

BOSS – Borehole Optical Seismic System



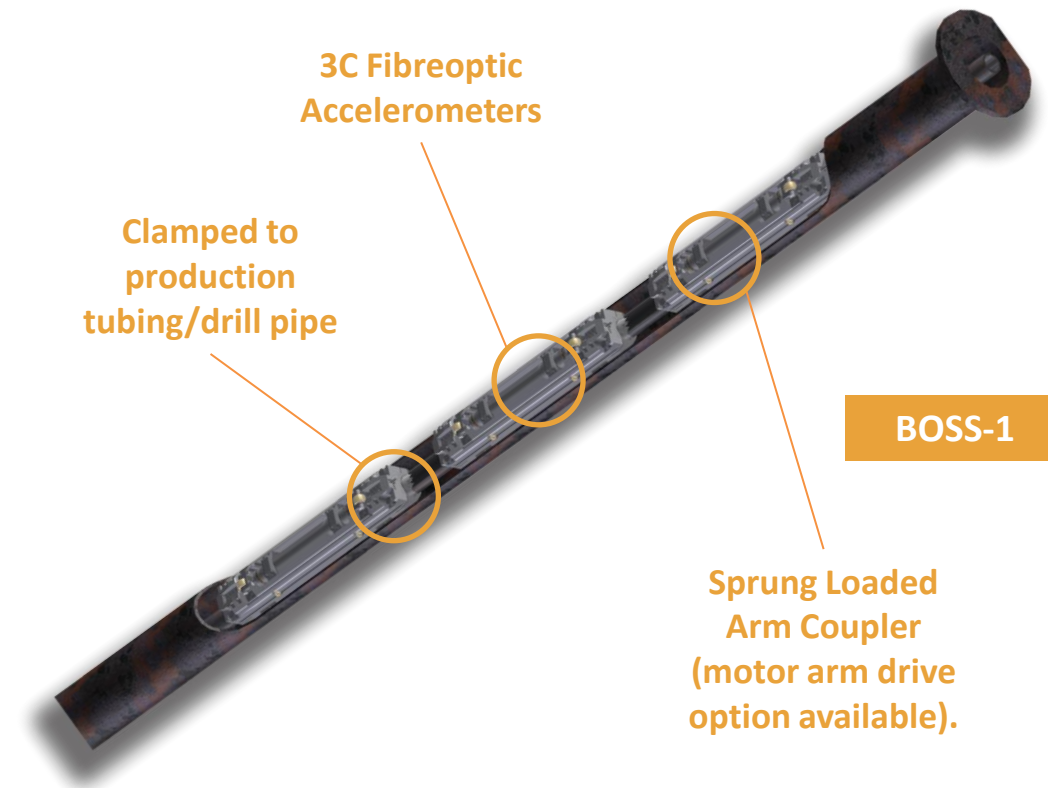
Main Features

- No Downhole Electronics.
- Passive Fibreoptic Borehole System.
- 356°F (180°C) Continuous Operation.
- 20,000 psi (1400 bar) Pressure Rated.
- Metal-Metal Seals.
- High Sensitivity and recording bandwidth ideal for microseismic.
- Low Noise.
- Fibre optic/Geochain Hybrid variants available.

Functionality

- BOSS™ is a completely new innovation for Avalon Sciences (coming soon). The system is entirely passive downhole with sophisticated electronics remaining at the surface in a controlled environment.
- The high continuous operational temperature rating (356°F (180°C)) and solid mechanical coupling system will deliver a long term deployment solution, ideal for deep-well subsalt 4D VSP and high resolution fracture monitoring surveys.
- The array utilises 3 component optical omni-directional geophones especially developed by Avalon to cope with hostile deep well conditions. These broadband sensors are low noise, extremely sensitive and will work in any orientation from vertical through to horizontal.
- The system is fully expandable from a small microseismic 16 level system up to hundreds of stations for large 3D VSPs. The fibreoptic system can also survive more permanent deployment due to metal to metal C-rings throughout, meaning it can be considered for life-of field installations.
- The stations are deployed on jointed or coiled tubing as standard with optical wireline as an option. The array can be spaced at just a few meters or at several hundred meters for total well coverage.
- The tool system is still currently under development with expected client ready systems to be available in 2015. Please email sales@avalonsciences.com for further details.

LEADERS IN BOREHOLE SEISMIC TECHNOLOGY



BOSS-1

• BOSS Specifications

• Max number of tools:	• 16 tools (up-scalable to 100)
• Dynamic Range:	• >100db
• Noise Floor:	• <50 ng/vHz
• Distortion:	• <0.01%
• Bandwidth:	• 1-1,600 Hz
• Sensors:	• Omni Directional Fibreoptic Accelerometer
• Max Temp:	• 356°F (180°C) *Digital Only
• Max Pressure:	• 20,000 psi (1400 bar)
• Projected lifespan:	• 10 years at 302°F (150°C)
• Control Panels:	• GSP & Interrogator

