

No. \_\_\_\_\_

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IN THE  
**Supreme Court of the United States**

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TDE PETROLEUM DATA SOLUTIONS, INC.,  
*Petitioner,*

v.

AKM ENTERPRISE, INC., DBA MOBLIZE, INC.,  
*Respondent.*

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**On Petition for a Writ of Certiorari  
to the United States Court of Appeals  
for the Federal Circuit**

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**PETITION FOR A WRIT OF CERTIORARI**

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**QUESTION PRESENTED**

Whether an issued patent for a software implemented industrial process that regulates and controls the operation of an oil rig, which is *patentable* subject matter under this Court's interpretation of 35 U.S.C. §101 in *Diamond v. Diehr*, 450 U.S. 175 (1981), is rendered *unpatentable* subject matter after this Court's decision in *Alice v. CLS Bank*, 573 U.S. \_\_\_, 134 S.Ct. 2347 (2014)?

## **PARTIES TO THE PROCEEDING**

All parties to the proceeding are identified in the caption.

## **RULE 29.6 STATEMENT**

All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by me are:

TDE Thonhauser Data Engineering GmbH  
owns more than 10% of Petitioner TDE  
Petroleum Data Solutions, Inc.

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## PETITION FOR A WRIT OF CERTIORARI

TDE Petroleum Data Solutions, Inc. (TDE) respectfully petitions for a writ of certiorari to review the judgment of the Federal Circuit in this case.

### OPINIONS BELOW

Opinion of the United States Court of Appeals for the Federal Circuit, *TDE Petroleum Data Solutions, Inc. v. AKM Enterprise, Inc. dba Mobilize, Inc.*, Appeal No. 16-1004 (August 15, 2016) and reported at 555 Fed. Appx. 950 (Fed. Cir. 2016). App. 1a.

Memorandum Opinion of the United States District Court, Case No. 4:15-CV-01821, 2015 WL 5311059, at \*6 (S.D. Tex. Sept. 11, 2015). App. 8a.

Order of the Federal Circuit Denying Rehearing and Rehearing En Banc, *Id.* in Appeal No. 16-1004 (October 18, 2016). App. 28a.

### JURISDICTION

A panel of the court of appeals entered judgment on August 15, 2016. App. 1a. A timely combined petition for rehearing and rehearing en banc was filed on September 13, 2016. The court of appeals denied the petition for rehearing and rehearing en banc on October 18, 2016. App. 28a.

This Court has jurisdiction pursuant to 28 U.S.C. §1254(1).

## STATUTORY PROVISIONS INVOLVED

Section 101 of the Patent Act provides:

*“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 therefore, subject to the conditions and requirements of this title.”* 35 U.S.C. §101.

## INTRODUCTION

Clear standards are essential in law. They are particularly essential in patent law. The absence of a clear standard, particularly the definitional question of what constitutes “patent eligible subject matter,” (i.e. is an invention *eligible* to be patented?) has a direct and significant impact on innovation, investment in innovation, the formation of new businesses and the American economy as a whole.

In deciding the present case, the Federal Circuit’s panel has chosen to create its own “test” for subject matter eligibility that willfully ignores this Court’s earlier seminal decision finding software implemented technological and industrial processes subject matter eligible in *Diamond v. Diehr*, and substitutes its own subject matter eligibility “test” that is divorced from the instructions this Court provided in *Diamond v. Diehr, supra*.

The Federal Circuit is rudderless and hopelessly fractured in interpreting subject matter eligibility cases. Similarly, the District Courts and

the United States Patent Office are uncertain how to apply the subject matter eligibility test.

In the same vein, other circuits are now beginning to develop competing subject matter eligibility jurisprudence in legal malpractice cases against patent attorneys. In fact, the 2nd Circuit Court of Appeals has issued a decision that directly conflicts with the Federal Circuit's subject matter jurisprudence. This further muddles the law.

Finally, the Federal Circuit's subject matter eligibility decision in this case, and in many others, violate the United States' Treaty obligations under the Trade-related Aspects of Intellectual Property Agreement of the World Trade Organization.

This case presents a unique opportunity for this Court to (i) reaffirm that a software implemented industrial or technological process is subject matter eligible under 35 U.S.C. §101 and (ii) this Court's decision in *Diamond v. Diehr, supra*, which established that software implemented industrial processes are subject matter *eligible*, remains good law and that this Court's later decision in *Alice v. CLS Bank, supra*, does not render software implemented industrial processes subject matter *ineligible*.



## STATEMENT OF THE CASE

### I. STATUTORY BACKGROUND

Title 35 of the United States Code, known to inventors as the “Patent Act,” allows those who obtain a patent to “exclude others” from making, using, selling or offering for sale the patented invention. 35 U.S.C. §154. The Patent Act establishes four basic conditions an invention must meet in order to qualify for patent protection.

In order to be patented, the invention must be:

- (i) statutory “patent subject matter eligible” under 35 U.S.C. §101<sup>1</sup>;
- (ii) “useful” under 35 U.S.C. §101;
- (iii) “novel” in relation to the prior art under 35 U.S.C. §102; and,
- (iv) “not obvious” to a person of ordinary skill in the art under 35 U.S.C. §103.

The Patent Act specifies the general subject matter that is eligible for a patent. Namely, “*any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.*” 35 U.S.C. §101.

Section §101 is derived from Article I, §8 of the U.S. Constitution that provides:

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<sup>1</sup> “Patent subject matter eligible” may also be referred to as “subject matter eligible.”

*“To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”*

The various categories of eligible subject matter give rise to different types of patent claims which fall into two different categories: (i) claims that cover products and (ii) claims that cover methods. Product claims relate to tangible items, i.e. “machines, manufactures or compositions of matter.” Correspondingly, method claims, also referred to as “process claims,” recite a series of steps that lead to a useful result.

In a series of decisions, including four recent ones, this Court has identified three exceptions to the statutory categories of eligible subject matter. *See Alice v. CLS Bank*, 134 S.Ct. 2347 (2014); *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S.Ct. 2107 (2013); *Mayo Collaborative Servs. v. Prometheus Labs, Inc.*, 132 S.Ct. 1289 (2012); *Bilski v. Kappos*, 130 S.Ct. 3218 (2010). These decisions relied on, and reaffirmed, this Court’s decision in *Diamond v. Diehr, supra*, a 1981 case that held that a patent application for a software implemented industrial process was subject matter *eligible*. This Court’s decisions also affirmed the three common law “exceptions” to the statutory categories of eligible subject matter are: “*laws of nature, natural phenomenon, and abstract ideas.*” See *Diamond v. Diehr, supra*.

## II. PROCEEDINGS BELOW

### A. The Invention

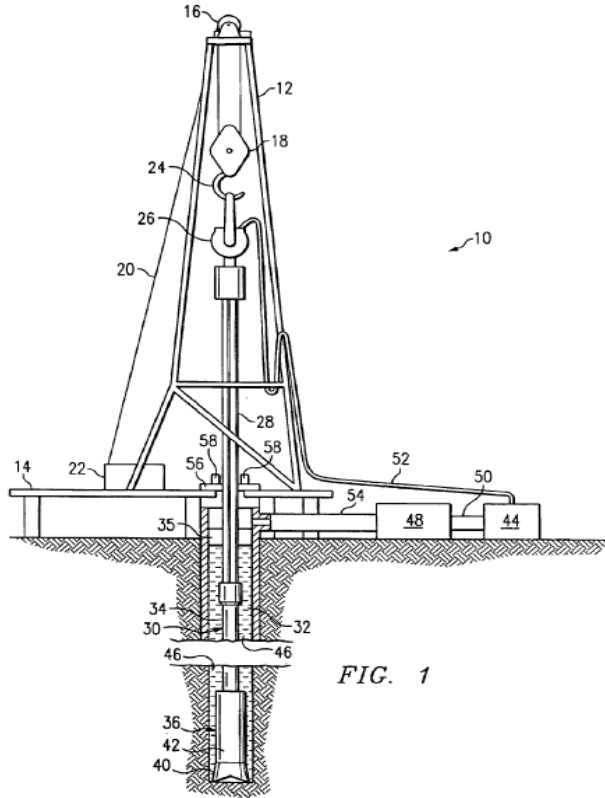
After this Court's 1981 decision in *Diamond v. Diehr*, it was well established that a process that was controlled by a computer was "subject matter eligible" and provided "*the [other] conditions and requirements of this title*" were met, the United States Patent Office would grant a patent. In fact, the Patent Examiner did not raise a rejection under 35 U.S.C. §101 at any time during the prosecution of Petitioner TDE's U.S. Patent No. 6,892,812 ('812 patent).

The '812 patent has 115 claims. The 115 claims are divided into six claim sets. Three of the six claim sets are method claims (claims 1-30, 91-93, and 94-104) and three claim sets are tangible product "system" claims (claims 31-60, 61-90, and 105-115). Thus, as is typical in many patents, the '812 patent has both product claims and method "process" claims.

#### i. Background of the Relevant Technology

Hydrocarbon wells are drilled by using a drill bit to cut a borehole in the earth. The drill bit is attached to the bottom of a drill pipe. A top drive or a Kelley turns the drill pipe, which is about 30 feet in length. The rotation of the drill pipe also turns the drill bit attached to the bottom of the drill pipe and the drill bit cuts a borehole in the earth. After about 30 feet is drilled, another section of drill pipe

is attached and the process continues until the borehole reaches the desired length.



'812 Patent Fig. 1

This connection of each additional length of drill pipe to the top of the drill string is referred to as "making a connection." The drill string is held "in slips" as each additional section of drill pipe is added to the drill string. Mud pumps circulate drilling fluid, generally referred to as "drilling mud," down the drill string and then return it to the mud pits that hold a reservoir of "drilling mud." Thus, drilling mud circulates in a closed loop to remove drill

cuttings and cool and lubricate the drill bit. In addition to drilling, i.e. making hole, (making the borehole deeper), there are 15 other well states. Collectively, 16 well states describe the process required to drill for oil and gas from start to finish.

As defined in the '812 patent, a well state is *“an overall conclusion regarding the status of the well operation at a given point in time based on the operation of and/or parameters associated with one or more key drilling elements of the rig. Such elements included the [drill] bit, [drill] string, and drilling fluid.”* (812 Patent col. 6 ln. 51-56) Before the '812 Patent, those of ordinary skill in the art might have known that well operations generated substantial amounts of data. However, the industry lacked a means to harness this data to determine the state of the well (also referred to as the “well state”). Indeed, “automated management of rig operations [was] problematic because parameters [could] change quickly and because down hole behavior of drilling elements and down hole conditions may not be directly observable.” (812 Patent, col. 1 ln. 28-32) In other words, when the drill bit was thousands of feet below the earth’s surface, as seen in Fig. 1 of the '812 patent, above, it was impossible for an observer to accurately determine the well state.

It is important to know the well state in real-time to improve the safety of the oil well. For example, if a driller takes a “kick” of natural gas during drilling, different measures to prevent the gas reaching the surface would be taken depending on the state of the well operation. Phrased differently, different steps are taken to contain or

flare an influx of gas into the well bore depending on the well state and different parameters may indicate a “kick.” A recent example of a “kick” of natural gas is the Deep Water Horizon Macondo disaster in the Gulf of Mexico in 2010 where the natural gas “kick” reached the surface, ignited and destroyed the Deepwater Horizon oilrig, killing 11 people. The ensuing fire and loss of control of the well spread millions of barrels of oil along the Gulf Coast. Clearly, accurately determining the well state is vitally important.

The ‘812 patent specifically discloses that mechanical and hydraulic data may originate from “any parameter associated with a well operation.”

In relevant part, the ‘812 patent teaches:

*“Mechanical data is data related to support or physical action upon or associated with the drill string, bit or any other suitable device associated with the drilling or other operations. Mechanical and hydraulic data may originate with any suitable device ... [or] parameter associated with a well operation. As previously described, mechanical and hydraulic data may originate from **machinery sensor data** such as motor states and RPM’s and for electric data such as electric power consumption of top drive, mud pumps or other satellite equipment. For example, mechanical and/or hydraulic data may originate from dedicated engine sensors, centrifugal on/off sensors, valve position switches, fingerboard open/close indicators, SCR readings, video recognition*

*and any other suitable sensor operable to indicate and/or report information about a device or operation of a system.”* (‘812 Patent, Col. 5/lines 28-44)

Since at least the 1980s, as seen in the ‘812 patent’s prosecution history, drillers have attempted, with limited success, to automatically determine the well state. Some early attempts were only able to identify several potential well states, rather than exactly one well state. Others could only identify a limited number of well states. *See* Hutchinson, U.S. Patent Publication No. 2005/0060096. Still others failed to correctly identify the well state at all. *See* Gehrig, U.S. Patent No. 4,610,161. Some attempts could only indicate whether the well was “drilling,” but no other state. *See* Crary, U.S. Patent No. 6,237,404.

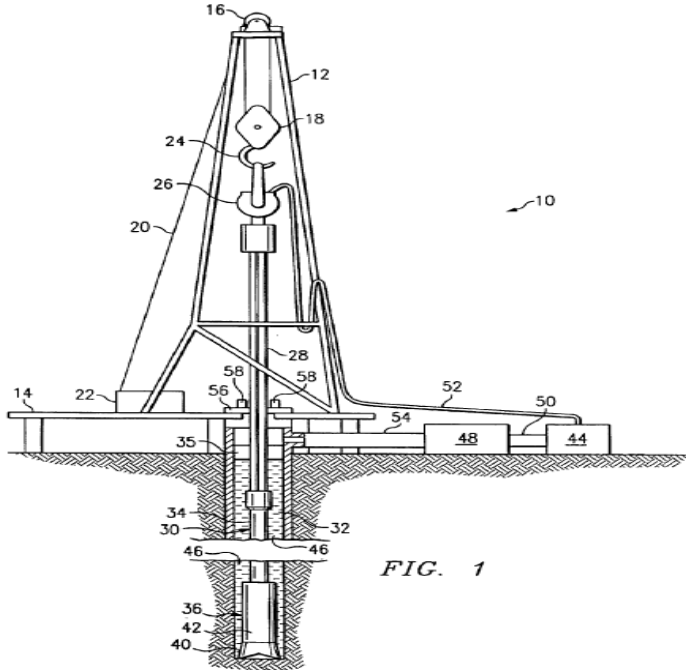
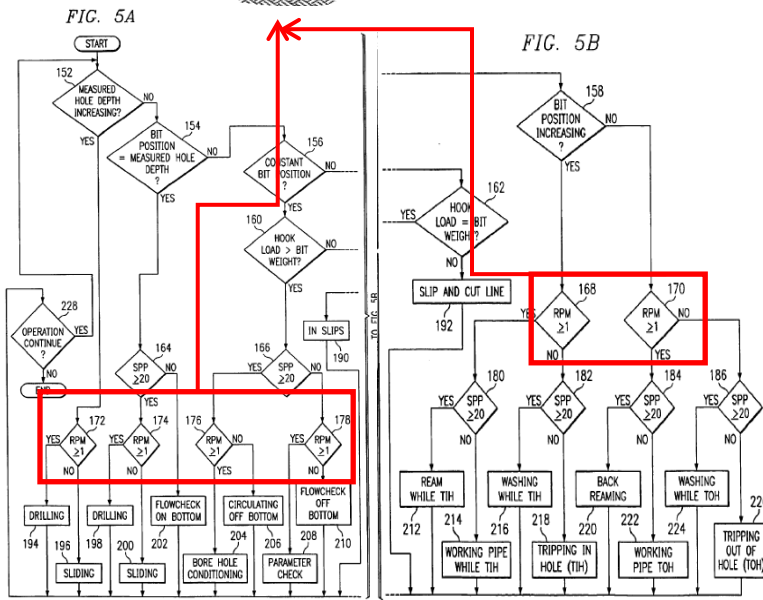


FIG. 1



(See '812 Patent, Fig. 1, 5A, 5B)



As seen in the illustration immediately above, because the drill string and drill bit are “down hole,” the drilling operator would not be able to directly observe the bit’s behavior. (*See Id.*) An observer looking at the oilrig might believe that the well state was “drilling,” when in fact the well state could potentially be “reaming pipe while TIH[tripping in hole]” or “back reaming.”(both are well states that cannot be seen by an operator standing on the oilrig because they occur down hole and are not the same well state as “drilling.”] *Id.*

The ‘812 patent solved this problem by using a software implemented solution that relied on mechanical and hydraulic data from well sensors that receive mechanical and hydraulic **machine** sensory data of down hole conditions, validated the data and accurately determined the well state.

## ii. The ‘812 Patent

The ‘812 recites six independent claims and 109 dependent claims, all of which reference well operations technology and claim methods and apparatus for determining the well state of the oilrig. As is readily apparent from illustration above, the ‘812 Patent has no utility apart from a well operation. *See* ‘812 Patent, Fig. 1.

Independent claim 1 is representative and provides:

1. An automated method for determining the state of a well operation, comprising:

storing a plurality of states for a well operation;

receiving mechanical and hydraulic data reported for the well operation from a plurality of systems; and

determining that at least some of the data is valid by comparing the at least some of the data to at least one limit, the at least one limit indicative of a threshold at which the at least some of the data do not accurately represent the mechanical or hydraulic condition purportedly represented by the at least some of the data; and

when the at least some of the data are valid, based on the mechanical and hydraulic data, automatically selecting one of the states as the state of the well operation.

‘812 Patent, cl. 1

Each of the dependent claims solidifies the invention’s integration into the well operation by specifying the method and system claims’ applicability to particular well states.

Further, dependent claims 30, 60 and 90 recite “using the state of the well operation to evaluate parameters and ***provide control for the operation.***” (See ‘812 Patent cl. 30) (emphasis added) Dependent claim 60 depends from system

claim 31 and is drafted in means-plus-function language and includes a “means for . . . evaluat[ing] parameters and provid[ing] control for the operation” that may correspond to the “**well control sub-module 88**” structure recited in the specification and highlighted in Figure 2 of the ‘812 patent, reproduced immediately below:

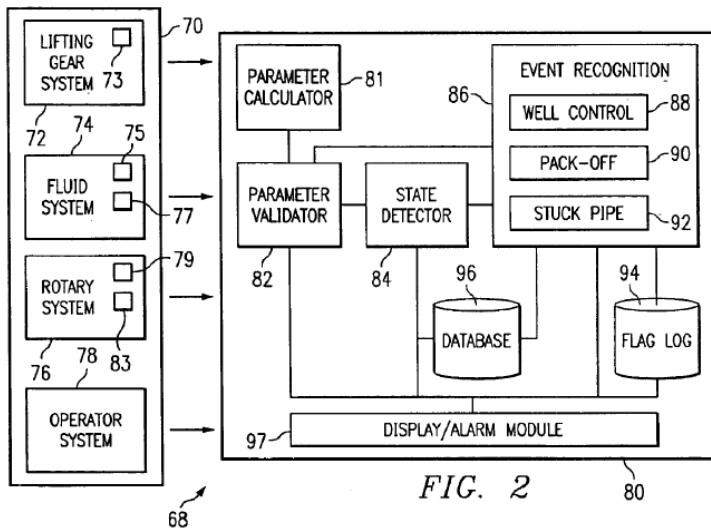


FIG. 2

(See ‘812 Patent col. 7 ln. 37-56, Fig. 2, above)

### iii. Prosecution History of the ‘812 Patent

During the ‘812 Patent’s prosecution history, the applicants amended the original claims to overcome a rejection in light of U.S. Patent Nos. 4,825,962, 4,875,530 and SPE Paper 30523 which the Examiner believed taught well state determination. After the applicants amended the claims to recite “determining if at least some of the

data is valid by comparing at least some of the data to at least one limit,” the Examiner allowed the claims and issued the ‘812 patent. As explained above, the Patent Examiner never rejected the patent application on the basis that it was not directed to eligible subject matter.

## **B. Lower Court Proceedings**

On May 4, 2015, Petitioner filed its Original Complaint and concurrently moved for a preliminary injunction against its direct competitor in the marketplace Defendant Moblize alleging infringement of the ‘812 patent. Moblize moved to dismiss under Fed.R.Civ.P. 12(b)(6) claiming that TDE’s ‘812 patent was a patent-ineligible abstract idea under this Court’s decision in *Alice, supra*. The District Court scheduled an evidentiary hearing for TDE’s motion for preliminary injunction. The District Court set a telephonic conference regarding, *inter alia*, issues related to the upcoming preliminary injunction hearing. During the telephonic conference the district court inquired whether counsel would be willing to retain a special master to assist the court with understanding the ‘812 patent’s technology.

On September 11, 2015, the district court granted Moblize’s motion to dismiss on the ground that the ‘812 patent lacked eligible subject matter. (App. 8a) and entered judgment against TDE. TDE timely filed a notice of appeal on September 22, 2015.

The United States Court of Appeals for the Federal Circuit (CAFC) affirmed the district court's decision on August 15, 2016. (App. 1a) TDE filed a timely Combined Petition for Rehearing and Rehearing En Banc on September 13, 2016. The CAFC denied TDE's Combined Petition on October 18, 2016. (App. 28a).

### **III. FURTHER BACKGROUND INFORMATION**

#### **A. TDE's Case is About Reaffirming That Software Implemented Innovation is Subject Matter Eligible**

Intellectual property (IP) helps drive the creative economy and protect innovation. This principle was emphasized in a keynote speech given to the Center for America Progress about Software Patents by David J. Kappos, at the time, the sitting Undersecretary of Commerce for Intellectual Property and Director of the United States Patent & Trademark Office.<sup>2</sup> According to Secretary Kappos' speech, IP intensive businesses support 40 million jobs and contributed more than \$5 trillion annually to the United States economy. As such, IP accounts for 35% of America's Gross Domestic Product (GDP). Of this 35% of the United States' GDP, a recent study calculated that the software industry was directly responsible for \$526 billion annually and employed more than 2.5 million workers, i.e. more than 9% of the IP portion of the United States' GDP

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<sup>2</sup> Keynote Speech of David J. Kappos to the American Center for Progress, November 20, 2012

was directly driven by software and creation of software. Other research indicates that software companies are responsible for 17.2% of all research & development (R&D) in the United States, to the tune of \$52 billion annually. Clearly, software and software driven innovation plays a significant and ever-growing part of the American economy.

In order to protect the \$52 billion spent on R&D, innovators, including software implemented innovators such as Petitioner TDE and other inventors have sought to protect their intellectual property by patenting it.

**B. TDE’s ‘812 Patent Claims a Software Implemented Industrial Process and is not a “Business Method Patent”**

It is undisputed that TDE’s ‘812 patent claims a technological advance for a software implemented industrial process that regulates and controls the operation of an oilrig. (Complaint, ¶¶10-11) TDE is the industry leader and has built a highly successful business based largely on practicing the ‘812 patent. (Id. at ¶11) The technology was initially developed and patented by Noble Drilling Services, Inc. Noble sold the ‘812 patent and the associated technology for \$500,000 United States Dollars.

After this Court’s decision in *Diamond v. Diehr*, 450 U.S. 175 (1981), it was well settled law that a process that was controlled by a computer program was “subject matter eligible” and provided that “*the [other] conditions and requirements of this*

*title*” were met, the United States Patent Office would grant a patent to the applicant.

Since this Court’s decision in *Diehr, supra*, the United States Patent Office (USPTO) has granted more than 320,000 patents for software and computer implemented inventions.<sup>3</sup> Among the 320,000 software patents granted because they are subject matter eligible under this Court’s subject matter eligibility test in *Diehr, supra*, is TDE’s ‘812 patent.

For many years before and after this Court’s decision in *Diehr, supra*, the USPTO took the position that “methods of doing business” were not subject matter eligible, i.e. were subject matter *ineligible*. With the emergence in the 1980’s and 1990’s of patent applications for Internet and computer implemented methods of conducting business, the USPTO took the new position that if these business methods were carried out “using a computer” they were subject matter *eligible*. The USPTO’s decision was affirmed by the Court of Appeals for the Federal Circuit (CAFC) in *State Street Bank v. Signature Financial Group*, 149 F.3d 1368 (Fed. Cir. 1998). The Federal Circuit’s *State Street* decision led to an explosion of business method patent applications and issued patents. Like much of the frenzied activity of the late-1990’s Internet bubble, *State Street* created a mess.

The collapse of the Internet bubble in 2000-2001, led to many bankruptcies and the sale of many thousands of business method patents. Many of

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<sup>3</sup> 717 F.3d 1269, 1313 (Fed. Cir. 2013), footnote 1

these business method patents were purchased by patent assertion entities. These groups, commonly known as “patent trolls,” did not make or sell anything and were therefore effectively immune from counter-claims. Patent “trolls” began attempting to collect licensing royalties for business method patents.

Beginning at least as early as this Court’s 2006 decision in *eBay, Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006), this Court began to recognize that many business method patents were not subject matter eligible, i.e. subject matter *ineligible*, and should not have been issued, no matter if the invention claimed by the business method patent was novel, non-obvious and useful and met all of the requirements of Title 35 (Patents); and, that the Federal Circuit’s decision in *State Street, supra*, was erroneous. Justice Kennedy wrote in his *eBay* concurring opinion that patent trolls were “*quite unlike earlier [patent] cases.*” He continued that: “*An industry has developed in which firms use patents not as a basis for producing and selling goods, but, instead, primarily for obtaining licensing fees.*” *Id.* at 400.

This Court’s questioning of the subject matter eligibility of business method patents continued in *Bilski v. Kappos, supra*, where a business method patent was held subject matter *ineligible* because it was “direct to” the “abstract idea” of “hedging.”

This Court’s most recent subject matter eligibility decision, *Alice v. CLS, supra*, reaffirmed that a business method patent was not subject



matter eligible when it was “directed to” an “abstract” idea. The *Alice* Court held patent claims “directed to” “intermediated settlement risk” subject matter *ineligible*.

Unfortunately, the lesson that the Federal Circuit, the District Courts and the USPTO learned from *Alice, supra*, is that a software implemented industrial and technological process, such as found in *Diamond v. Diehr*, is no longer subject matter *eligible*. Instead, the lower courts and USPTO have relied on *Alice* to hold virtually all software implemented patents, both business method patents and patents directed to software implemented control of an industrial process subject matter *ineligible*. As discussed above, this is a significant threat to the \$526 billion software industry and the \$52 billion in software research and development invested annually in the United States.

### **C. Alice and Her Progeny Have Been Used to Invalidate Virtually All Software Patents Challenged As Subject Matter Ineligible**

According to the Journal of the Patent & Trademark Office, of the roughly 240,000 software patents in force, “if challenged, more than 199,000 would likely be invalidated under *Alice*.”<sup>4</sup> Other commentators have addressed the impact of *Alice* in the United States Patent Office, writing that more than 68,000 pending patent applications were rejected on the basis of *Alice* in the two-year period

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<sup>4</sup> Journal of the Patent & Trademark Office Society, Volume 98, No. 3, Tran, Jasper L, 354, 355 (2016)

immediately following the *Alice* decision in June 2014.

Similarly, since the *Alice* decision, the Federal Circuit has affirmed invalidation of more than 89% (65 of 73) of the patents challenged as subject matter ineligible. The Patent Trial and Appeal Board (PTAB) has found 97% of the patents (98 of 101) challenged invalid. Relying on *Alice*, the District Courts have found 63% of the 332 patents challenged invalid (209 of 332). In total, 481 of the 798 issued United States Patents challenged as subject matter ineligible under 35 U.S.C. §101 have been held invalid. See Bilski Blog, Robert Sachs, “*Alice Brings Mix of Gifts for 2016 Holidays*,” posted December 23, 2016. Clearly, *Alice* has produced a seismic shift in the lower courts’ understanding of subject matter eligibility and whether software patents are subject matter eligible. To put the situation in perspective, between July 1969 and December 1972, twelve humans walked on the Moon. Since this Court’s decision in *Alice*, a comparable period of time, only eight have won subject matter eligibility judgments appealed to the Federal Circuit.

**D. This Court’s Alice Decision Held that Performing a Prior Art Business Method Did Not Become Subject Matter Eligible Solely Because the Method was Performed Using a Computer – Alice Did Not Decide That All Software Patents Were Subject Matter Ineligible**

The Federal Circuit’s high rate of finding issued patents invalid (89%) as subject matter ineligible is somewhat surprising given the narrow holding reached by the Alice Court. The Alice Court found that a method of exchanging financial obligations between two parties using a third-party intermediary to mitigate settlement risk was “directed to” an “abstract” idea and therefore subject matter ineligible under 35 U.S.C. §101. In other words, using a computer to perform intermediated settlement, a financial transaction that was more than 100 years old, was not subject matter eligible. In its unanimous decision, the Alice Court confirmed this Court’s earlier decision in *Diamond v. Diehr* writing that *Diehr*’s claims were subject matter eligible: “because they improved a technological process, not because they were implemented on a computer.” *Alice, supra*, 134 S.Ct. at 2358. In other words, the Alice Court held that software to improve and control a technological process remained patentable subject matter, but “computerizing” a known business transaction was not subject matter eligible merely because the process was carried out using a computer.

Initially, Alice was viewed by the patent community as a relatively narrow holding that would only affect business method patents and not patents such as TDE's '812 patent for improving and controlling an industrial process, such as drilling an oil well.

This has not proven to be the case. In fact, since *Alice, supra*, the Federal Circuit and many District Courts have utterly ignored this Court's earlier decision in *Diehr, supra*. Relying on *Alice*, the lower courts have invalidated 481 issued U.S. patents. In doing so, the Federal Circuit and the District Courts have emasculated *Diehr's* holding that an improvement to an industrial process that interprets data and utilizes the interpreted data to control and improve the industrial process is subject matter eligible. In other words, TDE's patent is not a business method patent but a software implemented improvement for the technological process of drilling an oil well. In fact, TDE's patent claims an automated system and method for determining the state of the well operation, and, if necessary, "controlling the operation," subject matter that is materially identical to the claims found subject matter *eligible* by this Court in *Diehr*.

TDE's situation is not unique. When the Federal Circuit decided TDE's appeal, for the second time in as many weeks, the Federal Circuit ignored *Diehr's* holding and lumped business method patents and software that controls and improves an industrial process into the same group of subject matter *ineligible* "abstract" ideas. See CAFC Appeals Nos. 16-1004[decision below(1a-7a) & 15-

1778, decided August 1 and August 15, 2016, respectively.

In Appeal No. 15-1778, the CAFC summarily invalidated Electric Power Group's three U.S. Patent Nos. 7,233,843, 8,060,259, and 8,401,710. See 830 F.3d 1350 (Fed. Cir. August 1, 2016). Electric Power Group's patents claim systems and methods for performing real-time performance monitoring of an electric power grid by collecting data from multiple data sources, analyzing the data, and displaying the results. The decision below, along with the Electric Power Group decision, brings into serious question the Federal Circuit's willingness to abide by this Court's decision in *Diehr*. In fact, in the short time since the Federal Circuit decided these two cases, they have been cited in at least 12 district court cases and two later Federal Circuit cases to find issued patents subject matter ineligible. Put another way, the Federal Circuit has now established its own jurisprudence that directly contradicts this Court's subject matter eligibility precedent; and the lower courts are using this precedent to invalidate software patents that are subject matter eligible under *Diehr, supra*.

TDE does not challenge this Court's decision in *Alice*. Rather, it seeks confirmation that *Diehr* remains good law and that an improvement to an industrial process implemented using software remains subject matter *eligible* under 35 U.S.C. §101. In their zeal to punish patent "trolls," the lower courts and the Patent Office have lost sight of this important distinction and only this Court can correct them.

## **REASONS FOR GRANTING CERTIORARI**

There are five compelling reasons for granting certiorari in this case. First, it is important that this Court affirm the principle that an industrial or technological process implemented using software remains subject matter eligible under 35 U.S.C. §101 and that *Diamond v. Diehr, supra*, remains good law. Second, both the bench and the bar are uncertain how to apply this Court's Alice/Diehr two-part test for subject matter eligibility and this is causing "a mess" that only this Court can resolve. Third, prompt intervention by this Court is urgently needed to avoid further chaos in the lower courts, the United States Patent Office and in the protection of innovation. Fourth, further adding to the confusion, other circuits are developing their own competing case law for subject matter eligibility in legal malpractice claims against patent lawyers. Fifth, the Federal Circuit's subject matter eligibility decisions violate the United States' treaty obligations to provide non-discriminatory patent protection. Each will be discussed in turn.

### **I. THE JUDGMENT BELOW DIRECTLY CONFLICTS WITH THIS COURT'S EARLIER SUBJECT MATTER ELIGIBILITY PRECEDENT IN *DIAMOND V. DIEHR***

This Court's Diehr decision mandates a finding that the '812 patent's claims are subject matter eligible

This Court in *Diehr, supra*, held that a process for curing rubber implemented using a computer was

eligible subject matter. The *Diehr* Court found that the process was not abstract writing that:

*“The respondents here do not seek to patent a mathematical formula. Instead, they seek patent protection for a process of curing synthetic rubber. Their process admittedly employs a well-known mathematical equation, but they do not seek to preempt the use of that equation. Rather, they seek only to foreclose from others the use of that equation in conjunction with all of the other steps in their claimed process. ... Obviously, one does not need a ‘computer’ to cure natural or synthetic rubber, but if the computer use incorporated in the process patent significantly lessens the possibility of ‘overcuring’ or ‘undercuring,’ the process as a whole does not thereby become unpatentable subject matter.”* *Id.* at 187.

A comparison of the claims of the *Diehr* patent application, held eligible by this Court, to the ‘812 patent’s claims demonstrates that far from being abstract, both claim the same four parts of similar technological/industrial processes.

Namely:

- (A) storing a data base;
- (B) collecting raw data representative of the machinery performing the process;
- (C) transforming the raw data into interpreted data; and,
- (D) interpreting the transformed data and, if necessary, controlling the industrial process.

In *Diehr*, the industrial process that was improved was curing rubber. In the case of the '812 patent's claims, the industrial process that is improved is "*an automated process for determining that state of the well operation,*" (preamble, claim 1, '812 patent) and, if necessary, controlling the operation of an oilrig.

Comparison of Diehr's & '812 Patent's Claims  
Demonstrating That Both Are Subject Matter  
Eligible Because Both Are An Improvement to An  
Existing Industrial Process

	<u>DIEHR PATENT APP. CLAIM 1</u>	<u>CLAIMS 1 &amp; 30 OF PATENT '812</u>	<u>EQUIV ALENC E?</u>
PREAMBL E	Claim 1 of Diehr Patent	Claims 1 and 30 of the '812 Patent	Yes, both claim



	<p>Application - (found at <i>Diehr, supra, footnote 5</i>)</p> <p><i>1. A method of operating a rubber-molding press for precision molded compounds with the aid of a digital computer :</i></p>	<p><i>1. An automated method for determining the state of a well operation, comprising:</i></p>	<p>an improvement to an existing industrial process.</p>
<p>(A) PROVIDING THE COMPUTER WITH A DATABASE FOR THE PROCESS</p>	<p><i>providing said computer with a database for said press, including at least,</i></p>	<p><i>storing a plurality of well states for the well operation;</i></p>	<p>Yes, both claim providing a database concerning the industri</p>

	<p><i>natural logarithm conversion data (ln), the activation energy constant (C) unique to each batch of said compound being molded, and a constant (x) dependent upon the geometry of the particular mold of the press,</i></p>		al process.
(B) COLLECTING RAW	<p><i>initiating an interval</i></p>	<p><i>receiving mechanical and hydraulic data</i></p>	Yes, both claim

DATA	<i>timer in said computer, upon the closure of the press for monitoring the elapsed time of said closure, constantly determining the temperature (Z) of the mold at a location closely adjacent to the mold cavity in the press during molding, constantly providing the</i>	<i>reported for the well operation from a plurality of systems; and</i>	collecting raw data.
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	<i>computer with the temperature (Z),</i>		
(C) TRANSFORMING RAW DATA INTO INTERPRETED DATA	<i>repetitively calculating in the computer, at frequent intervals during each cure, the Arrhenius equation for reaction time during the cure, which is <math>\ln v = CZ + X</math> where <math>v</math> is the total required cure time, repetitively compared</i>	<i>determining that at least some of the data is valid by comparing the at least some of the data to at least one limit, the at least one limit indicative of a threshold at which at least some of the data do not accurately represent the mechanical or hydraulic condition purportedly represented by the at least some of the data, and when at least some of the data are valid, based on the mechanical and hydraulic data, automatically</i>	Yes, both transform the raw data into interpreted data that can be used to control the industrial process.

	<i>ng in the computer at said frequent intervals during the cure each said calculati on of the total required cure time calculate d with the Arrheniu s equation and said elapsed time, and</i>	<i>selecting one of the states as the state of the well operation.</i>	
(D) CONTROLLI NG THE PROCESS BASED ON THE INTERPRET ED DATA.	<i>opening the press automati cally when said comparis on indicates equivale nce.</i>	<i>30. The method of claim 1, further comprising using the state of the well operation to evaluate parameters and provide control for the well</i>	Yes, both claim controll ing the industri al process based on the interpre

		<i>operation.</i>	ted data.
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As seen above, the ‘812 patent’s claims and Diehr’s claims demonstrate that they both recite the same type of patent-eligible subject matter; namely, an improvement to an existing industrial process with the steps of: (a) storing a data base, (b) collecting raw data, (c) transforming the raw data into interpreted data and, (d) controlling an industrial or technological process“ ... *that have historically been eligible to receive patent law protection.*” *Diehr, supra*, p. 184.

This Court’s recent decision in *Alice* reinforced *Diehr*’s holding that an improvement to a technological or industrial process remains patent-eligible. In relevant part, the *Alice* Court held that: “*the claims in Diehr were patent eligible because they improved an existing technological process, not because they were implemented on a computer.*” *Alice, supra*, p. 2358 (emphasis added)

Far from an “abstract” concept, the ‘812 patent teaches and claims a closed-loop oilrig that significantly improves the efficiency and safety of oilrigs and further claims “using the state of the well to control the well operation.” See claims 1 and 30 of ‘812 patent, above. In other words, the ‘812 patent improves the “existing industrial process” of determining “the state of well operation.” See claim 1, element (c). (“*automatically selecting one of the states as the state of the well operation*”).

As such, this Court's decisions in *Diehr* and *Alice* mandate that the '812 patent's claims are subject matter eligible.

Since this Court's decision in *Alice, supra*, the Federal Circuit has paid lip service to *Diehr's* mandate. In fact, the Federal Circuit's opinions below did not even refer to *Diehr* or address TDE's argument that the '812 patent's claims are substantially identical to *Diehr's* claims that this Court found were subject matter eligible. Only this Court can correct the Federal Circuit's repeated failure to correctly evaluate subject matter eligibility.

## **II. NO CLEAR STANDARD FOR SUBJECT MATTER ELIGIBILITY CURRENTLY EXISTS**

While the lower courts and the Patent Office acknowledge the requirements of §101, each has its own ideas concerning what the test requires and how to apply the *Alice/Diehr* subject matter eligibility test.

In fact, since this Court's decision in *Alice, supra*, the Federal Circuit, the District Courts, and the U.S. Patent Office have struggled to apply the subject matter eligibility test mandated by the decision. Patent experienced federal judges, both sitting and retired, have publicly complained that the *Alice* test is "impossible" to apply, "not coherent," "too subjective," and "frustratingly difficult to apply." The former Director of the Patent Office has referred to post-*Alice* subject matter eligibility law as "a real mess." Other important patent practitioners, such as

the Chief Patent Counsel for International Business Machines (IBM), have written that with respect to Alice, “*we don’t really know what the Supreme Court has told us to do.*” The situation is so chaotic that the Patent Office recently conducted public meetings “seeking input from the public” as to how to apply the subject matter eligibility test. Each of these will be discussed in more detail below.

The Former Chief Judge of the CAFC, a sitting CAFC judge, four District Court Judges with heavy patent dockets, the former Director of the Patent Office, and IBM’s Chief Patent Counsel have publicly complained that no clear standard of subject matter eligibility currently exists

The Former Chief Judge of the CAFC has Complained that the Alice Test of Subject Matter Eligibility is “Impossible” and “Intolerable”

Former Chief Judge of the CAFC Paul Michaels recently wrote concerning subject matter eligibility that:

*“the current regime, dictated by the Supreme Court, makes predictions about eligibility nearly impossible in a large number of situations, probably for hundreds of thousands of patents. So, until the Federal Circuit reviews a district court decision, no one can know a particular patent’s eligibility and hence its value. If invalid as ineligible, its value is zero; if eligible, it may have great value. Getting an answer takes many years. Commerce cannot wait. Worse still, the answer in one case*



*informs very little about the answer in a later case. Commerce requires certainty. That is now unavailable.”*

Judge Michaels continued:

*I do not agree with him[CAFC Judge Mayer] that all software-related patents should categorically be held ineligible. But, I do see the status quo as **intolerable. National commerce is stymied by the Supreme Court's incoherent and impractical eligibility law. It has to change.** In my opinion, Congress should intervene. After all Section 101 states no ‘exceptions.’ The Supreme Court just made them up, legislating from the bench, undermining the Congressional mandate. And, it did so based on careless pronouncements in ancient Supreme Court decisions. It has trapped itself and the country by continual recitation of vague dicta. Unless the Supreme Court reverses itself, which is very unlikely, only Congress can fix this **mess.**” (emphasis added)*

IAM (Intellectual Property Asset Management) Blog, October 6, 2016, Richard Lloyd, “No – the CAFC’s Justice Mayer has not just brought an end to software patents or anything close,” [www.iam-media.com](http://www.iam-media.com)

Sitting Federal Circuit Judge Richard Linn has Publicly Complained that the Alice Test of Subject Matter Eligibility is Not “Coherent”

Similarly, sitting Circuit Judge Richard Linn, who joined the Federal Circuit(CAFC) in 1999, has criticized the current state of subject matter eligibility jurisprudence. When interviewed by IPWatchDog about Alice’s application in the Federal Circuit, Patent Office and the District Courts, Circuit Judge Linn complained that “[j]udicial decisions certainly do need to be translated in a coherent way so clients can arrange, or rearrange, their affairs.” In his view, Alice and its progeny fail to allow a lawyer to advise his or her client if an invention is patent eligible or ineligible. IPWatchDog, “Judge Richard Linn, First and Foremost a Patent Attorney,” Gene Quinn, November 11, 2014,

Former Director of the Patent Office David Kappos when addressing the Federal Circuit Judicial Conference told the assembled judges that Subject Matter Eligibility Jurisprudence Was “A Real Mess”

Post-*Alice*, former Patent Office Director David Kappos wrote that 35 U.S.C. §101 should be “abolished” because the jurisprudence was “*a real mess*.” The former Director of the Patent Office called for the abolition of Section 101 of the Patent Act, saying decisions like *Alice* on the issue are a “real mess” and threaten patent protection for key U.S. industries. Law360, April 12, 2016, “[Former Director of Patent Office David] Kappos Calls for Abolition of Section 101 of the Patent Act.”

Four District Court Judges with Heavy Patent  
Dockets Have Publicly Criticized Alice’s Subject  
Matter Eligibility Test

In addition, a number of District Court Judges with heavy patent dockets have publicly criticized Alice’s two-part test of abstractness as “*too subjective*” and “*frustratingly difficult to apply*.” Law360, October 18, 2016, “**Federal Judges Slam Alice at Event Honoring Judge Whyte.**” At the event, (U.S.D.J. C.D. Cal.) Guilford said “*So much of the [Alice] two-step analysis is subjective and it can be frustrating.*”

U.S.D.J. Whyte (C.D. Cal., Stark (D. Del.) and Bencivengo (S.D. Cal.) also “*criticized the U.S. Supreme Court’s Alice ruling, saying that it had spurred hundreds of patent invalidity motions in their districts, and its two-part test for analyzing patent validity is too subjective.*” *Id.*

IBM’s Chief Patent Counsel Says that “There is No  
Bigger Issue Than §101” Subject Matter Eligibility

IBM’s chief patent counsel Manny Schecter declared that “*right now there’s no bigger issue*” than 101 and that he’d “*like Congress to consider acting.*” He then added: “*The time has come to acknowledge that we really don’t know how to do what the Supreme Court has told us to do.*” Blog – Intellectual Asset Management (IAM) – Maximizing IP Value for Business, April 2016, Richard Lloyd, “*Whether it’s reforming or abolishing, something needs to be done about 101.*”

The USPTO Doesn't Know How to Apply Alice's  
Subject Matter Eligibility Test

**a. Patents Issued Using the USPTO's Post-Alice "Guidelines" for applying the Alice Decision have been *per curiam* affirmed by the Federal Circuit as subject matter *ineligible***

In a case of post-*Alice* first impression, the Federal Circuit *per curiam* affirmed a §101 eligibility decision by a District Court that patents issued after the Patent Office's December 2014 guidelines for applying the *Alice* decision were subject matter *ineligible*. This occurred even though the Patent Examiner considered the patent application using the USPTO's post-Alice "guidelines." The district court explained that "[c]ontrary to plaintiff's argument, the fact that the [US]PTO may have considered Alice-based guidelines before issuing the patents in suit does not mandate a finding that the patents are valid." See *Macropoint, LLC v. FourKites, Inc.*, N. District of Ohio in No. 1:15-cv-01002-PAG, *affirmed per curiam*, CAFC Case No. 16-1286 (December 8, 2016).

A further example of this situation occurred when a magistrate judge in the District of Delaware held that even disclosure of the Alice challenge and providing the materials filed with the District Court to the Patent Office, does not insulate the issued patent from a subject matter eligibility challenge once the patent issues. See *Collarity, Inc. v. Google*, Case No. 11-1103-MPT, ECF No. 135 at 24-25 (D. Del. Nov. 25, 2015).

These cases demonstrates that even recently issued patents in which the Patent Office's Patent Examiners had the benefit of post-Alice guidelines, are not safe from invalidation under *Alice*. Clearly, neither that Patent Office, nor the lower courts understand how to apply this Court's *Alice* subject matter eligibility test.

The Patent Office & a District Court Judge Reviewed the Same Subject Matter Eligibility Challenges and Reached Diametrically Opposite Conclusions

In addition to the cases discussed above, the utter confusion existing over application of the subject matter eligibility test was recently highlighted in a patent infringement action where Plaintiff Garfum's patent had been challenged as subject matter *ineligible* in the District of New Jersey. After Plaintiff Garfum dismissed the case before the District Court's decision on subject matter eligibility, the trial judge awarded attorney's fees against Garfum on the basis that Garfum's patent was clearly subject matter *ineligible*. Whereupon, Garfum provided the U.S. Patent Office with all of the materials filed with the District Court by the Defendant during its district court subject matter eligibility challenge. After considering the materials, the U.S. Patent Office issued a Notice of Allowance [indicating that the Patent Office found the claims subject matter *eligible*]. The District Court whereupon reconsidered its award of attorney's fees writing that: "*it overlooked the substantive strength of Plaintiff's litigation position because of the uncertainty of the state of the law regarding 35 U.S.C. §101.*" *Garfum.com Corp. v. Reflections by*

*Ruth* (D.N.J. 2016) Clearly, neither the District Courts, nor the Patent Office are certain how to determine if a patent is subject matter eligible.

**b. The Patent Office Recently Held Two Public Roundtables to Ask for “Public Discussion” & “Input” About “The Contours of Subject Matter Eligibility”**

On November 14 and December 5, 2016, the USPTO held two full day “Roundtables Related to Subject Matter Eligibility.” See Federal Register, Vol. 81, No. 200, Monday, October 17, 2016 “Notice of Roundtables for Comments Related to Patent Subject Matter Eligibility.” The Notice discussed the “*changing landscape regarding subject matter eligibility in the United States*” and requested “*public input on [patent] subject matter eligibility in view of recent decisions by the Supreme Court and Court of Appeals for the Federal Circuit.*” *Id.* at 71487 and 71485. The USPTO’s Public Notice for the Roundtables posed 18 specific questions concerning subject matter eligibility. Question No. 17 reflected the USPTO’s inability to clearly formulate a test for subject matter eligibility for software related inventions. In its entirety, the USPTO’s Question No. 17 asked:

*Q. “To what extent should an invention that involves computer software be eligible for a patent? Please provide specific examples.”* *Id.* at 71488.

If the CAFC and this Court's precedent clearly defined when an invention was subject matter eligible, the USPTO would not require "public comment" about the "changing contours of the landscape" regarding "subject matter eligibility."

To say the least, the Federal Circuit, the District Courts, the Patent Office, and the Patent Bar are uncertain how to apply Alice's subject matter eligibility test. This Court's clear statement that an industrial or technological process implemented using software remains subject matter eligible under 35 U.S.C. §101 and that *Diamond v. Diehr, supra*, remains good law would quickly eliminate this confusion. However, only this Court can render such a decision.

### **III. PROMPT INTERVENTION BY THIS COURT IS URGENTLY NEEDED TO AVOID FURTHER CHAOS IN THE LOWER COURTS, THE UNITED STATES PATENT OFFICE AND TO PROTECT INNOVATION**

The state of confusion that now exists concerning subject matter eligibility of software implemented inventions creates uncertainty if an issued patent has any value. Indeed, the U.S. Patent Office's administrative tribunal, the Patent Trial and Appeal Board (PTAB), has found 97% of issued patents that have been challenged are invalid as lacking "subject matter eligibility." In other words, 97% of issued patents (which the U.S. Patent Office has determined to be "subject matter *eligible*" under 35 U.S.C. §101 or the patent would not have issued)

have been found subject matter *ineligible* when challenged in the PTAB, which is a different part of the Patent Office. Investment will be sharply reduced if the lack of certainty concerning subject matter eligibility is not resolved. Only this Court can provide certainty.

Commenting on Post-*Alice* confusion, former Patent Office Director David Kappos put it best when he stated that:

*“Make no mistake: if America denies robust protection to software innovations, decreased investment will inevitably follow—eroding a competitive advantage in a sector that has proven vital to the United States economy. Again, to the benefit of overseas competitors who would like nothing better than an open ticket to copy U.S. software innovation.”*

*David J. Kappos, Partner, Cravath Swaine & Moore LLP, The Great Patent Debate: Changing Horizons, Address at Intellectual Asset Management (IPBC/Global) Meeting the NPE Challenge (Mar. 13, 2015),*

Economically, uncertainty raises doubts about the future of technology companies and their investments in the U.S. economy. With patent protection for software implemented processes in doubt, the economic question is whether companies will continue to invest in those areas or if they will shift their activities to other technologies or other regions of the world is an open question. Only this



Court can definitively address the confusion and resolve the uncertainty.

**IV. OTHER CIRCUITS ARE DEVELOPING THEIR OWN COMPETING SUBJECT MATTER ELIGIBILITY JURISPRUDENCE IN LEGAL MALPRACTICE CASES AGAINST PATENT ATTORNEYS, FURTHER MUDDLING THE LAW**

Two of Federal Circuit's sister circuits, the United States Courts of Appeal for the District of Columbia Circuit and the Second Circuit have begun to develop their own subject matter eligibility jurisprudence. In fact, these appeals courts have reached diametrically opposite conclusions regarding whether subject matter eligibility was a pure issue of law.

The District of Columbia Circuit, in *Encyclopedia Britannica v. Dickstein Shapiro, LLP*, held that the patents at issue in the legal malpractice claim were subject matter ineligible and affirmed dismissal of Britannica's legal malpractice claim against Dickstein. The D.C. Circuit found dismissal did not require resolution of "underlying factual issues" of whether tasks were conventional or unconventional. See D.C. Circuit, Appeal No. 15-7100, p. 2 (June 10, 2016).

In a decision that was diametrically opposed to the D.C. Circuit's opinion, the Second Circuit rejected a subject matter eligibility challenge holding that whether a claim was "conventional" was not an issue of pure law and required resolution of disputed

factual issues. *See Protostorm, LLC v. Antonetti, Terry, Stout & Kraus LLP*, Appeal No. 15-2084 (2d Cir. December 21, 2016).

While both decisions purported to rely on this Court's *Alice* decision, the 2d Circuit's precedent is in direct conflict with the precedent of both the Federal and the District of Columbia Circuits. These cases create a split in the circuits that only this Court can resolve.

**V. THE FEDERAL CIRCUIT'S SUBJECT MATTER ELIGIBILITY DECISIONS IN THIS CASE, AND MANY OTHERS, VIOLATES THE UNITED STATES' TREATY OBLIGATIONS TO PROVIDE NON-DISCRIMINATORY PATENT PROTECTION REQUIRED BY THE UNITED STATES MEMBERSHIP IN THE WORLD TRADE ORGANIZATION**

As a member of the World Trade Organization (WTO) and a signatory to the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS), the United States has an obligation to offer intellectual property protection to any invention without discrimination based on the field of technology. See TRIPS Article 27(1). The Federal Circuit's decision in this case, and in many other decisions invalidating other issued United States patents directed to software implemented inventions, violate the United States' TRIPS treaty obligations.

In relevant part, TRIPS Article 27(1) provides:

*“Subject to the provisions of paragraphs 2[permitting exclusions for patents that violate public order or morality] and 3[permitting exclusions for diagnosis, therapeutic or surgical methods for the protection of human or animal life or plants and animals and essential biological processes], patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application.”*(emphasis added)

TRIPS further defines the terms “inventive step” and “capable of industrial application” may be deemed by a Member State (e.g. the United States of America), to be synonymous with the terms “non-obvious” and “useful” respectively. September 2006, TRIPS “Fact Sheet” available at [www.wto.org](http://www.wto.org)

As such, the requirement that patents “directed to” software implemented processes satisfy the requirements of *Alice, supra*, which exceeds the TRIPS requirement that “patents shall be available in all fields of technology provided they are new, useful and non-obvious,” violate the United States’ treaty obligations under TRIPS. As such, the Federal Circuit’s decision in this case directly conflicts with the United States’ treaty obligations and requires that this Court exercise its supervisory power to correct the Federal Circuit’s error.

A recent article in Texas Intellectual Property Law Journal, discussed this problem. See Volume 24, No. 2, pp. 131-160. The author, Professor Stefania Fusco, wrote that the application of this Court's *Alice* decision likely places the United States in violation of its TRIPS Agreement obligations. *Id.* at 158. Indeed, Professor Fusco suggests that the United States violation of TRIPS would also likely "comprise" the United States' "ability to compel other signatories to comply with their own TRIPS obligations." *Id.* She also suggests that this would have highly negative consequences for "U.S. efforts to address current or future violations of TRIPS by other countries via the WTO dispute resolution system." *Id.*

Only this Court can address this problem. The lower courts are powerless to act.

### CONCLUSION

In deciding the present case, the Federal Circuit's panel has chosen to create its own "test" for subject matter eligibility that willfully ignores this Court's seminal decision finding software implemented industrial processes subject matter eligible in *Diamond v. Diehr*, and substitutes its own subject matter eligibility "test" that is divorced from the instructions this Court provided in *Diamond v. Diehr*, *supra*.

The Federal Circuit is rudderless and hopelessly fractured in interpreting subject matter eligibility cases. Similarly, the District Courts and the United States Patent Office are uncertain how to

apply the subject matter eligibility test. A decision by this Court is required to reestablish a clear standard of subject matter eligibility.

In the same vein, other circuits are now beginning to develop competing subject matter eligibility jurisprudence in legal malpractice cases against patent attorneys. This further muddles the law and requires action by this Court to reestablish a clear standard of subject matter eligibility.

Finally, the Federal Circuit's subject matter eligibility decision in this case, and in many others, violate the United States' treaty obligations under the TRIPS Agreement of the World Trade Organization to provide "non-discriminatory" patent protection.

This case presents a unique opportunity for this Court to (i) reaffirm that a software implemented industrial or technological process is subject matter eligible under 35 U.S.C. §101 and (ii) this Court's decision in *Diamond v. Diehr, supra*, which established that software implemented industrial processes are subject matter *eligible*, remains good law and that this Court's later decision in *Alice v. CLS Bank, supra*, does not render software implemented industrial processes subject matter *ineligible*.

As such, Petitioner TDE Petroleum Data Solutions, Inc. respectfully requests that this Court grant TDE's Writ of Certiorari.

Respectfully submitted:

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# APPENDIX

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**[ENTERED AUGUST 15, 2016]**

NOTE: This disposition is nonprecedential.

**United States Court of Appeals  
for the Federal Circuit**

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**TDE PETROLEUM DATA SOLUTIONS, INC.,**  
*Plaintiff-Appellant*

v.

**AKM ENTERPRISE, INC., DBA MOBLIZE,  
INC.,**  
*Defendant-Appellee*

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2016-1004

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Appeal from the United States District Court  
for the Southern District of Texas in No. 4:15-cv-  
01821, Judge Gray H. Miller.

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Decided: August 15, 2016

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MALCOLM EDWIN WHITTAKER, Whittaker Law  
Firm, Houston, TX, argued for plaintiff-appellant.

PETER E. MIMS, Vinson & Elkins LLP,  
Houston, TX, argued for defendant-appellee. Also  
represented by JEFFREY TA-HWA HAN, Austin, TX.

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Before LOURIE, WALLACH, and HUGHES,  
*Circuit Judges.*

HUGHES, *Circuit Judge.*

TDE sued Mobilize for infringement of a patent directed to processing sensor data on an oil well drill. The district court dismissed the suit on the pleadings, finding that the asserted claims are patent-ineligible under 35 U.S.C. § 101. We agree and affirm the district court's judgment.

## I

TDE and Mobilize are competitors that provide services to oil drilling companies. TDE filed suit against Mobilize in the United States District Court for the Southern District of Texas, alleging that Mobilize infringes U.S. Patent 6,892,812.

The '812 patent describes various processes for determining the state of an oil well drill. The disclosed processes start by receiving data from sensors deployed on the oil well, such as an RPM sensor that detects the number of revolutions per minute of the drill string (on which the drill bit is affixed), or a fluid pressure sensor that detects the pressure of drilling fluid in the stand pipe. *See* '812 patent, col. 4–5. After receiving this sensor data, the processes then validate the data, i.e., accept data that is within an expected range and discard data that is expected to be erroneous. *See id.* at col. 6 ll. 30–47. Finally, based on the valid sensor data, the

processes determine what the present state of the oil well drill is, e.g., drilling, sliding, or bore hole conditioning. *See id.* at col. 6 l. 48–col. 7 l. 24. The '812 patent discloses several specific flowcharts that may be used in this last step to determine the state of the oil well drill. *See id.* at Figs. 3, 4, 5A, and 5B.

The parties agree that claim 1 of the '812 patent is representative:

1. An automated method for determining the state of a well operation, comprising:

storing a plurality of states for a well operation;

receiving mechanical and hydraulic data reported for the well operation from a plurality of systems; and

determining that at least some of the data is valid by comparing the at least some of the data to at least one limit, the at least one limit indicative of a threshold at which the at least some of the data do not accurately represent the mechanical or hydraulic condition purportedly represented by the at least some of the data; and

when at least some of the data are valid, based on the mechanical and hydraulic data, automatically selecting one of the states as the state of the well operation.

Moblize moved for dismissal of the suit under Federal Rule of Civil Procedure 12(b)(6), on the theory that the claims are patent-ineligible under § 101. The district court granted the motion, finding that the claims are directed to the abstract idea of “storing data, receiving data, and using mathematics or a computer to organize that data and generate additional information,” J.A. 9, and that the claims fail to recite an inventive concept beyond that abstract idea.

TDE appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

## II

This court reviews a district court’s dismissal for failure to state a claim under the law of the regional circuit. *See OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362 (Fed. Cir. 2015). The Fifth Circuit reviews challenges to a dismissal for failure to state a claim under FRCP 12(b)(6) de novo, taking the allegations of the complaint to be true. *See Scanlan v. Texas A&M Univ.*, 343 F.3d 533, 536 (5th Cir. 2003). This court reviews the district court’s determination of patent eligibility under § 101 de novo. *See DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1255 (Fed. Cir. 2014).

## III

A patent may be obtained for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof,” 35 U.S.C. § 101, but “[l]aws of

nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014). The nowfamiliar *Alice* test instructs that a patent claim is ineligible under § 101 if (1) the claim is “directed to one of those patent-ineligible concepts” (i.e., a law of nature, natural phenomena, or abstract idea) and (2) the claim elements, when considered “both individually and ‘as an ordered combination’” do not “‘transform the nature of the claim’ into a patent-eligible application.” *Id.* at 2355 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1296–98 (2012)).

Turning to the first step of the *Alice* inquiry, we conclude that claim 1 is directed to an abstract idea. The steps of claim 1 recite operations performed by any general-purpose computer. As we recently reiterated in *Electric Power Group, LLC v. Alstom S.A.*, No. 2015-1778, 2016 WL 4073318, at \*3 (Fed. Cir. Aug. 1, 2016), claims generally reciting “collecting information, analyzing it, and displaying certain results of the collection and analysis” are “a familiar class of claims ‘directed to’ a patent-ineligible concept.” Claim 1 of the ’812 patent recites all but the “displaying” step. Therefore, it is evident from our precedent that claim 1 is the sort of data gathering and processing claim that is directed to an abstract idea under step one of the *Alice* analysis. See, e.g., *id.*; *OIP Techs.*, 788 F.3d at 1363; *Digitech Image Techs., LLC v. Elecs. For Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014).

Turning to the second step of the *Alice* inquiry, we find nothing in claim 1 that adds

anything more to the abstract idea of storing, gathering, and analyzing data. TDE does not and cannot argue that storing state values, receiving sensor data, validating sensor data, or determining a state based on sensor data is individually inventive. And none of TDE's arguments show that some inventive concept arises from the ordered combination of these steps, which, even if true, would be unpersuasive given that they are the most ordinary of steps in data analysis and are recited in the ordinary order. While the specification arguably provides specific embodiments for the step of "automatically selecting one of the states as the state of the well operation," claim 1 recites none of those details. Instead, claim 1 simply recites generic computer functions that amount to nothing more than the goal of determining the state of an oil well operation. As we discussed at greater length in *Electric Power*, the claims of the '812 patent recite the *what* of the invention, but none of the *how* that is necessary to turn the abstract idea into a patent-eligible application. See *Electric Power*, 2016 WL 4073318, at \*4–5. Therefore, we find that claim 1 is patent-ineligible under § 101.<sup>1</sup>

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<sup>1</sup> Although TDE asserted the other 114 claims contained in the '812 patent, it made no attempt in either its briefs or at oral argument to distinguish those claims from representative claim 1, other than to state that the systems (reciting generic hardware) are different from the methods. See Oral Argument at 5:00–6:40 (July 5, 2016), available at <http://oralarguments.cafc.uscourts.gov/default.aspx?fl=2016-1004.mp3>. Those arguments are insufficient to demonstrate eligibility under § 101.

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IV

For these reasons, we affirm the district court's judgment finding claims 1–115 patent-ineligible under § 101.

**AFFIRMED**

**[ENTERED SEPTEMBER 11, 2015]**

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

TDE PETROLEUM DATA SOLUTIONS, INC.,

*Plaintiff,*

v.

CIVIL ACTION H-15-1821

AKM ENTERPRISE, INC.,

*Defendant.*

**MEMORANDUM OPINION AND ORDER**

Pending before the court is a motion to dismiss pursuant to Federal Rule of Civil Procedure 12(b)(6) filed by defendant AKM Enterprise, Inc., d/b/a Mobilize, Inc. (“Mobilize”). Dkt. 24. Having considered the motion, response, reply, and applicable law, the court is of the opinion that the motion should be GRANTED.

**I. BACKGROUND**

Plaintiff TDE Petroleum Data Solutions, Inc. (“TDE”) is the owner of all rights, title, and interests in United States Patent No. 6,892,812 (the “812 Patent”), titled “Automated Method and System for Determining the State of Well Operations and Performing Process Evaluation” (the “Patented



System”). Dkt. 1. The Abstract of the ‘812 Patent states:

An automated method and system for determining the state of a drilling or other suitable well operations includes storing a plurality of states for the well operation. Mechanical and hydraulic data is received for the well operation. Based on the mechanical and hydraulic data, one of the states is automatically selected as the state of the well operation. Process evaluation may be performed based on the state of the well operation.

Dkt. 1, Ex. 1 (the ‘812 Patent). TDE provides services that allow rig operators to monitor and organize global rig operations. Dkt. 1. To provide these services, TDE uses technology developed by Noble Drilling Services, which is the company that originally developed the ‘812 Patent. TDE began offering services using the ‘812 Patent’s methods in 2009. *Id.*

TDE discovered that Mobilize entered the marketplace some time before October 2014 and that Mobilize offered a service that TDE contends infringes one or more claims of the ‘812 Patent. *Id.* Mobilize offers a service that aggregates data from the field source to provide real time analytics on well optimization and “smart rig state” detection. *Id.* TDE met with Mobilize’s president to discuss the ‘812 patent on or about January 21, 2015. *Id.* TDE contends that Mobilize continued to sell its infringing

services after that meeting, which TDE asserts constitutes a knowing violation of U.S. patent law. *Id.*

TDE filed this lawsuit on May 4, 2015. *Id.* TDE contends that Mobilize has infringed the '812 Patent by offering its automated determination of well states services in violation of 35 U.S.C. § 271. *Id.* TDE asserts that it is entitled to increased damages and attorneys' fees under 35 U.S.C. §§ 284 and 285 because Mobilize's actions were willful and in deliberate disregard of TDE's rights. *Id.* TDE additionally claims that Mobilize engaged in contributory infringement by providing data obtained using the Patented System to Mobilize's customers for their use. *Id.* TDE contends that it has been irreparably harmed by Mobilize's actions and will continue to be harmed unless Mobilize is permanently enjoined from infringing the '812 Patent. *Id.*

Mobilize now moves to dismiss the lawsuit, claiming that the Patented System is a patentineligible abstract idea under *Alice Corp. v. CLS Bank International*, 134 S. Ct. 2347 (2014). Dkt. 24. It contends that the claims of the '812 Patent are directed to the age-old concept of applying mathematical rules to interpret data, which is an abstract idea, and that the steps of the '812 Patent contain no inventive concepts that would transform the abstract idea into a patent-eligible application. *Id.* TDE argues, conversely, that the '812 Patent discloses a novel method that did not previously exist in the energy sector and that its claims build

and improve upon existing technological processes.  
Dkt. 30.

## II. LEGAL STANDARD

Rule 8(a)(2) requires that the pleading contain “a short and plain statement of the claim showing that the pleader is entitled to relief.” Fed. R. Civ. P. 8(a)(2). In turn, a party against whom claims are asserted may move to dismiss those claims when the pleader has failed “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, a pleading must offer “enough facts to state a claim to relief that is plausible on its face.” *In re Katrina Canal Breaches Litig.*, 495 F.3d 191, 205 (5th Cir. 2007) (quoting *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570, 127 S. Ct. 1955 (2007)). “Factual allegations must be enough to raise a right to relief above the speculative level, . . . on the assumption that all the allegations in the complaint are true (even if doubtful in fact) . . .” *Twombly*, 550 U.S. at 555 (citations omitted). While the allegations need not be overly detailed, a plaintiff’s pleading must still provide the grounds of his entitlement to relief, which “requires more than labels and conclusions,” and “a formulaic recitation of the elements of a cause of action will not do.” *Id.*; see also *Ashcroft v. Iqbal*, 556 U.S. 662, 678, 129 S. Ct. 1937 (2009) (“[N]aked assertions devoid of further factual enhancement,” along with “legal conclusions” are not entitled to the presumption of truth). “[C]onclusory allegations or legal conclusions masquerading as factual conclusions will not suffice to prevent a motion to dismiss.” *Fernandez-Montes v. Allied Pilots Ass’n*, 987 F.2d 278, 284 (5th Cir. 1993). Instead, “[a]

claim has facial plausibility when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged.” *Iqbal*, 556 U.S. at 678. Evaluating a motion to dismiss is a “context-specific task that requires the reviewing court to draw on its judicial experience and common sense.” *Id.* at 679.

### III. ANALYSIS

Under 35 U.S.C. § 101, “[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, subject to the conditions and requirements of title.” While Congress “contemplated that patent laws would be given a wide scope,” the United States Supreme Court has provided for three exceptions to section 101’s patent-eligibility principles. *Bilski v. Kappos*, 561 U.S. 593, 602, 130 S. Ct. 3218 (2010) (quoting *Diamond v. Chakrabarty*, 447 U.S. 303, 308, 100 S. Ct. 2204 (1980)). These exceptions are “laws of nature, physical phenomena, and abstract ideas.” *Chakrabarty*, 447 U.S. at 309. Of course, courts should be mindful that “[a]t some level, ‘all inventions . . . embody, use, reflect, rest upon, or apply law of nature, natural phenomena, or abstract ideas.’” *Alice Corp., 134 S. Ct. at 2354* (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. \_\_\_, 132 S. Ct. 1289, 1293 (2012)).

An invention is not patent-ineligible simply because it involves an abstract concept. Instead, if the abstract concept is applied to “a new and useful

end,” it remains eligible for patent protection. *Id.* (citing *Gottschalk v. Benson*, 409 U.S. 63, 67, 93 S. Ct. 253 (1972)). To differentiate, courts must first “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Alice Corp.*, 134 S. Ct. at 2355. If so, courts next ask if the elements of the claim contain an “inventive concept” that “transforms” the abstract idea into a patent-eligible application. *Id.* at 2357. To answer this question, court must “consider the elements of each claim both individually and ‘as an ordered combination.’” *Id.* at 2355 (quoting *Mayo Collaborative Servs.*, 132 S. Ct. at 1297–98). “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].’” *Id.* at 2357 (quoting *Mayo Collaborative Servs.*, 132 S. Ct. at 1297).

#### **A. *Alice Corp.* Step One**

The court thus first asks, are the claims in the ‘812 Patent directed to an abstract concept? TDE argues that the ‘812 Patent is directed to a tangible, new technical solution to a problem unique to the energy sector. Dkt. 30 at 9. It asserts that “[a]t their core, the ‘812 Patent’s claims recite methods for automated well state detection, which include the necessary steps of: (1) storing well states; (2) receiving mechanical and hydraulic data from sensors in the well operation; (3) verifying the data against thresholds that in some embodiments require use of application-specific programmed hardware; and (4) selecting a well state.” *Id.*

Moblize argues, on the other hand, that Claim 1 “involves nothing more than the basic steps of (1) making a list of possible values (drilling ‘states’), (2) receiving data about those values, (3) applying mathematical rules to the data (by comparing data to the ‘limit’)[,] and (4) interpreting the results to choose a value from the list.” Dkt. 24. Moblize contends that “[a]t their core, these steps state the fundamental concept of interpreting data by applying mathematical rules.” *Id.* It asserts that TDE’s claimed method falls squarely within the type of data-interpretation claims that the Federal Circuit and district courts have held are abstract. *Id.*

Moblize mainly relies on the following cases to support its argument that TDE’s claims recite an abstract idea: *Alice Corp.; Planet Bingo, LLC v. VKGS LLC*, 576 F. App’x 1005, 1007 (Fed. Cir. 2014); and *Digitech Image Technologies, LLC v. Electronics for Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014). In *Alice*, the U.S. Supreme Court reasoned that the claims at issue were “drawn to the concept of intermediated settlement,” which is a “fundamental economic practice long prevalent in our economic system.” *Alice*, 134 S. Ct. at 2356. The Court held that intermediated settlement was an abstract idea beyond the scope of section 101. *Id.*

In *Digitech Image Technologies, LLC*, 758 F.3d at 1351, the Federal Circuit considered whether a process for generating a device profile tied to a digital image processing system was an abstract idea that could not be patented. It held that the method in the patent was an abstract idea “because it describes a process of organizing information

through mathematical correlations and is not tied to a specific structure or machine.” *Digitech Image Techs.*, 758 F.3d at 1350. It noted that claim 10 of the patent at issue recited a process of taking two data sets and combining them into one meaningful data set. *Id.* at 1351. The data sets were generated by taking existing information and organizing it into a new form. *Id.* The court explained that “[w]ithout additional limitations, a process that employs mathematical algorithms to manipulate existing information to generate additional information is not patent eligible.” *Id.*

In *Planet Bingo*, the Federal Circuit considered whether two patents relating to methods and systems for managing the game of bingo claimed patentable subject matter under *Alice Corp.* and section 101. 576 F. App’x at 1006. Planet Bingo owned the patents, and it filed an infringement claim against VKGS LLC d/b/a Video King (“Video King”). *Id.* The district court granted summary judgment in favor of Video King, finding that the each method claim encompassed the abstract idea of managing a bingo game and, though the claims employed a computer to store numbers, assign identifiers, and other miscellaneous things, the computer added “nothing more than the ability to manage . . . Bingo more efficiently.” *Id.* at 1007. Planet Bingo argued that the computers used for the method handled so many numbers (“thousands, if not millions”) that it would be impossible to carry out the method manually. *Id.* at 1008. The court, however, observed that the claims as written actually required, at most, two sets of numbers, a player, and a manager. *Id.* The court declined to

address whether an invention that handled thousands or millions of numbers, as Planet Bingo argued, would be eligible for a patent. *Id.*

TDE primarily relies on *Wavetronix LLC v. Iteris, Inc.*, No. A-14-CA-970-SS, 2015 WL 300726 (W.D. Tex. Jan. 22, 2015), for its argument that the ‘812 Patent’s methods and systems for automated well state detection are not abstract. *See* Dkt. 30 at 10–12. In *Wavetronix*, the federal district court for the Western District of Texas considered plaintiff Wavetronix, LLC’s motion for a preliminary injunction. 2015 WL 300726, at \*1. Wavetronix owns a patent covering its SmartSensor Advance invention, which uses radar to track the speed and location of vehicles at an intersection, uses the data to calculate an estimated time of arrival at the intersection, and determines if the vehicle will arrive at the intersection within the “dilemma zone,” a zone in which a driver faces the dilemma of either hitting the brakes to stop in time for the red light, or stepping on the gas to make it through the light in time. *Id.* The invention advises the traffic controller that the light “ought to remain green rather than turn yellow” if vehicles will be in the dilemma zone. *Id.*

The *Wavetronix* court addressed whether the patent was directed to an abstract idea in its analysis of the likelihood of success prong of the preliminary injunction standard. *Id.* at \*6. The defendant, relying on *Alice Corp.*, argued that a “human with no more than a high-school level education can readily accomplish each of the steps taught [by the patent at issue] with nothing more



than a paper and a pencil.” *Id.* The court disagreed that *Alice Corp.* was applicable, finding that the patent at issue “improved upon existing technological processes for providing dilemma zone protection.” *Id.* It appears that the court, rather than addressing whether the patent was directed to an abstract idea, determined that, regardless, Wavetronix improved upon existing technological processes by enabling “real-time tracking of vehicles as they approach an intersection.” *Id.*

Here, TDE’s arguments that the claims in the ‘812 Patent resemble those in the *Wavetronix* case and that the method is not abstract because it improves upon existing well operation recognition systems are more appropriately considered in the second step of the *Alice Corp.* analysis. The steps that both Mobilize and TDE contend are at the core of the ‘812 Patent are similar to those in *Planet Bingo* and *Digitech*. They are simple steps of storing data, receiving data, and using mathematics or a computer to organize that data and generate additional information. This is an abstract concept and not patent-eligible unless there is an “inventive concept” that “transforms” the abstract idea into a patent-eligible application.

## **B. *Alice Corp.* Step Two**

TDE argues that the inventive concept behind the ‘812 Patent’s claims stems from its combination of elements: (1) storing well states; (2) receiving mechanical and hydraulic data from sensors in the well operation; (3) verifying the data against thresholds that in some embodiments requires use of

application-specific programmed hardware; and (4) automatically selecting a well state. Dkt. 30 at 14–15. TDE contends that these steps, taken together, yield a new and useful application to well state recognition. *Id.* at 15. TDE points out that the technological advantage over preexisting well operations management systems is the ability to determine well states in or near real time, which a human could not do. *Id.* TDE additionally argues that the ‘812 Patent’s claims contain meaningful limitations that restrict the scope of the invention to certain parameters and data metrics disclosed in the specifications so that the patent owners are not monopolizing all well state detection. *Id.* It asserts that the claims embody an inventive concept that transforms the idea into a patent-eligible application because the claims require programmed hardware tailored to implement the method, not general processors. *Id.* at 16. Finally, TDE argues that the ‘812 Patent’s close connection to a specific machine, the oil rig, supports a finding that it is patent-eligible. *Id.* at 17.

Moblize asserts that TDE ignores the actual claim language when making its arguments. Dkt. 46. Moblize argues that TDE “greatly overstates the complexity actually claimed.” *Id.* Moblize notes that, for instance, Claim 1 requires only “a plurality” of states, “mechanical and hydraulic data,” and a comparison using basic math to determine the “state.” *Id.* Moblize contends that TDE’s focus on computerization is misplaced because using a computer to perform tasks more quickly is not sufficient to confer patent eligibility. *Id.* at 3 (citing

*Intellectual Ventures I LLC v. Capital One Fin.*, No. 2014-1506, slip op. at 6 (Fed. Cir. July 6, 2015)).

Moblize asserts that TDE's argument about meaningful limitations related to use of machines is a red herring because the majority of the claims in the '812 Patent do not even include the word "machine" or any requirement that specific integrated circuits be used. *Id.* at 4. Additionally, Moblize points out that the question from *Alice Corp.* is *not* whether the patentee can point to some narrow embodiment that falls within the claims but whether the claims themselves *also* cover embodiments that are not narrowly limited. *Id.* Moblize contends that even the means-plus-function claims (i.e., Claim 31) are described as being implemented on a general purpose processor *or* with programmed hardware such as application-specific circuits. *Id.* at 4–5. Since the claims are broad enough to be implemented on a general purpose processor, they are not really limited at all. *Id.* at 5.

Moblize argues that TDE's argument that the claims are patent-eligible because of the connection to an oil rig is similarly flawed, as having a close connection to an oil rig does not transform the abstract claim into a patent-eligible application. *Id.* An oil rig itself is generic, and TDE's reference to integrated sensors in its argument cannot be linked to any language in the actual claims. *Id.* at 5–6. Moreover, Moblize argues that the claims do not recite any effect on the operation of an oil rig, so the alleged "close connection" to an oil rig is "illusory." *Id.*

### 1. *Technological Advantage*

In support of its argument that the '812 Patent discloses a technological advantage over preexisting well operations management systems, TDE cites *California Institute of Technology v. Hughes Communications, Inc.*, 59 F. Supp. 3d 974, 994 (C.D. Cal. 2014). In *California Institute of Technology*, the court looked at the specific limitations of patents relating to “a particular form of error correction code” or software. 59 F. Supp. 3d at 976. The court found that the claims were generally directed to abstract concepts, but that the asserted claims contained “meaningful limitations that represent sufficiently inventive concepts” and were thus patentable. *Id.* at 994. The court pointed out that even though many of the limitations were mathematical algorithms, they were narrowly defined and tied to a specific error correction process. *Id.* It found that the limitations were “not necessary or obvious tools for achieving error correction, and they ensure that the claims do not preempt the field of error correction.” *Id.* The court specifically noted that while the calculations involved could be performed by a person with a pencil and paper, this analysis is not helpful for computer inventions as a pencil and paper can rarely produce the actual effect of the computer invention. *Id.* It pointed out that, with regard to software, “a human could spend months or years writing on paper the 1s and 0s comprising a computer program” and in the end he would just “be left with a lot of paper that obviously would not produce the same result as the software.” *Id.*

The court finds the arguments in *California Institute of Technology* particularly compelling with regard to the invention discussed in that case. However, here the claims are not narrowly defined so as to ensure the claims do not preempt the field for well state detection. Instead, Claim 1, for instance, involves storing “a plurality of states for well operation,” receiving well operation from “a plurality of systems,” comparing the data to predefined limits, and selecting a state of well operation based on that comparison. Dkt. 1, Ex. 1. The only limit is that there must be more than one state, more than one system from which to receive data, and more than one state of well operation. Thus, there are essentially no limits—it covers practically any system for determining the state of well operation.

Moreover, unlike the software discussed in *California Institute of Technology*, it would not take months or years of writing on paper to replicate the method described in the ‘812 Patent, and recreating the method with a pencil and paper would have the same type of application as automating it on a computer. The only advantage of using the automated system is that, as TDE points out, realtime results are available. However, “[t]o salvage an otherwise patent-ineligible process, a computer must be integral to the claimed invention, facilitating the process in a way that a person making calculations or computations could not.” *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012). “[S]imply appending generic computer functionality to lend speed or efficiency to the performance of an

otherwise abstract concept does not meaningfully limit claim scope for purposes of patent eligibility.” *CLS Bank Int’l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1286 (Fed. Cir. 2013), *aff’d*, 134 S. Ct. 2347 (2014).<sup>1</sup>

## 2. *Connection to Machines*

TDE next argues that the claims are patent-eligible because they require programmed hardware tailored to implement the Patented System, not general processors, stating that the four steps of the Patented Method require specific machines to accomplish the steps. Dkt. 30 at 16. It points to the following language in the detailed description of the ‘812 Patent:

In a particular embodiment, the monitoring module and its various

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<sup>1</sup> Though TDE relied 1 on the *Wavetronix* case for its argument that its claims are not abstract under the first *Alice Corp.* step and does not address it in its second-step analysis, the case is more on point for the second step. In *Wavetronix*, the court specifically found that the patent at issue in that case “improved upon existing technological processes” because it, unlike previous dilemma zone protection systems, actually solved a problem by improving on existing technology. 2015 WL 3000726, at \*6. The previous systems had used methods other than radar, such as loops buried in the ground, to determine vehicles’ arrival in the dilemma zone. *Id.* The patent at issue did not claim the unimproved applications, just the narrow application using radar. *Id.* Here, the claims as written, unlike the *Wavetronix* claims, do not add an inventive concept to existing technology. The only advantageous application highlighted by TDE is that the well state data can be monitored in real time, by using a generic computer or other machines. This is not enough of an innovation to make the claims patent-eligible.

components and modules may comprise logic encoded in media. The logic may comprise software stored on a computer-readable medium for use in connection with a general purpose processor, or programmed hardware such as application-specific integrated circuits (ASIC), field programmable gate arrays (FPGA), digital signal processors (DSP) and the like.

'812 Patent, col. 6, ln. 9–16. While certainly this detailed description indicates that specific machines can be used to accomplish the steps, it also demonstrates that specific machines are not required and that a “general purpose processor” may be used. This argument does not support TDE’s position that the abstract claims in the ‘812 Patent are meaningfully limited.

TDE also contends that the claims in the ‘812 Patent are patent-eligible because they are connected to an oil rig, citing *Fairfield Industries, Inc. v. Wireless Seismic, Inc.*, No. 4:14-cv-2972, 2014 WL 7342525 (S.D. Tex. Dec. 23, 2014) (Ellison, J.). Dkt. 30 at 17. In *Fairfield*, Judge Ellison denied a motion to dismiss an infringement case involving a patent for a method of seismic data acquisition relating to transmitting data from a seismic sensor array to a central control station. *Fairfield*, 2014 WL 7342525, at \*1. Judge Ellison determined that the claims may have been directed to an abstract idea, but that, regardless, the claims easily satisfied the second step of the *Alice Corp.* test. *Id.* at \*4. Specifically, the claims were for a “specific method of

data transmission that is a new and useful application of a generic relay system” and that the claim built on the abstract concept of a relay system by adding nonconventional elements that narrowed the scope of the claim and minimized the risk of preemption. *Id.* at \*6.

Judge Ellison determined that the claim’s “close connection to a specific machine, the seismic acquisition unit, further support[ed] a finding of patent-eligibility,” relying on the machine-or-transformation test. *Id.* Under this test, which provides a “useful important clue” for “determining whether some claimed inventions are processes under § 101,” an invention is a process if (1) it is tied to a particular machine or apparatus, or (2) it transforms an article into a different state or thing.” *Bilski*, 561 U.S. at 602–03. Judge Ellison noted that for the connection of a machine to have any meaning in the analysis, its use must “impose meaningful limits on the claim’s scope,” “play a significant part in permitting the claimed method to be performed,” and not “function solely as an obvious mechanism for permitting a solution to be achieved more quickly.” *Fairfield*, 2014 WL 7342525, at \*6 (citations and internal quotations marks omitted). Judge Ellison found that the use of the seismic acquisition units in the patent at issue in *Fairfield* passed these hurdles and that since the use of the units did “not merely substitute technology for an abstract idea, the connection between the claim and the acquisition units [was] highly probative of patent-eligibility.” *Id.* at \*7. The use of an oil rig in this case is completely different. While certainly the use of an oil rig is



central to the claims, it does nothing to impose meaningful limits on the claim's scope.

### C. Factual Disputes and Prematurity

TDE's final argument is that significant factual disputes pervade the analysis making a ruling on patent-eligibility at this stage premature. Dkt. 30 at 18. TDE concedes that patent eligibility is a question of law but points out that it "may be informed by subsidiary factual issues." *Id.* (quoting *Accenture Glo. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1341 (Fed. Cir. 2013)). TDE contends that there are several claim terms that raise substantial factual claim construction issues and that Mobilize relied on unsupported factual assertions in its motion. *Id.* at 19. Mobilize asserts that it made no "factual assertions," it merely used a hypothetical example. With regard to the claim construction issues, Mobilize argues that they do not change the analysis. Dkt. 46 at 6–7.

First, the court did not rely on Mobilize's hypothetical in reaching its conclusions, so there is no need to address that argument. With regard to the contention that the motion is premature, the court agrees with Mobilize that TDE's claim construction contentions do not impact the analysis. While undoubtedly there would be disputes about the meaning of certain terms if this case were to proceed to a *Markman* hearing, none of the terms that TDE contends will be in dispute prohibit the court from fully understanding the basic character of the claims. *See Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1349

(Fed. Cir. 2014) (“[C]laim construction is not an inviolable prerequisite to a validity determination under § 101.”); *Fairfield*, 2014 WL 7342525, at \*4 (“[T]he court is satisfied that it has the full understanding of the basic character of the claimed subject matter required for an eligibility determination.”). In *Content Extraction & Transmission*, the Federal Circuit affirmed a case in which the district court had granted a motion to dismiss prior to construing the claims. 776 F.3d at 1349. In considering the motion to dismiss, the district court had construed the terms in the manner most favorable to the patent owner and determined that the claims were patent-ineligible. *Id.* The Federal Circuit held, also construing the claims in the patent owner’s favor, that “none of [the patent owner’s] claims amount[ed] to ‘significantly more’ than [an] abstract idea.” *Id.* Here, likewise, none of TDE’s claims amount to significantly more than an abstract idea, even construing all the claims in TDE’s favor.<sup>2</sup>

#### IV. CONCLUSION

The court finds that the claims in the ‘812 Patent are not patent-eligible. Accordingly, Mobilize’s motion to dismiss TDE’s patent infringement lawsuit

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<sup>2</sup> TDE attempts to limit Claim 31’s “means for” elements by providing guidance from the specification, but even the specification information highlighted by TDE indicates that the means “may” use certain machines or specific sub-modules. *See* Dkt. 30 at 19–21. There is no dispute that the patent *could* be tied to certain machines. Nothing in the patent, however, *requires* these specific components. The claims, as written, are not meaningfully limited, and TDE’s construction still does not meaningfully limit them.

is GRANTED. TDE's claims are DISMISSED WITH PREJUDICE.

Signed at Houston, Texas on September 11, 2015.

/s/ Gray H. Miller  
Gray H. Miller  
United States District Judge

**[ENTERED OCTOBER 18, 2016]**

NOTE: This order is nonprecedential.

**United States Court of Appeals  
for the Federal Circuit**

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**TDE PETROLEUM DATA SOLUTIONS, INC.,**  
*Plaintiff-Appellant*

v.

**AKM ENTERPRISE, INC.,  
DBA MOBLIZE, INC.,**  
*Defendant-Appellee*

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2016-1004

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Appeal from the United States District Court  
for the Southern District of Texas in No. 4:15-cv-  
01821, Judge Gray H. Miller.

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**ON PETITION FOR PANEL REHEARING AND  
REHEARING EN BANC**

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Before PROST, *Chief Judge* LOURIE NEWMAN, DYK,  
MOORE, O'MALLEY, REYNA, WALLACH, TARANTO,  
CHEN, HUGHES, and STOLL *Circuit Judges*.

PER CURIAM.

**O R D E R**

Appellant TDE Petroleum Data Solutions, Inc. filed a petition for panel rehearing and rehearing en banc. The petition was referred to the panel that heard the appeal, and thereafter the petition for rehearing en banc was referred to the circuit judges who are in regular active service.

Upon consideration thereof,

IT IS ORDERED THAT:

The petition for panel rehearing is denied.

The petition for rehearing en banc is denied.

The mandate of the court will issue on October 25, 2016.

FOR THE COURT

October 18, 2016  
Date

/s/ Peter R. Marksteiner  
Peter R. Marksteiner  
Clerk of Court