IN THE UNITED STATES COURT OF APPEALS
FOR THE FIFTH CIRCUIT

United States Court of Appeals
Fifth Circuit

FILED
June 22, 2017

Lyle W. Cayce
Clerk

No. 16-20242

QUANTLAB TECHNOLOGIES, LIMITED (BVI); QUANTLAB FINANCIAL, L.L.C.,

Plaintiffs - Appellees

v.

ANDRIY KUHARSKY; EMMANUEL MAMALAKIS,

Defendants - Appellants

Appeal from the United States District Court
for the Southern District of Texas
USDC No. 4:09-CV-4039

Before DAVIS, JONES, and SOUTHWICK, Circuit Judges.

PER CURIAM:*

Defendants-Appellants Andriy Kuharsky and Emmanuel Mamalakis appeal a final judgment against them and in favor of Plaintiffs-Appellees Quantlab Financial, L.L.C. and Quantlab Technologies (hereinafter referred to in the singular as "Quantlab") following a jury trial and the district court's

* Pursuant to 5TH CIR. R. 47.5, the court has determined that this opinion should not be published and is not precedent except under the limited circumstances set forth in 5TH CIR. R. 47.5.4.

denial of Kuharsky and Mamalakis's motions for judgment as a matter of law. For the reasons set out below, we affirm.

I. BACKGROUND

We must examine the record in the light most favorable to the jury verdict:

> We review the denial of a renewed motion for judgment as a matter of law *de novo*, but our standard of review with respect to a jury verdict is especially deferential. A motion for judgment as a matter of law can be granted if the facts and inferences point so strongly and overwhelmingly in favor of one party that the Court believes that reasonable people could not arrive at a contrary verdict. The Court must draw all inferences in favor of the nonmoving party, but may not make credibility determinations or weigh the evidence.[1]

The remainder of this opinion focuses on those facts.

Quantlab describes itself as "a quantitative financial research firm that applies proprietary computer analytics to identify profitable trading opportunities." Specifically, Quantlab employs software engineers, mathematicians, physicists, and others to create highly confidential and proprietary mathematical models, algorithms, and formulas to discover trading strategies based on market data. Quantlab's employees also create computer code and hardware systems to implement those strategies, with the entire electronic trading platform essentially operating automatically, generating orders under certain conditions based on the computer code, without human intervention. This is known as high-frequency trading.

In 2001, Quantlab hired Kuharsky, a Ph.D. mathematician, and Co-Defendant Vitaliy Godlevsky, a Ph.D. physicist, to work on Quantlab's trading

[1] *Vetter v. McAtee*, 850 F.3d 178, 185 (5th Cir. 2017) (footnotes omitted).

strategy. In 2004, Quantlab hired Co-Defendants Ping An and Anna Maravina (who later became Kuharsky's girlfriend and then wife). Each one signed an agreement in which they promised to stop using Quantlab's proprietary and confidential information and to return that information when their employment ended. Instead, they eventually entered into a conspiracy to use Quantlab's information for their own benefit.

Quantlab fired Kuharsky and Godlevsky in March 2007 for what Quantlab characterizes as "serious performance deficiencies." Kuharsky was not given a bonus for his 2006 performance. Both men threatened to use Quantlab's confidential information in the future, and in fact carried out that threat.

Kuharsky not only failed to return Quantlab's confidential information after he was terminated, he also copied large amounts of Quantlab's source code and other proprietary information over the internet on at least nine separate occasions, improperly using a Quantlab employee's network credentials. He also made local copies on CDs and DVDs, his personal laptop, an external hard drive, and at least 13 different electronic storage devices of thousands of Quantlab's confidential proprietary computer files, including large portions of Quantlab's source code relating to trading strategy and trading technology. He did all of that in March and April 2007.

In July 2007, Kuharsky, Godlevsky, and Mamalakis, a licensed Wisconsin attorney, formed SXP Analytics, L.L.C. ("SXP"), which was formed to do the same type of high-frequency trading as Quantlab. Mamalakis was the financier and owner of SXP. The account at this point is complicated by the fact that Kuharsky, Mamalakis, and possibly others eventually destroyed a great deal of evidence, but Quantlab presented forensic evidence that Kuharsky accessed confidential and proprietary Quantlab files, including

source code for the trading technology, on numerous dates while he was writing the source code for SXP.

In January 2008, Kuharsky departed from SXP after a falling out with Godlevsky and Mamalakis. In a pseudonymous email, Kuharsky informed Quantlab CEO Bruce Eames that SXP was using Quantlab's computer code, prompting the FBI to conduct a raid on both SXP's offices and the residences of Kuharsky and other conspirators in March 2008. The FBI seized "hundreds of computers, hard drives, thumb drives, network drives, servers, and CDs," but evidence showed that the conspirators managed to retain some or all of Quantlab's information after the FBI raid.

Specifically, Quantlab presented evidence that SXP's trading platform continued to use Quantlab's proprietary information and that SXP developed its own source code using Quantlab's information. SXP went on to launch its own trading platform in October 2008 and became profitable before ultimately going out of business in 2012.

Quantlab also presented evidence that although Kuharsky had departed from SXP, he continued to use Quantlab's proprietary information in developing his own software, and he went on to create two business ventures, "QuantPlus" and "SingleTick." Indeed, in a later startup proposal, Kuharsky claimed that "[i]n 2011, the Founder's active investment strategies averaged approximately $150-200 thousand a day with $5 million in trading capital on an unlevered basis."

In 2009, Quantlab sued Kuharsky, Mamalakis, Godlevsky, Maravina, An, and SXP in federal court, asserting claims for misappropriation of trade secrets and conspiracy to engage in same, among other claims. All of the defendants other than Kuharsky and Mamalakis settled before trial. Kuharsky asserted a counterclaim for Quantlab's refusal to pay him a bonus for his 2006

performance. The district court granted summary judgment on the counterclaim in Quantlab's favor.

The court also entered a finding of liability against Kuharsky on Quantlab's direct claim of misappropriation of trade secrets, based on Kuharsky's wide-ranging destruction of evidence, including deleting more than ten thousand computer files and folders, failing to preserve storage devices, and similar conduct despite, being ordered to preserve evidence. Mamalakis also destroyed evidence, but it was not as egregious, and the district court sanctioned him with an adverse inference instruction.

Among other things, the jury was left to determine liability on the direct misappropriation of trade secrets claim against Mamalakis and the conspiracy to misappropriate claims against Kuharsky and Mamalakis, as well as damages on all of those claims plus the direct misappropriation claim against Kuharsky. Because damages is the most important issue in this appeal, it is worth reviewing in detail. The Texas Supreme Court has summarized the relevant law as follows:

> A "flexible and imaginative" approach is applied to the calculation of damages in misappropriation-of-trade-secrets cases. Damages in misappropriation cases can therefore take several forms, including the value of the plaintiff's lost profits, the defendant's actual profits from the use of the secret, the value a reasonably prudent investor would have paid for the trade secret, the development costs the defendant avoided by the misappropriation, and a reasonable royalty. "[E]ach case is controlled by its own peculiar facts and circumstances."
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> Loss of value to the plaintiff is usually measured by lost profits. To recover lost profits, a party must introduce "objective facts, figures, or data from which the amount of lost profits can be ascertained." Reasonable certainty is required to prove lost profits.
>
> Value to the defendant may be measured by the defendant's actual profits resulting from the use or disclosure of the trade secret

> (unjust enrichment), the value a reasonably prudent investor would have paid for the trade secret, or development costs that were saved.
>
> Absent proof of a specific injury, the plaintiff can seek damages measured by a "reasonable royalty" . . . .
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> In some cases, damages may be ascertained with precision, either because the parties previously agreed on the value or an industry standard provides a clear measure. But lack of certainty does not preclude recovery. . . . The fact finder must have sufficient evidence to determine the value a reasonably prudent investor would pay for the trade secret, and to meet that standard, the plaintiff need only demonstrate "the extent of damages as a matter of just and reasonable inference," even if the extent is only an approximation.
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> Damage estimates, however, cannot be based on sheer speculation. "If too few facts exist to permit the trier of fact to calculate proper damages, then a reasonable remedy in law is unavailable."[2]

Quantlab's expert, William Bratic, submitted an expert report establishing Quantlab's valuation of damages for defendants' avoided costs and defendants' profits, and he also testified to that effect at trial. Bratic opined that the defendants avoided approximately $55 million in costs by using Quantlab's trade secrets (i.e., source code and other documents) to cut out years of development time and get a new trading platform up and running. Bratic also opined that the SXP earned a total of approximately $30 million in profits from the misappropriation over the relevant period. The jury also heard evidence concerning Kuharsky's individual business activities after he departed from SXP in early 2008.

Prior to trial, the parties argued over Quantlab's damages theories. Quantlab unambiguously asserted that the only measure of damages it sought

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[2] *Sw. Energy Prod. Co. v. Berry-Helfand*, 491 S.W.3d 699, 710–12 (Tex. 2016) (citations and footnote omitted).

were based on Bratic's expert report, i.e., the defendants' avoided costs and profits earned. During the trial, Kuharsky objected to certain testimony by Quantlab witnesses on the grounds that the testimony referred to a supposed third category of damages previously undisclosed, the value of the trade secrets to Quantlab. Indeed, Jury Instruction No. 10, which concerned damages for misappropriation of a trade secret, stated, over Kuharsky's objection, that the jury could consider "the value of the misappropriated trade secrets to Quantlab." Nevertheless, as discussed below, Quantlab never presented evidence as to anything other than the costs avoided or profits earned by the defendants.

The jury found the defendants liable on all four claims and imposed damages against Kuharsky in the amounts of $1,800,000 for direct misappropriation and $5,400,000 for conspiracy to misappropriate, and against Mamalakis in the amounts of $1,000,000 for direct misappropriation and $4,000,000 for conspiracy to misappropriate.

The court then entered a permanent injunction against both defendants, prohibiting them "from participating in any automated high frequency trading business for a period of two years," ending on or about July 27, 2017.

Kuharsky and Mamalakis filed motions for judgment as a matter of law and motions for a new trial, which the district court denied. They then timely appealed. On appeal, Mamalakis attacks the issue of liability and the district court's denial of one of Kuharsky's discovery motions, and he purports to adopt by reference many of Kuharsky's arguments. Kuharsky focuses on both damages and liability, as well as his counterclaim for the unpaid 2006 bonus.

II. JURISDICTION AND STANDARD OF REVIEW

The district court had federal question jurisdiction under 28 U.S.C. §§ 1331 for some of the claims and supplemental jurisdiction under 28 U.S.C. § 1367. We have appellate jurisdiction under 28 U.S.C. § 1291.

We review challenges to jury verdicts for abuse of discretion, but "[w]e do not reverse on the grounds of an erroneous instruction if the error could not have affected the outcome of the case."[3] However, we review the "legal conclusions underlying jury instructions" de novo.[4]

We review the denial of a motion for leave to amend[5] and the denial of a motion to compel[6] for abuse of discretion. Finally, we review the grant of summary judgment under Fed. R. Civ. P. 56 de novo,[7] applying the usual Rule 56 standards, i.e., summary judgment is only appropriate "if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law."[8]

III. ANALYSIS

A. MAMALAKIS'S ARGUMENTS

First, Mamalakis argues that Quantlab failed to prove the existence of a trade secret so as to support liability on any of its claims. Mamalakis claims

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[3] *Eastman Chem. Co. v. Plastipure, Inc.*, 775 F.3d 230, 240 (5th Cir. 2014) (citations and internal quotation marks omitted).

[4] *United States v. CITGO Petroleum Corp.*, 801 F.3d 477, 481 (5th Cir. 2015) (citing *United States v. Williams*, 610 F.3d 271, 285 (5th Cir. 2010)).

[5] *Smith v. EMC Corp.* 393 F.3d 590, 595 (5th Cir. 2004).

[6] *Wiwa v. Royal Dutch Petroleum Co.*, 392 F.3d 812, 817 (5th Cir. 2004).

[7] *James v. Gonzalez*, 348 F. App'x 957, 959 (5th Cir. 2009).

[8] Fed. R. Civ. P. 56.

Quantlab's vague witness testimony failed to establish the existence of a trade secret under Texas' six-part test for a trade secret.[9] He is wrong.

Quantlab presented to the jury a great deal of evidence identifying the trade secrets the defendants stole. For instance, Quantlab's Chief Scientist and Chief Technology Officer testified as to the stolen materials' functions and value, as well as the fact that the defendants possessed the then-current version of Quantlab's trading platform source code, named "ReleaseMarch," and other files which described the functions and structure of Quantlab's trading system and generally explained how to keep it running properly. Not only that, but Quantlab presented evidence that SXP retained Quantlab's source code even after the FBI raid and actually included some portions of Quantlab's source code essentially unchanged in its own final source code.

Viewing the facts in the light most favorable to the verdict, the jury could reasonably conclude that Quantlab proved the existence of a trade secret. This argument is entirely without merit.

Second, Mamalakis challenges the district court's denial of Kuharsky's motion to compel discovery relating to the financial relationship between Quantlab and SXP's receiver, which was appointed in Wisconsin. Other than a single citation to a Wisconsin case for the proposition that a receiver may not act against the interests of the estate it is administering,[10] Mamalakis fails to cite to any relevant law or portions of the record supporting his contention that the district court abused its discretion in denying the motions to compel. While

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[9] *See, e.g.*, *In re Union Pac. R.R. Co.*, 294 S.W.3d 589, 592 (Tex. 2009).

[10] *Cmty. Nat. Bank v. Med. Ben. Adm'rs, LLC*, 2001 WI App 98, ¶ 8, 242 Wis. 2d 626, 634, 626 N.W.2d 340, 344 (Wis. App. 2001).

Mamalakis's failure to adequately brief his argument is arguably fatal in itself,[11] there are other reasons to reject it.

Mamalakis never filed a motion to compel below, only other defendants, including Kuharsky. Quantlab persuasively argues that Mamalakis therefore has no standing to appeal the denial of the orders.[12] Stated differently, Mamalakis waived this argument by failing to raise it below.[13] Even if Mamalakis could challenge the district court's denial and had properly supported his argument, he still could not show that the district court abused its discretion. We therefore affirm.

Third, Mamalakis also asserts in his original brief that he is joining in the arguments raised in Kuharsky's brief, even though Kuharsky's brief is written solely from Kuharsky's perspective. Quantlab argues Mamalakis has waived those arguments because he failed to flesh them out with his own briefing. We note that Mamalakis is expressly allowed to adopt Kuharsky's arguments by reference under Federal Rule of Appellate Procedure P. 28(i), to the extent those arguments are relevant to Mamalakis. Because we conclude that Kuharsky's arguments have no merit, however, the point is moot.

B. KUHARSKY'S ARGUMENTS

Kuharsky first attacks the award of damages on the direct misappropriation claim against him on two grounds: (a) it was improper to

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[11] *See Ortega v. City of Houston*, 161 F.3d 7 (5th Cir. 1998) (an argument on appeal is waived "due to [appellant's] failure to cite to the record for any evidence supporting his claim"); *see also Curry v. Strain*, 262 F. App'x 650, 652 (5th Cir. 2008)).

[12] Quantlab cites to *Boudreaux v. Swift Transp. Co.*, 402 F.3d 536, 545 (5th Cir. 2005), in which we held that a district court did not "abuse[] its discretion in refusing to order discovery *sua sponte*."

[13] *Cf. United States v. Gaddis*, 877 F.2d 605, 613 (7th Cir. 1989) (holding that where a defendant failed to join in a codefendant's motion to preclude the government's calling a witness, the defendant waived that issue on appeal).

instruct the jury on "value to Quantlab" damages because Quantlab sprang that theory on the defendants at the last minute, and it was not supported by the evidence; and (b) because Kuharsky left SXP in early 2008 before SXP had started making money, Quantlab could not show that Kuharsky himself either avoided costs or earned profits, so there was no basis for damages. We reject both arguments.

First, we conclude Quantlab never surprised Kuharsky with a separate "value to Quantlab" theory of damages. Kuharsky suggests that the new "value to Quantlab" theory of damages was contained in the testimony of Quantlab CEO Bruce Eames, but the only sum Eames ever discussed was the approximately $55 million it cost Quantlab to development its trading platform. Indeed, although Kuharsky argues that the "value to Quantlab" constituted a new and improper theory of damages, he fails to point to a single example of the "value to Quantlab" that is not simply the development costs—the same as the defendants' avoided costs in the Bratic report. Kuharsky even acknowledges that a true "value to Quantlab" theory under Texas law would concern "the value a reasonably prudent investor would have paid for the trade secret,"[14] but Quantlab presented no such value.

The record shows that the jury never heard any amount of damages other than the approximately $55 million in development costs or the profits the defendants earned, so jury could not have based its damages award on anything else. Indeed, the jury's damages awards were substantially lower than the amounts proposed by Quantlab. In sum, we cannot say that including the "value to Quantlab" in the instruction prejudiced Kuharsky here, so we find no reversible error.

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[14] *See Sw. Energy*, 491 S.W.3d at 711, quoted above.

Next, Kuharsky argues that the jury could not have found damages against him on the direct misappropriation claim because only SXP avoided costs and earned profits from the misappropriation. Kuharsky claims that because he left SXP in early 2008 before SXP finished its trading platform, he neither avoided costs nor earned profits on the misappropriation. We reject this argument as well.

The jury heard evidence that Kuharsky individually avoided costs and earned profits, in that there was evidence that (a) Kuharsky used Quantlab's stolen trade secrets to avoid his own development costs in other ventures, as well as to find investors for those ventures, and (b) Kuharsky boasted in a later startup proposal years after leaving SXP that his strategies had led to $150,000-200,000 per day in trading revenues in 2011. Thus, there was a sufficient basis for the jury to award damages against Kuharsky for direct misappropriation of Quantlab's trade secrets.

Kuharsky raises a number of other arguments regarding the misappropriation claims against him, but we conclude that none of them has merit.[15] Kuharsky also challenges the district court's entry of an injunction against him, barring him from working in the high frequency trading industry

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[15] For instance, Kuharsky argues he is entitled to judgment on the conspiracy to misappropriate claim because such a claim is barred by Texas' intra-corporate conspiracy doctrine, i.e., that a corporation and its employees cannot conspire with each other in carrying out a company's business. He has presented no case applying it to the instant situation, where the conspiracy predated even the creation of the company at issue. Here, Kuharsky stole Quantlab's trade secrets months before the creation of SXP, and the creation and operation of SXP was the means by which the conspiracy was carried out.

Kuharsky also argues that Quantlab failed to show that SXP avoided any costs or earned any profits because of the misappropriation, which argument fails because the jury heard sufficient evidence from which it could have concluded that SXP in fact did avoid costs and/or earn profits through the misappropriation.

Finally, Kuharsky argues the district court erred by refusing to instruct the jury on his supposed withdrawal from the conspiracy in early 2008, but we conclude the district court did not err based on record evidence that he remained somewhat tied to SXP thereafter.

for two years. Because that injunction will expire on or about July 27, 2017, there would be no practicable way to grant relief, even if he was entitled to it, before it terminates on its own. Thus, we decline to reach that issue as moot.

Finally, Kuharsky argues that the district court erred in granting summary judgment against him and in favor of Quantlab on his counterclaim for payment of his 2006 bonus. Kuharsky claims he was entitled to a nondiscretionary bonus of 7.5% of Quantlab's bonus pool for 2006, that he had been given a 7.5% bonus in previous years, that Quantlab had already calculated the 2006 bonus as $1,111,286.00, and that he was told of the approximate size of that bonus in December 2006. Nevertheless, instead of being paid the bonus on March 9, 2007, when other employees received their 2006 bonus payments, Kuharsky was terminated for what Quantlab claims were serious performance problems. Kuharsky's entire argument is based on his characterization of the bonus as a nondiscretionary *earned* bonus under Texas law. If the bonus was nondiscretionary, then Kuharsky is entitled to it; if it was discretionary, then he is not. He claims that there is a fact issue as to whether or not the bonuses were discretionary because he claims he was never told the bonus was discretionary.

The crux of the matter is that Section 11(b) of the employment offer letter from Quantlab to Kuharsky defines the proposed bonus structure, and we agree with the district court that it plainly refers to a discretionary bonus. Kuharsky produced no written evidence contravening that interpretation, just his own subjective impression as to the nature of the bonus. Indeed, Kuharsky has never presented any evidence supporting his claim of a nondiscretionary bonus outside his own belief. Thus, we conclude that Kuharsky failed to present any competent summary judgment evidence creating a genuine

dispute as to a material fact, and Quantlab was entitled to judgment in its favor on Kuharsky's counterclaim.

IV. CONCLUSION

For the reasons set out above, the judgment in favor of Quantlab and against Kuharsky and Mamalakis is AFFIRMED.