At this deepwater well beneath 1846 meters of water in offshore West Africa, Operator, OPHIR Energy, planned a coring operation to access the hydrocarbon potential of the Fortuna Complex formation. A formation characterized by inter-bedded layers of sandstone and claystone. Their objective was to core the 8 ½” hole section of the well to recover the very soft formation.

OPHIR had previously experienced poor core recovery where the formation was identified to be very loose sand with low compressive strength (< 800-1000 psi). They had recovered just 12 % of more than 45 meters of total cores cut. Obtaining good quality core in this well was critical, so Halliburton was challenged with providing the proper system and optimizing core recovery for better data acquisition.

In order to ensure better recovery percentage and core quality from this difficult formation, Halliburton recommended utilization of the Conventional Full Closure System and the PosiClose System to core 59 meters in four runs. The custom coring solution worked as planned with Halliburton cutting the number of meters in the amount of runs planned. In so doing, an average of 25m/hr was achieved with an overall recovery rate of 89%. The OPHIR representative described the results as “fantastic.”

### Challenges
- Deepwater formation extremely soft and crumbly

### Solutions
- Conventional Full Closure System and PosiClose System

### Results
- 59 meters cut over 4 runs at 25m/hr for overall recovery rate of 89%
**The PosiClose System**

Specifically designed for unconsolidated application, the PosiClose system provides unrestricted core entry, and eliminates jamming from premature catcher-core contact. Then the “clam shell” catcher system fully closes to ensure complete retention throughout retrieval.

**Coring Experts**

Halliburton is the industry leader in managing in-depth coring services that add value to your reservoir. We have over 40 years experience obtaining cores from every basin around the world and in some of the most challenging applications — from the ultra-unconsolidated to the hardest rock in harsh environment, and extreme condition applications.

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**FIRST RUN:** From a 2522m depth, an 8 ½" x 4" HDT core barrel and 8 ½" x 4" FC3743 matrix bodied core head with HDT and Vented Fiberglass Inner Tubes cuts 9 meters of core and recovers 8.32 meters for **92% recovery rate.**

**THREE 18-METER RUNS FOLLOW** from a somewhat deeper depth. An 8 ½" by 4" HDT core barrel with a Posiciose system and an 8 ½" by 4" FC3647A steel bodied core head with Vented Fiberglass Inner Tubes are successful on all three runs recovering the formation, including 100% recovery of 19.3 meters of core.

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**SUCCESS**

**59 meters** of core cut at average of **25m/hr.**

Overall recovery rate of **89%**

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"FANTASTIC"

**Operator’s response** to Halliburton’s solution and results.