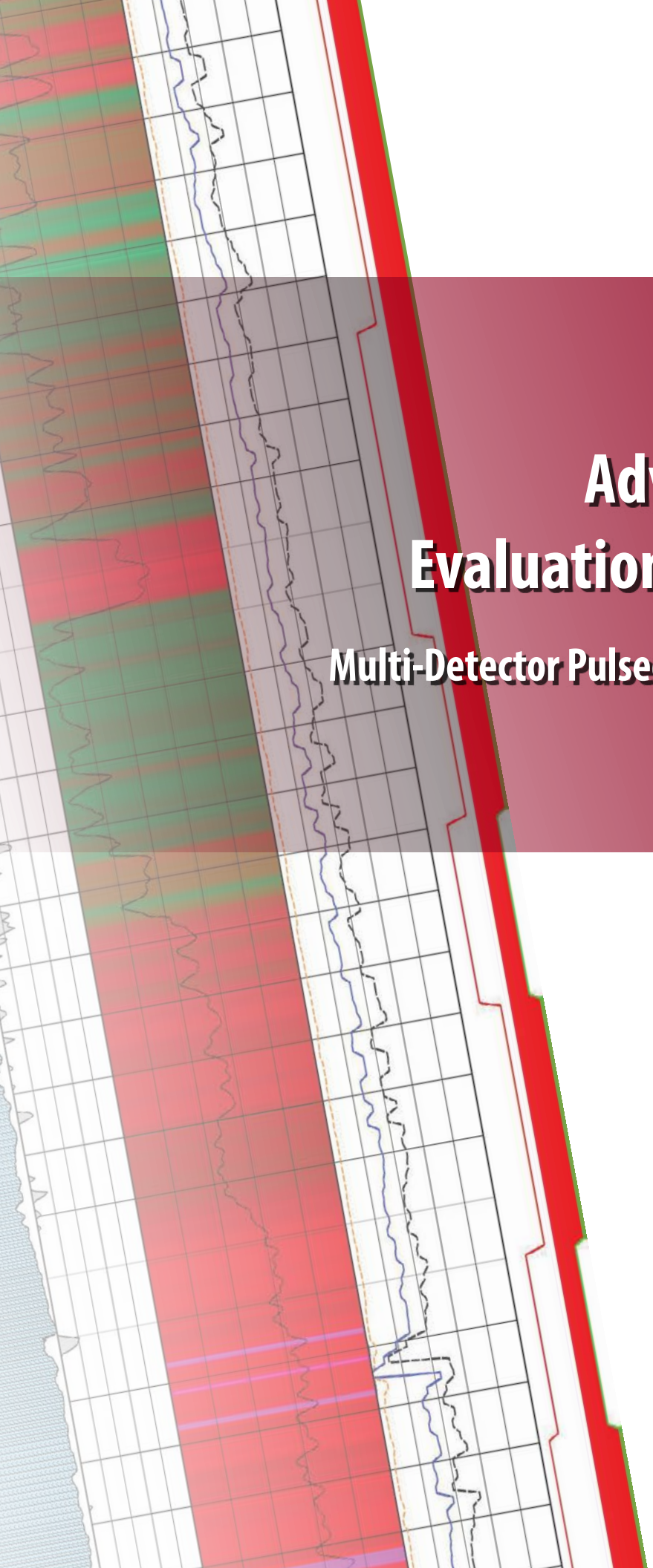


Advanced Reservoir Evaluation and Monitoring

Multi-Detector Pulsed-Neutron Logging System

HORIZONTAL
Wireline Services

Accurately Identify Smaller Volumes of Hydrocarbon Than Ever Before

Utilizing Horizontal Wireline's multi-detector pulsed-neutron Reservoir Analysis System (RAS), you now have the measurements to accurately identify smaller volumes of formation hydrocarbons than ever before. This will reduce the risk of overlooking potential pay zones and improve your ability to evaluate, monitor and manage reserve production.

Unlike conventional pulsed neutron systems on the market, our RAS uses state-of-the-art detectors that yields high resolution measurements, providing better information for evaluation on reservoir dynamics and changes over time as the wells produce. This increases the certainty in predicting when major changes in production are likely to occur.

More detectors increase the certainty in detecting water movement either inside pipe or in a cement channel. The direction of the flow can be either up or down, and both can be detected in the same trip down hole.

Evaluate producing reservoirs without removing tubing

Evaluate new well hydrocarbon content when open-hole logs are constrained

Monitor and evaluate well health for timely remedial workover decisions

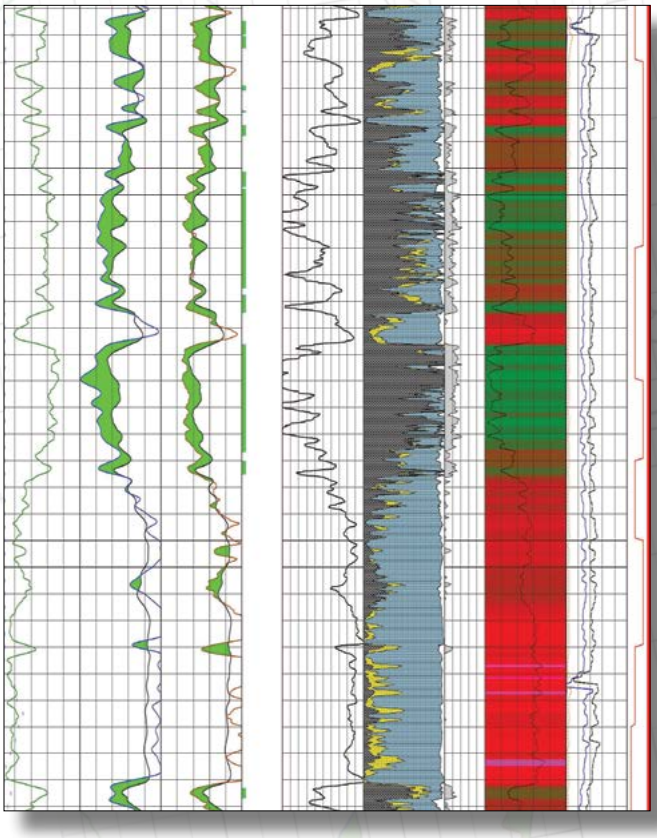
Analyze cased-hole fluid saturation in three-phase reservoirs

Locate bypassed hydrocarbons with greater confidence

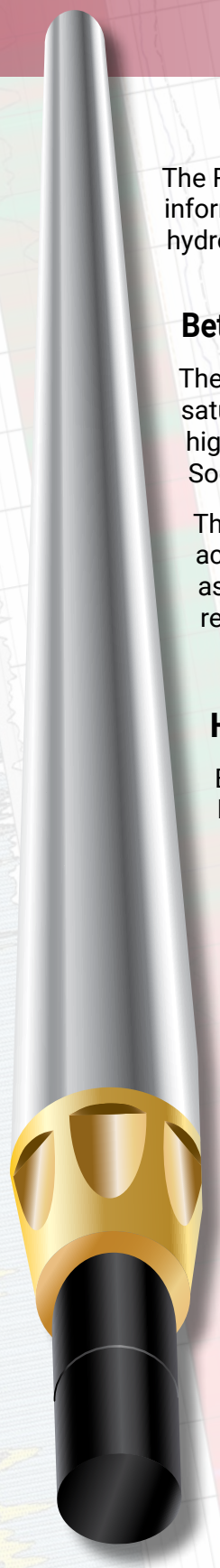
Evaluate Shale gas/ oil plays

Detect water movement either inside pipe or in a cement channel

Gain important information to help reduce production of unwanted fluids



For additional flexibility in reservoir evaluation, Horizontal Wireline can combine the Reservoir Analysis Sonde (RAS) with other production logging and evaluation tools. Run with the Spectral Gamma Ray Tool, RAS data improves Clay Volume calculations and correlations with Total Organic Content (TOC), making this tool combination ideal for shale gas plays.



The RAS technology addresses a broad range of applications and delivers valuable information to better optimize perforating and completion programs as well as optimize hydrocarbon recovery in vertical, deviated or horizontal wells.

Better resolution leads to more accurate evaluation

The Reservoir Analysis tool features three gamma detectors for measuring reservoir saturation using Sigma and Carbon-Oxygen (C/O) techniques. Near and far detectors are high-resolution Lanthanum Chloride for Sigma and C/O detection, while the long spacing Sodium Iodide detector incorporates a spacing that is sensitive to gas and porosity.

The combined RAS/SGR log provides all the necessary measurements for computing accurately the volumes of clay, rock porosity and fluid saturations; and obtain a better assessment of reservoir properties which can help optimizing completion programs that reduce CAPEX by eliminating poor frac stages.

High-quality log data, and the expertise for advanced interpretation

Because data is only as good as its interpretation, our experienced Production Petrophysists, backed by available Reservoir Geoscience support from Hunter Well Science, employ advanced interpretation techniques to map RAS measurements into such properties as hydrocarbon saturation, porosity and rock type, delivering accurate information about reservoir properties.

Specifications		
Temperature rating	320°F	160°C
Pressure rating	15,000 psi	103.4 MPa
Diameter	1 11/16 in.	43 mm
Length	140.7 in.	3573 mm
Weight	44 lb	20 kg
Measure point - Near	84 in.	2134 mm
Measure point - Far	91 in.	2311 mm
Measure point - Long	101 in.	2565 mm
Materials	Corrosion resistant throughout	

HORIZONTAL
Wireline Services

Industry leading completions execution and service quality combined with the best independent reservoir analytics to deliver our customers a better solution

To learn more or to contact your nearest Horizontal Wireline representative, visit us online at:

horizontalwireline.com

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