

Chris Carpenter, *JPT* Technology Editor

Risk-Assessment Module

Wellbarrrier, a Schlumberger technology, released a new module in the Wellbarrrier illustration tool that enables engineers to perform an objective risk assessment and ranking of their operating wells (Fig. 1). The module uses the well-barrier envelope definition as a basis for evaluation and is based on a standardized 5×5 risk-tolerance matrix with the primary objective of containment. When focusing on containment, other risks are also addressed. By incorporating the well-barrier illustrations, barrier element listings, and the two-barrier methodology, the module provides engineers an objective approach to assessing risk. Additionally, it uses failure mode, effects, and criticality analysis (FMECA) to assess the risk associated with pressure containment and the possible consequences. Risk assessment is, therefore, no longer driven by subjective assessment, but by a robust model. With this software, risk rankings for all well types can be performed in-house, eliminating the need to outsource. Engineers gain a clear picture of their entire well portfolio and can pri-

oritize mitigating actions required for their wells.

► For more information, visit www.wellbarrrier.com.

Fracturing Pump

Weir Oil & Gas introduced the SPM EXL Frac Pump. With the highest rod load rating in its class at 238,000 lbs, the 2,500-hp pump is designed to withstand the harshest fracturing conditions and ease maintenance for field teams. The pump is engineered to address the challenges posed by the need for longer pumping hours with extended maintenance cycles and irregular maintenance practices. The new pump frame is constructed with an integrated skid designed to reduce vibrations across the frame and increase stiffness, thus reducing stress on the weld. The frame also reduces dramatically the number of internal groove welds to reduce cracking. All welds are located on the outside of the frame, making them more accessible. A key focus of the pump is to reduce the amount of onsite maintenance required for operators. Weir's Everbore hardened steel packing bore

eliminates washboarding and protects against packing bore wash, so that there is no need to resleeve. It is designed to last the entire lifetime of the fluid end and is intended to eliminate maintenance in the red zone. The pump is designed as a drop-in replacement for existing QWS 2500 pumps and other 2500 pumps, eliminating the need for trailer retrofits.

► For more information, visit www.global.weir.

Miniature Optical Gauge

Well-SENSE introduced a miniature optical pressure-temperature gauge as part of its FiberLine Intervention (FLI) system. The Well-SENSE optical gauge widens the well-surveillance-application envelope for FLI, both on and offshore, and offers operators a low-cost and disposable alternative to both permanent downhole sensors and more-traditional electronic logging devices. Combined with FLI's other features and benefits, including a simple deployment mechanism and distributing sensing, the gauge can deliver savings in the region of 50–90% compared with conventional logging methods. The fiber Bragg grating-based device is a robust optical gauge with no electronics, batteries, or external connections, and no power supply is required. It is integrated into the fiber line and is suited ideally for well-surveillance activities in harsh environments. Set as standard, the new gauge has the capability to measure up to 10,000 psi and 150°C, with the option to enhance this capacity further to 20,000 psi and 300°C. The gauge can be deployed in narrow-access wells to log data during descent and capture bottomhole temperature and pressure over time. It is long-lasting and can be left in the well with the FLI system for days, or even months, and will stream real-time well data along the optical fiber back to surface.

► For more information, visit www.well-sense.co.uk.



Fig. 1—Engineers use the risk-assessment module in the Wellbarrrier illustration tool to gain a clear picture of their entire well portfolio.