US Synthetic Signs Exclusive License Agreement with Los Alamos National Laboratory: Veteran Polycrystalline Diamond Company Adds Nanostructured Thermally Stable Diamond Technology to Innovative Line of Products

US Synthetic, an operating company of the Dover Corporation (NYSE: DOV) and the leading provider of polycrystalline diamond cutters (PDCs) for oil and gas exploration, and Los Alamos National Laboratory (LANL) in Los Alamos, N.M., a multidisciplinary research institution operated by Los Alamos National Security LLC for the U.S. Department of Energy, today announced an exclusive license agreement that will grant US Synthetic rights to nanostructured thermally stable diamond silicon carbide, originally developed at LANL.

OREM, Utah (PRWEB) May 6, 2008 -- Through this agreement, US Synthetic can utilize and develop thermally stable diamond silicon carbide across a broad range of applications, including industrial bearings, wire drawing dies, mining applications, oil and gas wear parts, heat sink devices used in silicon-based electronic devices, and other industry applications. Through this exclusive agreement, US Synthetic customers will now have access to innovative technology that is thermally stable, tough, and extremely wear resistant under high temperatures.

"The thermal stability, high thermal conductivity, overall toughness, and extreme durability of diamond silicon carbide makes it a perfect solution for extending the functional life of any tool," said Dr. Yusheng Zhao, a staff scientist and team leader at the Los Alamos Neutron Science Center (LANSCE) at LANL. "US Synthetic has been a tremendous partner to work with in developing an ultra-strong, diamond-based material that has toughness similar to tungsten carbide."

The diamond silicon carbide material is prepared under high-pressure, high-temperature (HPHT) liquid-phase sintering using proprietary US Synthetic technology. The early stages of development are showing positive results in thermal stability and wear resistance. The nanostructured diamond silicon carbide is formed by utilizing a novel composite structure that consists of diamond particles embedded in a matrix of nanocrystalline silicon carbide. The nanostructured matrix halts the growth of cracks that lead to fracture--greatly strengthening the resulting material.

"As a company, our goal has always been to focus on researching and developing the best technology for our customers--to help them succeed in their respective industries," said Dr. Ken Bertagnolli, vice president of research and development at US Synthetic. "This license agreement, with one of the most recognized research and development laboratories in the world, represents our continued commitment to finding the best technologies and delivering the best solutions to our customers."

Parties interested in evaluating diamond silicon carbide are encouraged to contact Dr. Ken Bertagnolli at US Synthetic at 801-235-9001.

About US Synthetic

US Synthetic, an operating company within the Energy platform of Dover Corporation's (NYSE: DOV) Fluid
Management segment, is the leading provider of polycrystalline diamond cutters (PDCs) for oil and gas exploration. Thanks to constant innovation, proven quality, and superior customer service, more of the world's energy suppliers rely on US Synthetic than any other PDC manufacturer. US Synthetic has spent more than a decade perfecting its products to drill faster and last longer--especially in tough conditions that test the limits of the most durable drilling equipment. For more information visit www.ussynthetic.com.

About LANL

Los Alamos National Laboratory is a multidisciplinary research institution engaged in strategic science on behalf of national security. The Laboratory is operated by a team composed of Bechtel National, the University of California, The Babcock & Wilcox Company, BWX Technologies, and Washington Group International for the Department of Energy's National Nuclear Security Administration. Los Alamos enhances national security by ensuring the safety and reliability of the U.S. nuclear stockpile, developing technologies to reduce threats from weapons of mass destruction, and solving problems related to energy, environment, infrastructure, health and global security concerns.
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