

Quartet

Highest quality measurements and samples delivered with maximum safety and efficiency

APPLICATIONS

- Reservoir testing
- Downhole testing
- Deviated and deepwater wells

BENEFITS

- Rig-time savings
- More efficient handling
- Cost-effective operations
- Safer reservoir testing

FEATURES

- Lower operating pressure
- Premium connections
- No collars and slip joints
- Fewer seals and connections
- Shorter string design
- Less nitrogen

The Quartet* downhole reservoir testing system is an advanced testing solution that enables isolating, controlling, measuring and sampling a reservoir in a single run. The Quartet system delivers high-resolution pressure measurements and representative fluid samples with the best possible safety and efficiency for altogether better reservoir testing.

The Quartet system offers multiple advantages over conventional string configurations, including lower operating pressure, premium connections, no drill collars or slip joints, and fewer seals and connections. Quartet system technologies are designed specifically for testing and are used together to provide accurate, deep-reading, high-resolution pressure measurements and contaminant-free, representative reservoir samples.

Quartet system technologies

The Quartet system is the combination of four leading technologies:

- IRDV* intelligent remote dual valve
- SCAR* inline independent reservoir fluid sampling
- Signature* quartz gauge
- CERTIS* high-integrity reservoir test isolation system



Typical Quartet system reservoir test string.

IRDV intelligent remote dual valve

The IRDV dual valve combines a tester valve and a circulating valve that can be cycled independently or in sequence. The IRDV dual valve is operated by low-intensity pressure pulses in the annulus, which are recognized as system commands and are implemented using the hydrostatic pressure available downhole. Both valves are operated independently without interfering with the operation of other tools in your test string. In addition, the IRDV dual valve is immune to downhole pressure and temperature fluctuations.

SCAR inline independent reservoir fluid sampling

SCAR sampling delivers representative fluid samples from deep within the reservoir, as samples are collected directly in the flow stream to eliminate contamination caused by dead volumes. Fluid samples are captured individually or sequentially, and each sampler has an independent gas charge to ensure each sample remains at or above reservoir pressure. To meet your specific test requirements, the SCAR sampling system offers a broad range of sizes, ratings, and activation options. Its shorter length allows faster handling at the well site.

Signature quartz gauge

Signature quartz gauges incorporate leading-edge technologies to consistently provide the best pressure measurements in any environment. High-resolution measurements are captured with improved accuracy for better quantification of reservoir properties to enable confident testing across the life of the field.

CERTIS high-integrity reservoir test isolation system

The CERTIS system combines many features of a conventional retrievable isolation system with those of a permanent downhole packer, including a built-in floating seal assembly that eliminates the need for drill collars and slip joints. The versatile system allows the selection of optimal perforating gun sizes to achieve a better reservoir connectivity, and its design enables setting, testing, and retrieval in a single run. Since the CERTIS system is set without string rotation or mechanical movement, operations are faster and have reduced risk, especially in subsea environments.

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