

IN THE SUPREME COURT OF THE STATE OF HAWAI'I

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STATE OF HAWAI'I, Respondent-Plaintiff-Appellee,

vs.

KELVIN B. DOW, Petitioner-Defendant-Appellant.

NO. 22422

CERTIORARI TO THE INTERMEDIATE COURT OF APPEALS
(TR 21 OF 2/23/99)

SEPTEMBER 5, 2001

MOON, C.J., LEVINSON, NAKAYAMA, RAMIL, AND ACOBA, JJ.

OPINION OF THE COURT BY MOON, C.J.

Following a bench trial in district court, the Honorable Christopher McKenzie presiding, defendant-appellant Kelvin B. Dow (Defendant) was convicted of driving under the influence of intoxicating liquor (DUI), in violation of Hawai'i Revised Statutes (HRS) § 291-4(a)(2) (Supp. 1999).¹ Defendant's

¹ HRS § 291-4(a) provides as follows:

Driving under the influence of intoxicating liquor.

- (a) A person commits the offense of driving under the influence of intoxicating liquor if:
- (1) The person operates or assumes actual physical control of the operation of any vehicle while under the influence of intoxicating liquor, meaning that the person concerned is

(continued...)

appeal was assigned to the Intermediate Court of Appeals (ICA), which affirmed Defendant's conviction via summary disposition order. See State v. Dow, No. 22422 (Haw. Ct. App. June 15, 2000) (SDO) [hereinafter, SD Order]. Thereafter, Defendant timely applied for a writ of certiorari, which we granted on July 27, 2000. The issue presented in this certiorari proceeding centers around the results of Defendant's blood alcohol content (BAC) and the mathematical expressions involved in reporting BAC results.

For the reasons that follow, we hold that, although the ICA expressed Defendant's BAC level in erroneous mathematical terms, there was sufficient evidence in the record from which to conclude beyond a reasonable doubt that Defendant's BAC was above the legal limit prescribed in HRS § 291-4(a)(2). Accordingly, we vacate the ICA's order and affirm the district court's judgment of conviction and sentence.

¹(...continued)

- under the influence of intoxicating liquor in an amount sufficient to impair the person's normal mental faculties or ability to care for oneself and guard against casualty; or
- (2) The person operates or assumes actual physical control of the operation of any vehicle with .08 or more grams of alcohol per one hundred milliliters or cubic centimeters of blood or .08 or more grams of alcohol per two hundred ten liters of breath.

(Bold emphasis in original.) (Underscored emphasis added.)

I. BACKGROUND

On the morning of May 12, 1998, Defendant was involved in a one-car accident when his car struck a tree, and was transported by ambulance to Queen's Medical Center, arriving at 9:10 am. Elizabeth Char, M.D., the emergency room physician who examined Defendant, observed that Defendant's "eyes were bloodshot . . . and [that] he smelled of alcohol on his breath." Dr. Char, therefore, ordered a blood alcohol test.² Based on the test results, Dr. Char notified the police that Defendant may have been driving while intoxicated.³

Honolulu Police Department Officer Richard Wong arrived at the hospital shortly thereafter. Officer Wong testified that, upon arriving at the emergency room, he "observed from a distance of about six to eight feet from the hospital bed that [Defendant] did have an odor of alcohol about him. His eyes were red, bloodshot, glassy". Officer Wong interpreted his observations as "classic for driving under the influence" and ordered that blood be drawn a second time.

² According to the record, there was a factual dispute over whether Dr. Char or another trauma physician ordered the blood test. However, the question of who ordered the test is not relevant for purposes of this appeal.

³ The ICA concluded that it need not decide whether the specific results of the first BAC test should have been suppressed because it was evident from the district court's findings that the court did not rely on the results of the first test in convicting Defendant. Because the suppression is not challenged on certiorari, we do not consider the results of the first blood test here. However, Dr. Char's testimony is relevant to show that she summoned the police as a result of both her observations and the first BAC test result.

Edgar Talavera, a licensed medical technologist who conducted the BAC test from the second blood sample drawn, testified that the test yielded readings of "0.20" and "0.19," with a margin of error of plus or minus .01. Talavera, however, was never asked to explain what exactly he meant by ".20" and ".19." Talavera also testified that he recorded the lower reading on the "Ethanol Level" form at the time the test was conducted. Subsequent to his testimony, the form was admitted into evidence. The form indicates Talavera's handwritten notation of ".19%," under which was the preprinted phrase "mgm Ethanol per cc" [hereinafter, the recorded test result]:

Report: .19 %
 mgm Ethanol per cc

After a two-day trial, the district court found Defendant guilty of DUI. Specifically, the court stated that:

Medical technologist Edgar Talavera obtained the blood from lockbox number four, tested [Defendant's] blood for its alcohol content and found a blood-alcohol content of .18 [sic]. The [prosecution] has proven beyond a reasonable doubt that the chain of custody for the defendant's blood was properly maintained.

Based on all the evidence . . . I find beyond a reasonable doubt that you are guilty of violating [HRS] section 291-4 paren (a) (2) and that you did operate a vehicle while under the influence of intoxicating liquors.

Defendant was sentenced to fourteen hours of alcohol abuse education and counseling, a ninety-day license suspension (with a thirty-day absolute suspension), a \$250.00 fine, alcohol

assessment and possible treatment at Defendant's expense, and a \$107.00 driver education assessment.

As previously stated, Defendant appealed, the ICA affirmed, and we granted certiorari to review the ICA's summary disposition.

II. STANDARDS OF REVIEW

A. Writ of Certiorari

In granting a writ of certiorari, this court reviews decisions for (1) grave errors of law or fact, or (2) obvious inconsistencies in the decision of the intermediate appellate court with that of the supreme court, federal decisions, or its own decisions, and the magnitude of such errors or inconsistencies dictating the need for further appeal. See HRS § 602-59 (1993).

B. Sufficiency of Evidence

When reviewing the sufficiency of evidence on appeal,

"we employ the same standard that a trial court applies . . . namely, whether, upon the evidence viewed in the light most favorable to the prosecution and in full recognition of the province of the trier of fact, the evidence is sufficient to support a prima facie case so that a reasonable mind might fairly conclude guilt beyond a reasonable doubt. Sufficient evidence to support a prima facie case requires substantial evidence as to every material element of the offense charged. Substantial evidence as to every material element of the offense charged is credible evidence which is of sufficient quality and probative value to enable a person of reasonable caution to support a conclusion. Under such a review, we give full play to the right of the fact finder to determine credibility, weigh the evidence, and draw justifiable inferences of fact."

State v. Jenkins, 93 Hawai'i 87, 99, 997 P.2d 13, 25 (2000) (quoting State v. Jhun, 83 Hawai'i 472, 481, 927 P.2d 1355, 1364 (1996)).

III. DISCUSSION

HRS § 291-4(a)(2) establishes legal liability for DUI if a person's BAC level is "0.08 or more grams of alcohol per one hundred cubic centimeters [(cc)] of blood."⁴ Prior to 1993, the legal BAC limit was higher (.10) and was expressed as a percentage rather than the current weight to volume ratio. As noted by the ICA, "[t]he practice of expressing BAC as a percentage . . . stems from a laboratory practice widely followed in this country and elsewhere for expressing solution strengths when small quantities of a liquid or a solid are dissolved in a relatively large amount of a liquid." State v. Ito, 90 Hawai'i 225, 228 n.2, 978 P.2d 191, 194 n.2 (App. 1999) (citations, internal quotations, and brackets omitted). However, "[s]trictly speaking, expressing BAC as a percentage is not truly accurate because what is being expressed as a percentage is really a comparison of weight to volume." Id. "The most straightforward

⁴ HRS § 291-4(a)(2) actually establishes the BAC limit in terms of grams per 100 milliliters or grams per 100 cc. Whether specified in grams per milliliter or grams per 100 cc, when measured as a percentage, the ratio of weight to volume remains the same. A basic scientific assumption in the context of weight to volume measurement is that one gram of water is roughly equivalent to one cc or one milliliter. Therefore, because .08% is equivalent to ".08 out of 100," a BAC of .08% can be expressed as .08 grams per 100 cc or .08 grams per 100 milliliters. However, for the purpose of this opinion, where convenient, we refer to the statutory limit in terms of grams per cc only.

method of expressing solution strength is to put it simply in terms of number of milligrams of the substance per milliliter of solution -- or, if more convenient, per 100 milliliters of solution." Id. (citation omitted).

In 1993, the legislature amended the statute, changing the expression of the standard of measurement from a percentage to a weight per volume ratio -- that is, from .10 percent to .10 grams per 100 cc.⁵ See 1993 Haw. Sess. L. Act 242, § 1 at 421. Thus, BAC levels are expressed either as a percentage (e.g., .10%) or in a weight per volume ratio (e.g., .10 grams per 100 cc), but never both (e.g., .10% grams per 100 cc).

On appeal before the ICA, Defendant argued, inter alia, that the district court erred by admitting the results of the second blood test as evidence because a plain interpretation of the recorded test result -- ".19% mgm ethanol per cc" -- was nonsensical insofar as "[t]here is no such thing as a percent milligram per cubic centimeter." Defendant also argued that, even when viewing the evidence in the light most favorable to the prosecution, the recorded test result could not possibly establish a BAC in excess of the statutory limit. The ICA held that

⁵ In 1995, the BAC limit was lowered to .08 grams per 100 cc. See 1995 Haw. Sess. L. Act 226, § 9 at 587.

the ".19 (% w/v) mgm Ethanol per cc test result, **which is equivalent to [".19 (% w/v) grams of Ethanol per 100 cubic centimeters**" of blood[,] is not "nonsense." Additionally, Edgar Talavera, the licensed medical technologist who tested [Defendant's] blood sample, repeatedly testified that the results of [Defendant's] second blood test showed [Defendant's] BAC as .20 and .19, in excess of the .08 "grams of alcohol per one hundred [milliliters] or cubic centimeters of blood" set forth in HRS § 291-4(a)(2).

SD Order at 2 (bold emphasis added). Holding that the evidence was sufficient as a matter of law, the ICA affirmed Defendant's conviction.

At the outset, we note that the ICA erred in stating that ".19 (% w/v) mgm Ethanol per cc" was equivalent to ".19 (% w/v) gm Ethanol per 100 cc." First, we can disregard the "(% w/v)" parenthetical references because, (a) in comparing the two mathematical expressions, each would cancel the other out and, (b) from a reading of the ICA's summary disposition order, it is clear that the parentheticals were inserted as an explanation that the .19 result reflected a percentage of weight per volume measurement. Second, when we compare ".19 mgm Ethanol per cc" to ".19 grams of Ethanol per 100 cubic centimeters," it is indisputable that the expressions are not equivalent. As Defendant correctly explains,

the test result [of .19 mgm Ethanol per cc] first must be multiplied by 100 to obtain a reading for 100 cc instead of 1 cc.

(.19 mgm per 1 cc) x 100 = 19 mgm per 100 cc
Because there are 1000 mgm in 1 gm, the 19 mgm must be converted to grams from milligrams by dividing that number by 1000.

$$19 \text{ mgm} \div 1000 = .019 \text{ gm}$$

Thus, .19 mgm per cc is equal to .019 gm per 100 cc.

Accordingly, we hold that the ICA incorrectly stated that .19 mgm Ethanol per cc is equivalent to .19 grams Ethanol per 100 cc. We now address the substance of Defendant's contention in this certiorari proceeding.

In his application, Defendant contends that the ICA violated his right to due process under the federal and state constitution by holding that the evidence was sufficient to convict because (1) Talavera, the medical technologist, never stated that Defendant's blood alcohol was in excess of the legal limit and (2) the recorded test result of ".19% mgm Ethanol per cc" (without the percent sign) converts to an amount that is not "in excess of the legal limit," as demonstrated above.

If the evidence in support of Defendant's DUI conviction was limited to the recorded test result of ".19% mgm Ethanol per cc," we would agree that the recorded result alone was insufficient to support a conviction because, by itself, the test result -- which expresses Defendant's BAC level as both a percentage and a weight per volume ratio -- is confusing. See discussion supra. However, the record indicates that the recorded test result was not the only evidence presented at the time of trial. We, therefore, examine the record to determine whether there was sufficient evidence to support Defendant's conviction based on the recorded test result, the testimony at

trial, and any justifiable inferences that may be drawn therefrom. As stated previously, we review evidence for sufficiency "in the light most favorable to the prosecution," giving "full play to the right of the fact finder to determine credibility, weigh the evidence, and draw justifiable inferences of fact." State v. Jenkins, 93 Hawai'i 87, 99, 997 P.2d 13, 25 (2000) (quoting State v. Jhun, 83 Hawai'i 472, 481, 927 P.2d 1355, 1364 (1996)).

At trial, Talavera, the medical technologist who tested Defendant's blood sample, testified, on direct examination by the prosecution, as follows:

- Q. [By the Prosecutor]: Okay. And did you analyze [Defendant's] blood?
- A. [By Talavera]: Yes.
- Q: And what were the results of that test?
- A: We ran it in duplicate form. **I had a .20 and .19.**
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- Q: And what was the margin of error for [Defendant]?
- A: Plus or minus .01.
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- Q: So, was [Defendant] within the acceptable margin of error?
- A: Yes, [he was].
- Q: Okay. And what did you do after ascertaining [Defendant's] blood level at .19?
- A: We had just documented it in our log book and we just keep it till the traffic division calls for results, and I guess, they process it to the court system.
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- Q: Did you have, along with [Defendant's] test, did you have appropriate reference samples?
- A: Yes. When we analyze the samples, we run a proficiency and accuracy test and calibration on the machine to perform this accuracy and position on the machine testing the patient's sample simultaneously with the known alcohol. We run five known alcohol values, a 0.10, .15, .197, .301 --
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- Q: This is the results [sic] of the blood test from . . . [Defendant]. Do you remember what the results were?
- A: Yes.

Q: **Would you please tell the Court what the results were?**
A: **.19.**
Q: And according to what you testified to earlier as to the margin of error, what would the lowest [Defendant's] **blood-alcohol level** [could] have been from this blood test?
A: .18.

(Bold emphases added). Talavera was not asked to specify the units of measurement for his stated decimal figures nor to further explain what was meant by the numerical values of ".19" or ".20." Defendant essentially argues that Talavera's failure to specifically indicate whether the ".19" and ".20" results were a measurement of "grams per 100 cc" or some equivalent thereto renders the results meaningless.

Because BAC levels are expressed either as a percentage or as a weight per volume ratio, but never both, Defendant maintains that the only way to interpret ".19% mgm Ethanol per cc" in a manner that is sensible and favorable to the state is to disregard the percent sign reflected in the reported test result. To the contrary, the only way to interpret the recorded test result "that is sensible and favorable to the state" is to disregard the preprinted phrase "mgm Ethanol per cc," which is supported by the record.

The record indicates that Talavera recorded and expressed the ethanol reading as a percentage, a practice "widely followed" in reporting BAC levels. See Ito, 90 Hawai'i at 228 n.2, 978 P.2d 191, 194 n.2. It is apparent from Talavera's testimony that his reference to the numerical values of ".19" and

".20" represented percentages, which is supported by his additional testimony that he recorded the lower test result of .19 in his own handwriting on the Ethanol form. As previously indicated, the Ethanol form indicates ".19," followed by a handwritten percent sign, under which was preprinted the phrase "mgm Ethanol per cc." Moreover, no objections were made at trial, defense counsel did not cross-examine Talavera on this issue, and, as Defendant concedes, "No one pointed out the obvious nonsense of [the recorded test] result."

As Defendant observes in his application for certiorari:

Percentage strength is a measure of parts per hundred. The strength of a solution expressed as a percentage indicates that amount of drug present in 100 parts of solution. In calculations in the metric system, the amount of drug present in 100 parts of solution is always understood to mean grams per 100 ml. Thus, a 10% solution means that there are 10 gm of drug for every 100 ml of solution. A 0.1% solution has 0.1 gm or 100 mg of drug for every 100 ml of solution.

(Quoting A. Aurigemma and B.J. Bohny, *Dosage Calculation, Method and Workbook* at 85 (3d ed. 1987)). Similarly, a .19% solution has .19 grams per 100 ml or .19 grams per 100 cc of solution, which is above the legal limit of .08 grams per 100 cc.

Further, two separate "lay" witnesses, Dr. Char and Officer Wong, testified to observing Defendant's bloodshot eyes and an attendant odor of alcohol. Although the lay testimony of Dr. Char and Officer Wong as to Defendant's physical state at Queen's Medical Center cannot be used to establish Defendant's

BAC, they can permissibly corroborate a factual inference that Talvera's testimony and the reported test result of .19 established a BAC of .19% and not a BAC of .19 mgm per cc.

Based on the foregoing, we hold that sufficient evidence was adduced at trial to conclude that Defendant's BAC was .19% -- which is the equivalent of .19 grams of alcohol per 100 milliliters or cubic centimeters -- and, therefore, as a matter of law, was above the legal limit. Thus, although the reason cited by the ICA was erroneous -- i.e., that .19(% w/v) mgm of ethanol per cc is equivalent to .19(% w/v) grams of ethanol per 100 cc -- the conclusion it reached -- i.e., the affirmance of Defendant's conviction -- was correct. See State v. Ross, 89 Hawai'i 371, 378 n.4, 974 P.2d 11, 18 n.4 (1998) ("An appellate court may affirm a judgment of the lower court on any ground in the record that supports affirmance.").

IV. CONCLUSION

Based on the foregoing, we vacate the ICA's order and affirm Defendant's conviction of and sentence for driving under the influence of intoxicating liquor in violation of HRS § 291-4(a)(2).

Earle A. Partington,
for petitioner-defendant-
appellant on the writ