STATEMENT OF CONSIDERATIONS

PETITION FOR ADVANCE WAIVER OF PATENT RIGHTS BY SCHLUMBERGER TECHNOLOGY CORPORATION ("SCHLUMBERGER") UNDER GRANT NO. DE-FG36-08GO18184 BETWEEN SCHLUMBERGER AND DOE; W(A)-09-010; CH-1474

The Petitioner, SCHLUMBERGER, has requested a waiver of domestic and foreign patent rights for all subject inventions that may be conceived or first actually reduced to practice by SCHLUMBERGER arising from its participation under the above referenced cooperative agreement and subcontracts entered thereunder. The grant under which a waiver is requested is entitled "High Temperature ESP Monitoring."

The objective of the project is development of a commercially viable hightemperature down-hole monitoring system for Enhanced Geothermal Applications. SCHLUMBERGER has proposed to develop a permanent, high temperature monitoring application that can be utilized in oil and gas wells, as well as for geothermal energy applications. This work is funded under DOE's Office of Energy Efficiency and Renewable Energy's Geothermal Technologies Program.

The total cost of the project is approximately \$1.667 million with the Petitioner providing \$413,000, or about 25% cost sharing. This waiver is contingent upon the Petitioner maintaining, in aggregate, the above cost sharing percentages over the course of the cooperative agreement.

As noted in its waiver petition, Petitioner is a pioneer and leader in the wireline logging industry and is among the world leaders of permanent monitoring systems in oil and gas wells. SCHLUMBERGER has more than 80 years of experience in wireline logging and has a long-standing commitment to research and development of new technologies related to the industry. In addition, SCHLUMBERGER has already invested \$2.3 million in test facilities designed for testing permanent monitoring applications and \$6.9 million in the development of permanent monitoring applications that will operate in high temperature applications. This investment is in addition to money previously spent on permanent monitoring systems for use in less demanding environments.

Considering Petitioner's technical expertise and significant investment in this technology, including sizable cost sharing in this cooperative agreement, it is reasonable to conclude that Petitioner will continue to develop and ultimately commercialize the technology and products which may arise from this cooperative agreement.

Petitioner has agreed that this waiver shall be subject to the march-in and preference for U.S. industry provisions, as well as the U.S. Government license, comparable to those set out in 35 U.S.C. 202-204. Further, Petitioner has agreed to the attached modified U.S. Competitiveness provision paragraph (t). In brief, Petitioner has agreed that a substantial portion of each downhole monitoring system embodying a waived invention or produced through the use of a waived invention will be

manufactured in the United Sates, as described in attached Exhibit A, unless the Petitioner can show to the satisfaction of the DOE that it is not commercially feasible to do so.

Referring to item 10 of the waiver petition, granting this waiver is not anticipated to have any adverse impact on competition because the market for permanent monitoring systems already exists and it is an expanding technology that already includes a number of competing technologies.

Considering the foregoing, it is believed that granting this waiver will provide Petitioner with the necessary incentive to invest its resources in the commercialization of the results of the cooperative agreement in a fashion which will make the above technology available to the public in the shortest practicable time. Therefore, upon evaluation of the waiver petition and in view of the objectives and considerations set forth in 10 CFR 784, all of which have been considered, it is recommended that the requested waiver be granted.

<u>/Brian J. Lally/</u> Brian J. Lally Assistant Chief Counsel Intellectual Property Law Division DOE Chicago Office

Date: May 6, 2009

Based upon the foregoing Statement of Considerations and representations in the attached waiver petition, it is determined that the interests of the United States and the general public will best be served by a waiver of patent rights of the scope described above, and therefore the waiver is granted. This waiver shall not apply to any modification or extension of the cooperative agreement, where through such modification or extension, the purpose, scope or cost of the cooperative agreement has been substantially altered.

CONCURRENCE:

Edward James Wall Program Manager Office of Geothermal Technology Program EE-2C

Date: 6/5/09

APPROVAL:

Paul A. Gottlie Assistant General Counsel for Technology Transfer and Intellectual Property

Date: _6/08

WAIVER ACTION - ABSTRACT W(A)-09-010

REQUESTOR SCHLUMBERGER TECHNOLOGY CORPORATION

CONTRACT SCOPE

The objective of the project is development of permanent monitoring systems for high temperature environments in oil and gas wells, in addition to geothermal applications.

RATIONALE FOR DECISION > 20% Cost Sharing

(t) U. S. Competitiveness

The Contractor agrees that any products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States unless the Contractor can show to the satisfaction of the DOE that it is not commercially feasible to do so. In the event the DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, e.g., recoupment of the Government's investment, etc. The Contractor agrees that it will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements. Should the Contractor or other such entity receiving rights in the invention undergo a change in ownership amounting to a controlling interest, then the waiver, assignment, license, or other transfer of rights in the waived invention is suspended until approved in writing by the DOE. Contractor's agreement as set forth herein to manufacture in the U.S. will be met if a substantial portion of each downhole monitoring system embodying any waived invention or produced through the use of any waived invention is manufactured in the United States, as set forth in Exhibit A -Description of Manufacturing for GO18184 "High Temperature ESP Monitoring."