IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

GEODYNAMICS, INC.,	§	
	§	
Plaintiff,	§	
	§	
v.	§	No. 2:17-CV-00371-RSP
	§	
DYNAENERGETICS US, INC.,	§	
	§	
Defendant.	§	

MEMORANDUM OPINION AND ORDER

Defendant moves to exclude certain testimony of John Hardesty, Plaintiff's Vice President of Technology. Def.'s Mot. to Strike [Dkt. # 115]. Defendant contends Hardesty should not be allowed to testify regarding his testing of liners from the accused products, and that his test procedure is unreliable under *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 590 (1993) and its progeny. Moreover, Defendant contends Plaintiff's other experts may not testify regarding any conclusions they reached based on Hardesty's testing. Finally, Defendant challenges the sufficiency of Hardesty's disclosure under Fed. R. Civ. P. 26.

After considering the parties' briefing on the motion and arguments of counsel at the September 27, 2018 pretrial conference in this case, the Court will DENY the motion.

I. BACKGROUND

John Hardesty is an engineer and Plaintiff's Vice President of Technology. Pl.'s

Resp. [Dkt. # 146] at 1. According to Plaintiff, Hardesty has "nearly two decades of technical experience in the field of shaped charge design and testing" and is "one of the world's foremost experts on ballistic shaped charges and laboratory simulations." *Id.*

On June 4, 2018, Plaintiff disclosed its intent to call Hardesty to testify about his testing of liners of the accused products. Pl.'s Rule 26(a)(2)(C) Discl. of John Hardesty [Dkt. # 146-6]. According to that disclosure, Plaintiff intends that Hardesty will testify about his design and implementation of the testing procedure, American Petroleum Institute (API) section II and section IV tests, and his opinions concerning secondary considerations of nonobviousness. *Id.* at 1–2.

Plaintiff characterizes the key issue in this case as "whether the exothermic reaction of the accused products yields NiAl." Pl.'s Resp. [Dkt. # 146] at 3; *see also* Wooley Dep. [Dkt. # 115-6] at 134–36 ("I mean the intent was just to create the reaction so that we could obtain the product for analysis."). To address that question, Hardesty designed and built a testing apparatus using an explosive charge to cause a reaction of powdered material obtained from liners of the accused products. Hardesty modeled the test after a procedure disclosed in a 2013 paper published in the Journal of Applied Mechanics. *See generally* Pl.'s Resp. [Dkt. # 146] at 5–7. For each test, he obtained the material by removing a liner from an accused product, hand-crushing the liner into a powder, and then placing the sample in a steel barrel. Pl.'s Rule 26(a)(2)(C) Discl. of John Hardesty [Dkt. # 146-6], Ex. 1. After detonating a charge to shock the sample with a pressure wave, Hardesty collected the sample for analysis. *See generally* Pl.'s Resp. [Dkt. # 146] at 5–7.

Defendant contends Hardesty's testing methodology does not accurately simulate activation of shaped charges and does not represent actual downhole conditions, and therefore cannot be relied upon to demonstrate infringement. Specifically, Defendant complains that Hardesty crushed the accused liners to "destroy any green compaction" and used less than 50% of the liner material for each test. Def.'s Mot. [Dkt. # 115] at 6. Defendant also complains Hardesty skewed the test to make the formation of NiAl from the material more likely by using a larger explosive charge than was found in the accused products currently sold by Defendant. *Id.* at 9. Moreover, Defendant stresses that Hardesty did not account for downhole pressures during his testing and criticizes Hardesty's failure to use standard API test procedures. *Id.* at 3.

Plaintiff responds on three fronts. First, Plaintiff contends Hardesty's testing was not intended to be a downhole simulation. Second, Plaintiff contends there is no one more qualified than Hardesty to design and perform the testing. Pl.'s Resp. [Dkt. # 146] at 9. Third, Hardesty did not use an industry-standard API test because there is no such test for this objective. *Id.* After all, says Plaintiff, testing in a real-world application would require extracting small amounts of reacted materials from inside a perforation tunnel, which would be contaminated with explosive residue and remnants from the surrounding formation. *Id.* at 9–10. Accordingly, Defendant contends Hardesty should not be allowed to testify regarding his testing, and that his test procedure is unreliable under *Daubert*.

Defendant also challenges the sufficiency of Hardesty's disclosure under Fed. R. Civ. P. 26.

II. DISCUSSION

A. Whether Hardesty's test was sufficiently reliable and relevant under *Daubert*

Defendant's motion raises questions of reliability and relevancy. These should be analyzed separately, as testing can be reliable yet irrelevant, and testing can be relevant and yet unreliable. *See Kuhmo Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 152 (1999) (noting the objective of *Daubert*'s gatekeeping requirement is to ensure the reliability and relevancy of expert testimony); *Bear Ranch, LLC v. Heartbrand Beef, Inc.*, 885 F.3d 794, 802 (5th Cir. 2018) ("The *Daubert* gatekeeping function 'imposes a special obligation upon a trial judge "to ensure than any and all scientific testimony . . . is not only relevant, but reliable."'").

1. Reliability

"[T]he requirement that an expert's testimony pertain to 'scientific knowledge' establishes a standard of evidentiary reliability." *Daubert*, 509 U.S. at 590; *see also id.* at 590 n.9 ("[O]ur reference here is to *evidentiary* reliability—that is, trustworthiness."). "In a case involving scientific evidence, *evidentiary reliability* will be based upon *scientific validity.*" *Id.* at 590 n.9 (emphasis added).

The basis for Hardesty's testing was a 2013 peer-reviewed article describing a methodology "for assessing a NiAl power system in terms of shock loading." Phillip Church et al., *Investigation of a Nickel-Aluminum Reactive Shaped Charge Liner*, 80 J. Appl. Mech. 031701 (May 2013) [Dkt. # 171-1] at 1 (hereafter, "Church"). Church's intent was to

understand how nickel and aluminum react under shock and strain rate loading. *Id.*

Hardesty's test design and implementation has many similarities with the test methodology of Church, but there are some differences. Church, for example, impacted each sample with a metal body to shock the sample. *Id.* at 6. Hardesty's tests used an explosive charge to impart a shock to the sample through a metal body.

In addition to stressing the differences between the test setups, Defendant complains about Hardesty's first round of testing, which failed. Plaintiff explains the failure was in collection of the sample after the shock. Thus, it was not that the material in the sample did not react, but that the sample could not be collected for analysis.

The Court is not persuaded by Defendant's position on reliability. As for the first round of testing, there is no evidence the failure related to the purpose of the test—to cause a reaction with a shock. Rather, the failure was said to be in collecting the sample after the shock. The principles of Hardesty's test are straightforward, and Hardesty's test uses the same general technique described by Church, even if the test rigs may be different. And to the extent there are differences, Defendant does not explain why those matter to the reliability of the test. Rather, Defendant simply complains that those differences are enough to make Hardesty's testing unreliable. Given the absence of some specific explanation about why and how that is true, the Court finds the Hardesty testing sufficiently reliable under Fed. R. Evid. 702.

2. Relevance

In the context of expert testimony and evidence, the "relevance" question is whether

the proffered evidence "is sufficiently tied to the facts of the case that it will aid the jury in resolving a factual dispute." *Daubert*, 509 U.S. at 591 (quoting *United States v. Downing*, 753 F.2d 1224, 1242 (3d Cir. 1985)). The standard "requires a valid scientific connection to the pertinent inquiry as a precondition to admissibility." *Id.* at 591–92.

Here, that "pertinent inquiry" is whether the liner of the accused products undergoes an intermetallic alloying reaction to cause an exothermic reaction upon activation of an associated shaped charged in a downhole environment. The problem, at least from Defendant's perspective, is that Hardesty's testing evidence doesn't have enough connection to the pertinent inquiry because of the differences from real-world use of the accused products.

Defendant, however, does not explain why those differences prevent relevance. For example, Defendant does not provide some reasoning for why the outcome of the test would be different if the liners were not first crushed, or if the testing were conducted under downhole pressures. Instead, Defendant simply relies on a broad assertion that Hardesty did not conduct real-world testing.[1] Def.'s Mot. [Dkt. # 115] at 7.

No rule requires a "real-world" test to pass the Court's gatekeeping threshold. Under *Daubert*, the question is whether the test results are sufficiently tied to the facts of the case. Here, Hardesty's test shows the product of the reaction of the liner's components, which is

[1] Citing *Ormco Corp. v. Align Tech., Inc.*, 463 F.3d 1299 (Fed. Cir. 2006), and *Stryker Corp. v. Davol, Inc.*, 234 F.3d 1252 (Fed. Cir. 2000), Defendant also contends Plaintiff's material alteration of the accused instrumentalities for testing cannot be relied upon to demonstrate infringement. Def.'s Mot. [Dkt. # 115] at 7. Those cases, however, stand for a different proposition—that it is not enough to prove a device *could be modified* to satisfy each claim limitation. Plaintiff does not contend otherwise, nor is that the issue before the Court.

at least somewhat relevant to how the accused products behave downhole. The Court therefore concludes Hardesty's testing, even absent real-world conditions, is sufficiently relevant to withstand Defendant's Rule 702 challenge.

B. Whether Plaintiff's disclosure of Hardesty's intended testimony was sufficient

Defendant contends Hardesty should have provided a report under Fed. R. Civ. P. 26(a)(2)(B), rather than a summary under Rule 26(a)(2)(C). The former requires "a written report—prepared and signed by the witness—if the witness is one retained or specially employed to provide expert testimony in the case or one whose duties as the party's employee regularly involve giving expert testimony." *Id.* at 26(a)(2)(B). The latter requires disclosure of a *summary* of the facts and opinions on which the witness is expected to testify. *Id.* at 26(a)(2)(C).

Defendant contends the key distinction as to which section applies is whether the expert is opining about facts (1) in which the expert was involved prior to litigation, or (2) that occurred after the lawsuit started. Def.'s Mot. [Dkt. # 115] at 10–11 (citing cases). Defendant argues that if an expert bases his opinion on facts learned after the start of the lawsuit, and the conclusions are formed because he was recruited to testify as an expert after the fact, the expert is subject to the more rigorous disclosure requirement of Rule 26(a)(2)(B). *Id.* Plaintiff responds that Hardesty is not a witness "retained or specially employed to provide expert testimony in the case or one whose duties as the party's employee regularly involve giving expert testimony." Pl.'s Resp. [Dkt. # 146] at 15.

The Court agrees with Plaintiff. "Rule 26(a)(2)(B) contemplates an employee-expert exception to the written report requirement for 'individuals who are employed by a party and whose duties do not regularly involve giving expert testimony.'" *Tokai Corp. v. Easton Enterprises, Inc.*, 632 F.3d 1358, 1365 (Fed. Cir. 2011). Here, there is no evidence that Hardesty's duties "regularly involve giving expert testimony." Thus, under the plain language of the rule, Hardesty was not required to provide the disclosure of Rule 26(a)(2)(B).

III. CONCLUSION

For the foregoing reasons, the Court DENIES Defendant's Motion to Strike [Dkt. # 115].

SIGNED this 30th day of September, 2018.

ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE