified in the face of the 2016 P-CAST report, and testimony that 7 fired shell casings came from the same gun was not overly prejudicial where defendant dropped challenge to ballistics methodology on appeal as appellant did here below, and expert did not testify another gun could not have been fired at the scene only that 7 shell casings she examined came from the same gun). Louisiana reached the same result. State v. Lee, 217 So.3d 1266 (La. Ct. App. 2017). Relying in part on United States v. Otero, 849 849 F.Supp. 2d 425. 431-38 (D.N.J. 2012), *aff'd* 557 Fed. Appx. 146 (3rd Cir. 2014), which was released after the 2008 and 2009 NAR reports, the Court upheld the admissibility of the expert's opinion of a match, as did the Otero Court. Lee, *supra*. Illinois also agreed with Louisiana after both the NAR report and the P-CAST report. People v. Rodriguez, 106 N.E.3d 436, 442-45, 447, 449-51 (2018). The Court held the expert witness could testify to his opinion that a particular piece of evidence came from a particular weapon, and the NAR report's concerns went to weight of the evidence

not its admissibility. Rodriguez, 106 N.E.3d at 442-45, 447, 449-51. And, the Court noted this was fully explored on cross-examination of the witness. Id. at 451.

Recently, even a California appellate court rejected Murdaugh's argument made here holding the firearms examiner could testify that in her opinion a fired shell casing found at the crime scene matched a test casing fired from a gun found on the defendant and therefore, in her opinion, came from the defendant's gun. People v. Therman, 2021 W.L. 4859299 (Cal. App. 3rd District, October 19, 2021)(*Unpublished*)(following the analysis in People v. Azcona, 58 CalApp.5th 504 (Cal.App. 6th Dist., filed December 10, 2020, modified, January 11, 2021), but reaching a different result).[4] The Court in Therman noted that the trial court admitted the evidence in part because **flaws have been discovered in the P-CAST report** since it was issued; it was not the only opinion on the subject, the Attorney General of the United States and the F.B.I. had rejected that report, and that report had been refuted by the Association of Firearm and Toolmark Examiners (the AFTE).[5] The way for the defendant to address the testimony is through cross-

[4] In Azcona, the court held the error below was to allow language such as "to the practical exclusion of all other guns" when the expert did not present evidence at the pre-trial hearing to support that conclusion except his statement he had done numerous studies trying to see what could happen by random chance. Id. 58 Cal.App. at 513-14. That court also reversed for an issue not raised here below or in this appeal. Id. at 514-15.

[5] Further "black box studies" have been conducted as the P-CAST report recommended, which demonstrated the science of firearm's identification was reliable and had a miniscule error rate, if any, and the P-CAST committee did not include any firearm and toolmark examiners or researchers in the field, thus raising the question whether the P-CAST report criticism would even constitute a lack of acceptance in the "relevant scientific community." United States v. Harris, 502 F.Supp.3d 34-38, 42-43 (D.D.C. 2020). Harris also recognized the 2008 and 2009 NAR studies were outdated due to intervening scientific studies and repeatedly rejected by courts as a proper basis to exclude firearm and toolmark identification testimony. Id. at 34-38. Harris was decided after Williams, cited by Murdaugh in his brief.

examination of the State's expert and calling his own expert. United States v. Brown, 973 F.3d 667, 702-04, (7th Cir. 2020).

Finally, the State of Washington also agrees. State v. DeJesus, 436 P.3d 834, 841-42 (Wash. Ct. App. 2019). There the Court admitted ballistics identification testimony over a challenge relying on the P-CAST report and noted that a number of courts had also rejected similar challenges relying on the 2008 and 2009 NAR reports. Id. at 841-43 (citations omitted).

Since the NAR reports and the P-CAST report, several federal circuits have also upheld the admissibility of firearm's identification testimony as admitted here without limitation. United States v. Brown, 973 F.3d 667, 702-04 (7th Cir. 2020), cert. denied, 141 S.Ct. 1253 (2021); United States v. Gil, 680 Fed. Appx. 11 (2d Cir 2017)(*Unpublished Summary Order*); *see* United States v. Godinez, 7 F.4th 628, 633-36 (7th Cir. 2021)(upholding another district court's admission of firearms identification expert testimony). In Brown, the trial court admitted the same testimony as admitted in the present case over the concerns in the P-CAST report. At trial, several firearm and toolmark experts testified that shell casings found at one crime scene were fired by the same gun that fired shell casings at another crime scene. Id. at 702-04. The Brown Court affirmed the trial court's admission of the evidence not giving great weight to the P-CAST report. The Brown Court noted that after an extensive hearing below, the lower court found the methodology employed by the firearm and toolmark experts was almost uniformly accepted by federal courts; the method had been tested and subject to peer review; 3 different peer-reviewed journals addressed the AFTE method, several reliability studies had been conducted and the error rate was miniscule including sometimes better

than algorithms developed by scientists; and, firearm and toolmark analysis was widely accepted beyond the judicial system. Id. The Court found the contentions or concerns from the P-CAST report could be raised on cross-examination and went to the weight of the evidence, not its admissibility. And, expert testimony is still testimony not irrefutable fact, and its ultimate persuasive power is for the jury to decide. Id. at 704.

Federal district courts have also weighed in on the admissibility of firearms identification since the P-CAST report. Courts in Arizona, California, New York, Oklahoma, and Virginia also found firearms identification expert testimony admissible. Merritt v. Arizona, 2021 WL 1541635, at *3 (D. Ariz April 2021)(*Slip Copy*); United States v. Romero-Lobato, 379 F.Supp.3d 111, 1114 (D.Nev. 2019)(admitting firearms identification testimony over objection based on 2009 NAR and 2016 P-CAST reports); United States v. Johnson, 2019 WL 1130258 at *1-2 (S.D.N.Y. Mar. 11, 2019)(*not reported in F.Supp*)(admitting firearms identification testimony over objection which relied on 2008 and 2009 NAR reports and 2016 P-CAST report); United States v. Simmons, 2018 U.S. Dist. LEXIS 18606, at *4 (E.D. Va. 2018). Many courts have rejected the findings of the P-CAST report. *See* United States v. Chavez, 2021 WL 5882466, at *17-18 (N.D. Cal. Dec. 13, 2021)(*Slip Copy*)(admitting governments' agreed to limited firearms identification testimony over challenge based on NAR and P-CAST reports, noting the 2009 and 2016 committees were not members of the forensic ballistic community, and rejecting defendant's citation to authority of the minority view relied on by appellant here, including that the minority court expanded the definition of relevant scientific community, and even including that definition, the firearm identification methodology still has overwhelming acceptance in the U.S. and worldwide).

Murdaugh also argues that the ballistics expert's testimony that the fired shell casing was fired by a Murdaugh gun should have been limited to a reasonable degree of ballistic or scientific certainty. Multiple courts that agree do not limit the expert to testimony to that the expert only found consistencies in the evidence comparison. *See* United States v. Johnson, 875 F.3d 1265 (9th Cir. 2017)(limiting opinion of a match only to a reasonable degree of ballistic certainty); United States v. Hunt, 464 F.Supp.3d 1262 (W.D. Okla 2020)(similar); United States v. Cerna, 2010 WL 3448528, n. 4 (N.D. Cal. 2010)(not reported in F.Supp. 2d); United States v Diaz, 2007 WL 485967 (N.D. Cal. 2007); United States v. Monteiro, 407 F.Supp.2d 351, 372 (D. Mass. 2006)(allowing expert to give opinion of a match to a reasonable degree of ballistic certainty, if expert follows established standards for intellectual rigor in toolmark identification field);[6] United States v. McCluskey, 2013 WL 12335325, *10 (D.N.M. February 7, 2013)("to a practical certainty" or "practical impossibility of different origin"); United States v. Harris, 502 F.Supp.3d 28 (Dist. of Col. 2020)(limiting testimony to DOJ guidelines of such expert testimony and when a match can be testified to); *See also* United States v. Glynn, 578 F.Supp.2d 567, 574-75 (S.D. N.Y. 2008)(allowing expert to testify it was "more likely than not" that bullets matched)(other citations omitted including some in Murdaugh's own brief).

In addition to the failure to preserve the issue of whether the expert's testimony should be limited to a reasonable degree of scientific or ballistic certainty, this practice by

[6] Montiero is cited Murdaugh's brief, however, Montiero did not hold that the expert could only testify to consistencies in the compared evidence. Montiero initially excluded the expert's opinion because he did not document his findings which would insure reliability of the results and testability. If the government met those standards, the expert could testify to a match to a reasonable degree of certainty in the field of ballistics. Id.

several district courts has been criticized as limiting or re-structuring an expert's testimony which is clearly admissible under Rule 702. 70 Baylor L. Rev. 93, *The Admissibility of Firearms and Toolmarks Expert Testimony in the Shadow of PCAST*, Baylor Law Review (Winter 2022).

For the foregoing reasons, it is respectfully the Defendant's motion should be rejected.

Respectfully submitted,

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