

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF TEXAS  
HOUSTON DIVISION**

**FAIRFIELD INDUSTRIES, INC.**  
**d/b/a FAIRFILEDNODAL,**

**Plaintiff,**

**v.**

**WIRELESS SEISMIC, INC.,**

**Defendant.**

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**CIVIL ACTION NO. 4:14-CV-2972**

**Memorandum and Order**

Pending before this Court is Defendant's Partial Motion to Dismiss (Doc. No. 70).<sup>1</sup>

Having considered the Motion, all responses and replies thereto, arguments, and the applicable law, the Court finds that Defendant's motion should be **DENIED WITHOUT PREJUDICE**.

**I. BACKGROUND**

Plaintiff Fairfield Industries, Inc. ("Fairfield") filed suit in the Eastern District of Texas, alleging infringement of U.S. Patent Nos. 7,124,028, 7,983,847 and 8,296,068. (Doc. No. 1.) Fairfield then filed an amended complaint adding allegations of infringement of U.S. Patent No. 8,644,111 ("the '111 patent") after that patent issued. (Doc. No. 13.) Fairfield later filed a second amended complaint. (Doc. No. 47.) Soon thereafter, this matter was transferred to the Southern District of Texas. (Doc. No. 49, 53.)

Defendant Wireless Seismic, Inc. ("Wireless Seismic") now moves to dismiss Count IV of the second amended complaint, which alleges infringement of the '111 patent. Wireless Seismic argues that the '111 patent is directed to non-statutory subject matter in violation of 35

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<sup>1</sup> All docket references are to Civil Action No. 4:14-CV-2972.

U.S.C. § 101. Wireless Seismic contends that, because the patent is not directed to statutory subject matter, it cannot be infringed.

The patent at issue is incorporated into a seismic sensor array, which is used to produce detailed images of the rock types beneath the earth's surface. These arrays consist of a grid of seismic acquisition units placed over a large area, with units spaced at intervals of 25 to 200 meters. Each of the units obtains data from the earth below its placement, and this data is ultimately transmitted to a central control station.

Data from an individual seismic acquisition unit can be transmitted through cables or wirelessly. In wired systems, individual acquisition units transmit data directly to the central control station, or to an intermediate data collection station, such as a concentrator. Similarly, in wireless systems, each individual unit can communicate directly with a central station or by means of an intermediate station. In the prior art, some wireless systems assigned one intermediate station to collect and concentrate data from multiple individual units. This intermediate station or concentrator would then transmit data from its source units to the central control station.

Representative claim 1 of the '111 patent reads:

A method of seismic data acquisition comprising:

Providing a plurality of seismic data acquisition units, each unit comprising a transceiver configured to wirelessly communicate seismic data with one or more of the other seismic data acquisition units in the plurality of seismic data acquisition units;

Providing a [sic] one or more concentrator units each comprising a receiver configured to wirelessly receive seismic data from at least one of the seismic data acquisition units; and

Wirelessly communicating acquired data from the acquisition units to the concentrator units;

Wherein, during the step of wirelessly communicating acquired data from the acquisition units to the concentrator unit comprises using a string of the seismic data acquisition units to wirelessly communicate acquired seismic data; and

Wherein, during the step of wirelessly communicating acquired data from the acquisition units to the concentrator units, a first pair of acquisition units communicate with each other at the same time that a second pair of acquisition units communicate with each other; and

Further comprising:

Assigning first and second transmission parameters to the first and second pairs of acquisition units to substantially prevent communication interference between the first and second pairs.

Fairfield contends that the claim contains a number of key innovations. First, the claim utilizes a string of seismic acquisition units that communicate data in a relay. Unlike prior methods in which the acquisition units transmitted data directly to a concentrator or to a central control station, the claimed method requires each acquisition unit in a chain to transmit its data to the next unit in the chain. The receiving unit then relays the information, along with its data, to the next unit in the chain, and so forth, until the data reaches a concentrator or the central control station. Fairfield argues that the use of this relay method is critical to the claim. Second, as described in clause 4 and 5 of the claim, the claim requires the assignment of different transmission parameters to each string of units. The different transmission parameters are designed to substantially prevent interference when multiple strings of units are simultaneously relaying data.

## **II. LEGAL STANDARDS**

A court may dismiss a complaint for “failure to state a claim upon which relief can be granted.” Fed. R. Civ. P. 12(b)(6). “To survive a Rule 12(b)(6) motion to dismiss, a complaint ‘does not need detailed factual allegations,’ but must provide the plaintiff’s grounds for

entitlement to relief—including factual allegations that when assumed to be true ‘raise a right to relief above the speculative level.’” *Cuvillier v. Taylor*, 503 F.3d 397, 401 (5th Cir. 2007) (citing *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 555 (2007)). That is, a complaint must “contain sufficient factual matter, accepted as true, to ‘state a claim to relief that is plausible on its face.’” *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) (quoting *Twombly*, 550 U.S. at 570). The plausibility standard is not akin to a “probability requirement,” but asks for more than a sheer possibility that a defendant has acted unlawfully. *Id.* A pleading need not contain detailed factual allegations, but must set forth more than “labels and conclusions, and a formulaic recitation of the elements of a cause of action will not do.” *Twombly*, 550 U.S. at 555 (citation omitted).

Ultimately, the question for the court to decide is whether the complaint states a valid claim when viewed in the light most favorable to the plaintiff. The court must accept well-pleaded facts as true, but legal conclusions are not entitled to the same assumption of truth. *Iqbal*, 556 U.S. at 678 (citation omitted). The court should not “‘strain to find inferences favorable to the plaintiffs’” or “accept ‘conclusory allegations, unwarranted deductions, or legal conclusions.’” *R2 Investments LDC v. Phillips*, 401 F.3d 638, 642 (5th Cir. 2005) (quoting *Southland Sec. Corp. v. Inspire Ins. Solutions, Inc.*, 365 F.3d 353, 362 (5th Cir. 2004)). A district court can consider the contents of the pleadings, including attachments thereto, as well as documents attached to the motion, if they are referenced in the plaintiff’s complaint and are central to the claims. *Collins v. Morgan Stanley Dean Witter*, 224 F.3d 496, 499 (5th Cir. 2000). Importantly, the court should not evaluate the merits of the allegation, but must satisfy itself only that plaintiff has adequately pled a legally cognizable claim. *United States ex rel. Riley v. St. Luke’s Episcopal Hosp.*, 355 F.3d 370, 376 (5th Cir. 2004). “Motions to dismiss under Rule 12(b)(6) are viewed with disfavor and are rarely granted.” *Lormand v. US Unwired, Inc.*, 565

F.3d 228, 232 (5th Cir. 2009) (citation omitted); *Duke Energy Intern., L.L.C. v. Napoli*, 748 F. Supp. 2d 656 (S.D. Tex. 2010).

Section 101 of the Patent Act defines the subject matter that may be patented. 35 U.S.C. § 101. This section reads, in relevant part,

“[w]hoever 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.”

*Id.* This language has long been understood to exempt abstract ideas from patent protections. *See Assoc. for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2109 (2013) (“[B]ut laws of nature, natural phenomena, and abstract ideas . . . lie beyond the domain of patent protection.”) (internal citation and quotation marks omitted). The animating principle behind this exemption is one of preemption. *Alice Corp. Pty. Ltd. v. CLS Bank Intern.*, 134 S. Ct. 2347, 2355 (2014). Courts should be wary of allowing a patent that would effectively grant total control over an abstract idea, thereby thwarting others from innovating in the field. *Cf. Mayo Collaborative Servs. v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289, 1293 (2012) (“[M]onopolization of those tools through the grant of a patent might tend to impede innovation more than it would tend to promote it.”). The Supreme Court has cautioned, however, that “an invention is not rendered ineligible for patent simply because it involves an abstract concept.” *Alice*, 134 S. Ct. at 2354.

In *Alice*, the Court outlined a framework for determining whether claims are directed toward an abstract idea, and therefore are ineligible for patent protection. The Court instructed lower courts to apply the two-part test first described in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289 (2012). Courts must first determine whether the

claims at issue are directed to an abstract idea. *Alice*, 134 S. Ct. at 2355. If so, then courts must inquire whether the claim's elements, considered both individually and as an ordered combination, transform the nature of the claim into a patent-eligible application. *Id.* If the elements are sufficiently transformative, the claim survives a section 101 abstractness challenge. In determining the eligibility of a particular patent, the claims must be considered as whole; it is "inappropriate to dissect the claims into old and new elements and then to ignore the presence of the old elements in the analysis." *Diamond v. Diehr*, 450 U.S. 175, 188 (1981).

Finally, a party seeking to invalidate a patent on the basis of ineligible subject matter must prove invalidity by clear and convincing evidence. *Zoltek Corp. v. U.S.*, No. 96-166 C, 2014 WL 1279152, \*3 (Fed. Cir. 2014). Because this threshold is high, Rule 12(b)(6) dismissals for lack of eligible subject matter are rare.

### **III. ANALYSIS**

#### **A. The Motion is Not Premature**

Fairfield first argues that a ruling on this Motion prior to claim construction would be premature because there are factual disputes and disputes about the interpretation of claim terms, and expert testimony is necessary to characterize the state of the prior art. The Federal Circuit has made clear, however, that "claim construction is not an inviolable prerequisite to a validity determination under [section] 101." *Bancorp Servs., LLC v. Sun Life Assur. Co. of Canada* (*U.S.*), 687 F.3d 1266, 1273 (Fed. Cir. 2012) (summarizing precedent). Nevertheless, the *Bancorp* court noted that claim construction may often be warranted because a determination of patent eligibility "requires a full understanding of the basic character of the claimed subject matter." *Id.* at 1273-4. In addition, where factual disputes exist, claim construction should be prerequisite to a patent eligibility determination. *Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335.

1339 (Fed. Cir. 2013) (*vacated on other grounds by WildTangent, Inc. v. Ultramercial, LLC*, 134 S. Ct. 2870 (2014)).

In this instance, Fairfield has been unable to identify any relevant factual dispute, and the parties agree that the Court can use Fairfield's proposed claim construction for the purposes of this Motion. Given this consensus, the Court is satisfied that it has the full understanding of the basic character of the claimed subject matter required for an eligibility determination. Thus, the Court finds that claim construction is not necessary for the resolution of this Motion.

**B. Step One: Fairfield's Claims May Be Directed to the Abstract Idea of a Relay**

At the first stage of the *Alice* inquiry, courts are asked to determine whether the claims at issue are directed to an abstract idea. This analysis is premised upon "the longstanding rule that an idea of itself is not patentable." *Alice*, 134 S. Ct. at 2349 (internal citation and quotation marks omitted). The Court has rejected attempts to patent ideas such as a mathematical formula or algorithm, or a fundamental economic practice. *See e.g., Gottschalk v. Benson*, 409 U.S. 63 (1972) (holding that a mathematical formula without substantial practical application is not a patentable process); *Parker v. Flook*, 437 U.S. 584 (1978) (holding that an algorithm is not patentable subject matter); *Bilski v. Kappos*, 561 U.S. 593 (2010) (holding that the concept of hedging risk is not patentable subject matter). However, the Court has refused to delineate the outer boundaries of the abstract ideas category. *Alice*, 134 S.Ct. at 2357.

Wireless Seismic contends that the claims in the '111 patent are directed to the abstract idea of replacing the cables in seismic sensor arrays with wireless communications. Relatedly, it also argues that the claims are directed to the concept of relaying messages through intermediaries, a method that has been known and used for years.

Fairfield disputes this characterization, arguing that the claim is directed to the patent-eligible concept of wirelessly transmitting data from seismic acquisition units utilizing a relay. It argues that the claim is narrowly tailored to a specific method of data transmission and has nothing to do with replacing cables.

The Court acknowledges that identifying the precise nature of the abstract idea at issue here is not easy. As the Supreme Court recognized in *Alice*, “[a]t some level, all inventions . . . embody, use, reflect, rest upon or apply laws of nature, natural phenomena, or abstract ideas.” *Alice*, 134 S. Ct. at 2347. Thus, any claim, described at a certain level of generality, can be challenged as directed to an abstract idea. This difficulty is compounded by the fact that the two-part test outlined in *Alice* is new, and lower courts have received little guidance on how to determine whether a claim is directed to an abstract idea. As discussed below, however, this Court need not probe this dilemma further. Even under Wireless Seismic’s characterization of the abstract idea, the ‘111 patent’s claims satisfy step two of the *Alice* test, and are therefore patent-eligible.

### **C. Step Two: Fairfield’s Claims are Patentable Because They Contain Inventive Concepts**

The Supreme Court has described step two of the *Alice* test as “a search for an inventive concept – i.e., an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself.” *Alice*, 134 S. Ct. at 2335 (internal citation and quotation marks omitted). A claim that is directed to an abstract idea “must include additional features to ensure that the claim is more than a drafting effort designed to monopolize the abstract idea.” *Id.* at 2357 (internal citation and quotation marks omitted). Courts are instructed to determine whether a claim “suppl[ies] a new and useful application of the [abstract] idea.” *Id.* (internal quotation marks omitted). The Court has made



clear that limiting the use of an abstract idea to a particular technological environment is insufficient to transform a patent-ineligible idea. *Id.* at 2359. Expressing an abstract idea “while adding the words ‘apply it’” is similarly insufficient. *Id.*

Fairfield argues that the inventive concept requirement has been met for two reasons. First, the use of a string of acquisition units and different transmission parameters to effectively transmit the data in a relay is transformative. Second, the claims are tied to particular machines, seismic data acquisition units and concentrator units.

#### 1. Inventive Concepts

In order to be considered inventive, a concept must go beyond “well-understood, routine, conventional activity, previously engaged in by those in the field.” *Mayo*, 132 S. Ct. at 1299; *see also In re BRCA1- and BRCA 2-Based Hereditary Cancer Test Patent Litigation*, Nos. 2014-1361, 2014-1366, 2014 WL 7156722, \*8 (Fed. Cir. Dec. 17, 2014). Fairfield contends that the claim’s use of a string of acquisition units to relay data is transformative because it differs from the data transmission methods previously used. Since each acquisition unit only transmits its data to the next unit in the chain, this relay method allows the array to use short-range radio frequencies to transmit the data back to a central control station. Data can be transmitted from even the most remote location in the array to the central station without the use of high-power, long-range signals, which generally require a license from a local governing authority. In order to reduce interference during simultaneous data transmission, each string of units communicating in a relay can employ a different transmission parameter. The use of different parameters prevents signals from one string from disrupting the communication of signals within another string.

In addition, the use of a relay method affords greater flexibility. Within the array, there are multiple possible transmission pathways from outlying units to the central control station. Thus, the relay pathway can be altered to account for changes in environmental conditions, such as weather or interference from other electrical devices operating in the vicinity. This flexibility also offers greater reliability, as overall data transmission is unaffected by the failure of any individual acquisition unit. Should an individual unit fail, its neighboring units can use a different pathway to transmit their data up the chain.

The Court is persuaded that the use of a string of acquisition units with differing transmission parameters is an inventive concept that surpasses routine or conventional activity. The claims outline a specific method of data transmission that is a new and useful application of a generic relay system. *See Alice*, 134 S. Ct. at 2358. The practical application in the claim, including the use of acquisition units to receive and transmit data from other acquisition units, demonstrates that this claim amounts to more than a patent on the abstract concept of a relay. Although the claim rests upon the idea of a relay system, the claim builds upon this concept by adding nonconventional elements, such as the assignment of different transmission parameters to avoid jumbled communication. These additional elements narrow the scope of the claim, and minimize the risk of preemption. Thus, the Court finds that the use of a string of seismic acquisition units and different transmission parameters constitute inventive concepts that transcend the abstract idea of a relay.

## 2. Connection to a Specific Machine

The claim's close connection to a specific machine, the seismic acquisition unit, further supports a finding of patent-eligibility. The relevance of this connection stems from the machine-or-transformation test, which states that an invention is only a process if (1) it is tied to a

particular machine or apparatus, or (2) it transforms a particular article into a different state or thing. *Cf. Bilski*, 561 U.S. at 602 (outlining the machine-or-transformation test). The *Bilski* Court explicitly rejected this standard as the “sole test” for determining whether an invention is a patent-eligible process. *Id.* at 604. Nevertheless, the Court stated that the test served as a “useful and important clue” in a section 101 analysis. *Id.*; *see also Ultramercial Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014). Thus, the ‘111 patent’s claim’s connection to the seismic acquisition unit can guide this Court’s analysis of its patent eligibility.

Under the machine-or-transformation test, a claimed process may be patent-eligible if it is tied to a particular machine or apparatus. *Id.* In order to transform a claim, however, “the use of the machine must impose meaningful limits on the claim’s scope . . . [T]he addition of the machine must play a significant part in permitting the claimed method to be performed, rather than function solely as an obvious mechanism for permitting a solution to be achieved more quickly.” *Helios Software, LLC v. SpectorSoft Corp.*, No. 12-081-LPS, 2014 WL 4796111, \*17 (D. Del. Sept. 18, 2014) (internal citation and quotation marks omitted). Applying this test, courts have rejected attempts to construe generic computers and the Internet as machines that place meaningful limitations on a claim’s scope. *See e.g., Ultramercial*, 772 F.3d 709; *Helios Software*, 2014 WL 4796111.

Although the fact that this claim is tied to the seismic acquisition units is not dispositive, it does strongly support Fairfield’s argument that the claim is not directed to an abstract idea. Seismic acquisition units are integral to the claimed method. The acquisition units perform their typical function of acquiring seismic data from beneath the earth’s surface, but also serve the additional function of receiving and transmitting data from neighboring acquisition units. The

use of the acquisition units for localized receipt and transmission is specific and central to the claim, thereby placing a meaningful limit on its scope.

Further, seismic acquisition units are significantly less generic or conventional than an all-purpose computer or the Internet. Courts have rejected the use of a computer as sufficiently limiting under the machine-or-transformation test because “prior to the information age, a computer was not a machine at all; rather, it was a job title: a person employed to make calculations.” *Bancorp*, 687 F.3d at 1277-8 (internal citation and quotation marks omitted). This context illustrates “the interchangeability of certain mental process and basic digital computation.” *Id.* at 1278. Where a computer is used in the place of an individual’s mental process, it does not help a claim overcome patent ineligibility.

By contrast, the use of seismic acquisition units in the ‘111 patent do far more than replace a mental process or abstract concept, such as a relay. The units receive signals reflected by subsurface seismic reflectors in response to a generated acoustic signal<sup>2</sup> and transmit that seismic data to a central location. In the claimed method, these units also acquire this seismic data from neighboring units and wirelessly communicate that data up the chain. These processes surpass the basic idea of a relay, which has been employed by individuals since time immemorial. Because the operation of the acquisition units does not merely substitute technology for an abstract idea, the connection between the claim and the acquisition units is highly probative of patent-eligibility.

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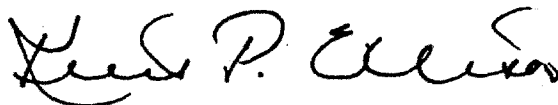
<sup>2</sup> Per the parties’ agreement, the Court adopts Fairfield’s proposed construction of disputed terms, such as seismic data, for the purposes of this Motion.

**IV. CONCLUSION**

Wireless Seismic has not demonstrated by clear and convincing evidence that the '111 patent is ineligible under section 101. For the foregoing reasons, its Partial Motion to Dismiss (Doc. No. 70) is **DENIED WITHOUT PREJUDICE**.

**IT IS SO ORDERED.**

**SIGNED** at Houston, Texas on this the 23<sup>rd</sup> day of December, 2014.

A handwritten signature in black ink, appearing to read "Keith P. Ellison". The signature is written in a cursive style with a horizontal line underneath it.

KEITH P. ELLISON  
UNITED STATES DISTRICT JUDGE