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

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| WAVEFRONT TECHNOLOGY SOLUTIONS INC.<br><br>*Plaintiff*,<br>vs.<br><br>IMPACT TECHNOLOGY SYSTEMS AS, AMERICAN RESOURCES, INC. and MMB OIL, LLC,<br><br>*Defendants*. | §<br>§<br>§<br>§<br>§<br>§<br>§<br>§<br>§<br>§<br>§ | Case No. 4:16-cv-03214<br><br>**JURY TRIAL DEMANDED** |

**FIRST AMENDED COMPLAINT**

Plaintiff Wavefront Technology Solutions Inc. ("Wavefront") brings this action against defendants Impact Technology Systems AS ("ITS"), American Resources, Inc. ("ARI") and MMB Oil, LLC ("MMB") (collectively "Defendants" and individually "Defendant") and for its first amended complaint alleges:

**THE PARTIES**

**1.** Wavefront is a corporation organized and existing under the laws of Canada, and has a principal place of business at 5621 – 70 Street, Edmonton, Alberta Canada T6B 3P6.

**2.** On information and belief, ITS is a corporation organized and existing under the laws of Norway, has a principal place of business at Filipstad Brygge 1, N-0252 Oslo, Norway, and is doing business within this district. ITS can be served with process through the Hague Convention. The original Complaint [Doc. 1] was previously served on ITS through the Hague Convention.

**3.** ITS further authorized its counsel of record to accept service of process on behalf of ITS without requiring procedures under the Hague Convention. *See* Defendants' Unopposed Motion to Set Deadline to Answer or Otherwise Respond to the Complaint and to Continue Initial Scheduling Conference at ¶ 2 [Doc. 9]. ITS expressly waived and relinquished any argument or right to attack or attempt to vacate or evade any judgment, order or award entered in the above-captioned lawsuit on the grounds that ITS has not been served with process in accordance with the Hague Convention on the Service Abroad of Judicial and Extrajudicial Documents or any other applicable rule, law, statute or convention concerning international service of process or service of process at any place not within any judicial district of the United States. *Id.* However, ITS did not waive or relinquish any of its defenses under Rules 12(b)(1-3, 6-7), 12(c), 12(d), 12(e), and 12(h) of the Federal Rules of Civil Procedure.

**4.** On information and belief, ARI is a corporation organized and existing under the laws of Delaware, has a principal place of business and registered agent address at 1250 Wood Branch Park Drive, Suite 400, Houston, Texas 77079, and is doing business within this district. ARI's registered agent is Ivar Siem. The original Complaint [Doc. 1] was previously served on ARI.

**5.** On information and belief, MMB is a limited liability company organized and existing under the laws of Texas, has a principal place of business and registered agent address at 1250 Wood Branch Park Drive, Suite 400, Houston, Texas 77079, and is doing business within this district. MMB's registered agent is Ivar Siem. The original Complaint [Doc. 1] was previously served on MMB.

## JURISDICTION AND VENUE

**6.** This is an action for patent infringement under United States Patent Law, Title 35, United States Code.

**7.** Subject-matter jurisdiction over Wavefront's claims is conferred upon this Court by 28 U.S.C. §§ 1331 and 1338(a).

**8.** On information and belief, each Defendant has transacted business within this judicial district, including business related to alleged infringing activities stated below. Each Defendant is subject to personal jurisdiction in Texas and this district.

**9.** Venue is proper in this district under 28 U.S.C. §§ 1391(b) & (c) and 1400(b).

## GENERAL ALLEGATIONS

**10.** Wavefront develops, markets, and licenses proprietary technologies in the energy and environmental sectors. Wavefront specializes in designing leading-edge solutions for oil well stimulation, secondary oil recovery and environmental groundwater remediation.

**11.** Wavefront and the Defendants are direct competitors in the market for providing tools and related services to customers for the purpose of improving and enhancing the production and recovery of oil from oil fields.

**12.** Upon information and belief, including based on ARI's website (www.americanresourcesinc.com), MMB is a 50/50 joint venture between ARI and ITS.

**13.** Upon information and belief, including based on ARI's website, ITS is a development stage company that has developed a surface based pressure pulse stimulation technology to enhanced oil recovery. This ITS technology is the subject of Wavefront's allegations of patent infringement herein.

**14.** Upon information and belief, including based on ARI's website, ARI through management of MMB has been instrumental in helping ITS prove the accused technology through two field pilot tests currently underway, and the accused ITS technology is marketed in Texas exclusively through MMB.

**15.** Attached hereto as Exhibit A is a true and correct copy of a presentation entitled "Impact Technology Systems" and lists Thorstein Jenssen, CEO on the cover page, the contents of which are fully incorporated herein by reference.

**16.** Attached hereto as Exhibit B is a true and correct copy of a presentation entitled "Company presentation, Impact Technology Systems" and includes a logo for the 2016 Rice Alliance and also the date "September 2016" on the cover page of the presentation, the contents of which are fully incorporated herein by reference.

**17.** Upon information and belief, Thorstein Jenssen, CEO of ITS, gave the presentation in Exhibit B at the "Energy and Clean Technology Venture Forum" event of the "Rice Alliance for Technology and Entrepreneurship" at Rice University in Houston, Texas on or about September 15, 2016.

**18.** Attached hereto as Exhibit C is a print-out of the page from the Rice Alliance web site that lists the "Presenting Companies" at the "Energy and Clean Technology Venture Forum." The summary in Exhibit C for ITS reads as follows:

> **Impact Technology Systems AS has developed an environmentally friendly and cost effective technology for enhanced oil recovery oil recovery.** Impact Technology Systems AS ("ITS") has developed a technology for enhanced oil recovery that plugs into existing water injection systems. The technology stimulates oil reservoirs through high amplitude pulses with extremely short rise time (<1 ms). The technology mobilizes trapped oil in reservoirs by increasing sweep efficiency of water flooding, using impact dynamics to overcome capillary forces. The technology has been developed under a research program funded by the Norwegian Research Council. The company has build two full scale pilots of the Fluid Driver Unit, of which one is currently operated and tested in Texas. Both laboratory tests

> on sandstone cores and testing on producing oil fields confirms a significant increase in oil recovery. The technology is environmentally friendly, as it requires no chemicals and has low energy consumption. The company has signed its first commercial agreement with an operator and is ready to move to commercialization.

The technology for enhanced oil recovery as described in the above-quoted passage and in Exhibits A and B, and discussed in the passages from the ARI website in paragraphs 13-14 above, is referred to below as "the Accused ITS Technology." The phrase "Accused ITS Technology" also encompasses such technology that has been "Tested on oil fields in Texas" as stated in Exhibit A, and on "Two test units installed in Texas" as stated in Exhibit B.

**THE ACCUSED ITS TECHNOLOGY**

**19.** Under the "Company Highlights" section of its Rice Alliance presentation, ITS states: (1) "ITS has developed a technology for enhanced oil recovery based on impact dynamics that will increase oil recovery significantly"; (2) "Testing in laboratory and on oil fields confirms increased recovery of > 10 percentage points"; (3) "The company has entered into its first commercial contract with an operator based on production participation"; and (4) "The ITS method will change the fundamental economics of oil production worldwide." (Exhibit B, page 3).

**20.** The Rice Alliance presentation includes a time line stating that the ITS technology "has been developed and tested over several years." (Exhibit B, page 4). The earliest date on the time line is 2008, long after the development of Wavefront's patented technology and foreign filing date in 1997. *Id.* The timeline reflects that a test partner in Texas was found in 2013. *Id.* Upon information and belief, the Texas test partner is ARI, based upon ARI's web site (www.americanresourcesinc.com).

**21.** On the "Affiliated Companies" page of the ARI web site, ARI states as follows with respect to MMB Oil, LLC:

> MMB Oil LLC is a 50/50 joint venture between American Resources, Inc. and Impact Technology Systems AS (ITS) of Norway. ITS is a development stage company that has developed a surface based pressure pulse stimulation technology to enhanced oil recovery. ARI through management of MMB Oil has been instrumental in helping ITS prove its technology through two field pilot tests currently underway. ITS technology is marketed in Texas exclusively through MMB Oil.

http://americanresourcesinc.com/?page_id=23.

**22.** With respect to the phrase "surface based pressure pulse stimulation technology" in the above quote, one of the ITS presentations includes a page entitled "THE FLUID DRIVER." Exhibit A, third page. This page of the presentation indicates that the Fluid Driver "plugs into existing infrastructure" and recites "pressure stimulation" as one of its features, which it more specifically describes as "high amplitude (>1500 psi), short rise time (1 ms)." *Id.* This page of the ITS presentation materials also includes the following image of the ITS surface "Fluid Driver":

**23.** Referring back to the timeline page of the ITS "Rice Alliance" presentation (Exhibit B), ITS states that two test units were installed in Texas, and includes the photograph reproduced below in connection with that text of what appears to correspond to the "fluid driver" image above:

(Exhibit B, page 4). Upon information and belief, the image of the Fluid Driver shown on the third page of Exhibit A illustrates the equipment inside the building shown in the photograph shown above in this paragraph.

**24.** Later in the "Rice Alliance" presentation, ITS includes another similar photograph of the surface equipment:

(Exhibit B, page 11). A similar photo is also on page 14 of Exhibit B. Upon information and belief, the image of the Fluid Driver shown on the third page of Exhibit A illustrates the equipment

inside the building shown in the photograph shown above in this paragraph and in the building shown in the photograph on page 14 of Exhibit B.

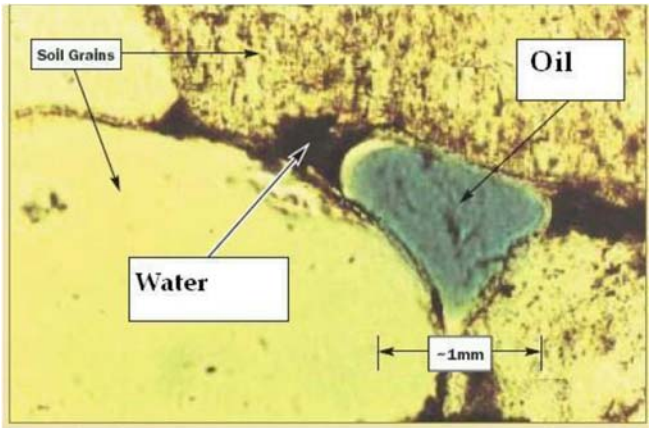
**25.** Attached hereto as Exhibit D is a true and correct copy of an FAQ document further describing the Accused ITS Technology, the contents of which are fully incorporated herein by reference. The FAQ document also includes additional photographs of the ITS surface equipment and additional information about the structure and operation of the FDU and how it connects to the water injection well. In answer to Question 1 in the FAQ document, ITS refers to the fluid driver as the "fluid driver unit" or "FDU." In answer to Question 6 in the FAQ document, ITS explains that the FDU can be designed to connect with any diameter pipe, and states: "A larger diameter pipe would require a bigger FDU to create the same pressure pulses." In answer to question 9, ITS states: "The unit is remote controlled and monitored remotely by ITS on a daily basis."

**26.** The ITS Rice Alliance presentation includes a slide entitled "Scientific basis for the ITS technology." (Exhibit B, page 6). This page includes four sub-headings and associated bullet points. ***First***, this page includes a sub-heading entitled "Invasion percolation" under which two bullet points appear, as follows: (1) "Invasion percolation is a version of percolation theory that describes the displacement of one fluid in a porous media by an invading fluid;" and (2) "The phenomenon happens on two different scales, the capillary scale and the Darcy flow scale." ***Second***, this page also includes a sub-heading entitled "Capillary dynamics" under which two bullet points appear, as follows: (1) "The capillary forces are overcome at the displacement front by a sharp pressure front with a very short rise time (on the Rayleigh time scale)"; and (2) "These pressure fronts are generated naturally during invasion percolation and explain how the capillary forces are overcome at low capillary numbers. ***Third***, this page also includes a sub-heading

entitled "Impact dynamics" under which two bullet points appear, as follows: (1) "Impact is a complex physical phenomenon which occurs when two or more objects collide with each other"; and (2) "Impacts are characterized by very brief duration, high force levels, rapid dissipation of energy and large accelerations and deceleration." ***Fourth***, this page includes a sub-heading entitled "The ITS technology" under which three bullet points appear, as follows: (1) "The ITS technology harnesses impact dynamics to create a high amplitude pulse that propagates in fluid and overcomes capillary forces at the displacement front"; (2) "The method mobilizes trapped oil and increases oil recovery"; and (3) "No chemicals – only physics."

**27.** The ITS Rice Alliance presentation includes a slide entitled "Basic physics is the fundament of the ITS technology – proven through several tests to be successful for enhanced oil recovery. Step-by-step – How does it work?" (Exhibit B, page 7). This page includes four images, each of which is discussed in the following four paragraphs.

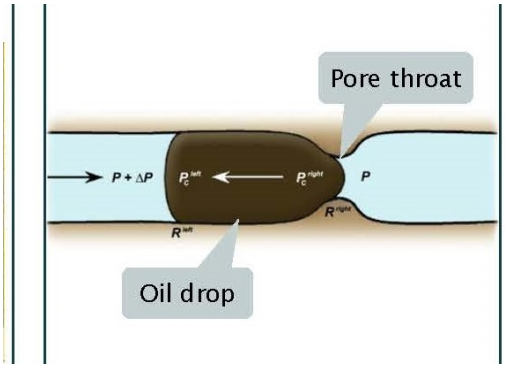
**28.** Image 1 is reproduced below. Beneath image 1, two bullet points appear, as follows: (1) "Oil/water drops are 'trapped' in pore throats in the reservoir and becomes a blockage for oil recovery"; and (2) "These drops must overcome capillary forces and migrate to remove the blockage in the reservoir."



Microscopic view of entrapped oil in soil

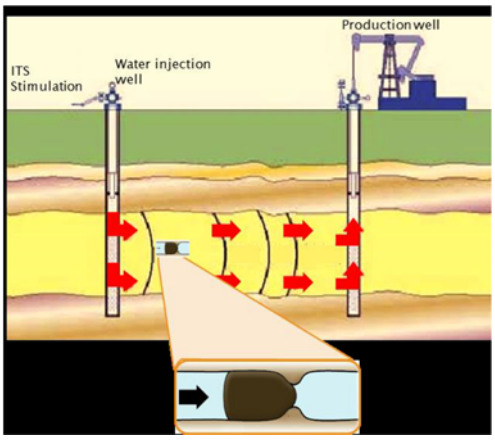
(Exhibit B, page 7).

**29.** Image 2 is reproduced below. Under image 2 three bullet points appear, as follows: (1) "A blockage is formed when there are two fluids in the pore throat"; (2) "A pore throat filled with only oil or water is not a blockage"; and (3) "Large connected (over many pore throats) oil volumes can be blocked by a single oil/water drop in a pore throat." (Exhibit B, page 7).

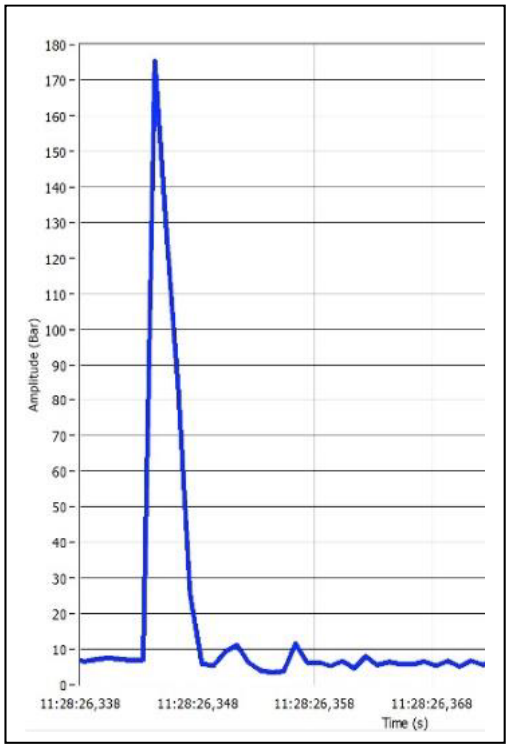



**30.** Image 3 is an image of shattered glass, under which the following two bullet points appear: (1) "ITS generate a shock front or impact pressure in a liquid by a collision process inside equipment installed on surface next to the well"; and (2) "The propagation of the shock front in the reservoir is a complex branching structure." (Exhibit B, page 7).

**31.** Image 4 is reproduced below. Under image 4 three bullet points appear, as follows: (1) "ITS equipment is hooked up to a water injection well"; (2) "Shock front propagates in the water injection pipe and down into the reservoir"; and (3) "ITS equipment need approximately 30 bar pressure in order to operate efficiently." (Exhibit B, page 7).

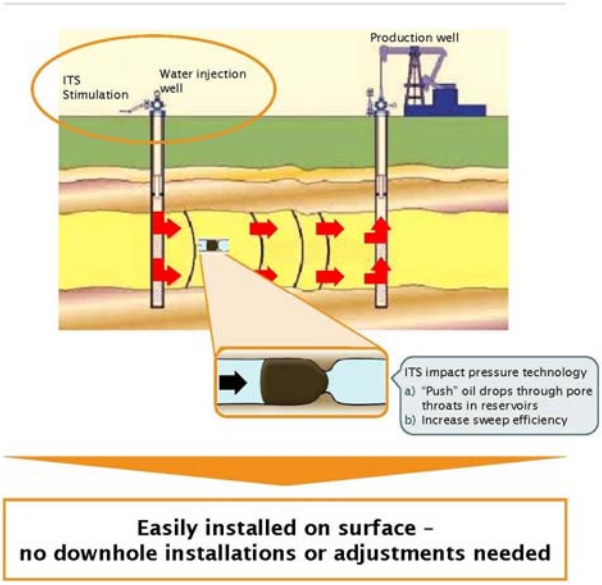


**32.** The ITS Rice Alliance presentation also includes a slide entitled "High amplitude pulses of very short duration helps overcome capillary forces at the displacement front." (Exhibit B, page 8). This page also includes a sub-heading as follows: "Step-by-step – Why does it work?" This page includes another heading entitled "Illustration of rise time." Beneath that heading is the image reproduced below. This page also includes a sub-heading entitled "Combining speed and pressure" under which four bullet points appear, as follows: (1) "Lord Rayleigh (Nobel Laureate in Physics) studied fluid mechanics and found the time needed for a force/pressure to act before a drop pass through a pore throat to be very short (< 5 ms)"; (2) "Rise time of a stimulating pressure should match the Rayleigh time, i.e. the time a pressure must be applied for a drop of oil to pass a pore throat"; (3) "ITS Impact device has during test generated a +2.500 psi shock front with rise time of 1 milliseconds (device & method protected by 4 patents)"; and (4) "Key observation: the longer the rise time = the higher the amplitude you need to 'push' drops through (or short rise time means need for lower amplitude)."



**33.** The ITS Rice presentation also states "the objective of the ITS technology is to reduce viscous fingering and thereby improving sweep efficiency of waterflooding." Exhibit B, page 9. This page also includes a series of photographs of lab testing with and without pressure stimulation, and the following conclusion: "By applying the ITS technology, sweep efficiency is significantly improved, enhancing oil recovery. The ITS Rice presentation also includes a chart entitled "Initial lab results at Center for Integrated Petroleum Research (CIPR) provided strong positive results." Exhibit B, page 10.

**34.** The ITS Rice Alliance presentation also includes a slide entitled "ITS offers a convenient and thoroughly tested solution for enhanced oil recovery – easy surface installation connected to the water injection well." (Exhibit B, page 11). This page includes two images. Image 1 is entitled "Illustration of ITS technology" and reproduced below:

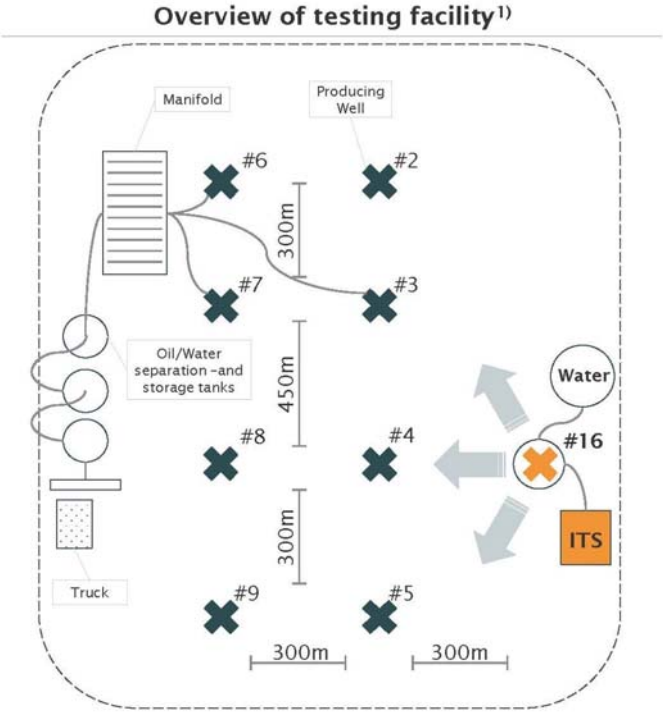



(Exhibit B, page 11).

**35.** Page 11 of Exhibit B also includes a sub-heading entitled "Description of technology" and the following four bullet points: (1) "Impact pressure propagates in the fluid from the surface and down into the reservoir formation, and overcome capillary forces holding back

trapped oil"; (2) "The technology requires liquid contact with reservoir, normally using a water injection well"; (3) "Technology has been proven in the laboratory on sandstone core samples and with 2D porous medium lab model"; and (4) "Currently being tested on oil producing fields in Texas with promising field test results." Thereafter the image below is shown:

**36.** The Rice presentation also includes a slide entitled "Fort Stockton test site - optimal location for ITS testing due to its geology, production well setup and maturity." Exhibit B, page 12. This slide also the following diagram that shows the connection of the ITS Fluid Drive Unit to water injection well #16 in relation to producing wells ## 2-9:



**37.** The ITS Rice Alliance presentation also includes a slide entitled "Competing technology requires a more complex installation process compared to surface installed ITS technology." (Exhibit B, page 14). This page also includes a sub-heading entitled: "ITS technology is easily installed at surface," with the photograph below shown below this heading. Three bullet points appear below the photograph, as follows: (1) "The ITS solution consist of a pressure pulsing unit at surface connected to a water injection well for liquid communication with reservoir"; (2) "Encouraging test results in the lab on actual formation has lead to the proto-type development that is currently being tested on production wells today"; and (3) "Low initial investment compared to peers increases attractiveness and likelihood for success."

**38.** The ITS Rice presentation also includes a slide listing a number of patents that it contends protects its device and methods. Exhibit B, page 15. The priority dates for the ITS patents are all long after the priority date for Wavefront's below-identified '797 patent that ITS is alleged to infringe in the lawsuit.

**PATENT INFRINGEMENT**
**[U.S. PATENT NO. 6,405,797]**

**39.** On June 18, 2002, U.S. Patent No. 6,405,797 ("the '797 patent"), entitled "Enhancement of Flow Rates Through Porous Media," was duly and legally issued. A true and correct copy of the '797 patent is attached hereto as Exhibit E. Wavefront is the owner by assignment of all right, title and interest in and to the '797 patent.

**40.** Upon information and belief, each Defendant has in the past and/or continues to infringe, contribute to infringement, and/or induce infringement of the '797 patent by making, using, selling, offering to sell and/or importing, and/or causing others to make, use, sell, offer to sell and/or import the Accused ITS Technology that, in use, practices at least the procedure of claim 1 of the '797 patent. Each Defendant is liable for infringement of the '797 patent pursuant to 35 U.S.C. § 271.

**41.** Upon information and belief, and in view of the above description of the Accused ITS Technology, as further shown and described in Exhibits A-D, use of the Accused ITS Technology has resulted and will result in performance of a procedure for increasing the permeability of the ground-material around a borehole in the ground, such as the borehole of a water injection well to which the FDU is connected.

**42.** Upon information and belief, and in view of the above description of the Accused ITS Technology, as further shown and described in Exhibits A-D, before using the Accused ITS Technology, it is first necessary to ensure that the pores of the ground-material around the borehole are saturated with liquid, and the liquid is under a head of pressure and coherent with liquid inside the borehole. For example, ITS states: "The ITS solution consist of a pressure pulsing unit at surface connected to a water injection well for liquid communication with reservoir." (Exhibit B,

page 14). ITS further states: "The technology requires liquid contact with reservoir, normally using a water injection well." *Id.*, page 11.

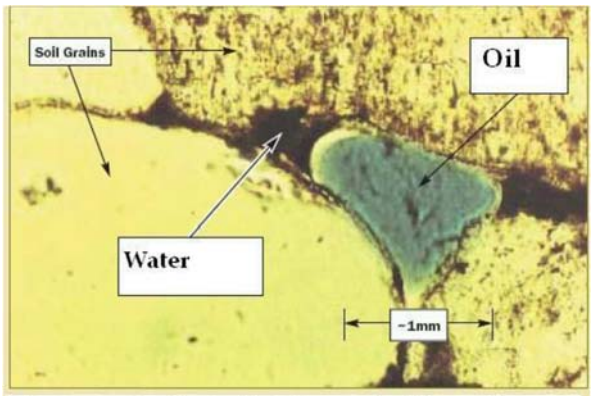
**43.** Upon information and belief, and in view of the above description of the Accused ITS Technology, as further shown and described in Exhibits A-D, in use, the Accused ITS Technology applies perturbations to the ground-material, and during operation continues to do so for a substantial period of time. The ITS materials state that one of the features of its "fluid driver" is "Pressure stimulation: High amplitude (>1500 psi), short rise time (1 ms)." (Exhibit A, third page). The ITS Rice Presentation materials state: "ITS has developed a technology for enhanced oil recovery based on impact dynamics that will increase oil recovery significantly." (Exhibit B, page 3). In explaining the "scientific basis for the ITS technology," ITS states: "The ITS technology harnesses impact dynamics to create a high amplitude pulse that propagates in fluid and overcomes capillary forces at the displacement front." *Id.*, page 6. In explaining that "basic physics is the fundament of the ITS technology, ITS states: "ITS generate a shock front or impact pressure in a liquid by a collision process inside equipment installed on surface next to the well;" and "The propagation of the shock front in the reservoir is a complex branching structure." *Id.*, page 7. On that same page, ITS further states: "ITS equipment is hooked up to a water injection well;" and "Shock front propagates in the water injection pipe and down into the reservoir." *Id.* In providing a "Description of technology", ITS states: "Impact pressure propagates in the fluid from the surface down into the reservoir formation, and overcome capillary forces holding back trapped oil." *Id.*, page 11. In explaining that the "ITS technology is easily installed at surface," ITS states: "The ITS solution consist of a pressure pulsing unit at surface connected to a water injection well for liquid communication with reservoir." *Id.*, page 14. ITS also explains in its FAQ document that the size of the "piston and pulse hammer" in the FDU can be tailored to the

pipe diameter to control the magnitude of the "pressure pulses" created by the FDU. (Exhibit D, Question 6). Operation of the ITS pressure pulsing unit that generates shock fronts and impact pressure that propagates into the reservoir/ground-material applies perturbations to the ground-material. During testing, ITS monitored oil production during periods with and without "ITS stimulation." (Exhibit B, page 13). For example, the first orange bar on the graph showing Field Testing at Fort Stockton shows that the "period of ITS stimulation" was from February 1 to February 16 (a period of about two weeks), and showed a 10% increase in oil cut for that period. *Id.* The Accused ITS Technology, including its Fluid Driver Unit, continued to apply perturbations for a substantial period of time.

**44.** Upon information and belief, and in view of the above description of the Accused ITS Technology, as further shown and described in Exhibits A-D, the perturbations generated by the ITS "pressure pulsing unit" / Fluid Driver Unit create corresponding porosity-pulses in the ground material. For example, in the FAQ document, ITS refers to the porosity pulses generated by the FDU as "pressure pulses." (Exhibit D, Question 6).

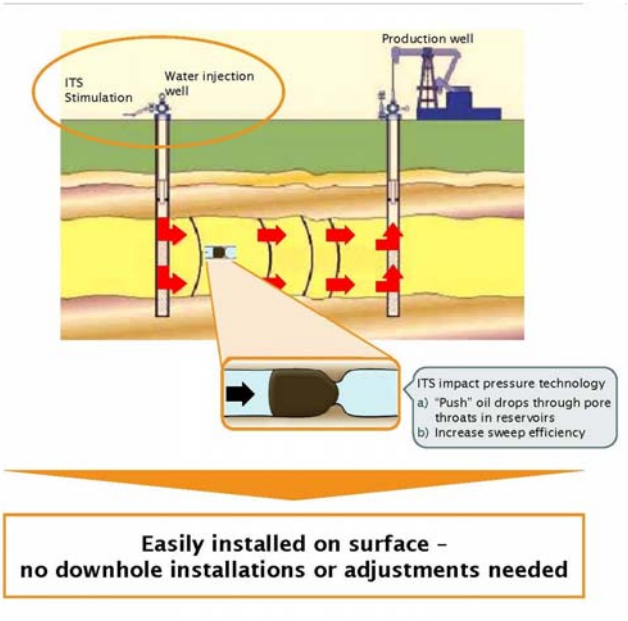
**45.** Upon information and belief, and in view of the above description of the Accused ITS Technology, as further shown and described in Exhibits A-D, each of the porosity-pulses created by the Accused ITS Technology comprises a momentary physical deformation of the ground-material, and the physical deformation is manifested as an increase in the porosity of the ground-material. In explaining that "basic physics is the fundament of the ITS technology," the ITS Rice presentation included the following photograph and recognized that "oil/water drops are 'trapped' in pore throats in the reservoir and becomes a blockage for oil recovery" and that "these

drops must overcome capillary forces and migrate to remove the blockage in the reservoir." (Exhibit B, page 7).



Microscopic view of entrapped oil in soil

**46.** As discussed above, the Rice presentation states: "Shock front propagates in the water injection pipe and down into the reservoir." Exhibit B, page 7. The ITS "pressure pulsing unit" / Fluid Driver Unit (referred to as "ITS Stimulation" connected to the "Water injection well" in the below illustration) generates shock fronts or impact pressures in the liquid in the injection well by a collision process that propagates perturbations that create porosity pulses in the reservoir, as shown in the following "Illustration of ITS technology":



**47.** Upon information and belief, as the porosity pulses caused by the Accused ITS Technology pass through the pore throats there is a momentary dilation at the pore throat and corresponding momentary physical deformation of the ground material and resulting increase in porosity and permeability with respect to the perturbations and porosity pulses. As explained in the Rice presentation, the porosity pulses push oil drops through the pore throats in reservoirs and increase sweep efficiency. Exhibit B, page 11.

**48.** Upon information and belief, and in view of the above description of the Accused ITS Technology, as further shown and described in Exhibits A-D, the perturbations generated by Fluid Driver Unit are of sufficient magnitude that the momentary opening or dilation of the pore throats results in an increase of permeability and can be accommodated within the elastic limit of the ground-material without producing any irreversible residual deformation of the ground-material.

**49.** Upon information and belief, each Defendant has and continues to indirectly infringe the '797 patent in violation of 35 U.S.C. 271(b) by inducing third parties (*e.g.*, operators of the Accused ITS Technology "on oil fields in Texas") to directly infringe at least claim 1 of the '797 patent through their use of the Accused ITS Technology in accordance with the Defendants' instructions. At least from the time of receipt of the original Complaint [Doc. 1], each Defendant has engaged in acts of such inducement knowingly and with knowledge that such activity encourages third parties to use the Accused ITS Technology to directly infringe at least claim 1 of the '797 patent.

**50.** Wavefront's right to relief for infringement of the '797 patent against Defendants is asserted with respect to and arises out of the same transaction, occurrence or series of transactions or occurrences relating to the making, using, importing into the United States, offering

for sale or selling of the same Accused ITS Technology. Questions of fact common to infringement of the '797 patent by Defendants will arise in this action.

**51.** Each Defendant's acts of infringement have caused damage to Wavefront, and Wavefront is entitled to recover from Defendants such damages resulting from Defendants' acts in an amount subject to proof at trial.

**52.** As a consequence of Defendants' infringement, Wavefront has been irreparably damaged to an extent not yet determined and will continue to be irreparably damaged by such acts in the future unless each Defendant is enjoined from committing further infringement.

## PRAYER FOR RELIEF

**WHEREFORE**, Wavefront prays for entry of judgment that:

**A.** Each Defendant has infringed the '797 patent;

**B.** Each Defendant account for and pay to Wavefront all damages caused by its infringement of the '797 patent in accordance with 35 U.S.C. § 284;

**C.** Wavefront be granted injunctive relief pursuant to 35 U.S.C. § 283 enjoining each Defendant and its respective officers, agents, servants, employees and those persons in active concert or participation with them from further acts of patent infringement;

**D.** Wavefront be granted pre-judgment and post-judgment interest on the damages caused to it by reason of Defendants' patent infringement;

**E.** Wavefront be granted its reasonable attorneys' fees;

**F.** Costs be awarded to Wavefront; and,

**G.** Wavefront be granted such other and further relief as the Court may deem just and proper under the circumstances.

## DEMAND FOR JURY TRIAL

Wavefront demands trial by jury on all issues so triable in accordance with Rule 38 of the Federal Rules of Civil Procedure and the Seventh Amendment to the United States Constitution.

Respectfully submitted,

Dated: January 24, 2017

By: */s/ C. Dale Quisenberry*

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ATTORNEYS FOR PLAINTIFF

**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that all counsel of record who are deemed to have consented to electronic service are being served this 24th day of January, 2017, with a copy of this document via the Court's CM/ECF system. Any other counsel of record will be served by electronic mail, facsimile transmission and/or first class mail on this same date.

/s/ *C. Dale Quisenberry*