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*****FOR IMMEDIATE RELEASE*****

**NEW, REAL-TIME FIBER-OPTIC DOWNHOLE INSTRUMENTATION SYSTEMS
DESIGNED FOR PERMANENT INSTALLATION**

**Sabeus Sensor Systems Introduces Ultra-robust, Real-time Pressure- Temperature-
Vibration and Real-time Distributed Temperature Sensing Systems**

SALT LAKE CITY, UT - OCTOBER 7, 2002 - Sabeus Sensor Systems, the newly-announced division of Sabeus Photonics, Inc, today launched the LightSense 3C™ pressure-temperature-vibration sensing system, and LightSense 400™ real-time distributed temperature sensing system, each intended for permanent downhole installation in wells to 12 km. Both systems utilize a new type of ultra-reliable fiber-optic "Fiber Bragg Grating" sensor designed by Sabeus to provide operational longevity in excess of 10 years in the most extreme downhole environments. The turnkey systems come complete with the sensor/telemetry cables and the topside interrogation electronics.

The announcement was made at the International Exposition and 72nd Annual Meeting of the Society of Exploration Geophysicists (SEG) that began here yesterday. Field trials of the technology have been performed at Vaquero Energy's Brite 68X-16 well in Arvin, CA, and other locations.

"This is a significant announcement for the oil industry," commented Lodwick M. Cook, Pacific Capital Group, Beverly Hills, and former chairman of Atlantic Richfield Company (ARCO), now part of BP Amoco. "Ultra-reliable, real-time or near-real-time, continuous monitoring of the downhole environment, regardless of how extreme, offers producers the best opportunity of managing and exploiting the full potential of their reservoirs. Sabeus has applied its unique and proprietary fiber-optic expertise in producing the first production systems that promise to attain this difficult goal."

Fiber-optic downhole sensing systems, which are based upon specially-prepared fiber-optic cables that act both as a sensor array and the telemetry data path to the surface, have a tremendous advantage over electronics-based systems. There are no downhole electronics modules to fail, and deployment of the single, stainless-steel jacketed optical fiber is relatively straightforward. Additionally, if the fiber/sensor is robust enough, it can be permanently installed in shallow or deep wells regardless of the downhole environments.

Unfortunately, some early attempts by other companies at fiber-based sensors have proven disappointing in seismic applications, with systems failing in the field. The weak link has been, amazingly, the fiber itself. While virgin optical fiber is extremely durable, and with the right coating quite immune to environmental effects to 20,000 psi and 250C, fiber transformed into classical Fiber Bragg Gratings-based sensors is quite fragile and comparatively unreliable.

The standard method of creating these sensors is to inscribe or "write" microscopic patterns called Bragg Gratings into the core of a fiber, typically with a laser. To do so without melting the polymer coating of the fiber, that coating must physically be stripped off, and then later re-added.

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Studies have shown that fiber so treated loses over 75% of its intrinsic strength, and that the grating sites themselves become points of failure.

Sabeus Cold Writing Solution

Sabeus has invented, perfected and patented a technique for creating arbitrarily long Fiber Bragg Grating arrays in a continuous, unbroken optical fiber, without the need to strip and recoat the fiber. The technique, called Cold Writing™, writes the grating patterns directly through the protective coating of a continuous fiber, and the resulting sensor is identical in strength and reliability to virgin fiber.

Sabeus recognized that sensors produced with this technique would represent a breakthrough in oilfield downhole sensing technology, as well as in sensing applications in other fields such as composite structures, or military surveillance. They brought together a team of experienced oil & gas, sensor, and photonics technologists to realize this vision. The products being announced today are the first results of that collaboration.

The LightSense 3C Real-time Production Downhole Pressure, Temperature and Vibration Sensing System

The Sabeus Sensor Systems' LightSense 3C Real-time Pressure, Temperature and Vibration Sensing System is a production turnkey, fiber-optic sensing system intended for permanent installation and continuous operation within well bores. The system, which can be equipped with one, two or three separate fiber optic sensors, can be configured in various combinations of temperature, pressure and vibration.

The system develops pressure readings, accurate to 0.1% of full scale, once per second (1 Hz). Vibration may be monitored up to 4,000 Hz. The stainless-steel jacketed sensor cable, available in lengths up to 12 km, can withstand operating pressures up to 10,000 psi, and temperatures from -25C to 200C. Design lifetime is 10 years.

The LightSense 3C includes the topside interrogator electronics, contained in a single 3U rack-mountable enclosure. Communication is via wired or wireless Ethernet, and the industry-standard SCADA protocol is supported.

The LightSense 400 Real-time Production Downhole Distributed Temperature System

The Sabeus Sensor Systems' LightSense 400 Distributed Temperature Sensing System is a production turnkey, fiber-optic distributed temperature sensing system intended for permanent installation within well bores. The self-calibrating, 400-channel (100 channels per fiber), real-time system provides temperature readings at a 1 Hz update rate, giving an aggregate of 400 temperature readings per second. In addition, operators may replace any of the four 100-channel temperature-sensing fibers with a pressure sensor fiber, to create a hybrid temperature-pressure system.

Temperature resolution is 0.25C with absolute accuracy at 0.5C. The stainless-steel jacketed sensor cables, available in lengths up to 12 km, are rated to 20,000 psi, and temperatures from -25C to 250C. Design lifetime is 10 years.

The LightSense 400 includes the topside interrogator electronics, contained in a single 3U rack-mountable enclosure, with data storage available for several months of standalone operation.

Communication is via wired or wireless Ethernet, and the industry-standard SCADA protocol is supported.

Additional product data is available at <http://www.sabeus.com>.

About Sabeus Sensor Systems

Sabeus Sensor Systems, a division of Sabeus Photonics, Inc, is the inventor of a breakthrough family of seismic sensor systems for oil and gas exploration and production (E&P) based upon the company's unique and proprietary high concept optical fiber technology.

Sabeus has overcome the historical problems with instrumenting the borehole of oil and gas wells by developing a family of reliable, accurate, real-time fiber-optic sensor systems that are capable of withstanding, over long service lives, both repeated rough handling and extremes of pressure and temperature.

To date, Sabeus Sensor Systems has announced a distributed temperature sensing system, with up to 400 channels, and a 4000 Hz pressure-temperature-vibration sensor system. Both systems are complete, turn-key products that include a robust, stainless-steel-jacketed fiber sensor/telemetry cable, and topside interrogation electronics.

About Sabeus Photonics, Inc.

Sabeus Photonics is the leader in the design and manufacture of high-concept optical systems and devices for leading-edge communications, oil & gas, defense/homeland security, and structural sensor applications. The company was founded in 1998 by a small team of internationally-recognized U.S. and European scientists, engineers and manufacturing technologists who co-developed the company's breakthrough communications products as well as its sophisticated manufacturing software. The company's components have been adopted by over 30 leading companies.

In October 2002, Sabeus announced the formation of Sabeus Sensor Systems, a new division created to bring the company's unique fiber optic expertise to remote sensing applications, particularly for oil and gas exploration and completion.

Sabeus Photonics, Inc. has its main office and 50,000 square foot ISO 9001-certified manufacturing facility in Chatsworth, CA. Investors include Agere Systems, Inc., TL Ventures, Redpoint Ventures, Digital Coast Ventures, Credit Suisse First Boston, and Lexington Ventures. Total equity investment to date is \$26 million.

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Additional background information is available at www.roeder-johnson.com.