

IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF TEXAS  
HOUSTON DIVISION

|                                  |   |                            |
|----------------------------------|---|----------------------------|
| CANRIG DRILLING TECHNOLOGY LTD., | § |                            |
|                                  | § |                            |
| Plaintiff,                       | § |                            |
|                                  | § |                            |
| v.                               | § | CIVIL ACTION NO. H-15-0656 |
|                                  | § |                            |
| TRINIDAD DRILLING L.P.,          | § |                            |
| Defendant.                       | § |                            |

**MEMORANDUM AND ORDER**

This patent case is before the Court on the Motion for Judgment on the Pleadings Based on Invalidity of the Asserted Patents Under 35 U.S.C. § 101 (“Motion”) [Doc. # 22] filed by Defendant Trinidad Drilling L.P. (“Trinidad”). Plaintiff Canrig Drilling Technology Ltd. (“Canrig”) filed a Response [Doc. # 32], Defendant filed a Reply [Doc. # 34], and Plaintiff filed a Sur-Reply [Doc. # 35]. Having reviewed the record and applicable legal authorities, the Court **denies** the Motion.

**I. BACKGROUND**

Canrig and Trinidad each manufacture oil and gas drilling equipment. Canrig is the owner of reissued United States Patents No. RE44,956 (“the ’956 Patent”) and

No. RE44,973 (“the ’973 Patent”). Canrig alleges that Trinidad infringes claims in these two patents.

Originally, oil rig drilling was exclusively vertical. Later, in order to reach oil and gas reserves that were inaccessible from immediately above, drilling apparatus and methods were developed to allow directional drilling. Unlike vertical drilling, directional drilling presents two significant challenges: (1) accurately steering the drilling path of the well and (2) overcoming friction inherent in the directional drilling process.

In directional drilling, a bend in the motor assembly is added just above the drill bit. The rig operators “steer” the drilling by rotating the drill string (which is a series of heavy, steel pipes connected together) to change the direction the bend is pointing, also known as the “toolface orientation.” Setting and maintaining “toolface orientation” is necessary in order to steer the drilling path accurately. Previously, the driller needed to rotate the drill pipe manually, count the number of rotations, and then stop the rotation when he believed the toolface orientation was correct. This method lacked accuracy, in part because it was monotonous and subject to human error. Additionally, it involved a significant amount of guess work by the driller to reorient the toolface. Drillers used their experience to estimate the number of rotations that needed to be made at the surface in order to turn the downhole motor assembly the

desired amount for accurate toolface orientation. When the driller made the estimated number of rotations, he would manually stop the rotation of the drill string, measure the toolface orientation, and repeat as many times as needed to achieve the correct orientation.

The second challenge in directional drilling is overcoming friction between the lower surface of the drill string and the bottom of the wellbore. This friction can cause the drill string to stick to the bottom of the well and impede the advance of the drill bit. By twisting the drill string back and forth (referred to as oscillation), a driller can reduce the amount of sticking caused by friction. The driller is required to rotate the drill string enough to eliminate sticking but not so much that it changes the direction of the drilling.

Claims 1 and 4 of the '973 Patent describe a system and method for rotating a drill string to a predetermined angle. Claim 2 of the '973 Patent and Claim 7 of the '956 Patent describe a system and method for oscillating the drill string between predetermined angles for the purpose of reducing friction. Canrig asserts that its patented technology eliminates the guess work previously inherent in directional drilling. Canrig asserts that its patented method of rotating or oscillating the drill string to a predetermined angle enables drillers to control the rotation of the drill string

instantly and automatically while drilling, increasing the accuracy of the directional drilling process.

Canrig filed this lawsuit, alleging that Trinidad is infringing Claims 1, 2, and 4 of the '973 Patent and Claim 7 of the '956 Patent. Trinidad has moved for judgment on the pleadings pursuant to Rule 12(c). Trinidad argues that the subject matter of Canrig's patents is simply the abstract concept of rotation and, therefore, is not patentable under § 101. For the reasons explained below, Trinidad's argument is unpersuasive.

## **II. APPLICABLE LEGAL PRINCIPLES**

### **A. Rule 12(c) Motion for Judgment on the Pleadings**

Rule 12(c) of the Federal Rules of Civil Procedure provides, "After the pleadings are closed -- but early enough not to delay trial -- a party may move for judgment on the pleadings." FED. R. CIV. P. 12(c). A Rule 12(c) motion is evaluated under the same standard as a motion to dismiss pursuant to Rule 12(b)(6). *See Bosarge v. Miss. Bureau of Narcotics*, \_\_\_ F.3d \_\_\_, 2015 WL 4282372, \*3 (5th Cir. July 15, 2015); *Young v. City of Houston*, 599 F. App'x 553, 554 (5th Cir. Apr. 13, 2015); *Bayer Schering Pharma AG v. Lupin, Ltd.*, 676 F.3d 1316, 1327 (Fed. Cir. 2012). In patent cases, pleading standards are those stated by the local federal court of appeals. *Bayer Schering*, 676 F.3d at 1327.

A Rule 12(b)(6) motion to dismiss is viewed with disfavor and is rarely granted. *Turner v. Pleasant*, 663 F.3d 770, 775 (5th Cir. 2011) (citing *Harrington v. State Farm Fire & Cas. Co.*, 563 F.3d 141, 147 (5th Cir. 2009)). The complaint must be liberally construed in favor of the plaintiff, and all facts pleaded in the complaint must be taken as true. *Harrington*, 563 F.3d at 147. The complaint must, however, contain sufficient factual allegations, as opposed to legal conclusions, to state a claim for relief that is “plausible on its face.” See *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009); *Patrick v. Wal-Mart, Inc.*, 681 F.3d 614, 617 (5th Cir. 2012). “Documents that a defendant attaches to a motion to dismiss are considered part of the pleadings if they are referred to in the plaintiff’s complaint and are central to her claim.” *Bosarge v. Miss. Bureau of Narcotics*, \_\_\_ F.3d \_\_\_, 2015 WL 4282372, \*4 (5th Cir. July 15, 2015) (quoting *Causey v. Sewell Cadillac–Chevrolet, Inc.*, 394 F.3d 285, 288 (5th Cir.2004)). Because the analyses under Rule 12(c) and Rule 12(b)(6) are similar, the Court applies the same rule to documents attached to a motion for judgment on the pleadings. *Id.* (citing *Horsley v. Feldt*, 304 F.3d 1125, 1134 (11th Cir. 2002)).

**B. 35 U.S.C. § 101**

Title 35, United States Code, § 101 provides that whoever “invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the

conditions and requirements of this title.” 35 U.S.C. § 101. Section 101 “specifies four independent categories of inventions or discoveries that are eligible for protection: processes, machines, manufactures, and compositions of matter.” *Bilski v. Kappos*, 561 U.S. 593, 601 (2010). “In choosing such expansive terms . . . modified by the comprehensive ‘any,’ Congress plainly contemplated that the patent laws would be given wide scope.” *Id.* (quoting *Diamond v. Chakrabarty*, 447 U.S. 303, 308 (1980)).

The Supreme Court has identified exceptions to patentability for laws of nature, natural phenomena, and abstract ideas. *See Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, \_\_\_ U.S. \_\_\_, 134 S. Ct. 2347, 2354 (2014); *Versata Dev. Group, Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1331 (Fed. Cir. 2015). “The concepts covered by these exceptions are ‘part of the storehouse of knowledge of all men . . . free to all men and reserved exclusively to none.’” *Bilski*, 561 U.S. at 602 (quoting *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948)). The “concern that drives this exclusionary principle [is] pre-emption.” *Alice*, 134 S. Ct. at 2354. These exceptions to patentability are “the basic tools of scientific and technological work” and there is concern that monopolization of these “building blocks of human ingenuity” through the acquisition of a patent “might tend to impede innovation more than it would tend to promote it.” *Id.* (citations omitted).

The Supreme Court has warned, however, that courts must “tread carefully in construing this exclusionary principle lest it swallow all of patent law.” *Alice*, 134 S. Ct. at 2354. As a result, courts must “distinguish between patents that claim the building blocks of human ingenuity and those that integrate the building blocks into something more.” *Id.* (quotations and alternations omitted).

To determine whether the claims in a patent are directed to an unpatentable abstract idea, the Court applies a two-step framework. *See id.* at 2355; *Versata*, 793 F.3d at 1332. The first inquiry is whether the claims at issue are directed to one of the patent-ineligible concepts. *Id.*; *see also Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, \_\_\_ U.S. \_\_\_, 132 S. Ct. 1289, 1296-97 (2012). “A principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim in either of them an exclusive right.” *Diamond v. Diehr*, 450 U.S. 175, 185 (1981). For example, “a new mineral discovered in the earth or a new plant found in the wild is not patentable subject matter. Likewise, Einstein could not patent his celebrated law that  $E=mc^2$ , nor could Newton have patented the law of gravity.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, \_\_\_ U.S. \_\_\_, 132 S. Ct. 1289, 1293 (2012).

If, on the other hand, the patent’s subject matter has a “concrete or tangible application,” it is not a patent-ineligible abstract idea. *See Ultramercial, Inc. v. Hulu*,

*LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014). For example, in *Diehr*, the patent covered a process for curing synthetic rubber. *Diehr*, 450 U.S. at 187. An abstract concept (a mathematical equation) was used in conjunction with other steps in the claimed process, including calculating the appropriate cure time through the use of a digital computer and automatically opening the press at the proper time. *Id.* Although the process used a well-known mathematical equation, the patent did not seek to pre-empt use of that equation and, therefore, was not barred by the exceptions under § 101. *Id.*

The second inquiry, to be addressed only if the claims are directed to patent-ineligible subject matter, is whether there is an inventive element or combination of elements. *See Alice*, 134 S. Ct. at 2355; *Versata*, 793 F.3d at 1332. This second step requires the Court “to determine whether the claims do significantly more than simply describe” an abstract method. *Ultramercial*, 772 F.3d at 715. “A claim that recites an abstract idea must include additional features to ensure that the claim is more than a drafting effort designed to monopolize the abstract idea.” *Alice*, 134 S. Ct. at 2357 (internal quotations and alterations omitted). “Put another way, there must be an ‘inventive concept’ to take the claim into the realm of patent-eligibility.” *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1367 (Fed. Cir. 2015).



### III. ANALYSIS

Contrary to Defendant's argument, Canrig's patent claims in this case are not an attempt to patent the abstract concept of rotation. Canrig does not seek to patent, and thereby pre-empt, the use of that abstract concept in any field or industry. Nor does Canrig attempt to patent generally all computer-assisted rotation. The subject matter of Canrig's patent claims is much more narrow and covers processes, not abstract ideas.

The claims in Canrig's patents address specific challenges in directional drilling through a concrete process for controlling the rotation of the long drill strings to and between predetermined angles. The patent claims are directed to a physical apparatus and drilling process of controlled rotation by a specific amount (the predetermined angle). Such tangible, industrial processes have long been considered eligible to receive patent protection. *See Diehr*, 450 U.S. at 184.

"At some level, all inventions embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." *Alice*, 134 S. Ct. at 2354 (internal quotations and citation omitted). "Thus, an invention is not rendered ineligible for patent simply because it involves an abstract concept." *Id.* Applications of abstract concepts to new and useful ends remains eligible for patent protection. *See id.* (citing *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). Although rotation in isolation is an

abstract concept, Canrig's patented process uses controlled rotation within predetermined angles to orient and oscillate a drill string. This eliminates the guess work, and resulting inaccuracies, inherent in the prior method of directional drilling. *See, e.g., Diehr*, 450 U.S. at 187 (patent eligible process for molding synthetic rubber eliminated the guess work, and resulting inaccuracies, in measuring the temperature inside the molding press and calculating when to open the press and remove the molded, cured product). The claims in Canrig's patents do not "risk disproportionately tying up the use of the underlying idea" of rotation in the drilling process and, as a result, are not patent ineligible under § 101.<sup>1</sup> *See Alice*, 134 S. Ct. at 2354.

#### **IV. CONCLUSION AND ORDER**

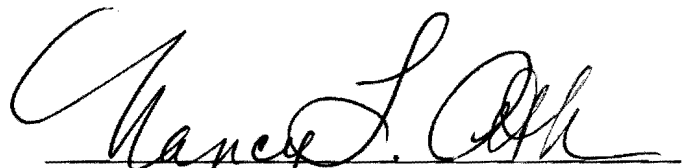
As explained herein, the claims in the '957 Patent and the '973 Patent do not address, and thereby preempt, an abstract concept. As a result, Defendant's § 101 challenge to the patents' validity fails and it is hereby

**ORDERED** that Defendant's Motion for Judgment on the Pleadings [Doc. # 22] is **DENIED**.

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<sup>1</sup> Having concluded that the claims in Canrig's patents are not patent-ineligible abstract concepts under § 101, the Court need not address the second prong of the test described in *Alice*.

SIGNED at Houston, Texas, this **17th** day of **September, 2015.**



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NANCY F. ATLAS  
SENIOR UNITED STATES DISTRICT JUDGE