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IN THE SUPREME COURT OF THE STATE OF HAWAI'I

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STATE OF HAWAI'I,  
Respondent/Plaintiff-Appellant,

vs.

ZALDY SUBIA,  
Petitioner/Defendant-Appellee.

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SCWC-12-0000794

CERTIORARI TO THE INTERMEDIATE COURT OF APPEALS  
(CAAP-12-0000794; CR. NO. 11-1-1405)

OCTOBER 24, 2016

RECKTENWALD, C.J., NAKAYAMA, MCKENNA, POLLACK, AND WILSON, JJ.

OPINION OF THE COURT BY WILSON, J.

Petitioner/Defendant-Appellant Zaldy Subia (Subia) was convicted of methamphetamine trafficking in the second degree,

in violation of Hawai'i Revised Statutes (HRS) § 712-1240.8.<sup>1</sup> The Intermediate Court of Appeals' (ICA) September 23, 2015 Judgment on Appeal, entered pursuant to its August 17, 2015 Memorandum Opinion, affirmed Subia's conviction. On appeal, Subia argues the ICA erred in holding 1) the Circuit Court of the First Circuit (circuit court) did not abuse its discretion by permitting Jeanette Ardiente (Ardiente), a criminalist with the Honolulu Police Department (HPD), to testify that the results of the Fourier Transform Infrared Spectrometer (FTIR) conclusively established that the substances the police recovered from Subia contained methamphetamine; and 2) Subia's conviction was based on sufficient evidence.<sup>2</sup> We conclude a proper foundation was not laid to introduce the FTIR test results and therefore, Ardiente should not have been permitted to testify regarding the FTIR test results. Further, there is a reasonable possibility that the admission of the test results contributed to Subia's conviction. Because the circuit court's error was not harmless beyond a reasonable doubt, we vacate the Judgment on Appeal of the ICA and the judgment of conviction of the

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<sup>1</sup> HRS § 712-1240.8 (2014) provides in part, as it did at the time relevant here:

(1) A person commits the offense of methamphetamine trafficking in the second degree if the person knowingly distributes methamphetamine in any amount.

<sup>2</sup> In arguing this first point, Subia also asserts Ardiente's testimony was inadmissible because her testimony violated the best evidence rule. (Citing Hawai'i Rules of Evidence (HRE) Rule 1002). In light of our disposition, we do not address this argument.

circuit court, and remand to the circuit court for a new trial.

## I. Background

### A. Circuit Court Proceedings

On October 5, 2011, Subia was charged with committing methamphetamine trafficking in the second degree. The "Felony Information" filed by the State charged Subia with violating HRS § 712-1240.8:

On or about the 4th day of October, 2011, in the City and County of Honolulu, State of Hawaii, ZALDY SUBIA did knowingly distribute the dangerous drug methamphetamine in any amount, thereby committing the offense of Methamphetamine Trafficking in the Second Degree in violation of Section 712-1240.8 of the Hawaii Revised Statutes.

A jury trial<sup>3</sup> commenced on June 13, 2012.

At trial, the State presented testimony from HPD Officer Brett Doronila, who testified that on October 4, 2011, as part of an undercover operation, he approached Subia and sought to purchase methamphetamine. Officer Doronila described his interaction with Subia as follows:

Well, I approached him. I asked him if "You get," which is, through my training and appearance [sic], is street vernacular to see if you have any illegal drugs to sell. He said, "What you looking for?" I said "Clear." Which is street vernacular for crystal methamphetamine. He said, "How much you looking for?" I said "Forty." Forty dollars. He said, "Okay, wait here."

After this conversation, Subia left to collect the alleged drugs. Subia returned with two clear Ziploc bags, which he handed to Officer Doronila, who then paid Subia. Officer

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<sup>3</sup> The Honorable Colette Y. Garibaldi presided.

Doronila testified that each of the bags contained "a white crystalline-like substance" that he asserted resembled methamphetamine.

Subia's description of his encounter with Officer Doronila substantially corresponds with Officer Doronila's testimony. Subia explained that Officer Doronila asked Subia if he had drugs, and Subia replied, "no, but I could get [] some drugs that somebody get[.]" On cross examination, Subia agreed that he sold Officer Doronila drugs, and that he knew "clear means crystal meth." Subia also agreed that he "went to get the meth," spoke with the drug dealer and told him "[s]omebody want to buy forty, forty dollar worth" of "[c]rystal meth." In response, the drug dealer "gave [Subia] the drugs," Subia returned to Officer Doronila and "holding the meth, [] put it in [Officer Doronila's] hands." To the State's question asking whether Subia had "[done] this before," Subia replied, "Yeah, some."

Ardiente, a criminalist with HPD who conducted tests to identify the substances at issue, was presented by the State as an expert in the field of drug analysis and identification. She testified that she is trained in the "use" of the FTIR. Defense counsel did not object to Ardiente as an expert and the court determined Ardiente was an expert in the field of drug analysis and identification.

Ardiente testified that she analyzed the substances to determine if the bags contained controlled substances. To perform her analysis, Ardiente conducted a color test, a crystal test, and the FTIR test. The color and crystal tests are presumptive tests, meaning the tests indicate, but do not confirm, the presence of methamphetamine. Ardiente testified that the color and crystal tests indicated methamphetamine was present in both bags.

The FTIR test is a confirmatory test, meaning it identifies a particular substance, to the exclusion of all others, within a reasonable degree of scientific certainty. Ardiente explained that the substances are placed on the FTIR, which shines a beam of infrared light on the substance. The light causes the molecules of the substance to vibrate. The FTIR reads the vibrations and creates a graph. Ardiente ran the test and compared the graphs created by the substances with a known graph of methamphetamine run on the same instrument. Ardiente testified the graphs of the substances matched the known graph of methamphetamine, indicating both substances tested positive for methamphetamine.

To lay a foundation to introduce the FTIR test results, Ardiente testified how the FTIR is checked to ensure it is in proper working order. Ardiente explained the FTIR has an "inbuilt validation program" provided by the manufacturer. She

stated that to do a performance check, you "run" the validation program and "it will print out a piece of paper saying whether or not the performance check passed." The performance check is run daily before the first use of an instrument that day.

Ardiente explained that HPD's procedure is to keep the printout of the performance check and require criminalists to examine and initial the printout for each instrument. This establishes that the criminalist "did check it and ensure that [the FTIR] was in proper working condition."

Ardiente testified that a performance check was conducted on the FTIR prior to her testing of the substances on October 4, 2011. She was not the first criminalist to use the instrument and therefore did not run the performance check. Defense counsel objected to Ardiente's testimony on the basis of hearsay, and the court initially sustained the objection. After the State reframed its question, defense counsel again objected based on hearsay. The State explained the line of questioning was foundational. The court overruled the objection and permitted Ardiente to explain how she knew a check was performed on the instrument used. Ardiente testified she reviewed the printout of the performance check results for that instrument. Based on the October 4, 2011 printout, Ardiente asserted the FTIR was operating in accordance with the manufacturer's specifications. She also testified she would not have used the

FTIR if it were not in proper working condition.

Defense counsel asked to voir dire the witness after the State asked Ardiente, "based on all three of the tests that you had run on the evidence that was submitted, what were the results of all the tests?" On voir dire, defense counsel inquired whether the FTIR "should be checked and calibrated each time it is used." Ardiente responded that the FTIR "does have performance checks" but did not state whether the FTIR is calibrated.

After conducting voir dire of Ardiente, defense counsel objected to admission of her testimony regarding the test results based on hearsay, lack of foundation, and the Confrontation Clause. Defense counsel explained that because she did not conduct the performance check, her testimony was hearsay. Defense counsel argued that to lay a proper foundation to introduce the FTIR test results, the State was required to demonstrate the FTIR was accurate through the testimony of the analyst who conducted the test or by introducing the printouts of the performance check. The court overruled defense counsel's objections because Ardiente testified she was trained by the FTIR manufacturer in quality control and followed the manufacturer's procedure of reviewing the results of the performance check prior to using the machine. In addition, the court based its ruling on Ardiente's testimony that she found

the FTIR to be in proper working condition even though she did not conduct the performance check. Thereafter, Ardiente testified, "[b]ased on the results of all the tests, I concluded that the substance[s] contained methamphetamine . . . ." She also said she had no reason to believe the FTIR was not working accurately.

Subia raised the defense that he acted as a procuring agent for the buyer of methamphetamine, Officer Doronila. The jury was instructed that "[a] person who is the procuring agent for the buyer cannot be found guilty of distributing the unlawful drug because the act of buying falls outside the definition of to distribute." Subia argued in closing that the evidence demonstrated that he acted on behalf of the buyer because he did not seek out a buyer and did not receive any compensation for assisting the transaction. According to the State, the evidence demonstrated that Subia acted on behalf of the seller. The State based its argument on the following evidence: 1) it would be unusual for a person not acting on behalf of a seller to "help" a stranger find drugs; 2) Subia "went straight to" the seller after Officer Doronila asked Subia if he had drugs; and 3) the seller trusted Subia.

The circuit court instructed the jury that Subia was charged with the offense of methamphetamine trafficking in the second degree. The court stated that "[a] person commits the



offense of methamphetamine trafficking in the second degree if he knowingly distributes methamphetamine in any amount." The court explained there are "two material elements" of the offense: "1, that on or about October 4th, 2011, in the City and County of Honolulu, State of Hawai'i, the defendant, Zaldy Subia, distributed methamphetamine in any amount. And 2, that the defendant Zaldy Subia, did so knowingly." The court defined distribution to the jury as follows: "[t]o distribute" means to "sell, transfer, prescribe, give, or deliver to another, or to lead, barter or exchange with another, or to offer or agree to do the same."

The jury convicted Subia of methamphetamine trafficking in the second degree. Subia was sentenced on August 22, 2012 to ten years in prison with a mandatory minimum of one year, and he was ordered to pay monetary assessments and fines.

**B. ICA Appeal**

In a memorandum opinion, the ICA affirmed the circuit court's judgment convicting Subia. State v. Subia, No. CAAP-12-0000794, at 18 (Haw. Aug. 17, 2015) (mem.). The ICA concluded Ardiente's testimony was sufficient to lay a proper foundation to admit the results of the color, crystal, and FTIR tests. Id. at 12-13. The ICA emphasized that in State v. Manewa, 115 Hawai'i 343, 167 P.3d 336 (2007), this court did not cite to any testimony that the expert himself performed the daily check of

the instrument, "rather it was [the expert's] knowledge that the laboratory followed a routine procedure to ensure that the [instrument] was in proper working order that was important." Id. at 11. According to the ICA, Manewa established "testimony showing compliance with established procedures that provide assurance that the instrument is in proper working order is sufficient to lay the foundation for admission of the results of the instrument's use." Id. at 11. Ardiente testified the laboratory had a policy of conducting a performance check in accordance with the manufacturer's recommended procedure, and required criminalists to check the printout of the performance test results to ensure the instrument was in good working order. Id. at 9, 11. The ICA interpreted Manewa to conclude that a proper foundation was laid to admit the test results and Ardiente's testimony. Id. at 11-12.

## II. Standards of Review

### A. Evidentiary Foundation

When a question arises regarding the necessary foundation for the introduction of evidence, the determination of whether proper foundation has been established lies within the discretion of the trial court, and its determination will not be overturned absent a showing of clear abuse.

State v. Eid, 126 Hawai'i 430, 440, 272 P.3d 1197, 1207 (2012) (quoting State v. Assaye, 121 Hawai'i 204, 210, 216 P.3d 1227, 1233 (2009)).

### B. Evidence Admissibility

[D]ifferent standards of review must be applied to trial court decisions regarding the admissibility of evidence, depending on the requirements of the particular rule of evidence at issue. When application of a particular evidentiary rule can yield only one correct result, the proper standard for appellate review is the right/wrong standard. However, the traditional abuse of discretion standard should be applied in the case of those rules of evidence that require a "judgment call" on the part of the trial court.

State v. Heggland, 118 Hawai'i 425, 434, 193 P.3d 341, 350

(2008) (citation omitted).

### III. Discussion

Subia asserts the State did not lay a sufficient factual foundation to admit the results of the FTIR test. "[A] fundamental evidentiary rule is that before the result of a test made out of the court may be introduced into evidence, a foundation must be laid showing that the test result can be relied on as a substantive fact." State v. Wallace, 80 Hawai'i 382, 407, 910 P.2d 695, 720 (1996) (citation omitted). A proper foundation for introducing a test result "would necessarily include expert testimony regarding: (1) the qualifications of the expert; (2) whether the expert employed 'valid techniques' to obtain the test result; and (3) whether 'the measuring instrument is in proper working order.'" State v. Long, 98 Hawai'i 348, 355, 48 P.3d 595, 602 (2002). It is undisputed that Ardiente was a qualified expert and used valid techniques in conducting her test of the substances. As a result, the crux of Subia's foundational issue is whether the FTIR was in proper

working order.

Ardiente testified that the FTIR was working properly based upon the performance check that was conducted by another criminalist. She explained that every day an "inbuilt validation program" is used to check whether the FTIR is operating in accordance with manufacturer specifications. She stated that after you run the program, "it will print out a piece of paper saying whether or not the performance check passed." Because the printout stated the FTIR passed the performance check, Ardiente concluded the FTIR was in proper working condition. The State did not introduce the printout into evidence. Thus, as Subia notes, "the only evidence that the FTIR was in proper working order was Ardiente's testimony regarding the contents of the performance based printout."

This case is factually similar to Manewa, 115 Hawai'i 343, 167 P.3d 336. In analyzing the admission of the test results of a gas chromatograph mass spectrometer (GCMS) in Manewa, we focused on the expert's testimony that the laboratory applied an accepted manufacturer's procedure to verify the instrument was in proper working order. The expert in Manewa testified, "'a routine check' was done of the [instrument] 'each and every morning' 'to ensure that all the parameters are within manufacturer specifications.'" Id. at 354, 167 P.3d at 347. The expert explained that "if any parameter is out of spec," the

instrument is not used. Id. We determined that the expert's testimony that he would not have used the instrument if it had not been in proper working order indicated he had personal knowledge that the instrument was in proper working condition. Id. at 354, 167 P.3d at 347.

Likewise, in this case, Ardiente explained a daily check is conducted using a program provided by the manufacturer to determine whether the FTIR is in proper working order. Ardiente testified she would not have used the FTIR if it had not been working properly. The ICA therefore determined that Ardiente's testimony laid a sufficient foundation to introduce the FTIR test results. Subia, mem. op. at 11. The ICA explained that in Manewa "it was [the expert's] knowledge that the laboratory followed a routine procedure to ensure that the [the instrument] was in proper working order that was important." Id. Because Ardiente testified a performance check was routinely conducted and she had knowledge that the performance check was conducted, the ICA concluded that it was irrelevant that Ardiente did not personally perform the performance check.<sup>4</sup> Id.

However, the distinction that the ICA did not consider is that Ardiente lacks personal knowledge that the performance

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<sup>4</sup> The ICA did not consider whether the printout of the performance check could have been introduced into evidence.

check was accurate. Although Manewa does not clearly state the expert ran the routine check, this court explicitly explained in Wallace that personal knowledge is an essential factor in laying a sound factual foundation. In Wallace, the expert could not testify that the calibration was accurate if the expert lacked personal knowledge that the instrument "had been correctly calibrated and merely assumed that the manufacturer's service representative had done so."<sup>5</sup> Wallace, 80 Hawai'i at 412, 910 P.2d at 725 (emphases added). In Wallace, the service representative did not testify at trial and no business record was introduced indicating the instrument was correctly calibrated. Id. We explained that "testimony based on information supplied by another person that is not in evidence is inadmissible. The rationale is that the witness' knowledge is based on hearsay evidence and the trier of fact is unable to test the source's trustworthiness." Id. at 411, 910 P.2d at 724 (citing State v. Bannister, 60 Haw. 658, 659-60, 594 P.2d 133, 134 (1979)). We therefore concluded the expert's testimony as to the accuracy of the balance was based on inadmissible hearsay. Id. Thus, we held the prosecution failed to lay an adequate factual foundation that the results of an electronic

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<sup>5</sup> We came to this conclusion even though the person conducting the check was the manufacturer's service representative, who presumably would be the person most likely to properly follow the manufacturer's procedure. Wallace, 80 Hawai'i at 412, 910 P.2d at 725.

balance used to weigh cocaine were accurate. Id. at 412, 910 P.2d at 725.

Similarly, in Manewa, we also considered that the expert knew the electronic balance was calibrated semi-annually, but had no personal knowledge that the balance was "correctly calibrated." 115 Hawai'i at 355, 167 P.3d at 348 (emphasis added). The individual calibrating the balance "fill[ed] out a form and indicate[d] that it was in proper working condition." Id. The forms were not admitted into evidence. Id. We found an "inadequate foundation was laid to show that the weight measured by the balance could 'be relied on as a substantive fact[.]'" Id. at 356, 167 P.3d at 349 (citing Wallace, 80 Hawai'i at 412, 910 P.2d at 725). Therefore, we concluded the expert's "assumption that the balance was accurate was based on inadmissible hearsay." Id.

Likewise, as Subia argues, Ardiente's testimony that the FTIR was in proper working condition is based on inadmissible hearsay. Ardiente had knowledge of the procedures used to test the FTIR, but her testimony that the FTIR was in proper working order was not based on her personal knowledge because she did not conduct the performance check. Because the printout was not admitted into evidence and the criminalist who conducted the performance check did not testify at trial, it is unknown whether the performance check was conducted as required

by the manufacturer. To assert the FTIR was in proper working condition, Ardiente had to assume the other criminalist correctly conducted the performance check. As Subia notes, the printout may have been admissible as a regularly conducted activity pursuant to HRE Rule 803(b)(6). However, because the State did not introduce the printout or the testimony of the criminalist who conducted the performance check, the State failed to establish the performance check had been conducted correctly. Because there is no reliable evidence demonstrating the FTIR was in proper working order, the State failed to lay a factual foundation that the FTIR was in proper working condition.

Subia also argued there is no evidence that the FTIR was calibrated. We recognize "Manewa imposes the additional requirement that [the State] show 'that the [instrument] had been properly calibrated by the manufacturer's service representatives[.]'" Assaye, 121 Hawai'i at 217, 216 P.3d at 1240 (Acoba, J., concurring) (citing Manewa, 115 Hawai'i at 354, 167 P.3d at 347). In Manewa, we determined the evidence failed to establish reliability of the analytic balance where the record lacked evidence of the expert's training in calibrating the balance and the prosecution failed to demonstrate "the balance had been properly calibrate[d]." Manewa, 115 Hawai'i at 354, 167 P.3d at 347.



A sufficient foundation is not laid when the only evidence of the working status of an instrument is that the instrument was "checked." State v. Long, 98 Hawai'i 348, 355, 48 P.3d 595, 602 (2002). In Long, the prosecution asked its expert about the calibration of the machine. Id. In response, the expert failed to answer in the affirmative as to the calibration, and stated only that "all instruments are checked." Id. We therefore concluded the prosecution did not lay a foundation "confirming that 'the test result [could] be relied on as a substantive fact.'" Id. (citing Wallace, 80 Hawai'i at 407, 910 P.2d at 720).

Here, the record is inconclusive as to whether calibration was conducted. On voir dire, defense counsel asked Ardiente whether the FTIR "should be checked and calibrated each time it is used, right?" In response, Ardiente did not explicitly state whether the FTIR was calibrated. She stated only that "[i]t does have performance checks, yes." This response is ambiguous as to whether the performance check constituted a calibration of the FTIR. Ardiente did not explain on direct examination or on voir dire how a performance check is conducted. Ardiente stated only that the FTIR has "an inbuilt validation program" that is "run" and that will "print out a piece of paper saying whether or not the performance check passed." Based on the record, it is unclear whether the daily

performance check constituted calibration of the FTIR or whether it constituted a verification of the accuracy of the machine that would render calibration of the FTIR superfluous. Assuming the FTIR requires calibration, the fact that the instrument's performance was, as a matter of routine, checked prior to use is insufficient when there is no evidence that the instrument was ever calibrated. Simply stating that a daily performance check was conducted does not necessarily mean the checks involved a calibration of the FTIR. Without evidence that the FTIR received periodic calibration or that such calibration was unnecessary, it is unknown whether the instrument or the performance check program was working properly. Accordingly, we hold the circuit court abused its discretion in admitting Ardiente's testimony regarding the test results.

Under the harmless error standard, the appellate court "must 'determine whether there is a reasonable possibility that the error complained of might have contributed to the conviction.'" State v. Pauline, 100 Hawai'i 356, 378, 60 P.3d 306, 328 (2002) (citation omitted). "If there is such a reasonable possibility in a criminal case, then the error is not harmless beyond a reasonable doubt, and the judgment of conviction on which it may have been based must be set aside." State v. Gano, 92 Hawai'i 161, 176, 988 P.2d 1153, 1168 (1999) (citation omitted).

Ardiente's testimony regarding the FTIR test results was central to the State's argument that Subia was guilty of distributing methamphetamine and had sold methamphetamine on behalf of the seller. As noted, Subia's defense theory was posited on the argument that he was the procuring agent for the buyer. The strength of the State's case would have been significantly lessened had the test results demonstrating that the substances were methamphetamine, to the exclusion of all other substances, not been admitted. Without the test results proving that the substances were methamphetamine, the State had limited evidence to support its theory that Subia was an agent for the seller: Subia received no monetary payment or payment-in-kind in return for his alleged service to the seller; further Subia did not approach the buyer, rather, the buyer approached Subia. Without the test results, the State's ability to counter Subia's procuring agent defense would have been substantially reduced and Subia may have been able to raise a reasonable doubt in the minds of the jury. Accordingly, there is a reasonable possibility that admission of the test results contributed to the jury's conclusion that Subia intended to distribute methamphetamine in collaboration with the seller. In other words, the fact that the jury received evidence that the substance given to Officer Doronila was methamphetamine may have persuaded the jurors that Subia acted on behalf of the seller

and was not the procuring agent for Officer Doronila. Thus, admission of the FTIR test results was not harmless beyond a reasonable doubt.

#### IV. Conclusion

Based on the foregoing, we vacate the judgment of the Intermediate Court of Appeals and the judgment of conviction of the circuit court and remand the case to the circuit court for a new trial.

William Jameson, Jr.,  
for petitioner

Brandon Ito,  
for respondent

/s/ Mark E. Recktenwald

/s/ Paula A. Nakayama

/s/ Sabrina S. McKenna

/s/ Richard W. Pollack

/s/ Michael D. Wilson

