Until now, the acquisition of formation fluid samples was only possible on wireline. The new GeoTap® IDS sensor from Sperry Drilling services enables reservoir fluid samples to be recovered with logging-while-drilling (LWD) technology for the first time. Built on the acclaimed GeoTap® LWD formation pressure tester platform, the GeoTap IDS sensor delivers timely downhole fluid capture, surface recovery, and identification of multiple samples of uncontaminated formation fluids to determine fluid properties such as pressure-volume-temperature (PVT) to better plan and design future facilities and completion production.

Eliminating flat time associated with wireline sampling, the GeoTap IDS sensor can acquire multiple fluid samples within hours, rather than days, of drilling the formation. However, saving time is only one of the benefits that the sensor delivers. With the addition of the GeoTap IDS sensor, Halliburton now provides true formation testing while drilling capabilities for optimizing wellbore placement to achieve maximum production over the life of the reservoir.

In high-cost environments such as deepwater exploration wells, there is significant value in eliminating trips for wireline sampling tools. When samples are taken while drilling, formation contamination from drilling fluids is much less, so extended pump-out times for clean samples are greatly reduced compared to wireline. Valuable data are more rapidly recovered, improving decision-making while drilling the reservoir and enabling more timely solutions.

**Benefits**
- Helps reduce risk and uncertainty in complex reservoirs
- Improves economic performance in high-cost deepwater environments
- Eliminates costly wireline trips and associated rig time
- Provides data within hours, not days, through reduced pump-out time
- Helps improve geocorrelation accuracy and geosteering capabilities

**Features**
- On-demand, real-time identification of reservoir fluid properties
- Timely downhole capture and surface recovery of multiple fluid samples

**GeoTap® IDS Sensor**
Obtain representative fluid samples on LWD for real-time reservoir characterization

An industry first, the GeoTap® IDS fluid identification and sampling sensor eliminates the need for wireline operations to obtain multiple fluid samples, completing a full package of formation testing while drilling capabilities.

- Increased success of sample integrity with quality equal to or better than wireline
- Low contamination (<5%) samples obtained within 1 to 4 hr after drilling
- Fluid ID options:
  - Fluid Density
  - Bubble Point
  - Compressibility
  - Temperature
  - Pressure
The GeoTap® IDS sensor is part of the new generation of LWD sensors from Sperry Drilling services. The new generation is built by using advanced miniaturization techniques, which dramatically reduce the number of components while significantly increasing processing power. The new generation delivers:

- Deeper-reading, higher-resolution LWD sensors
- Faster telemetry through data compression with customizable data streams
- Greater reliability through component integration, resulting in fewer electrical contact points at risk

No More Pilot Wells

In some locations in deepwater operations, it is a standard procedure to drill an initial low-angle directional pilot well to run gravity-conveyed logging tools for reservoir analysis, and then cement and abandon it before drilling the horizontal well. Pilot wells are needed to confirm the top and base of reservoir targets as well as to help ensure precise seismic depth correlation. They also enable formation pressure testing, triple-combo logging, and fluid sampling for characterization, flow evaluation, and other analyses. The use of the GeoTap IDS sensor, in combination with the LWD formation evaluation sensors, eliminates the time and expense of drilling low-angle pilot wells. Instead of constructing a special well to perform pressure testing and sampling on wireline, the GeoTap IDS sensor can be used in all sections of the new well, eliminating the risks and uncertainties associated with wireline testing, providing real-time pressure testing while drilling, and offering rapid fluid ID and sampling.

GeoTap® IDS sensor components

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