

IN THE COURT OF APPEALS OF OHIO  
THIRD APPELLATE DISTRICT  
ALLEN COUNTY

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STATE OF OHIO,

PLAINTIFF-APPELLEE,

CASE NO. 1-11-18

v.

MARK A. WANGLER,

OPINION

DEFENDANT-APPELLANT.

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Appeal from Allen County Common Pleas Court  
Trial Court No. CR2009 0298

Judgment Affirmed

Date of Decision: October 22, 2012

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APPEARANCES:

*Christopher R. McDowell, Sarah Sparks Herron and  
Roxanne L. Ingles* for Appellant

*Juergen A. Waldick and Jana E. Emerick* for Appellee

**ROGERS, J.**

{¶1} Defendant-Appellant, Mark Wangler (“Mark”), appeals from the judgment of the Court of Common Pleas of Allen County convicting him of one count of aggravated murder and sentencing him to life imprisonment with parole eligibility after twenty-five years. On appeal, Mark contends that the trial court erred in denying his motions to suppress; that the trial court erred in refusing to exclude the testing performed by the Wisconsin State Laboratory of Hygiene (“the Lab”) and the testimony of the Lab’s employees; that the trial court erred in excluding testimony of his expert witness, Frederick Teeters; and, that he was denied a fair trial as a result of discovery violations that denied him access to material evidence. Given the alleged errors, Mark contends that his conviction should be vacated and that he be granted a new trial. Based on the following, we affirm the judgment of the trial court.

{¶2} On the night of September 4, 2006, Mark and his wife, Kathy Wangler (“Kathy”), were asleep in their residence. That night, Kathy slept in a bedroom located on the second floor, while Mark slept in the master bedroom located on the first floor. At 5:18 a.m., the Allen County Sheriff’s Office (“the Sheriff’s Office”) received a 911 call from Mark exclaiming that the carbon monoxide (“CO”) alarm in his residence was sounding and that Kathy, a diagnosed epileptic, was having a seizure. During the 911 call, but prior to the arrival of emergency services, Mark

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informed the dispatcher that he had opened the windows in Kathy's bedroom and began performing CPR on Kathy.

{¶3} At approximately 5:22 a.m., Chief Joseph Kitchen ("Chief Kitchen"), Bath Township's Fire Chief, was the first of the emergency services personnel to arrive at the residence. Upon entering the residence, Chief Kitchen heard the CO alarm sounding. Mark escorted Chief Kitchen to Kathy's bedroom where he found Kathy lying with her torso on an air mattress and her legs on the floor. Upon checking Kathy's vital signs Chief Kitchen discovered that Kathy was not breathing and had no pulse. As a result, Chief Kitchen proceeded to slide Kathy off the air mattress and began CPR.<sup>1</sup> At approximately 5:23 a.m., the Bath Township EMS arrived on scene and began advanced life support procedures. During this time, Kathy was placed on a cardiac monitor, which revealed that Kathy was in asystole, which is colloquially known as flatline, i.e., there was no electrical activity in her heart. Because of her condition and failure to respond to advanced life support procedures, Kathy was transported to Lima Memorial Hospital ("the hospital"), where she arrived at 5:45 a.m. Shortly after Kathy was transported to the hospital, a sheriff's deputy transported Mark to the hospital for treatment.

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<sup>1</sup> At trial, Kitchen, as well as other medical professionals, testified that in order to properly administer CPR the victim must be lying on a solid surface.

{¶4} Upon arrival at the hospital, Dr. Rina Stein, the attending emergency physician, examined Kathy noting that her jaw was stiff and difficult to open, her neck was stiff, her skin was pale and cool to the touch, her internal body temperature was 95.5 degrees Fahrenheit, and her body was exhibiting signs of posterior lividity. Despite continued efforts to resuscitate Kathy, she was officially declared dead at 5:54 a.m. Based on the condition of Kathy's body, it was Dr. Stein's opinion that Kathy had died before she arrived at the hospital.

{¶5} Mark arrived at the hospital shortly after Kathy, and was treated for CO poisoning. At the hospital, Mark was found to have a carboxyhemoglobin level of 13%.<sup>2</sup> Mark was released from the hospital at 10:54 a.m.

{¶6} After Kathy was transported to the hospital, at approximately 5:40 a.m., Cledus Hawk II ("Hawk"), a firefighter with the Bath Township Fire Department, entered the residence to measure CO levels. Initially, Hawk proceeded to the basement where his measuring instrument, a four gas analyzer ("analyzer"), measured a CO level of 50 parts per million ("ppm"). As a result of the reading, Hawk exited the residence and equipped himself with a self-contained breathing apparatus ("SCBA"). Several minutes after Hawk exited the residence, he reentered the residence and again proceeded to the basement. This time the

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<sup>2</sup> Carboxyhemoglobin is defined as "a very stable combination of hemoglobin and carbon monoxide formed in the blood when carbon monoxide is inhaled with resulting loss of ability of the blood to combine with oxygen." Merriam-Webster (2012), <http://www.merriam-webster.com/medical/carboxyhemoglobin> (accessed October 15, 2012).

analyzer measured a CO level of 35-30 ppm. At 6:00 a.m., Hawk closed all of the windows in the residence and waited approximately an hour before he reentered the residence. At 7:10 a.m., Hawk reentered the residence and proceeded to the basement where the analyzer measured a CO level of 20-15 ppm. After taking a reading in the basement, Hawk proceeded to Kathy's bedroom. There, the analyzer measured a CO level of 25-20 ppm. Shortly thereafter, Hawk returned to the basement and held the analyzer near the natural gas-fired water heater and furnace for several minutes and found that the CO levels near those appliances were the same as those measured throughout the basement.

{¶7} After the residence was deemed safe for entry without a SCBA, Sergeant Philip Sherrick ("Sergeant Sherrick"), a deputy with the Sheriff's Office, conducted a walkthrough of the residence. Upon inspecting Kathy's bedroom, Sergeant Sherrick observed soot-like markings on the wall directly above a register located in the floor. Sergeant Sherrick then continued to the master bedroom. Upon entering the master bedroom, Sergeant Sherrick noticed a pungent sulfur-like odor emanating from the en-suite master bathroom. Upon entering the master bathroom, Sergeant Sherrick observed that the carpet around the toilet was wet, a floor fan was running, and the bathroom window was open. Thereafter, Sergeant Sherrick continued to the basement. The basement had two staircases, one leading into the residence and one leading into the garage. After

examining the basement, Sergeant Sherrick continued to the garage where he observed two vehicles parked inside the garage, as well as a lawn mower, snow blower, and gas powered generator. Outside the garage, Sergeant Sherrick observed an RV and another vehicle parked in the driveway.

{¶8} After conducting a walkthrough of the residence, Sergeant Sherrick drove to the hospital. Sergeant Sherrick arrived at the hospital at approximately 8:15 a.m. and spoke with Mark. During their conversation, Mark explained that he awoke to the CO alarm sounding, that he went upstairs to check on Kathy and found her having what he perceived to be a seizure, that he went back downstairs to call 911, and that he conducted CPR until emergency services personnel arrived. Mark also explained that the furnace and water heater had been replaced two years prior, and that the wind would periodically blowout the water heater's pilot light.

{¶9} On the morning of Kathy's death, Jan Zuber ("Zuber"), a customer service representative for Old Dominion Gas Company, arrived at the residence to determine the source of the CO. Zuber sealed the residence (i.e., closed the windows and doors) and ran the furnace and water heater one at a time. As each appliance was running, Zuber walked throughout the residence measuring the CO levels. During the testing, the highest measurement of CO detected in the residence was 3 ppm. Zuber also inspected the furnace and water heater and

determined that each appliance was properly operating. Despite this determination, Zuber placed a red tag on the water heater because of a code violation concerning the height of the water heater's flue outside the residence.

{¶10} On September 5, 2006, Dr. Diana Barnett ("Dr. Barnett"), a forensic pathologist and deputy coroner with the Lucas County Coroner's Office, performed Kathy's autopsy. As part of the autopsy, Dr. Barnett sent samples of Kathy's blood to Dr. Robert Forney, chief toxicologist with the Lucas County Coroner's Office. Kathy's blood had a carboxyhemoglobin level of 69.6%. Based on Kathy's carboxyhemoglobin level, Dr. Barnett concluded that Kathy died of acute CO poisoning. Upon review of Kathy's emergency room records, it was Dr. Barnett's opinion that Kathy died one to two hours before arriving at the hospital.

{¶11} On the morning of September 6, 2006, Steve Erlenbach ("Erlenbach"), an engineer with SEA Limited, a forensic investigation firm, was contacted by the Sheriff's Office and asked to investigate Mark and Kathy's CO poisoning. Erlenbach arrived at the residence at approximately noon the same day and began his investigation. First, Erlenbach conducted a walkthrough of the residence. During his walkthrough, Erlenbach observed and photographed soot stains on the wall above the register in Kathy's bedroom, as well as soot-stained carpet underneath the same register. Erlenbach noted that the residence contained three natural gas-fired appliances, to wit: a furnace; a water heater; and gas

fireplace. All three natural gas-fired appliances were located in the basement. During his investigation, Erlenbach operated the furnace, water heater, and gas fireplace one at a time under different conditions (i.e., basement door open and closed, bathroom exhaust fans on and off, windows open and closed). After testing each appliance, Erlenbach determined that each appliance was properly operating and detected no abnormal or unsafe levels of CO emanating from the appliances. Though Erlenbach determined that the water heater was properly operating, he did find that the flue from the water heater extending outside the residence was in violation of the National Fuel Gas Code, because it did not extend high enough in the air.

{¶12} Following his investigation, in October 2006, Erlenbach sent the Sheriff's Office a report detailing his investigation, analysis, and conclusions.

Erlenbach's report contained the following conclusions:

SEA testing of the gas appliances within the Wangler home showed no source of fugitive carbon monoxide (outside of a small amount of carbon monoxide emitted from a vent-free fireplace).

The levels of carbon monoxide emitted from the vent-free fireplace fall well within acceptable exposure limits set by OSHA and ASHRAE (American Society of Heating, Refrigeration, and Air-Conditioning Engineers) and were not causal to the incident.

The vent for the water heater was not of sufficient height according to the National Fuel Gas Code (NFPA 54).

If Mr. Wangler's story about the water heater pilot light is true, then the water heater has a venting problem that occurs under certain

conditions. This problem could be allowing products of combustion (including CO) to backdraft through the water-heater vent and into the home. According to Mr. Wangler, there was hot water use the night preceding the incident.

Additional testing would be required to test venting performance under different outdoor conditions.

If it is true that Mrs. Wangler had a carboxyhemoglobin (COHb) level of 69%, she would had to have been exposed to CO levels in excess of 1200 ppm. The fact that Mr. Wangler was in a room with the windows open and a fan running could explain why his COHb levels were so much lower than his wife's.

Additional testing would be required to determine the cause of the staining near the supply-air registers.

SEA cannot eliminate the possibility of a car running in the attached garage as a potential source of carbon monoxide in the home. October 2, 2006 SEA Report, p. 2.

{¶13} In April 2007, then Sergeant Clyde Breitigan (“Sergeant Breitigan”), a deputy with the Sheriff’s Office, filed an affidavit (“April affidavit”) in support of a warrant to search the Wangler residence. In the April affidavit, Sergeant Breitigan made clear that the Sheriff’s Office sought the requested items in relation to the offense of aggravated murder.<sup>3</sup> The warrant (“April search warrant”) was granted and executed on April 24, 2007. During the execution of the April search warrant, law enforcement, including Sergeant Breitigan, seized various items, including but not limited to, a personal computer, a laptop, various computer accessories, various data storage devices, a portable GPS unit,

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<sup>3</sup> The requested items will be discussed in further detail below.

miscellaneous papers, three handwritten journals, cash, credit cards, jewelry, and books.

{¶14} In October 2007, Sergeant Fred Depalma (“Sergeant Depalma”), a deputy with the Sheriff’s Office, contacted the Lab and spoke with the Lab’s program director, Dr. Jamie Schauer (“Dr. Schauer”). Sergeant Depalma asked Dr. Schauer whether the Lab was capable of testing for and detecting particles emitted from an internal combustion engine (“engine”), to which Dr. Schauer responded in the affirmative.

{¶15} In November 2007, Sergeant Breitigan, based on the items seized under the April search warrant and the testing capabilities of the Lab, filed an affidavit (“November affidavit”) in support of a second warrant to search the Wangler residence. The warrant (“November search warrant”) was granted and executed on November 15, 2007. During the execution of the November search warrant, law enforcement, including Sergeant Breitigan, seized various items, including but not limited to, ductwork, the register from Kathy’s bedroom, and a swatch of carpet surrounding the same register. These items were sealed and stored in the Sheriff’s Office’s evidence room, where they remained until they were transported to the Lab.

{¶16} On January 29, 2008, Sergeant Depalma transported the items seized under the November search warrant, as well as several control samples, to the Lab.

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On September 11, 2009, the Lab sent the Sheriff's Office a report ("the Report") authored by Dr. Schauer detailing the Lab's analysis and his conclusions. In the Report, Dr. Schauer concluded that molecular tracers found in the soot collected from the duct work were commonly found in soot emitted from an engine.<sup>4</sup>

{¶17} On September 17, 2009, the Allen County Grand Jury indicted Mark on one count of aggravated murder in violation of R.C. 2903.01(A), an unclassified felony. In response, Mark entered a plea of not guilty.

{¶18} In November 2009, Mark filed motions to suppress property seized under the April and November search warrants. In December 2009, the matter proceeded to a suppression hearing. During the hearing, the trial court requested that the parties file supplemental briefs in support of their respective positions, and, based on the parties agreement, that the briefs be filed on the same day. On January 12, 2010, the parties filed their supplemental briefs. Later that same month, the trial court filed its order overruling Mark's motions to suppress.

{¶19} In August 2010, Mark filed a motion in limine requesting the trial court to exclude the testing performed by the Lab and the testimony of the Lab's employees. Mark argued, in relevant part, that the testing performed by the Lab, as well as expert testimony concerning the same, was not admissible because the methodology employed by the Lab was neither scientifically reliable nor relevant

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<sup>4</sup> We note that in addition to the Report issued by the Lab in September 2009, Dr. Schauer authored a revised version of the Report in February 2011, in which he explained the Lab's analysis and his conclusions in further detail. The State admitted the revised Report at trial.

to the facts at issue in the case. In September 2010, the matter proceeded to a *Daubert* hearing. Later that month, the trial court filed its order overruling Mark's motion in limine.

{¶20} On February 28, 2011, the matter proceeded to a jury trial. On March 16, 2011, the jury returned a guilty verdict on the sole count of aggravated murder. Thereafter, the trial court sentenced Mark to life imprisonment with parole eligibility after twenty-five years.

{¶21} It is from this judgment Mark appeals, presenting the following assignments of error for our review.

*Assignment of Error No. I*

**THE TRIAL COURT ERRED BY REFUSING TO SUPPRESS THE EVIDENCE OBTAINED PURSUANT TO UNCONSTITUTIONAL SEARCH WARRANTS.**

*Assignment of Error No. II*

**THE TRIAL COURT ERRED BY REFUSING TO EXCLUDE THE STATE'S EXPERT TESTIMONY.**

*Assignment of Error No. III*

**THE TRIAL COURT ERRED BY EXCLUDING THE TESTIMONY OF DR. WANGLER'S EXPERT WITNESS, FREDERICK A. TEETERS.**

*Assignment of Error No. IV*

**DR. WANGLER WAS DENIED A FAIR TRIAL AS A RESULT OF NUMEROUS DISCOVERY VIOLATIONS THAT DENIED HIM MATERIAL EVIDENCE.**

*Assignment of Error No. I*

{¶22} In his first assignment of error, Mark contends that the trial court erred by refusing to suppress the evidence obtained under the April and November search warrants. Specifically, Mark contends that the April affidavit lacked probable cause to seize handwritten materials from his residence; that the April and November affidavits contained stale information; that the April search warrant did not describe with particularity the items to be seized; that law enforcement exceeded the scope of the April and November search warrants; that the trial court erred in applying the good faith exception to the items seized under the April and November search warrants; and, that the November affidavit contained knowingly false information.

{¶23} Before we address the merits of the foregoing contentions, we must first address the issue of waiver as raised by the State.

I. Waiver

{¶24} In its response to Mark's first assignment of error, the State argues that three of Mark's foregoing contentions were not raised below, to wit: the April and November affidavits contained stale information; the April search warrant did not describe with particularity the items to be seized; and, law enforcement exceeded the scope of the November search warrant. As a result, the State argues

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that Mark has waived appellate review of these contentions. Based on the following, we agree.

{¶25} Crim.R. 47, which governs motions in criminal proceedings, provides, in relevant part:

An application to the court for an order shall be by motion. A motion, other than one made during trial or hearing, shall be in writing unless the court permits it to be made orally. *It shall state with particularity the grounds upon which it is made* and shall set forth the relief or order sought. It shall be supported by a memorandum containing citations of authority, and may also be supported by an affidavit. (Emphasis added.).

In *City of Xenia v. Wallace*, 37 Ohio St.3d 216 (1988), the court explained that “[Crim.R. 47], \* \* \* when applied to a motion to suppress evidence obtained by search and seizure, requires that the prosecution be given notice of the specific legal and factual grounds upon which the validity of the search and seizure is challenged.” *Id.* at 219. “The prosecutor must know the grounds of the challenge in order to prepare his case, and the court must know the grounds of the challenge in order to rule on evidentiary issues at the hearing and properly dispose of the merits.” *Id.* at 218. “Failure on the part of the defendant to adequately raise the basis of his challenge constitutes waiver of that issue on appeal.” *Id.*; *see also State v. Shindler*, 70 Ohio St.3d 54, 58 (1994) (“[b]y requiring the defendant to state with particularity the legal and factual issues to be resolved, the prosecutor

and court are placed on notice of those issues to be heard and decided by the court and, by omission, those issues which are otherwise being waived”).

{¶26} Review of the record, specifically Mark’s motions to suppress, suppression hearing transcript, and Mark’s supplemental brief in support of his motions to suppress, reveal that Mark never argued before the trial court that the April and November affidavits contained stale information or that the April search warrant did not describe with particularity the items to be seized.<sup>5</sup> Accordingly, Mark’s contentions concerning staleness and particularity are waived on appeal.

{¶27} In addition, review of the record reveals that Mark has waived his contention that the November affidavit contained knowingly false information. While Mark did argue below that the November affidavit contained knowingly false information, the basis of that contention was materially different from the basis of his assertion on appeal. Below, Mark argued that Sergeant Breitigan’s discussion of Kathy’s condition upon her arrival at the hospital (i.e. Kathy’s core temperature, stiffness of her jaw) and conclusion that her condition indicated she died sometime before Mark called 911 was false and made in reckless disregard for the truth. (Docket No. 28, p. 3-5; Docket No. 43, p. 16-22). On appeal, however, Mark contends that Sergeant Breitigan’s statements that Mark tracked Kathy’s movements via GPS and conducted internet searches relating to CO were

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<sup>5</sup> Notably, Mark, in his reply brief, does not deny that he failed to raise these contentions before the trial court.

false and made in reckless disregard for the truth. Clearly, the argument raised below concerning the inclusion of knowingly false information in the November affidavit was materially different from Mark's contention on appeal. Accordingly, Mark's newly raised contention concerning the inclusion of knowingly false information in the November affidavit is waived on appeal.

{¶28} Unlike Mark's contentions concerning staleness, particularity, and the inclusion of knowingly false information, Mark did argue before the trial court that law enforcement exceeded the scope of the November search warrant. (Docket No. 43, p. 10-11). In fact, the trial court considered and overruled that argument in its decision on Mark's motions to suppress. (Docket No. 45, p. 6). Despite having raised that argument below and the trial court's ruling thereon, we find that Mark has waived the issue on appeal. Review of the record reveals that Mark first raised the contention in a supplemental brief filed *after* the suppression hearing. (Docket No. 43, p. 10-11). We find the timing of Mark's contention runs afoul of Crim.R. 47.

{¶29} As previously mentioned, Crim.R. 47, as it pertains to motions to suppress, is designed to place the state on notice of the specific legal and factual grounds upon which the validity of the search and seizure is challenged. *Xenia* at 219. This notice affords the state an opportunity to rebut the grounds upon which the defendant is challenging the search and seizure. Here, due to the timing of

Mark's contention and the fact that the supplemental briefs were filed on the same day, the State was not given an opportunity to present arguments and evidence to rebut the same. Indeed, an officer's testimony concerning the seizure of an item allegedly not covered under the search warrant would be relevant in determining whether the item at issue was covered under the search warrant or was otherwise properly seized pursuant to a warrant exception, such as the plain view doctrine. Furthermore, the fact that the trial court ruled on Mark's contention, albeit in the State's favor, does not preclude the application of the waiver doctrine. The State did not have the opportunity to present rebuttal arguments or evidence, which consequently places the State at a severe disadvantage if this court were to consider the merits of Mark's contention. Accordingly, Mark's contention that law enforcement exceeded the scope of the November search warrant is waived on appeal.

{¶30} Having determined that Mark has waived his contentions concerning staleness, particularity, inclusion of knowingly false information, and the scope of the search under the November search warrant, we turn our attention to Mark's remaining contentions, to wit: the April affidavit lacked probable cause to seize handwritten materials; law enforcement exceeded the scope of the April search warrant; and, the trial court erred in applying the good faith exception.

Considering the nature of Mark's remaining contentions, we will first address his contention that law enforcement exceeded the scope of the April search warrant.

## II. Scope of the April Search Warrant

{¶31} Mark contends that law enforcement exceeded the scope of the April search warrant when it seized miscellaneous papers, handwritten journals, cash, jewelry, credit cards, a briefcase, a safe, a disposable camera, and headphones. Based on the following, we agree.

{¶32} “Appellate review of a motion to suppress presents a mixed question of law and fact.” *State v. Burnside*, 100 Ohio St.3d 152, 2003-Ohio-5372, ¶ 8. The trial court serves as the trier of fact and is the primary judge of the credibility of the witnesses and the weight to be given to the evidence presented. *State v. Johnson*, 137 Ohio App.3d 847, 850 (12th Dist. 2000). Therefore, when an appellate court reviews a trial court's ruling on a motion to suppress, it must accept the trial court's findings of fact when supported by competent, credible evidence. *State v. Roberts*, 110 Ohio St.3d 71, 2006-Ohio-3665, ¶ 100, citing *State v. Fanning*, 1 Ohio St.3d 19, 20 (1982). The appellate court must then review the application of the law to the facts de novo. *Roberts*, citing *Burnside* at ¶ 8.

{¶33} The Fourth Amendment of the United States Constitution, as applied to the states through the Fourteenth Amendment, commands in relevant part, that

no warrants shall issue except those particularly describing the things to be seized.<sup>6</sup> Consequently, the permissible scope of a search is governed by the terms set forth in the search warrant. *See Walter v. United States*, 447 U.S. 649, 656, 100 S.Ct. 2395 (1980). “If the scope of the search exceeds that permitted by the terms of a validly issued warrant or the character of the relevant exception from the warrant requirement, the subsequent seizure is unconstitutional without more.” *Horton v. California*, 496 U.S. 128, 140, 110 S.Ct. 2301 (1990). “While this does not mean that every police action while inside a home must be explicitly authorized by the text of the warrant, the Fourth Amendment does require that police actions in execution of a warrant be related to the objectives of the authorized intrusion.” (Citation omitted.) *Wilson v. Layne*, 526 U.S. 603, 611, 119 S.Ct. 1692 (1999).

{¶34} Since the permissible scope of a search is governed by the terms set forth in the search warrant, we begin with the terms of the April search warrant.

Affidavit having been made before me by Sergeant C.W. Breitigan that he has reason to believe that on the premises located at 860 Yorkshire Drive Lima, Allen County, Ohio \* \* \*

\* \* \*

[T]here is now being concealed certain property, namely

(1) Computers, computer components, computer peripherals, word processing equipment, modems, monitors, printers, keyboards,

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<sup>6</sup> Article I, Section 14 of the Ohio Constitution contains a nearly identical provision. *State v. Jones*, 124 Ohio St.3d 1203, 2009-Ohio-6188, ¶ 29.

cables, scanning equipment, information storage devices, including but not limited to hard disc drives, remote disc drives, computer compact disks, 3 ½ inch computer discs, zip disks, removable disk cartridges, smart cards, computer tapes; (2) Any and all electronic accounting records, in the form of computer generated logs of criminal activity, including but not limited to diaries, journals, calendars or computer system audit records; electronic mail messages, opened and unopened, to or from co-conspirators, associates or victims; computer account information, including but not limited to computer host names and internet addresses, account names, passwords, access telephone numbers, password files and other information about computer systems, users, accounts and related topics and documents that show ownership and control; (3) any and all electronic communications including but not limited to opened and unopened e-mail messages, instant messages (IM), letters and other electronic records, documents, correspondence, notes, memoranda, address lists, telephone directories, screen name lists, buddy lists, advertisements, calendars, diaries, journals, telexes, faxes, audio and visual tape recordings, any global positioning systems, any computer(s), hardware, software and items used to download information off a GPS tracking device(s)

[W]hich are \* \* \* [E]vidence of the crime of Aggravated Murder, O.R.C. 2903.01(A)

{¶35} A plain reading of the April search warrant's terms reveals that law enforcement could search and seize three different categories of items. The parties' do not dispute that the first category authorized the search and seizure of computers and devices associated with the operation of computers (i.e., printers, keyboards, information storage devices, etc.).<sup>7</sup> The parties, however, disagree as to the scope of items that could be searched for and seized pursuant to the second

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<sup>7</sup> The first category is delineated in the April search warrant by the number one in parentheses.

and third categories.<sup>8</sup> Accordingly, we will consider the second and third categories.

{¶36} A plain reading of the second and third categories in the April search warrant authorizes the search and seizure of electronic records, communications, and documents. The second category reads, in relevant part, “[a]ny and all *electronic* accounting records, in the form of *computer generated* logs of criminal activity, *including but not limited to* diaries, journals, calendars or computer system audit records.” (Emphasis added.). The third category reads, “any and all *electronic* communications *including but not limited to* opened and unopened e-mail messages, instant messages (IM), letters and other *electronic* records, documents, correspondence, notes, memoranda, address lists, telephone directories, screen name lists, buddy lists, advertisements, calendars, diaries, journals, telexes, faxes \* \* \* [.]” (Emphasis added.). An objectively reasonable reading of these categories requires each category to be read in its entirety. *See United States v. Young*, 263 Fed.Appx. 710, 714 (10th Cir.2008) (reading warrant in its entirety to determine scope of the warrant). When the second and third categories are read in their entirety, it is apparent that the terms “electronic” and “computer generated” modify the terms that follow, which happen to include “records,” “documents,” “diaries,” and “journals.” Accordingly, the second and

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<sup>8</sup> The second and third categories are delineated in the April search warrant by the numbers two and three in parentheses, respectively.

third categories authorized the search and seizure of electronic records, communications, and documents.

{¶37} Our reading of the second and third categories is strengthened by reference to the April affidavit prepared by Sergeant Breitigan. In particular, the following language from the April affidavit supports the fact that law enforcement primarily sought computer(s), computer related devices, and information stored in computers and computer related devices (e.g., electronic records, communications, and documents).

Based on the evidence summarized earlier in this affidavit, there is reason to believe that Dr. Mark Wangler used computer(s) and computer diskettes to store, maintain, retrieve and use electronic data in the form of electronic records, documents and materials and that he used the following data types

- A. computer software used for criminal purposes;
- B. account information (site names, internet addresses, account names, screen names, passwords, telephone numbers and similar items) of entities who were contacted by individual(s) at 860 Yorkshire Rd., Bath Township, Allen County, Ohio on the internet for the purpose of furthering criminal activity; and
- C. system accounting and audit logs which record the operations occurring on that computer (including criminal activities)
- D. GPS tracking systems[.] April Affidavit, p. 12.

Notwithstanding the foregoing language, the State maintains that the April affidavit did not limit the form of the information being sought to electronic

records, communications, and documents, citing the following language, which appears in the April affidavit.

These terms records, documents and materials as used above include all of the foregoing items of evidence in whatever form and by whatever means such records, documents or materials, their drafts, or their modifications may have been created or stored[.] April Affidavit, p. 12.

While it is arguable that law enforcement sought information in electronic and non-electronic forms, we note that this language was not included in the April search warrant. We believe that the absence of this language in the April search warrant reveals that the issuing magistrate intentionally limited the form of information to be searched for and seized to electronic information.

{¶38} Accordingly, we find that the April search warrant was limited to searching and seizing computers, computer related devices, and information stored in computers and computer related devices (e.g., electronic records, communications, and documents). Bearing this in mind, we turn our attention to those items which Mark contends were seized outside the scope of the April search warrant.

{¶39} Upon executing the April search warrant law enforcement seized numerous computer related items, as well as miscellaneous papers, journals, cash, jewelry, credit cards, a briefcase, a safe, a disposable camera, and headphones. At trial, the State offered several of the miscellaneous papers and journals seized

during the April search warrant, which were ultimately admitted into evidence. Those miscellaneous papers and journals consisted of the following: a single piece of paper, purportedly created by Mark, which contains a crude computer-generated diagram of the death scene and typewritten notes concerning the possibility that Kathy was trying to murder Mark (State's Exhibit 43); a printed email dated April 19, 2005 from Dave Warren to Mark regarding the effect of divorce for someone who is or wants to become a deacon in the church, and several printed resources concerning same issue (State's Exhibit 44); a bound journal book entitled "It's Not About Me Journal" which contains Mark's handwritten responses to prompts throughout the journal (State's Exhibit 45); a large blue binder with the phrase "Cosmetic Training Kit" on the outside and numerous pages of Mark's handwritten autobiographical notes and impressions of his relationship with Kathy inside (State's Exhibit 46); and, a bound journal book entitled "Revolve My Journal On Life, Faith & Other Stuff" which contains approximately two hundred pages filled with Mark's handwritten journal entries dated between December 31, 2005 and December 31, 2006 (State's Exhibit 47).<sup>9</sup> Because the aforementioned items were offered by the State at trial, and subsequently admitted into evidence,

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<sup>9</sup> For ease of discussion, we will refer to the paper with a diagram of the death scene and the email between Mark and Dave Warren by the exhibit numbers assigned to each at trial (i.e., State's Exhibit 43 and 44, respectively). As for the remaining items, we will refer to those items as "the Journals."

we will consider whether these items were seized outside the scope of the April search warrant.<sup>10</sup>

{¶40} We find that the seizure of State's Exhibit 43 and 44 was within the scope of the April search warrant. While the scope of the warrant is limited to electronic records, communications, and documents, we find that an objective reading of these categories also encompasses papers and documents that were created on and printed from a computer, as such items are simply hardcopy forms of an electronic record, communication, or document. Based on our prior descriptions of State's Exhibits 43 and 44, it is clear that each was created on and printed from a computer. Consequently, each of these items, though in a hardcopy form, is derived from an electronic document and electronic communication, respectively, and therefore falls within the scope of the April search warrant.

{¶41} As for the Journals, we find that they do not fall within the scope of the April search warrant. As previously mentioned, the Journals are handwritten and contain nothing that would lead law enforcement to believe that they were created on and printed from a computer like State's Exhibits 43 and 44. Consequently, the Journals do not constitute electronic records, communications,

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<sup>10</sup> Mark also contends that law enforcement exceeded the scope of the April search warrant when they seized cash, jewelry, credit cards, a briefcase, a safe, a disposable camera, and headphones. While seizure of the aforementioned items undoubtedly exceeded the scope of the April search warrant, these items were neither offered by the State in order to prove Mark's guilt, nor is there evidence that the items resulted in the discovery of evidence offered by the State to prove Mark's guilt. Consequently, Mark was not prejudiced by the improper seizure of the aforementioned items.

or documents, and therefore were seized outside the scope of the April search warrant.

{¶42} Given the foregoing, we find that the search and seizure of the Journals was outside the scope of the April search warrant.

{¶43} The State argues that even if the Journals were outside the scope of the April search warrant, law enforcement properly seized the Journals because they were closely related to the crime being investigated. In support, the State relies on a prior decision of this court, *State v. Fields*, 29 Ohio App.2d 154 (3d Dist. 1971).

{¶44} In *Fields*, defendant and an accomplice snatched a woman's purse from her person. A passerby witnessed the robbery and attempted to apprehend defendant and his accomplice. In doing so, the defendant shot and killed the passerby with a .38 caliber revolver. A search warrant was later issued for the seizure of a .38 caliber revolver and a purse. Law enforcement executed the warrant on the accomplice's residence, but was unable to locate a .38 caliber revolver or a purse. Law enforcement did, however, locate and seize a spent .38 caliber shell. Before trial, defendant moved to suppress the shell arguing that it was not specifically described in the warrant, but the trial court overruled defendant's motion and the defendant was later convicted of the passerby's murder. Defendant appealed the trial court's decision denying his motion to

suppress. On appeal, this court affirmed, finding that items not explicitly listed in a search warrant, like the shell, may be lawfully seized during the execution of a search warrant if: (1) based upon evidence known to law enforcement the articles seized were closely related to the crime being investigated; or, (2) law enforcement had reasonable cause to believe the items seized were instrumentalities of the crime. *Fields* at 160-61.

{¶45} Having considered *Fields*, we note that this court's holding in *Fields* as it pertains to the seizure of items outside the scope of the search warrant is merely an early variation of the plain view doctrine. Several years after this court's opinion in *Fields*, this court implicitly recognized that its holding in *Fields* had been superseded by the Ohio Supreme Court's decision in *State v. Williams*, 55 Ohio St.2d 82 (1978). *State v. Bika*, 3d Dist. No. 9-78-06 (Oct. 19, 1978). Accordingly, we will apply the plain view doctrine as set forth in *Williams*.

{¶46} In order for evidence to be seized under the plain view doctrine the prosecution must demonstrate that (1) the initial intrusion which afforded the authorities the plain view was lawful; (2) the discovery of the evidence was inadvertent; and (3) the incriminating nature of the evidence was immediately apparent to the seizing authorities. *Williams* at paragraph one of the syllabus. In *State v. Halczyszak*, 25 Ohio St.3d 301 (1986), a divided court modified the second and third elements of the plain view doctrine set forth in *Williams*. The

“inadvertent discovery” requirement can be satisfied when law enforcement “lack antecedent probable cause, i.e., an advance particularized knowledge of, or intent to seize, those objects ultimately seized.” *Id.* at paragraph two of the syllabus. The “immediately apparent” requirement can be satisfied when law enforcement has “probable cause to associate an object with criminal activity.” *Id.* at paragraph three of the syllabus. Additionally, law enforcement may rely on their specialized knowledge, training and experience when determining whether an object is associated with criminal activity. *Id.* at paragraph four of the syllabus.

{¶47} The State contends that the Journals were properly seized under the plain view doctrine because the Journals contained information establishing motive, i.e., the state of Mark and Kathy’s marriage. While the Journals may have been relevant in establishing motive, the allegedly incriminating nature of the Journals was not immediately apparent to law enforcement during the execution of the April search warrant, as evidenced by the following colloquy during the suppression hearing:

[Defense Counsel:] So, you’re saying that you knowingly took financial paperwork from the house knowing that it wasn’t relevant?

[Sergeant Breitigan:] I took everything together as one as they were together so that they could be reviewed, sorted, separated.

[Defense Counsel:] So, you just grabbed every piece of paper, took it back to your office so you could look at it later, is that correct?

[Sergeant Breitigan:] Not every piece of paper, no.

[Defense Counsel:] All right. But you took all the pieces of paper that were set forth in items 31, 32, 33, 34, 25 [of the inventory sheet], correct?<sup>11</sup>

[Sergeant Breitigan:] Did take those, yes.

[Defense Counsel:] All right. But you didn't look through them to determine whether they were within the scope of the search warrant at the time you took them, did you?

[Sergeant Breitigan:] No, they're included with other paperwork that was included in the scope of this warrant. Suppression Hearing Tr., p. 53-54.

Clearly, law enforcement was unaware of the content at the time the Journals were seized. The allegedly incriminating nature of the Journals only became apparent sometime after the search had been completed, and consequently was not immediately apparent to law enforcement at the time they discovered the Journals. Therefore, the Journals were not properly seized under the plain view doctrine.

{¶48} Given the foregoing, we find that the Journals were improperly seized under the April search warrant, and therefore erroneously admitted during trial. In so finding, Mark's remaining contentions concerning a lack of probable cause to seize handwritten materials (i.e., the Journals) and the application of the good faith exception are moot and we decline to address them. *See* App.R. 12(A)(1)(c).

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<sup>11</sup> Items 31, 32, and 33 in the inventory sheet correspond to the Journals.

{¶49} Though we have determined that the Journals should have been suppressed, Mark contends that all of the items seized under the April search warrant should have been suppressed because law enforcement flagrantly disregarded its terms. In support, Mark relies on a case from the Tenth Circuit Court of Appeals, *United States v. Medlin*, 842 F.2d 1194 (10th Cir.1988), wherein the court held that blanket suppression was warranted where law enforcement flagrantly disregarded the terms of the search warrant by seizing 667 items which were not identified in the warrant. The holding in *Medlin*, however, is not binding upon this court, and even if it were, we do not find law enforcement actions in this instance to be so flagrant as to warrant blanket suppression.

{¶50} Finally, having determined that the Journals were improperly seized, and consequently erroneously admitted at trial, we must determine whether the error was harmless or prejudicial.<sup>12</sup> “Error in the admission of evidence is harmless if there is no reasonable possibility that the evidence may have contributed to the accused’s conviction. In order to hold the error harmless, the court must be able to declare a belief that the error was harmless beyond a reasonable doubt.” *State v. Bayless*, 48 Ohio St.2d 73 (1978), paragraph seven of the syllabus, *vacated in part on other grounds*, 438 U.S. 911, 98 S.Ct. 3135 (1978). “[C]ases where imposition of harmless error is appropriate must involve

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<sup>12</sup> Notably, Mark advances no arguments that admission of the Journals was prejudicial. Despite the absence of such arguments, we are nevertheless compelled to determine whether admission of the Journals at trial resulted in harmless or prejudicial error.

either overwhelming evidence of guilt or some other indicia that the error did not contribute to the conviction.” *State v. Rahman*, 23 Ohio St.3d 146, 151 (1986), quoting *State v. Ferguson*, 5 Ohio St.3d 160, 166 (1983), fn. 5. When considering whether error is harmless, the reviewing court’s judgment should be based on its own reading of the record and on what it determines is the probable impact the evidence had on an average jury. *State v. Kidder*, 32 Ohio St.3d 279, 284 (1987), citing *Harrington v. California*, 395 U.S. 250, 254, 89 S.Ct. 1726 (1969). For the following reasons, we conclude that the admission of the Journals was harmless beyond a reasonable doubt.

{¶51} Throughout its case-in-chief the State drew the jury’s attention to the ruinous state of Mark and Kathy’s marriage, arguing that it was a motivating factor for Kathy’s murder. At the beginning of its case-in-chief, the State called several witnesses who testified in some detail about the difficulties Mark and Kathy were experiencing in their marriage prior to Kathy’s death. At the end of the State’s case-in-chief, the State revisited Mark and Kathy’s marital difficulties. This time, however, the State had Sergeant Breitigan read aloud select entries from the Journals. Though the entries read aloud provided a more detailed insight into Mark and Kathy’s marital difficulties, we find that those entries and the Journals as a whole were cumulative in nature, and therefore harmless, since the jury had

already heard testimony from several witnesses concerning the ruinous state of the marriage.

{¶52} In addition to the Journals being cumulative, the Journals contained many entries that were favorable to Mark. While the State selected entries that captured the ruinous state of Mark and Kathy's marriage, many other entries revealed that Mark remained hopeful about his marriage and made great efforts to improve his marriage. The existence of these favorable entries was brought to light during Sergeant Breitigan's cross-examination.

[Defense Counsel:] And throughout [the Journals] Mark prays for a good relationship with his wife, correct?

[Sergeant Breitigan:] Yes, he does.

[Defense Counsel:] And he prays for strength from the Lord to help him work on the relationship?

[Sergeant Breitigan:] Yes.

[Defense Counsel:] And he prays that his wife will also sort of see the way and work on the relationship too, doesn't he?

[Sergeant Breitigan:] Yes. Trial Tr., 2064.

In addition to the entries alluded to in the foregoing colloquy, there were numerous entries from the days, weeks, and months following Kathy's death in which Mark repeatedly discusses his grief and how much he misses Kathy. Because the Journals contained many entries favorable to Mark and the jury was made aware of such entries during Sergeant Breitigan's cross-examination, we do

not believe that there was a reasonable possibility that the Journals contributed to Mark's conviction.

{¶53} Given the foregoing, we conclude that the admission of the Journals was harmless beyond a reasonable doubt.

{¶54} Accordingly, we overrule Mark's first assignment of error.

*Assignment of Error No. II*

{¶55} In his second assignment of error, Mark contends that the trial court erred when it determined that the tests performed by the Lab and the testimony of its employees were admissible. Specifically, Mark contends that the tests performed by the Lab were unreliable, and therefore inadmissible under Evid.R. 702(C). In the alternative, Mark contends that even if the tests performed by the Lab and the testimony of its employees are admissible, such evidence should have been excluded pursuant to Evid.R. 403(A)'s balancing test. Based on the following, we disagree.

A. Admissibility of the Lab's Testing and Expert Testimony

{¶56} The admissibility of expert testimony is a matter committed to the sound discretion of the trial court, and the trial court's ruling will not be overturned absent an abuse of that discretion. *Valentine v. Conrad*, 110 Ohio St.3d 42, 2006-Ohio-3561, ¶ 9. A trial court will be found to have abused its discretion when its decision is contrary to law, unreasonable, not supported by the

evidence, or grossly unsound. *See State v. Boles*, 2d Dist. No. 23037, 2010-Ohio-278, ¶ 16-18, citing *Black's Law Dictionary* 11 (8 Ed.Rev.2004). When applying the abuse of discretion standard, a reviewing court may not simply substitute its judgment for that of the trial court. *State v. Nagle*, 11th Dist. No. 99-L-089, (June 16, 2000), citing *Blakemore v. Blakemore*, 5 Ohio St.3d 217, 219 (1983).

{¶57} Generally, “courts should favor the admissibility of expert testimony whenever it is relevant and the criteria of Evid.R. 702 are met.” *State v. Nemeth*, 82 Ohio St.3d 202, 207 (1998). Evid.R. 702, which governs the admissibility of expert testimony, provides:

A witness may testify as an expert if all of the following apply:

(A) The witness’ testimony either relates to matters beyond the knowledge or experience possessed by lay persons or dispels a misconception common among lay persons;

(B) The witness is qualified as an expert by specialized knowledge, skill, experience, training, or education regarding the subject matter of the testimony;

(C) The witness’ testimony is based on reliable scientific, technical, or other specialized information. To the extent that the testimony reports the result of a procedure, test, or experiment, the testimony is reliable only if all of the following apply:

(1) The theory upon which the procedure, test, or experiment is based is objectively verifiable or is validly derived from widely accepted knowledge, facts, or principles;

(2) The design of the procedure, test, or experiment reliably implements the theory;

(3) The particular procedure, test, or experiment was conducted in a way that will yield an accurate result.

{¶58} Here, there is no question or dispute that the subject about which Dr. Schauer testified is beyond the knowledge or experience of lay persons and that Dr. Schauer's credentials and experience qualify him to testify as an expert. Evid.R. 702(A), (B). Accordingly, the sole issue is whether the testing performed by the Lab is reliable under Evid.R. 702(C).

{¶59} In determining whether the opinion of an expert is reliable under Evid.R. 702(C), a trial court, acting as a gatekeeper, examines whether the expert's conclusion is based on scientifically valid principles and methods. *Valentine* at ¶ 16, citing *Miller v. Bike Athletic Co.*, 80 Ohio St.3d 607 (1998). "In evaluating the reliability of scientific evidence, several factors are to be considered: (1) whether the theory or technique has been tested, (2) whether it has been subjected to peer review, (3) whether there is a known or potential rate of error, and (4) whether the methodology has gained general acceptance." *Miller* at 611, citing *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 593-94, 113 S.Ct. 2786 (1993). Although these factors may aid in determining reliability, none of the factors are dispositive as the inquiry is flexible. *Id.*, citing *Daubert* at 594. Ultimately, the focus is "solely on principles and methodology, not on the conclusions that they generate." *Id.*, quoting *Daubert* at 595.

{¶60} In the case sub judice, the trial court held a *Daubert* hearing to determine whether the testing performed by the Lab and Dr. Schauer’s testimony concerning the same was reliable. In determining the reliability of the testing performed by the Lab, the trial court considered the factors set forth in *Daubert*. See *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 153, 119 S.Ct. 1167 (1999) (“[W]hether *Daubert*’s specific factors are, or are not, reasonable measures of reliability in a particular case is a matter that the law grants the trial judge broad latitude to determine.”). As to the first factor, whether the theory or technique had been tested, the trial court found that “the testing was done subject to standard protocol and has been objectively tested[,]” and that “[t]he type of testing has been done all over the world and accepted.” (Docket No. 204, p. 3). As to the second factor, whether the theory or technique has been subjected to peer review, the trial court found that “other research groups have used the same and similar testing and the same has been subject to much peer review.” (*Id.*). As to the third factor, whether there is a known or potential rate of error, the trial court found that the error rate did “not affect the reliability of the testing and the conclusions.” (*Id.*). As to the fourth factor, whether the methodology has gained general acceptance, the trial court found that “[t]he methodology has been generally accepted in the scientific community, as well as the [United States] E.P.A.[,] National

Organizations[,] and world wide (sic) organizations.”<sup>13</sup> (*Id.* at p. 4). Based on its consideration of the factors set forth in *Daubert*, the trial court concluded that “[t]he State \* \* \* presented sufficient evidence to support the reliability of its expert’s theory/testing under Evid.R. 702.” (*Id.*).

{¶61} Despite the trial court’s determination concerning the reliability of the testing performed by the Lab, Mark contends that the testing and testimony of the Lab’s employees do not meet any of the factors set forth in *Daubert*.

{¶62} First, Mark contends that the methodology underlying the testing performed by the Lab (“the methodology”) has never been tested. Contrary to Mark’s contention, Dr. Schauer’s testimony establishes that the methodology has been tested. Generally, the methodology involves chemical analysis of a soot sample to determine the soot’s origin, i.e., whether the soot originated from things such as burning wood, cooking food, cigarette smoke, or an engine. According to Dr. Schauer, when an item or substance is burned the resulting soot contains specific chemical compounds known as molecular tracers, which, when viewed together, form a chemical fingerprint that is used to trace the soot to its origin. On direct examination, Dr. Schauer testified that the methodology is born from decades of research performed by him and other scientists throughout the world. Dr. Schauer testified that the methodology has been tested and replicated by other

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<sup>13</sup> “EPA” as used throughout this opinion refers to the United States Environmental Protection Agency.

laboratories around the world. Later, during cross-examination, Dr. Schauer was asked whether he created the methodology used in this case. In response, Dr. Schauer denied that he created the methodology explaining that it “is built upon knowledge that exists in the community” and that it “[has] been approved by a quality assurance officer at the U.S. EPA.” Daubert Tr., p. 79-80. Given the foregoing, we find that the trial court did not err when it found that the methodology was tested.

{¶63} Although the record contains ample evidence that the methodology has been tested, Mark, nevertheless, maintains that Dr. Schauer’s lack of experience in using wipe samples and testing samples taken from duct work is evidence that the methodology has never been tested. While Dr. Schauer testified that he had never tested wipe samples taken from duct work, we are not persuaded that his lack of experience has any bearing on determining whether the methodology has been tested. First, Mark does not explain how Dr. Schauer’s experience (or lack thereof) relates to determining whether the methodology has been tested. Second, Mark cites no authority in support of his position. Simply because Dr. Schauer had not personally analyzed soot collected from duct work using a wipe sample does not mean the methodology employed by the Lab in the case sub judice has not been tested.

{¶64} Moreover, while Mark contends that use of wipe samples has not been tested, review of the record reveals otherwise. A chemist employed with the Lab, Mark Mieritz (“Mieritz”), collected all of the wipe samples.<sup>14</sup> When questioned whether he developed the wipe method Mieritz responded “I applied it. I didn’t really develop it. It’s used all the time in PCB analysis under EPA protocol. That uses a gauze and measures a specific area.”<sup>15</sup> Trial Tr., p. 1841. While the Lab used quartz fiber wipes as opposed to gauze, there is no evidence that this seemingly minor difference materially altered the methodology’s reliability. In addition to the EPA’s use of wipe samples, one of the Mark’s experts, Frederick Teeters, testified that he had used wipe samples to determine the origin of chemical compounds found in pollutants. Trial Tr., p. 2640.

{¶65} Next, Mark contends that the testing performed by the Lab has not been subject to peer review. In support, Mark notes that at several points throughout the course of the *Daubert* hearing Dr. Schauer testified that he was not aware of publications concerning the following: whether molecular tracers can be used to establish the presence of CO; whether testing the outside of the duct work was a valid control to compare against the presence of molecular tracers inside of

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<sup>14</sup> There is no evidence that Dr. Schauer collected any of the wipe samples.

<sup>15</sup> Polychlorinated Biphenyl, which is colloquially known as PCB, is defined as “any of several compounds that are produced by replacing hydrogen atoms in biphenyl with chlorine, have various industrial applications, and are toxic environmental pollutants which tend to accumulate in animal tissues.” Merriam-Webster (2012), <http://www.merriam-webster.com/dictionary/polychlorinated+biphenyl?show=0&t=1346337023> (accessed October 15, 2012).

the duct work; and, whether a wipe could be used to determine the presence of molecular tracers a year or more before the wipe was taken. Though Dr. Schauer was unable to cite any publications concerning the foregoing, we are not persuaded that Dr. Schauer's inability to cite to such publications establishes that the methodology has not been subject to peer review.

{¶66} First, the existence of publications concerning whether molecular tracers can show the presence of CO is immaterial in determining the reliability of the methodology. Dr. Schauer never testified that the testing was capable of showing the presence of CO. Instead, the presence of CO was established through the Lab's determination that the soot found throughout the duct work originated from an engine, the exhaust of which contains CO.

{¶67} Similarly, the existence of publications concerning whether a wipe could be used to determine the presence of molecular tracers a year or more before the wipe was taken is immaterial in determining the reliability of the methodology. Although Dr. Schauer testified that he was aware of individuals who had used wipe samples to determine the presence of molecular tracers a year or more before the samples were taken, he never testified that the methodology employed by the Lab could determine such information. In fact, Dr. Schauer testified to the contrary. *See* Daubert Tr., p. 42. Given Dr. Schauer's testimony, we fail to see the significance in Dr. Schauer's inability to cite publications establishing that

wipe samples could be used to determine the presence of molecular tracers a year or more before the sample was taken.

{¶68} As for publications concerning the use of the outside of the duct work as a control to compare against the presence of molecular tracers inside of the duct work, Mark contends that Dr. Schauer knew of no such publications. Mark's contention misconstrues Dr. Schauer's testimony. When questioned about publications concerning the use of the outside of the duct work as a control to compare against the presence of molecular tracers inside of the duct work Dr. Schauer responded, "I'm sure I could find one for you, but I can't recall one off the top of my head right now." *Daubert Tr.*, p. 92. Considering Dr. Schauer's response, it appears that he was aware of publications covering the requested subject matter, but merely could not remember the title or author(s) of those publications. While production or description of such publications may have been beneficial to determining the reliability of the methodology, we do not believe that Dr. Schauer's inability to specifically recall the publications rendered the methodology unreliable. Furthermore, even if Dr. Schauer testified that he was not aware of any publications concerning the requested subject matter, the existence of publications (or lack thereof) is not dispositive when assessing the reliability of a scientific method. *Daubert*, 509 U.S. at 594, 113 S.Ct. 2786.

{¶69} Notwithstanding Dr. Schauer's inability to present peer-reviewed literature on every detail of the methodology, the record contains ample evidence that the testing conducted by the Lab has been subject to peer review. While Mark's contention focuses on Dr. Schauer's inability to cite publications supporting the methodology, we note that publication is not a *sine qua non* of admissibility, but one element of peer review. *Daubert* at 593. During the *Daubert* hearing, Dr. Schauer testified that he has authored and coauthored numerous publications concerning the use of molecular tracers to trace soot to its origin. Indeed, review of Dr. Schauer's curriculum vitae, which was admitted during the *Daubert* hearing, corroborates Dr. Schauer's testimony. In addition, Dr. Schauer testified that the methodology has been adopted by other laboratories, as well as being used to verify other methods designed to detect and use molecular tracers to trace soot and other particulate matter to its origin. Given the foregoing, we find that the trial court did not err when it found that the methodology has been subject to peer review.

{¶70} Next, Mark contends that Dr. Schauer could not identify a known error rate. Indeed, review of the record reveals that Dr. Schauer was unable to testify to a known error rate. However, the lack of a known error rate is not fatal to the methodology's reliability. *Daubert* instructs that the court may also consider the potential rate of error. *Daubert* at 594. During the *Daubert* hearing,

Dr. Schauer testified that when testing for the existence of molecular tracers there is an uncertainty (which appears to be a synonym for error rate) associated with accurately identifying each individual molecular tracer. Although Dr. Schauer was unable to recall the exact uncertainty for each molecular marker he did testify that the uncertainties for the molecular tracers detected in the soot analyzed by the Lab were in the range of 10 to 20 percent. Given this testimony, we cannot conclude that the uncertainties testified to by Dr. Schauer render the methodology unreliable. Consequently, we find that the trial court did not err when it found that the uncertainties did “not affect the reliability of the testing and the conclusions.” (Docket No. 204, p. 3).

{¶71} Last, Mark contends that the methodology has not gained general acceptance. Contrary to Mark’s contention, the record reveals that the methodology has gained general acceptance. Prior to contacting the Lab, law enforcement contacted several laboratories inquiring about their ability to test for and detect particles emitted from an engine. Mark argues that the difficulty in finding a laboratory to perform the desired testing indicates that the testing, and consequently the methodology, has not gained general acceptance. We disagree.

{¶72} First, difficulty experienced by law enforcement in locating a laboratory capable of performing the requested testing is not indicative of whether a particular methodology is generally accepted. There are other more reasonable

explanations as to why law enforcement had difficulty locating a laboratory capable of performing the requested testing, reasons which have no bearing on whether the methodology is generally accepted. For instance, law enforcement was unaware whether the testing they requested could be done, let alone whether a particular laboratory could perform the requested testing. Consequently, it is not at all surprising that law enforcement experienced difficulty in finding a laboratory that could perform the requested testing.

{¶73} Notwithstanding the difficulty of finding a laboratory capable of performing the requested testing, the record reveals that the methodology has been generally accepted. Dr. Schauer testified that many research groups use the methodology, as well as government agencies such as the United States EPA. Given the foregoing, we find that the trial court did not err when it found that the methodology has been generally accepted.

{¶74} Having found no error with regard to the trial court's findings under the *Daubert* factors, we find that the trial court did not abuse its discretion when it concluded that the methodology was reliable.

{¶75} Though we have found no error with regard to the trial court's determination that the methodology is reliable, Mark contends the analytical gap between the data derived from the testing and Dr. Schauer's conclusions is too great, and therefore should have been excluded.

{¶76} In addition to being reliable, Evid.R. 702(C) requires that the data generated by the methodology at issue support the expert's opinion. *Valentine*, 110 Ohio St.3d 42, 2006-Ohio-3561, at ¶ 18. "A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered." *Id.*, quoting *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146, 118 S.Ct. 512 (1997). While scientists may certainly draw inferences from a body of work, a trial court must ensure that any extrapolation accords with scientific principles and methods. *Valentine* at ¶ 18.

{¶77} Based on the testing performed by the Lab, it was Dr. Schauer's opinion that exhaust from an engine had been directly introduced into the duct work. The trial court concluded that Dr. Schauer's "opinions are not speculative and his opinions are based upon sufficient facts and data and the product of reliable principles and methods." (Docket No. 204, p. 4). We agree.

{¶78} Dr. Schauer's opinion concerning the origin of the soot does not present too great an analytical leap from the underlying data. Dr. Schauer testified that analysis of the wipe samples taken from the items submitted for analysis, particularly the duct work, revealed the existence of hopanes, steranes, and polycyclic aromatic hydrocarbons ("PAHs"). Dr. Schauer testified that alone these molecular tracers provide little or no guidance concerning the origin of the soot in which they were found. Rather, Dr. Schauer testified that the molecular

tracers detected in a soot sample must be viewed together to determine the chemical fingerprint. Once the chemical fingerprint has been identified it can be matched to known chemical fingerprints which have been discovered through decades of research. Here, the Lab was able to identify the chemical fingerprint of the soot found in the duct work from the combination of molecular tracers. Dr. Schauer testified that the chemical fingerprint was similar to the known chemical fingerprint associated with soot found in exhaust emitted from an engine. Given the foregoing, we find that the Dr. Schauer's opinion as to the origin of the soot is reasonably drawn from the underlying data.

{¶79} Additionally, Dr. Schauer's opinion concerning the exhaust having been directly introduced into the duct work does not present too great an analytical leap from the underlying data. In reaching this opinion, Dr. Schauer appears to have relied on several pieces of data. First, Dr. Schauer, having measured the concentration of soot found on the inside surface the duct work, considered how long it would have taken that soot to accumulate using depositional velocities. Based on the testimony adduced during the *Daubert* hearing and trial, it appears that depositional velocities, which vary depending on the environment and location, are the rate at which particles suspended in the air deposit on a surface. Upon consideration of the appropriate depositional velocities, Dr. Schauer determined that the soot samples collected from the inside surface were deposited

over a short period of time. In addition to this data, Dr. Schauer also considered photographs depicting a V-shaped soot mark above the register in Kathy's bedroom, soot stained carpet which surrounded the vent in Kathy's bedroom, and soot marks around openings where two sections of duct work were joined. Although Mark challenges Dr. Schauer's ability to view photographs and determine whether something was directly introduced into the duct work, the record reveals that Dr. Schauer's experience qualifies him to reach such a conclusion. In particular, Dr. Schauer testified that he has conducted several field studies wherein he has become familiar with soot deposition within a building, as well as the means by which soot enters and circulates throughout a building (i.e., via the ventilation system or via the intrusion of ambient air from outside a building). Based on the soot patterns depicted in the photographs, Dr. Schauer determined that a high concentration of soot traveled through the ventilation system. Given the foregoing, we find that Dr. Schauer's opinion as to the how the soot was introduced into the duct work is reasonably drawn from the underlying data.

{¶80} Accordingly, we find that the trial court did not err when it found that Dr. Schauer's opinions were reasonably drawn from the underlying data.

{¶81} In light of the foregoing, we find that the trial court did not abuse its discretion by allowing the jury to consider the testing performed by the Lab and the testimony of the Lab's employees.

B. Evid.R. 403(A)

{¶82} Mark contends that even if the Lab's testing and the testimony of the Lab's employees is relevant and reliable, the evidence should have been excluded pursuant to Evid.R. 403(A). Based on the following, we disagree.

{¶83} An appellate court reviews the trial court's decision on the admission of evidence for an abuse of discretion. *State v. Heft*, 3d Dist. No. 8-09-08, 2009-Ohio-5908, ¶ 62, citing *State v. Issa*, 93 Ohio St.3d 49, 64 (2001). As previously mentioned, a trial court will be found to have abused its discretion when its decision is contrary to law, unreasonable, not supported by the evidence, or grossly unsound. *See Boles*, 2d Dist. No. 23037, 2010-Ohio-278, ¶ 16-18, citing *Black's* at 11. When applying the abuse of discretion standard, a reviewing court may not simply substitute its judgment for that of the trial court. *Nagle*, 11th Dist. No. 99-L-089, (June 16, 2000), citing *Blakemore*, 5 Ohio St.3d at 219 (1983).

{¶84} Evid.R. 402 provides that relevant evidence is generally admissible except as otherwise provided by the rules of evidence and other laws or statutes. Evid.R. 401 defines relevant evidence as "evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action

more probable or less probable than it would be without the evidence.” Evid.R. 403(A) provides that relevant evidence is not admissible “if its probative value is substantially outweighed by the danger of unfair prejudice, of confusion of the issues, or of misleading the jury.”

{¶85} Mark contends that the unfair prejudice resulting from the admission of the Lab’s testing and testimony of the Lab’s employees stems from the strong risk that the jury considered the Lab’s results as conclusive evidence that exhaust from an engine was introduced into the duct work. In particular, Mark contends that finding hopanes, steranes, and PAHs in the duct work is irrelevant and unreliable in proving causation because those molecular tracers are found everywhere in the environment and therefore their existence in the duct work in no way establishes that a crime was committed. As previously discussed, the Lab’s determination of the soot’s origin was not predicated on a single molecular tracer, but a collection of specific molecular tracers which form a chemical fingerprint, which, in turn, is used to determine the soot’s origin. Accordingly, while it may be common to find individual hopanes, steranes, and PAHs throughout the environment, it is less common to find them together in the same soot sample forming a chemical fingerprint which research has shown to be associated with exhaust from an engine. Furthermore, the Lab’s results revealed that there was an abnormally high amount of hopanes, steranes, and PAHs found in the soot samples

taken from the duct work, as well as visual evidence that a high concentration of soot traveled through the duct work. This evidence tends to support the conclusion that the exhaust was directly introduced into the duct work. Given the foregoing, we do not find that the probative value of the Lab's testing and the testimony of the Lab's employees is outweighed by the "danger of unfair prejudice, of confusion of the issues, or of misleading the jury." Evid.R. 403(A).

{¶86} Accordingly, we overrule Mark's second assignment of error.

*Assignment of Error No. III*

{¶87} In his third assignment of error, Mark contends that the trial court erred when it prohibited his expert, Frederick Teeters ("Teeters"), from testifying about candle soot in the Wangler residence. Mark contends that Teeters was qualified to testify about whether the soot found in the Wangler residence originated from burning candles. According to Mark, Teeters would have testified that the chemical fingerprint associated with soot emitted from burning candles is similar to the chemical fingerprint associated with soot emitted from an engine, and that the soot found in the Wangler residence, while seemingly from an engine, was, in fact, from burning candles. Based on the following, we disagree.

{¶88} Under Evid.R. 702(B), a witness may qualify as an expert by reason of his or her knowledge, experience, skill, training, or education. "Neither special education nor certification is necessary to confer expert status upon a witness. The

individual offered as an expert need not have complete knowledge of the field in question, as long as the knowledge she possesses will aid the trier-of-fact in performing its fact-finding function. Pursuant to Evid.R. 104(A), the trial court determines whether an individual qualifies as an expert, and that determination will be overturned only for an abuse of discretion.” (Citations omitted.) *State v. Baston*, 85 Ohio St.3d 418, 423 (1999).

{¶89} At trial, prior to Teeters’ testimony, the State moved the trial court to exclude his testimony arguing that he did not qualify as an expert in the subject matter at issue. In response to the State’s motion, the trial court held a *Daubert* hearing outside the presence of the jury.

{¶90} During the *Daubert* hearing, Teeters testified that he has over forty years of experience in solving fluid flow problems and porous media. Teeters testified that much of his experience involved analyzing chemicals in fluids and using molecular tracers, which included hopanes and steranes, to determine the chemicals’ origin. Prior to trial, Teeters apparently analyzed the data generated from the testing performed by the Lab in an effort to independently determine the origin of the soot tested by the Lab.<sup>16</sup> Teeters testified that the analysis he

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<sup>16</sup> Upon review of the record, it appears that Teeters authored two reports. See Trial Tr., p. 2617, 2625. One report apparently dealt with candle soot in residential buildings and whether the soot found in the Wangler residence originated from burning candles. *Id.* at p. 2617. The other report apparently dealt with a comparison of soot found in the exhaust emitted from a RV parked in the Wangler driveway on the night of Kathy’s death with soot found in a blue flex hose. *Id.* The reports, however, were neither admitted into evidence nor proffered by Mark. Consequently, our knowledge of the reports’ content is limited to the testimony adduced during the *Daubert* hearing.

conducted in the case sub judice did not significantly differ from work he has done in the past. According to the testimony, it appears that Teeters devoted a sizeable portion of one of his reports to discussing candle soot in residential buildings and whether the soot found in the Wangler residence originated from burning candles. Teeters, however, testified that he does not consider himself to be an expert in candle soot. Teeters also testified that he has never conducted experiments or worked with candle soot. Rather, Teeters testified that his knowledge about candle soot was derived from articles he found on the internet and at libraries. Based on the foregoing testimony, the trial court found that Teeters “has no qualifications to be \* \* \* an expert relative to candle soot in the house[,]” but found that Teeters was qualified to testify about “tracing biomarkers and emissions.” Trial Tr., p. 2636.

{¶91} Though we may have come to a different conclusion, we find that the trial court did not abuse its discretion when it precluded Teeters from testifying about candle soot. Indeed, Teeters’ testimony established that he had extensive experience in tracing chemicals, particularly those found in fluids, to their origin. However, Teeters lacked experience working with candle soot, a fact he conceded during the *Daubert* hearing. Lack of personal knowledge concerning candle soot, while seemingly insignificant considering Teeters’ experience with tracing chemicals to their origin, is nevertheless a reasonable ground to exclude testimony

concerning candle soot. As previously discussed, soot contains a chemical fingerprint (i.e., a collection of specific molecular tracers) which is used to determine the soot's origin. Since Teeters had no experience working with candle soot it is reasonable for the trial court to infer that Teeters would not be aware of the chemical fingerprint or fingerprints associated with candle soot. Moreover, there is no indication that the internet and library resources that Teeters relied on contained information concerning the chemical fingerprint or fingerprints associated with candle soot, as such information was not adduced during the *Daubert* hearing nor did Mark proffer the same.<sup>17</sup> Given the foregoing, we find that the trial court did not abuse its discretion.

{¶92} Moreover, in light of other testimony presented during the defense's case-in-chief, we find that the trial court's ruling concerning the scope of Teeters' testimony did not prejudice Mark. Prior to Teeters' testimony, the defense called Robert Wabeke ("Wabeke"). Wabeke testified that most candles are made of paraffin wax, which is a derivative of crude oil. As a result, Wabeke explained that one would expect to find similar molecular tracers in soot from a burning candle and soot from an engine. To demonstrate the similarity, Wabeke performed a test to determine the chemical composition of eight different types of

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<sup>17</sup> In his reply brief, Mark states that Teeters compared the chemical signature from candles removed from the Wangler residence to the chemical fingerprint which Dr. Schauer interpreted as being associated with soot found in exhaust emitted from an engine. Mark, however, fails to support this statement with a citation to the record. App.R. 16(A)(7).

candles.<sup>18</sup> Focusing on hopanes, steranes, and PAHs, Wabeke testified that the chemical fingerprints from soot samples collected from each candle were not homogeneous. For example, the soot from one candle contained hopanes and steranes but no PAHs, while the soot from another candle contained PAHs but no hopanes or steranes. Wabeke testified that if the aforementioned candles were burned together the analysis of the resulting soot may reveal the presence of hopanes, steranes, and PAHs. Though Wabeke did not go so far as to conclude that the foregoing scenario may result in a false-positive for exhaust from an engine, the jury, via Dr. Schauer's testimony, was already aware that those same molecular tracers make up the chemical fingerprint associated with soot from an engine, and therefore could have concluded, without further testimony, that the soot analyzed by the Lab could have originated from burning candles instead of an engine. Given the foregoing, we find that Mark was not prejudiced by the exclusion of Teeters' testimony concerning candle soot.

{¶93} Accordingly, we overrule Mark's third assignment of error.

*Assignment of Error No. IV*

{¶94} In his fourth assignment of error, Mark contends that the trial court erred when it refused to order the State to provide all information from Elemental Carbon – Organic Carbon analysis (“ECOC analysis”) conducted by the Lab and

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<sup>18</sup> Upon review of the record, the origin of the candles Wabeke tested is not clear. *See* Trial Tr., p. 2248-2252, 2324-2326.

data considered by Dr. Schauer to calculate depositional velocity (“depositional velocity data” or “data”), thus denying him a fair trial. Specifically, Mark contends that the State was required to provide all information associated with the ECOC analysis and depositional velocity data pursuant to *Brady v. Maryland*, 373 U.S. 83, 83 S.Ct. 1194 (1963) and Crim.R. 16. Based on the following, we disagree.

#### I. ECOC Results

{¶95} During the *Daubert* hearing, it was discovered that the Lab conducted ECOC analysis on dry wipe samples taken from items submitted to it for testing. Mark, having not been aware of the ECOC analysis performed by the Lab, moved the trial court to order the State to provide all information associated with the ECOC analysis arguing that the information may be exculpatory. The trial court denied Mark’s motion.

{¶96} On appeal, Mark contends that the trial court erred when it refused to order the State to provide all information associated with the ECOC analysis. First, Mark contends that the information associated with the ECOC analysis is material to his guilt, and should have been provided pursuant *Brady v. Maryland*. Alternatively, Mark contends that the State was required to provide the information associated with the ECOC analysis pursuant to Crim.R. 16(B)(3), (4). We will address each contention in turn.

A. *Brady* Issue

{¶97} It is well settled that the prosecution's suppression of evidence favorable to an accused violates due process where the evidence is material either to guilt or punishment, irrespective of the prosecution's good or bad faith. *Brady v. Maryland*, 373 U.S. 83, 87, 83 S.Ct. 1194 (1963). Similarly, Crim.R. 16(B)(5) requires the prosecution to disclose "any evidence favorable to the defendant and material to guilt or punishment." See *State v. Keene*, 81 Ohio St.3d 646, 650 (1998) (the terms "favorable" and "material" in Crim.R. 16 have the same meaning as they do in *Brady*). *Brady's* holding, as well as Crim.R. 16(B)(5), places upon the prosecution a duty to disclose evidence "that is both favorable to the accused and 'material either to guilt or to punishment.'" *United States v. Bagley*, 473 U.S. 667, 676, 105 S.Ct. 3375 (1985), quoting *Brady* at 87. The prosecution's duty of disclosure under *Brady* extends to favorable and material evidence that is known to the prosecution and to others acting on the prosecution's behalf in the case. *Kyles v. Whitley*, 514 U.S. 419, 437, 115 S.Ct. 1555 (1995).

{¶98} The key issue in a case where favorable evidence is alleged to have been withheld by the prosecution is whether the evidence is material. *State v. Johnston*, 39 Ohio St.3d 48, 60 (1988). "The mere possibility that an item of undisclosed information might have helped the defense, or might have affected the outcome of the trial, does not establish 'materiality' in the constitutional sense."

*State v. Jackson*, 57 Ohio St.3d 29, 33 (1991), quoting *United States v. Agurs*, 427 U.S. 97, 109-10, 96 S.Ct. 2392 (1976). Rather, “[e]vidence is considered material ‘if there is a reasonable probability that, had the evidence been disclosed to the defense, the result of the proceeding would have been different.’” *State v. Ketterer*, 126 Ohio St.3d 448, 2010-Ohio-3831, ¶ 23, quoting *Bagley*, 473 U.S. at 682, 105 S.Ct. 3375. The touchstone of materiality is a “reasonable probability” of a different result. *Kyles* at 434. “The question is not whether the defendant would more likely than not have received a different verdict with the evidence, but whether in its absence he received a fair trial, understood as a trial resulting in a verdict worthy of confidence.” *Id.* Accordingly, the rule in *Brady* is violated when the favorable evidence that was not disclosed by the prosecution “could reasonably be taken to put the whole case in such a different light as to undermine confidence in the verdict.” *State v. Brown*, 115 Ohio St.3d 55, 2007-Ohio-4837, ¶ 40, quoting *Kyles* at 435.

{¶99} The defense bears the burden of proving a *Brady* violation rising to the level of denial of due process. *State v. Iacona*, 93 Ohio St.3d 83, 92 (2001), citing *Jackson*, 57 Ohio St.3d at 33.

{¶100} Mark contends that the ECOC analysis is material to his guilt because the testing performed by the Lab was central to the State’s case. Though the testing performed by the Lab was central to the State’s case, review of the

record reveals that had the results of the ECOC analysis been disclosed the results could not reasonably be taken to put the whole case in such a different light as to undermine confidence in the verdict.

{¶101} First, the results of the ECOC analysis were invalid. During the *Daubert* hearing and again at trial, Dr. Schauer testified that the ECOC analysis performed on dry wipe samples collected from items submitted to it for testing yielded invalid results. While Mark contends that the veracity of Dr. Schauer's foregoing testimony is questionable, we find that none of the testimony or evidence Mark cites to in support of his contention contradicts Dr. Schauer's testimony. As such, we must conclude, as did the trial court, that the results of the ECOC analysis were invalid. Since invalid results are inherently unreliable, we cannot conclude that the results of the ECOC analysis were material to Mark's guilt. *See Aldrich v. Bock*, 327 F.Supp.2d 743, 755-757 (E.D.Mich.2004). Furthermore, Mark has cited no authority wherein invalid results, which were not provided to the defendant, were found to be material to the defendant's guilt.

{¶102} Second, the results of the ECOC analysis would have provided little to no assistance in rebutting Dr. Schauer's conclusion concerning the origin of the soot found in the duct work. First, the record reveals that ECOC analysis is "being used as a marker for Diesel exhaust." (Docket No. 256, p. 1). Here, there is no evidence that any of the engines located in the Wangler garage or driveway on the

day of Kathy's death operated on diesel fuel. Second, and more importantly, Dr. Schauer explained that ECOC analysis is not used to identify molecular tracers in soot, which, as previously explained, is the means by which the origin of the soot is identified. Rather, Dr. Schauer explained that ECOC analysis simply measures the amount of elemental carbon and organic carbon contained in soot, which is then used to "quantify the blackness of the [soot] deposits" as opposed to the origin of the soot. Daubert Tr., p. 249.

{¶103} Given the foregoing, we find that the information associated with the ECOC analysis was not material to Mark's guilt, and therefore find no *Brady* violation.

B. Crim.R. 16

{¶104} Alternatively, Mark contends that he was entitled to the information associated with the ECOC analysis pursuant to Crim.R. 16(B)(3), (4).

{¶105} Crim.R. 16(B)(3), (4) provides as follows:

(B) Discovery: Right to Copy or Photograph. Upon receipt of a written demand for discovery by the defendant, \* \* \* the prosecuting attorney shall provide copies or photographs, or permit counsel for the defendant to copy or photograph, the following items related to the particular case indictment, information, or complaint, and which are material to the preparation of a defense, or are intended for use by the prosecuting attorney as evidence at the trial, or were obtained from or belong to the defendant, within the possession of, or reasonably available to the state, subject to the provisions of this rule:

\* \* \*

(3) Subject to divisions (D)(4) and (E) of this rule, all laboratory or hospital reports, books, papers, documents, photographs, tangible objects, buildings, or places;

(4) Subject to division (D)(4) and (E) of this rule, results of physical or mental examinations, experiments or scientific tests;

{¶106} The State contends that the neither Crim.R. 16(B)(3) or (4) applies in the case sub judice, since there were no results or reports generated from the ECOC analysis. Though Dr. Schauer testified that he did not consider the ECOC analysis in authoring the Report, consequently rendering (B)(3) inapplicable, he did testify that the ECOC analysis produced results, albeit invalid results. *See* Daubert Tr., p. 248. Mark argues that given the language of (B)(4), the results of the ECOC analysis, though invalid, were discoverable. Indeed, (B)(4) does not distinguish between valid and invalid results. Instead, it merely states that the “results” of certain examinations and tests are discoverable. Given the plain language of (B)(4), we agree that invalid results are discoverable, but are not persuaded that the State was required to produce the results of the ECOC analysis.

{¶107} Pursuant to Crim.R. 16(B), “the prosecuting attorney *shall* provide copies or photographs, or permit counsel for the defendant to copy or photograph” those items which are (1) detailed in (B)(1-7) and (2) “which are material to the preparation of a defense, *or* are intended for use by the prosecuting attorney as evidence at the trial, *or* were obtained from or belong to the defendant, within the

possession of, or reasonably available to the state.” (Emphasis added.) Crim.R. 16(B). Here, we have determined that the results of the ECOC analysis are discoverable under (B)(4), thus satisfying the first requirement. Mark, however, has advanced no argument as to the second requirement, i.e., whether the results were material to the preparation of his defense, intended for use at trial by the prosecuting attorney, or were obtained from Mark and available to or within the State’s possession. Given the lack of argument, we find that Mark has not satisfied the second requirement. *See* App.R. 16(A)(7). Accordingly, we find that the State did not violate Crim.R. 16.

{¶108} Even if the State violated Crim.R. 16, the violation would not be grounds for reversal. “Violations of Crim.R. 16 by the prosecution may result in reversible error only upon a showing that (1) the prosecution’s failure to disclose was a willful violation of the rule, (2) foreknowledge of the information would have benefited the accused in preparing a defense, and (3) the accused has suffered prejudice.” *State v. LaMar*, 95 Ohio St.3d 181, 2002-Ohio-2128, ¶ 38, citing *State v. Joseph*, 73 Ohio St.3d 450, 458 (1995). Without deciding either the first or second requirements, we find, for the reasons stated in overruling Mark’s *Brady* argument, that Mark cannot establish prejudice because there was no reasonable probability that the outcome of the trial would have been different had the State disclosed the information related to the ECOC analysis.

{¶109} Given the foregoing, we find that the State's violation of Crim.R. 16 does not constitute reversible error.

## II. Depositional Velocity Data

{¶110} During the *Daubert* hearing it was discovered that Dr. Schauer considered depositional velocity data in determining how quickly the soot found in the duct work would have accumulated. Mark, having not been aware of Dr. Schauer's consideration of the depositional velocity data, moved the trial court to order the State to provide the data arguing that access to such data is necessary to challenge Dr. Schauer's conclusions or subject them to replication. The trial court denied Mark's motion, finding that the data was work product.

{¶111} On appeal, Mark contends that the trial court erred when it refused to order the State to provide the depositional velocity data. First, Mark contends that the data should have been provided pursuant to Crim.R. 16. Alternatively, Mark contends the data is material to his guilt, and should have been provided pursuant *Brady v. Maryland*. We will address each contention in turn.

### A. Crim.R. 16

{¶112} Mark contends that the depositional velocity data should have been provided pursuant to Crim.R. 16. Mark, however, does not cite which provision of

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Crim.R. 16 applies.<sup>19</sup> “It is not appropriate for an appellate court to construct the legal arguments in support of an appellant’s appeal.” *Beckett v. Wisniewski*, 3d Dist. No. 5-09-17, 2009-Ohio-6158, ¶ 16, citing *Petro v. Gold*, 166 Ohio App.3d 371, 2006-Ohio-943, ¶ 94 (10th Dist.). “If an argument exists that can support [an] assignment of error, it is not [an appellate] court’s duty to root it out.” *Id.* Accordingly, since Mark does not cite (and consequently does not argue) which provision of Crim.R. 16 requires production of the data, we decline to address Mark’s contention.

#### B. *Brady* Issue

{¶113} Alternatively, Mark contends that the depositional velocity data is material to his guilt. Specifically, Mark contends that without the data “there [was] no way to adequately challenge Schuaer’s conclusions or subject them to replication using the scientific method.” Appellant’s Br., p. 35. While we do not doubt that having the data would have allowed Mark to more thoroughly vet Dr. Schauer’s conclusions, review of the record reveals that had the data been disclosed it could not reasonably be taken to put the whole case in such a different light as to undermine confidence in the verdict.

{¶114} Viewing the record as a whole, we fail to see how access to the depositional velocity data would undermine confidence in the verdict. Dr.

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<sup>19</sup> We further note that review of the record, particularly the *Daubert* hearing and Mark’s motion requesting the trial court’s reconsideration of its ruling concerning the data, reveals that Mark did not cite which provision of Crim.R. 16 requires production of the data.

Schauer's conclusion that exhaust was directly introduced into the duct work was based on the data as well as photographs of soot stains on the exterior of the duct work and the wall above the register in Kathy's bedroom. Considering Dr. Schauer's testimony, it appears that the data and photographs each provided an individual basis for Dr. Schauer's conclusion that exhaust was directly introduced into the duct work. Consequently, even if we were to assume that the data was somehow erroneous, the photographs still provide a basis for Dr. Schauer's conclusion. In addition, Dr. Schauer testified at trial that he had never before considered depositional velocity data as it pertains to soot found in duct work. Clearly, this testimony calls into question Dr. Schauer's ability to accurately determine how long it would have taken for the soot found in the duct work to accumulate. Accordingly, we fail to see how more evidence concerning the data and Dr. Schauer's consideration thereof would affect the outcome of the trial.

{¶115} Furthermore, the United States Supreme Court has rejected the idea that the materiality standard should go to the defendant's ability to prepare for trial. The court explained:

It has been argued that the standard should focus on the impact of the undisclosed evidence on the defendant's ability to prepare for trial, rather than the materiality of the evidence to the issue of guilt or innocence. Such a standard would be unacceptable for determining the materiality of what has been generally recognized as "Brady material" for two reasons. First, that standard would necessarily encompass incriminating evidence as well as exculpatory evidence, since knowledge of the prosecutor's entire case would

always be useful in planning the defense. Second, such an approach would primarily involve an analysis of the adequacy of the notice given to the defendant by the State, and it has always been the Court's view that the notice component of due process refers to the charge rather than the evidentiary support for the charge. (Citation omitted.) *Agurs*, 427 U.S. 97, fn. 20, 96 S.Ct. 2392.

{¶116} We interpret Mark's contention, quoted above, as arguing that access to the data was necessary to prepare for trial. Given Mark's contention and the precedent set forth in *Agurs*, we find that Mark has failed to establish the materiality of the data.

{¶117} Given the foregoing, we find that the depositional velocity data was not material to Mark's guilt, and therefore find no *Brady* violation.

{¶118} Apart from our determination that no *Brady* violation occurred, Mark contends that without the data the trial court was incapable of performing a complete *Daubert* analysis of the methodology. While the trial court did not review the data firsthand, the testimony during the *Daubert* hearing was sufficient to determine the reliability of the data, and consequently the methodology. Moreover, given the nature of the data at issue, which apparently is comprised of complex mathematical formulas, we are not convinced that the trial court's reliability determination would have been any different had it considered the data.

{¶119} Accordingly, we overrule Mark's fourth assignment of error.

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{¶120} Having found no error prejudicial to Mark herein, in the particulars assigned and argued, we affirm the judgment of the trial court.

*Judgment Affirmed*

**PRESTON and WILLAMOWSKI, J.J., concur.**

**/jlr**