

of removing debris from the cavity created in the formation thereby increasing the flow of hydrocarbons from the formation. This technology is highly valuable. GEODynamics has expended significant resources in money and engineering time to perfect its CONNEX® Reactive® Completion Technology for its shaped charges, as well as methods for perforating a wellbore using the shaped charges, which have become the industry leader in this application. GEODynamics has received U.S. Patent No. 9,080,431, issued July 14, 2015 covering its groundbreaking inventions regarding methods of perforating a wellbore. Without making the same investment in research or development, Defendant DynaEnergetics, the U.S. sister corporation of a German explosives company, on information and belief, has sold in the United States its “DPEX® reactive liner technology” shaped charges for the specific purpose of practicing the method covered by at least claim 1 of the ‘431 Patent. On information and belief, such DPEX shaped charges have either been manufactured at the DynaEnergetics facility in Blum, Texas and/or manufactured by DynaEnergetics’ sister company in Germany, and such charges have been used in wells in the United States as part of practicing the method of at least claim 1 of the ‘431 Patent. Plaintiff has notified Defendant DynaEnergetics to cease and desist its infringing activities, and Defendant DynaEnergetics has failed to comply. Plaintiff has therefore been forced to bring the instant lawsuit to protect its industry-leading patented technology.

Parties

2. Plaintiff GEODynamics is a corporation organized and existing under the laws of the State of Delaware, with a principal office located at 10500 West Interstate 20, Millsap, Parker County, Texas, 76066.

3. Defendant DynaEnergetics US, Inc. (“DynaEnergetics”) is a corporation

organized under the laws of the State of Colorado, with an office located at 1008 Ranch Rd. 620 S, Suite 204, Lakeway, TX 78734 and maintains a registered agent for service of process at National Registered Agents, Inc., 1999 Bryan St., Suite 900, Dallas, TX 75201.

4. Defendant Tong Petrotech Inc. (“Tong”) is corporation organized under the laws of the State of Texas, with an office located at 8700 Commerce Park Dr., Suite 116, Houston, TX 77036, and maintains a registered agent for service of process: Hang Li, 11700 Katy Freeway, Suite 330, Houston, TX 77079.

5. Defendant Anderson Perforating Services, LLC (“API”) is a Limited Liability Company organized under the laws of the State of Texas with an address at 124 Welco Rd., Albany, TX 76430 and maintains a registered agent for service of process, Ronnie Anderson, at the same address.

Jurisdiction and Venue

6. Subject matter jurisdiction is proper in this Court under 28 U.S.C. §§ 1331 and 1338(a) as this is a claim for infringement of a U.S. patent pursuant to 35 U.S.C. § 1 et seq., including 35 U.S.C. § 271, and for trademark infringement pursuant to 15 U.S.C. § 1051, et seq.

7. Defendant DynaEnergetics is subject to personal jurisdiction within Texas and this judicial district, as on information and belief it sells or offers to sell components especially designed and intended for use in well perforating activities that infringe the asserted U.S. Patent No. 9,080,431. Defendant DynaEnergetics has distribution facilities for its “DPEX® reactive liner technology” shaped charges located throughout Texas, including the former Austin Explosives location at 4843 Tidwell Dr., Tyler, TX 75708 which states in its listing at the following link that it is “the exclusive U.S. distributor for DynaEnergetics, AECO provides quality German-engineered and manufactured products that set the standard for excellence in

oilfield explosives”: <http://www.yellowpages.com/tyler-tx/mip/austin-explosives-13984657>. On information and belief, Defendant Tong has directed or otherwise induced API to conduct infringing perforating activities in Texas using DPEX shaped charges, and API advertises its services as available throughout Texas including in this District. Venue as to Defendants is thus proper pursuant to 28 U.S.C. §§1391(b) and (c), and 1400(b).

**Count 1: Infringement of ‘431
Patent**

8. U.S. Patent No. 9,080,431 (‘431 Patent), a copy of which is attached as Ex. A, is titled “METHOD FOR PERFORATING A WELLBORE IN LOW UNDERBALANCE SYSTEMS” and was duly and legally issued by the U.S. Patent and Trademark Office on July 14, 2015. Plaintiff is the owner of all right, title and interest in and to the ‘431 Patent, including standing to sue and recover all past, present, and future damages for infringement of the ‘431 Patent.

9. Defendant DynaEnergetics is contributing to and/or inducing infringement of at least claim 1 of the ‘431 Patent by offering to sell and/or selling in the United States its “DPEX® reactive liner technology” shaped charges for use in wellbore perforating in the United States.

10. According to the online database for the Texas Secretary of State, Defendant API’s sole member is API Holdings, LLC. The Chairman of API Holdings, LLC is Guoan Zhang and the Treasurer is Hang Li. Guoan Zhang and Hang Li are also both Directors of Defendant Tong. Both Guoan Zhang and Hang Li are also listed as having an address at 124 Welco Rd., Albany, TX 76430, which is the same address as defendant API.

11. During October, 2015, on at least one occasion, a representative of Plaintiff GEODynamics contacted a representative of Tong to request that Tong and API respect

Plaintiff's intellectual property related to the use of CONNEX shaped charges for performing perforating.

12. On information and belief, instead, in December 2015, subsequent to this request, API substituted using DPEX shaped charges on at least one and possibly more perforating jobs in Texas in place of CONNEX shaped charges as part of practicing the method of at least claim 1 of the '431 Patent. Such constitutes inducement to infringe by Tong, and either contributory infringement and/or inducement to infringe by API regarding the '431 Patent.

13. On information and belief, the well operator was not initially informed of such substitution on one or more occasions.

14. On information and belief, when the well operator requested clarification from API, on at least one occasion, API represented to the well operator that the technology involved with using the CONNEX shaped charges for performing the perforating job was "the same" as using DPEX.

15. In such cases of divided infringement by multiple actors, the Federal Circuit has recently held with respect to direct infringement in its opinion in *Akamai Technologies, Inc., et al. v. Limelight Technologies, Inc.*, cause no Nos. 2009-1372 (August 13, 2015, slip opinion) that "[w]here more than one actor is involved in practicing the steps, a court must determine whether the acts of one are attributable to the other such that a single entity is responsible for the infringement. We will hold an entity responsible for others' performance of method steps in two sets of circumstances: (1) where that entity directs or controls others' performance, and (2) where the actors form a joint enterprise."

16. As shown in detail below, claim 1 of the '431 Patent is directly infringed when a well-site operator along with associated contractors utilizes a perforating gun fitted with the

DynaEnergetics “DPEX® reactive liner technology” shaped charge to perforate a wellbore. The well operator would have overall direction or control at the well-site of the perforating activity using such equipment to practice the method of claim 1.

17. On information and belief, DynaEnergetics has also sold DPEX shaped charges, advertised on its website at this link:

http://www.dynaenergetics.com/uploads/files/55e4898c96304_D150_sc_8_dpex_ttg_strip_st_1_4d_120810.pdf, as well as other links on its website, as “DPEX® reactive liner technology”, in the United States for use in perforating activities at well-sites in the United States, including in Texas, and continues to do so.

18. On information and belief, the method of at least claim 1 of the ‘431 Patent is practiced during the performance of each perforating operation in the United States in which “DPEX® reactive liner technology” shaped charges supplied by DynaEnergetics are employed by the well operator and/or related contractors under the direction or control of the well operator.

19. Pursuant to 35 U.S.C. §271(c), liability for contributory infringement arises where the infringing party “offers to sell or sells . . . a component of a patented [invention] . . . , constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.”

20. The DynaEnergetics “DPEX® reactive liner technology” shaped charges and/or a perforating gun fitted with such shaped charges, each constitute a material part of the claimed invention of claim 1 of the ‘431 Patent.

21. The DynaEnergetics “DPEX® reactive liner technology” shaped charge is not a

staple article or commodity of commerce suitable for substantial non-infringing use.

22. 35 U.S.C. §271(b) states: "[w]hoever actively induces infringement of a patent shall be liable as an infringer." DynaEnergetics induces infringement of the '431 Patent by offering for sale and/or selling in the United States a perforating gun system fitted with "DPEX® reactive liner technology" shaped charges and/or offering for sale and/or selling DynaEnergetics "DPEX® reactive liner technology" shaped charges, and further induces such infringement through its website by specifically instructing customers and potential customers on methodology and the alleged benefits of using the DynaEnergetics "DPEX® reactive liner technology" shaped charges in wellbore perforation methods that infringe at least claim 1 of the '431 Patent.

23. To the extent that knowledge of the '431 Patent and specific intent regarding infringement of the '431 Patent (including direct infringement) must be shown to demonstrate liability for inducement to infringe or contributing to infringement, such knowledge and specific intent by Defendant DynaEnergetics is present in this case on the basis of at least the cease and desist letter sent by GEODynamics dated September 15, 2015 directed to DynaEnergetics, and attached as Exhibit B. Defendant's continuing infringing activities in the United States are thus purposeful, intentional and willful with express knowledge of the '431 Patent and its infringement.

24. Claim 1 of the '431 Patent consists of a preamble and claim elements labeled "(a)" through "(c)".

25. The preamble of the '431 Patent states: "a method for perforating a wellbore comprising the steps of." Use of the DynaEnergetics "DPEX® reactive liner technology" shaped

charges as deployed and used by a well operator and the associated contractors as part of a perforating gun, constitutes “a method of perforating a wellbore.”

26. Claim 1(a) of the ‘431 Patent requires: “loading at least one charge comprising a reactive shaped charge within a charge carrier”.

27. The step of claim 1(a) is performed in the United States when a well operator and/or associated contractors in the United States use “DPEX® reactive liner technology” shaped charges to perforate a well with a perforating gun. Loading at least one “DPEX® reactive liner technology” shaped charge within a charge carrier is a necessary step in assembling the perforating gun for use.

28. Claim 1(b) requires: “positioning the charge carrier down the wellbore adjacent to an underground hydrocarbon bearing formation, the wellbore being in a pressure condition.”

29. The step of claim 1(b) is performed when a well operator and/or associated contractors in the United States use DynaEnergetics’ “DPEX® reactive liner technology” shaped charges to perforate a wellbore since the shaped charges must be loaded into a charge carrier within a perforating gun, and then the perforating gun is placed and positioned in the wellbore prior to use, where the wellbore is in a pressure condition.

30. Claim 1(c) requires “without changing the pressure condition of the well bore to a more underbalanced condition after the step of positioning, detonating the at least one charge in the wellbore to create a first and second explosive event, wherein the first explosive event creates at least one perforation tunnel within the adjacent formation, said perforation tunnel being surrounded by a crushed zone, and wherein the second explosive event is created by an exothermic intermetallic reaction between shaped charge liner components, the second explosive

event eliminating a substantial portion of said crushed zone and clearing debris from within said perforation tunnel.”

31. The portion of step 1(c) of “without changing the pressure condition of the well bore to a more underbalanced condition after the step of positioning, detonating the at least one charge in the wellbore to create a first and second explosive event” is performed in the deployment of each perforating gun using the DynaEnergetics “DPEX® reactive liner technology” shaped charges since the nature of the base charge and the liner in each such DPEX shaped charge creates a first and second explosive event.

32. The DynaEnergetics website explains that use of DynaEnergetics “DPEX® reactive liner technology” shaped charges necessarily includes a “first and second explosive event” as follows:

DPEX energetic liner shaped charges substitute a defined amount of the inert liner components with reactive metals. These reactive components are transferred into the perforating tunnel together with the jet where a strong exothermic reaction takes place.

The result is an extreme pressure spike inside the perforating channel that will follow the path of least resistance and initiate a flow back into the wellbore. This backflow will break up the crushed zone and transport it out of the perforating channel resulting in a cleaner tunnel with increased diameter. Any possible slugs that have been created will also be eliminated.

(See <http://www.dynaenergetics.com/products/energetics-systems/shaped-charges/dpex-shaped-charges> .)

33. The portion of the step in claim 1(c) of “wherein the first explosive event creates at least one perforation tunnel within the adjacent formation, said perforation tunnel being surrounded by a crushed zone, and wherein the second explosive event is created by an exothermic intermetallic reaction between shaped charge liner components, the second explosive event eliminating a substantial portion of said crushed zone and clearing debris from within said

perforation tunnel” is demonstrated by the above description in ¶ 25 from the DynaEnergetics’ website: “[t]he result is an extreme pressure spike inside the perforating channel that will follow the path of least resistance and initiate a flow back into the wellbore. This backflow will break up the crushed zone and transport it out of the perforating channel resulting in a cleaner tunnel with increased diameter.”

34. The “exothermic intermetallic reaction” of claim 1(c) is demonstrated by the explanation from DynaEnergetics of a “DPEX® reactive liner technology” shaped charge as described in ¶ 25 above, as follows: “DPEX energetic liner shaped charges substitute a defined amount of the inert liner components with *reactive metals*. These reactive components are transferred into the perforating tunnel together with the jet where a strong *exothermic reaction* takes place” (emphasis added).

35. The step of claim 1(c) is thus performed when a well operator and/or associated contractors in the United States use DynaEnergetics “DPEX® reactive liner technology” shaped charges to perforate a well with a perforating gun.

36. Defendants’ continuing acts of infringement have caused and will continue to cause damage to Plaintiff, and Plaintiff is entitled to recover from Defendants the damages sustained as a result of Defendants’ wrongful acts in an amount subject to proof at trial, including lost profits, but in no event less than a reasonable royalty.

37. Due to Defendants’ continuing acts of willful infringement, Plaintiff is entitled to recover up to treble damages pursuant to 35 U.S.C. § 284, and an award of attorney fees pursuant to 35 U.S.C. § 285.

**Count 2: Trademark Infringement
(DynaEnergetics Only)**

38. GEODynamics owns the federal registered trademark Registration No. 3496381 for the word mark “REACTIVE” for goods and services described as “[p]erforating equipment for use in wells, namely, explosive equipment for completing oil and gas wells, namely, fracturing charges and shaped charges for perforating guns.” The U.S. Patent and Trademark Office duly and legally registered the “REACTIVE” mark on the Principal Register on September 2, 2008.

39. Pursuant to a Combined Declaration of Use and Incontestability under Sections 8 and 15 filed with the U.S. Patent and Trademark Office in 2014, the “REACTIVE” mark has become incontestable pursuant to 15 U.S.C. §1065. The registration of the REACTIVE mark constitutes *prima facie* evidence of validity and conclusive evidence of GEODynamics’ exclusive right to use the REACTIVE mark in connection with the goods and services identified by the trademark registration. The registration also provides notice to Defendant of GEODynamics’ ownership and exclusive rights in the REACTIVE mark.

40. An example of use of the mark by GEODynamics is as follows:



41. Defendant DynaEnergetics has advertised and is continuing to advertise its goods and services as including “DPEX® reactive liner technology” shaped charges.

42. By advertising and marketing its goods and services using the mark “reactive,” which is identical to the mark that is federally registered and used by GEODynamics, Defendant has attempted and/or is attempting to trade on the business success and goodwill of GEODynamics and its REACTIVE mark.

43. GEODynamics is informed and believes, and based thereon, alleges that Defendant has infringed GEODynamics’ federally registered mark for “REACTIVE” by Defendant using in interstate commerce the confusingly similar and deceptive mark “reactive” for directly competing goods and services, with DynaEnergetics’ actual knowledge of GEODynamics’ prior, extensive, and continuous use of its REACTIVE mark resulting in willful infringement, without the consent of GEODynamics, in connection with Defendant’s goods and services, which is likely to cause confusion in and deceive customers and potential customers as to the affiliation, connection, or association of Defendant with GEODynamics.

44. Moreover, GEODynamics has expended great effort and significant amounts of money in protecting, advertising, promoting, and developing the recognition of the REACTIVE

mark, with the result being that, long before the acts of Defendant complained of herein, the industry had come to recognize such mark as a reference to the superior goods and services offered by GEODynamics. Such public recognition constitutes goodwill of immense value which belongs exclusively to GEODynamics.

45. GEODynamics' REACTIVE mark has acquired recognition within the United States as signifying goods and services offered by a specific source, such recognition having been acquired long prior to the conduct of Defendant complained of herein.

46. Defendant has infringed GEODynamics' trademark rights in violation of Section 32 of the Lanham Act, 15 U.S.C. §1114(1)(a), by various acts, including advertising and displaying the confusingly similar and deceptive trade name, "DPEX® reactive liner technology". Defendant's actions are without the permission or authority of GEODynamics, and are likely to cause confusion, to cause mistake, and to deceive as to an affiliation, connection, or association between GEODynamics and Defendant.

47. Defendant's above alleged infringement is malicious and oppressive, and Defendant deliberately committed such malicious and oppressive conduct. As a result, GEODynamics has suffered great and irreparable harm and is therefore entitled to receive the maximum damages allowable under the Lanham Act from and against the Defendant.

48. Defendant will continue to conduct the willful acts of trademark infringement, and as a result, GEODynamics will continue to suffer great and irreparable harm, unless Defendant is enjoined from committing such acts.

Demand for Jury Trial

Plaintiff demands a jury trial on all issues so triable.

Prayer

Plaintiff GEODynamics prays that, after trial, this Court enter judgment against Defendants as follows:

- (a) An entry of final judgment in favor of Plaintiff and against Defendants;
- (b) An award of damages adequate to compensate Plaintiff for the infringement of the '431 Patent that has occurred, but in no event less than a reasonable royalty as permitted by 35 U.S.C. § 284, together with prejudgment interest from the date the infringement began;
- (c) An injunction permanently prohibiting Defendants and all persons in active concert or participation with any of them from further acts of infringement of the '431 Patent;
- (d) Treble damages as provided for under 35 U.S.C § 284 in view of the knowing, willful, and intentional nature of Defendants' acts;
- (e) The maximum damages against Defendant DynaEnergetics allowable under the Lanham Act, 15 U.S.C. §1051 et seq., including §1114 and §1117, and including but not limited to treble damages and prejudgment interest;
- (f) An injunction permanently prohibiting Defendant DynaEnergetics and all persons in active concert or participation with any of them from further acts of infringement of the REACTIVE mark;
- (g) That this Court, in accordance with 15 U.S.C. § 1118, order that all labels, signs, prints, packages, wrappers, receptacles, advertisements, and all other materials (a) in the Defendants' possession or control and (b) bearing the REACTIVE mark, or any confusingly similar mark, be delivered up and destroyed;

- (h) Awarding Plaintiff its costs and expenses of this litigation, including reasonable attorneys' fees and disbursements, pursuant to 35 U.S.C. § 285 and/or 15 U.S.C. § 1117(a) on the basis that this case is exceptional due to the conduct of Defendants; and
- (i) Plaintiff have such other and further relief as the Court deems just and proper.

Dated: December 14, 2015

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document via the Court's CM/ECF system on the 14th day of December, 2015. Any other counsel of record will be served by first class mail.

s/Theodore G. Baroody
Theodore G. Baroody