

MULTIPLE SPONSOR RESEARCH PROGRAM AGREEMENT

THE RICE INVERSION PROJECT

THIS AGREEMENT (this “Agreement”) is made by and between William Marsh Rice University, a Texas non-profit corporation, located at 6100 Main Street, Houston, TX 77005 (“University”), and _____ a _____ corporation of the State of _____ having a place of business at _____ (“Sponsor”).

WHEREAS, University is engaged in a long term, multiple sponsor research program as hereinafter defined;

WHEREAS, University is willing to continue such Research Program supported by Sponsor’s research funding during the period of Sponsor’s participation and to grant Sponsor certain rights related to the results of the Research Program;

NOW, THEREFORE, in consideration of the mutual covenants and promises herein contained, the University and Sponsor agree as follows:

I. Definitions

“Research Program” shall mean a continuing, multiple sponsor research program in the area of waveform inversion and may include automatic waveform-based velocity analysis, estimation of rock mechanical parameters at the wavelength scale, interpretation of lithologic information content, the development of Differential Semblance Optimization for waveform inversion and investigation of the link between seismically identifiable parameters and reservoir model parameters through coupling of inversion software with reservoir simulators. This program will be undertaken using vector and parallel hardware and software and standard user interface.

“Program Year” shall mean any year beginning January 1 and ending December 31st of a calendar year in which the Research Program will be conducted.

“Participation Period” shall mean the Program Years during which Sponsor provided support under this Agreement. The Participation Period shall not include any Program Years for which full payment of its membership has not been made.

“Affiliate” shall mean a corporation in which the Sponsor has a greater than 50% ownership or control or a corporation which has a greater than 50% ownership or control in the Sponsor. Affiliates shall also include the entities identified in Exhibit A.

II. Research Program

University shall maintain and perform, but not necessarily complete, the Research Program of specific subprogram projects during the Participation Period. Sponsor understands that such Research Program is long term and may have been in existence prior to this Agreement and may continue beyond the end of the Participation Period. A primary focus of this Research Program shall be the training of graduate and postdoctoral students in waveform inversion development.

The Research Program shall be administered through the University’s Department of Computational and Applied Mathematics, under the direction of Professor William W. Symes (“Consortium Director”) or his

designated successor. The Consortium Director shall be free to choose at his sole discretion any topic within the field of the Research Program and also to select professional research staff, including postdoctoral and graduate students for work within the Research Program; provided that Sponsor shall have the right to propose topics in which it is interested. The manner of performance of any research topic shall be determined by the Consortium Director. University does not guarantee specific results or success of any research under the Research Program.

III. Funding

In consideration of University's carrying out the Research Program, Sponsor shall pay University an annual membership fee for each Program Year in which Sponsor participates. The membership fee for Program Year 2012 is \$25,000. Sponsor shall be notified of any changes in annual membership fees at least 90 days prior to implementation. Upon receipt of invoice, payment shall be sent to Research Program's financial contact listed in Exhibit A. Payment shall be in U.S. Dollars.

Sponsor who begins support of the Research Program after the second Program Year (1994) shall pay the \$25,000 membership fee for the Program Year plus an initiation fee of \$12,500.

IV. Sponsor Benefits

University shall host an annual Project Review meeting to review progress of the Research Program and to discuss potential new areas of research. During the Participation Period, Sponsor shall be entitled to a reasonable number of representatives at the annual meeting.

During the Participation Period, University shall, at the end of each Program Year, provide to Sponsor a written report summarizing the work of the Research Program for the Program Year.

In addition to the annual report described above, University shall deliver to Sponsor one copy of materials containing information, know-how, or technology in written or other tangible form, developed solely by University in the Research Program during the Program Year and within the Participation Period, including source code of computer software developed under the Research Program and any available documentation for such source code as described in Section VIII.

Sponsor acknowledges that University shall have the right to publish or otherwise publicly disclose such materials, subject to the following limitations. University will forward a draft copy of each manuscript (except for student theses and dissertations) describing or containing such materials to Sponsor at least sixty (60) days prior to publication or public release. During such sixty (60) day period, Sponsor may review said manuscript, and may submit written comments to University. University agrees to consider such comments in preparing a final draft for publication or public release. University shall, however, retain final authority over publication or public disclosure. Until published or publicly disclosed, Sponsor and its employees shall maintain in confidence all written material as described in this paragraph.

In addition to written works as described in the preceding paragraph, University shall also provide to Sponsor copies of all student theses and dissertations developed under the Research Program.

Notwithstanding anything in this Agreement to the contrary, copyrights in publications, public presentations and other scholarly writings shall be owned by their respective authors.

V. Term and Termination

This Agreement shall commence as of January 1 of the Program Year in which the Agreement is signed by Sponsor and Sponsor has paid a membership fee and extend until the end of the last Program Year for which a membership fee is paid, unless sooner terminated in accordance with the provisions of this section.

Sponsor may terminate this Agreement at any time by giving University written notice to that effect.

This Agreement may be terminated by either party in the event the other party fails to cure any material breach of this Agreement within 30 days after receipt of written notice of such breach from the terminating party.

Termination or cancellation of this Agreement shall not affect the rights and obligations of the parties accrued prior to termination.

VI. Confidentiality

For purpose of this Agreement, "Proprietary Information" is defined as all business and technical information supplied by Sponsor, including data sets, records, drawings or other information which is considered to be confidential by Sponsor and designated in writing as such at the time of disclosure, or which is identified as confidential at the time of an oral or visual disclosure and a summary of which is furnished to University within fourteen (14) days of the oral or visual disclosure.

It is understood by the parties that the primary method Sponsor shall use to control access to its Proprietary Information shall be to negotiate separate non-disclosure Agreements with Professor William W. Symes and other research personnel, including students who require access to Proprietary Information.

Given the nature of the University, it is not possible for the University to guarantee that Proprietary Information will not be disclosed, but University will protect Proprietary Information to the extent that it protects its own confidential information, which shall not be less than a reasonable extent.

Sponsors and University further agree that neither party will be held financially liable for any inadvertent disclosure.

The obligations imposed with regard to Proprietary Information shall not apply to:

- Information that is generally available in the public domain or becomes available to the public through no act of the University;
- Information that is already in the possession of University or is independently developed by University;
- Information that is released for disclosure by Sponsor with its written consent.

Any information generated by University in the course of the Research Program shall be on a non-confidential basis and shall be usable by University in any manner they wish, subject to the rights of Sponsor as set forth in this section.

VII. Intellectual Property

Any inventions by University and patents resulting therefrom, software, or copyrights in works made during the course of the Research Program and any other information from the Research Program shall be the property of University. Inventions made solely by Sponsor or its personnel shall be the property of Sponsor. Any inventions and patents resulting therefrom, made jointly by University and Sponsor, shall be jointly owned by University and Sponsor. Either party may exploit any jointly owned inventions, patents, copyrights or other intellectual property without accounting to the other party, including the manufacture of any product or performance of any service covered by, or the granting of license to third parties under, any patents, copyrights or other intellectual property rights covering such inventions.

An invention is made during the Research Program if it is either conceived or reduced to practice during such Research Program or is subsequently conceived based on information generated by such Research Program. The term "invention" shall mean any discovery, concept, or idea, whether or not patentable or copyrightable, made during and as a result of the Research Program, including but not limited to processes, methods, software, formulas, methodologies and techniques, improvements thereof, and know-how relating thereto. Whether an invention, copyright, or other intellectual property is made during the Participation Period shall be determined at the sole discretion of the University, provided that such determination is reasonable and made after considering objective information (i.e., facts, circumstances, dates and other evidence leading to the creation of the intellectual property).

Sponsor understands that other faculty and research personnel employed by University may perform research similar to that performed in the Research Program and that Sponsor will have no rights thereto unless funds of the Research Program have been used for the support thereof.

Notwithstanding the foregoing, any inventions developed by Sponsor's employees working at University's facilities shall be governed by University's intellectual property policies (available on University's website <http://www.rice.edu>)

VIII. Grant of Rights

University hereby grants to Sponsor a nonexclusive, royalty-free license to use any invention or software, copyrightable material or other intellectual property, made during the Participation Period under the Research Program under the attached license in Exhibit B. Such license shall extend to Affiliates of a Sponsor.

It is not the intent of the University to file patent applications on inventions that arise out of this Research Program. However, University reserves the right to file patents on its inventions. If University files a patent on an invention, University will first make any such patents available to the current members on a nonexclusive, royalty-free basis under University's standard terms and conditions.

The licenses granted above to Sponsor and Sponsors' Affiliates applies only to any invention or software, copyrightable material or other intellectual property, made under the Research Program during and prior to the particular Participation Period engaged in by Sponsor. However, the license does not apply to such information and rights generated in subsequent years of the Research Program which are not within Sponsor's Participation Period and have not been paid for by Sponsor.

Notwithstanding any other rights granted under other provisions hereof, University shall retain the right to use any inventions for which a license is granted hereunder for research, educational, or other University purposes.

Nothing in this Agreement shall be construed to grant rights to any preexisting patents and technology or other proprietary rights belonging to another sponsor or to University, and the license granted hereunder is specifically made subject to such other preexisting rights.

Notwithstanding any other provisions of this Agreement, neither party shall have the right to use the name, trademark or trade name of the other, directly or indirectly, in connection with any product, promotion or publication without the prior written approval of the other party.

IX. Disclaimer of Warranties; Liability Limitation; Indemnification

- a. **Disclaimer of Warranties.** Notwithstanding anything in this Agreement to the contrary, University makes no representations or warranties of any kind, express or implied, concerning the results of the Research Program or the intellectual property resulting from the Research Program, including, but not limited to, representations and warranties as to non infringement, merchantability and fitness for any particular purpose.
- b. **Liability Limitation.** Notwithstanding anything in this Agreement to the contrary, University shall not be liable to Sponsor or any third party for any indirect, incidental, consequential, special or other economic damages, such as loss of anticipated business or profits in connection with this Agreement, the Research Program or the intellectual property resulting from the Research Program, including, but not limited to, any use or commercialization thereof.
- c. **Indemnification.** NOTWITHSTANDING ANYTHING IN THIS AGREEMENT TO THE CONTRARY, SPONSOR SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND UNIVERSITY (INCLUDING, BUT NOT LIMITED TO, ITS TRUSTEES, OFFICERS, EMPLOYEES, FACULTY, STUDENTS, AGENTS AND REPRESENTATIVES) FOR, FROM AND AGAINST ANY AND ALL DEMANDS, CLAIMS, CAUSES OF ACTION, DAMAGES, LOSSES, LIABILITIES, COSTS AND EXPENSES (INCLUDING, BUT NOT LIMITED TO, ATTORNEYS' FEES AND COURT COSTS), RELATED TO ANY PROPERTY DAMAGE OR LOSS, BODILY INJURY OR DEATH, DIRECTLY OR INDIRECTLY ARISING AS A RESULT OF OR IN CONNECTION WITH SPONSOR'S, INCLUDING ITS EMPLOYEES, AGENTS OR AFFILIATES: (I) BREACH OF THIS AGREEMENT, (II) INTENTIONAL OR NEGLIGENT ACTS OR OMISSIONS, OR (III) USE OR COMMERCIALIZATION OF THE RESULTS OF THE RESEARCH PROGRAM OR ANY INTELLECTUAL PROPERTY RESULTING FROM THE RESEARCH PROGRAM, WHETHER ARISING AT LAW OR IN EQUITY, AND WHETHER UNDER CONTRACT, TORT OR STRICT LIABILITY PRINCIPLES. SPONSOR'S DEFENSE OBLIGATIONS HEREUNDER SHALL BE WITH ATTORNEYS APPROVED BY UNIVERSITY, WHICH APPROVAL SHALL NOT BE UNREASONABLY WITHHELD.

X. Notices

All notices and communications regarding administrative matters, all technical communications and correspondence shall be mailed or delivered to the individuals identified in Exhibit A.

XI. Miscellaneous

- a. **Compliance with the Law.** Sponsor shall be responsible for complying with any applicable U.S. Government laws, including U.S. export control laws. All rights granted to Sponsor in connection with this Agreement, the Research Program and the intellectual property resulting from the Research Program are subject to compliance with U.S. laws and regulations controlling the export of technical

data, computer software, laboratory prototypes and other commodities. Sponsor shall not, directly or indirectly, export any such controlled commodities in connection with this Agreement, the Research Program or the intellectual property resulting from the Research Program, unless the required authorization and/or license is obtained from the proper governmental authorities prior to export. By granting Sponsor rights in this Agreement, the Research Program and the intellectual property resulting from the Research Program, University does not represent that an export authorization and/or license will not be necessary or, if necessary, that such authorization and/or license will be granted.

- b. Power and Authority; Due Authorization. No Conflict; Enforceability; Binding Effect. Each party represents and warrants to the other party that (i) such party has the power and authority to execute, deliver and perform its obligations under this Agreement, (ii) the execution, delivery and performance of this Agreement have been duly authorized by such party and does not and shall not conflict with any agreement or instrument to which it is bound, (iii) this Agreement constitutes the legal, valid and binding obligation of such party, enforceable against it in accordance with its terms, and (iv) this Agreement, and the interests, rights, duties and obligations hereunder, shall be binding upon, and inure to the benefit of, the parties and their respective successors and permitted assigns.
- c. Entire Agreement; Further Assurances. This Agreement, including any attachments hereto, constitutes the entire agreement between the parties, and supersedes any prior or contemporaneous negotiations, understandings and agreements, with respect to the subject matter hereof. Each party shall execute and deliver such further documents and take such further actions as may be required or reasonably requested by the other party to effectuate the purposes of this Agreement.
- d. No Assignment; No Amendment; No Waiver. This Agreement (i) may not be assigned or transferred, in whole or in part, by operation of law or otherwise, by either party without the prior written consent of the other party, which consent shall not be unreasonably withheld or delayed, and (ii) may not be amended or modified, by course of conduct or otherwise, except in a writing duly executed by each of the parties. Any waiver of any provision of this Agreement shall be in writing duly executed by the waiving party. The failure or delay by either party to seek redress for any breach or default under this Agreement, or to insist upon the strict performance of any provision of this Agreement, shall not constitute a waiver thereof or of any other provision of this Agreement, and such party shall have all remedies provided herein and at law and in equity with respect to such act and any subsequent act constituting the same.
- e. Force Majeure; Remedies Cumulative. In the event either party's performance under this Agreement is in any way prevented or delayed as a result of causes or conditions (other than inability to pay) beyond such party's reasonable control, such party shall be excused without liability with respect to such performance or nonperformance for the duration of such cause or condition. The rights and remedies provided in this Agreement are cumulative in nature and shall be in addition to any such other rights and remedies available at law and in equity.
- f. Resolution of Disputes. In the event of any dispute or disagreement between the parties either in interpreting any provision of this Agreement or about the performance of either party and upon the written request of either party, each of the parties will appoint a designated representative to attempt to resolve such dispute or disagreement. The designated representatives will discuss the problem and negotiate in good faith in an effort to resolve the dispute without any formal proceedings. The specific format of such discussion shall be left to the discretion of the designated representatives. No litigation for the resolution of such dispute may be commenced until the designated representatives have met and either party has concluded in good faith that amicable resolution through continued negotiation does not appear likely (unless either party fails or refuses to appoint a designated

representative and schedule a meeting of such representatives within thirty (30) days after a request to do so by the other party).

- g. Governing Law; Jurisdiction and Venue; Attorneys' Fees. This Agreement shall be governed by, and construed and enforced in accordance with, the laws of the United States and the laws of the State of Texas (without regard to the conflicts or choice of law principles thereof). Sponsor and the University irrevocably consent to the jurisdiction of the State of Texas, and agree that any court of competent jurisdiction sitting in the Harris County, Texas, shall be an appropriate and convenient place of venue to resolve any dispute with respect to this Agreement. In the event either party commences any proceeding against the other party with respect to this Agreement, the prevailing party (as determined by the authority before whom such proceeding is commenced) shall be entitled to recover reasonable attorneys' fees and costs as may be incurred in connection therewith in addition to any such other relief as may be granted.
- h. Severability. In the event any provision of this Agreement is determined to be invalid or unenforceable, it is the desire and intention of the parties that such invalidity or unenforceability not invalidate or render unenforceable the remainder of the Agreement and that such provision be reformed and construed in such a manner that it will, to the maximum extent practical, be deemed valid and enforceable, and the rights and obligations of the parties shall be construed and enforced accordingly.
- i. Construction of Agreement. The parties hereby acknowledge that the provisions of this Agreement shall not be construed more favorably toward one party than the other party as a result of one party being the primary drafter of the Agreement. This section and other headings in this Agreement are for convenience of reference only and shall not affect, expressly or by implication, the meaning or interpretation of any of the provisions hereof.
- j. Third Party Beneficiaries. Nothing in this Agreement, express or implied, is intended to confer, any benefits, rights or remedies on any person, other than the parties hereto and their successors and permitted assigns.
- k. Counterparts. This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed and delivered by their duly authorized representatives.

SPONSOR

WILLIAM MARSH RICE UNIVERSITY

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

Exhibit A
Industry Membership Agreement

University Contacts

Financial Contact

Name: Fran Moshiri

Address: Dept. of Computational & Applied
Mathematics, MS-134
Rice University
P.O. Box 1892
Houston, TX 77251-1892

Telephone: 713-348-5627

Fax: 713-348-5318

Email: fran@rice.edu

Sponsor Contacts

Administrative Contact

Name:

Address:

Telephone:

Fax:

Email:

Program Director

Name: Dr. William Symes

Address: Dept. of Computational & Applied
Mathematics, MS-134
Rice University
P.O. Box 1892
Houston, TX 77251-1892

Telephone: 713-348-5997

Fax: 713-348-5318

Email: symes@rice.edu

Technical Contact

Name:

Address:

Telephone:

Fax:

Email:

Authorized Official

Name: Heidi Thornton, Assistant Director

Address: Office of Sponsored Research, MS-16
Rice University
P.O. Box 1892
Houston, TX 77251-1892

Telephone: 713-348-6204

Fax: 713-348-5425

Email: heidi@rice.edu

Authorized Official

Name:

Address:

Telephone:

Fax:

Email:

Exhibit B

WILLIAM MARSH RICE UNIVERSITY: (BSD Style) SOFTWARE DISTRIBUTION LICENSE

[INSERT NAME OF SOFTWARE] (the “Software”)

Copyright © 20____, Rice University. All rights reserved.

The Software is available for download and use subject to the terms and conditions of this License. Access or use of the Software constitutes acceptance and Agreement to the terms and conditions of this License.

Redistribution and use of the Software in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the capitalized paragraph below.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the capitalized paragraph below in the documentation and/or other materials provided with the distribution.
3. The names of Rice University or its faculty, staff or students may not be used to endorse or promote products derived from the Software without specific prior written permission.

THE SOFTWARE IS PROVIDED “AS IS” AND WITHOUT ANY EXPRESS, IMPLIED OR STATUTORY WARRANTIES, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF ACCURACY, COMPLETENESS, NONINFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. ACCESS OR USE OF THE SOFTWARE IS ENTIRELY AT THE USER’S RISK. IN NO EVENT SHALL RICE UNIVERSITY OR ITS FACULTY, STAFF OR STUDENTS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. THE SOFTWARE USER SHALL INDEMNIFY, DEFEND AND HOLD HARMLESS RICE UNIVERSITY AND ITS FACULTY, STAFF AND STUDENTS FROM ANY AND ALL CLAIMS, ACTIONS, DAMAGES, LOSSES, LIABILITIES, COSTS AND EXPENSES, INCLUDING ATTORNEYS’ FEES AND COURT COSTS, DIRECTLY OR INDIRECTLY ARISING OUT OF OR IN CONNECTION WITH ACCESS OR USE OF THE SOFTWARE.