

FORMATION EVALUATION | PETROPHYSICS

Spectral Density Log (SDL™) tool-ultrahigh pressure

Precise, high-quality density measurements

FEATURES AND BENEFITS

- Accurate ρ_b with minimal statistical variation, and real-time quality indicators for validation of ρ_b
- Consistent high-quality measurements for valid log response, even in weighted borehole fluids
- High vertical resolution processing for precise delineation of thinly bedded formations
- Rugged design for reliable performance, even under hostile conditions
- Combines with the Dual-Spaced Neutron tool for improved service delivery and efficiency, including gas detection

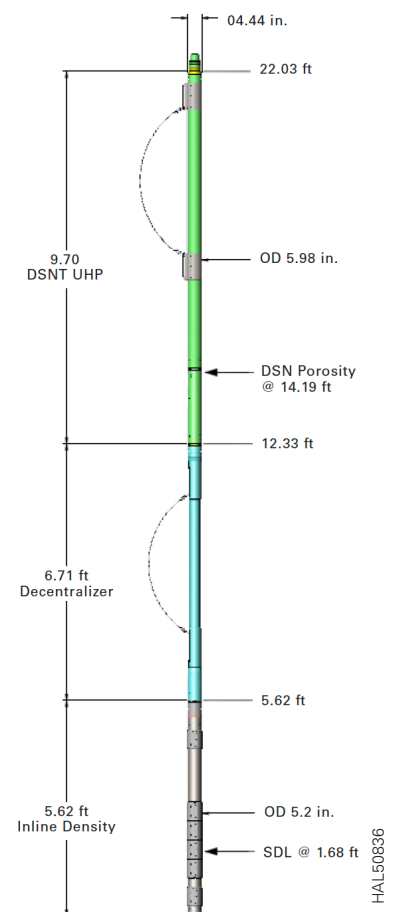
Overview

The Halliburton Spectral Density Log (SDL™) tool-Ultrahigh Pressure provides superior measurements of the bulk density (ρ_b) that is critical to accurate determination of formation porosity.

The state-of-the-art tool design enables the SDL tool to achieve high gamma-ray count rates with minimal borehole sensitivity. The Cesium-137 source, and two high-efficiency scintillation detectors are combined in a rugged construction to ensure reliable performance, even under hostile conditions. Advanced gain-stabilization helps maintain measurement integrity as temperatures vary.

Standard SDL logs are processed using 12 samples per ft, with a storage rate of four samples per ft. An advanced correction algorithm applied to the density data preserves accuracy across the full range of borehole sizes, mud types, and mud weights, with data quality curves displayed in real time on computer, and available as outputs to the log.

In addition, precise two-point shop calibrations and wellsite checks by field engineers help ensure reliably consistent performance. With a common instrumentation section, the SDL and Dual-Spaced Neutron (DSN) tools can be combined seamlessly, and yield a tool string approximately ten ft shorter than conventional densityneutron combos. As a result, rig-up operations are faster and safer, and "rathole" requirements are reduced, saving significant rig time.



HAL50836

SPECTRAL DENSITY LOG (SDL™) -ULTRAHIGH PRESSURE TOOL SPECIFICATIONS

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|---------------------|--------------------------|
| Maximum Temperature | 350°F (177°C) |
| Maximum Pressure | 35,000 psi (241.316 MPa) |
| Maximum OD | 5.12 in. (13.00 cm) |
| Minimum Hole | 6 in. (15.24 cm) |
| Maximum Hole | 24 in. (60.96 cm) |
| Length | 22.03 ft (6.72 m) |
| Weight | 877 lb (397 kg) |

For more information, contact your local Halliburton representative or visit us on the web at www.halliburton.com

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