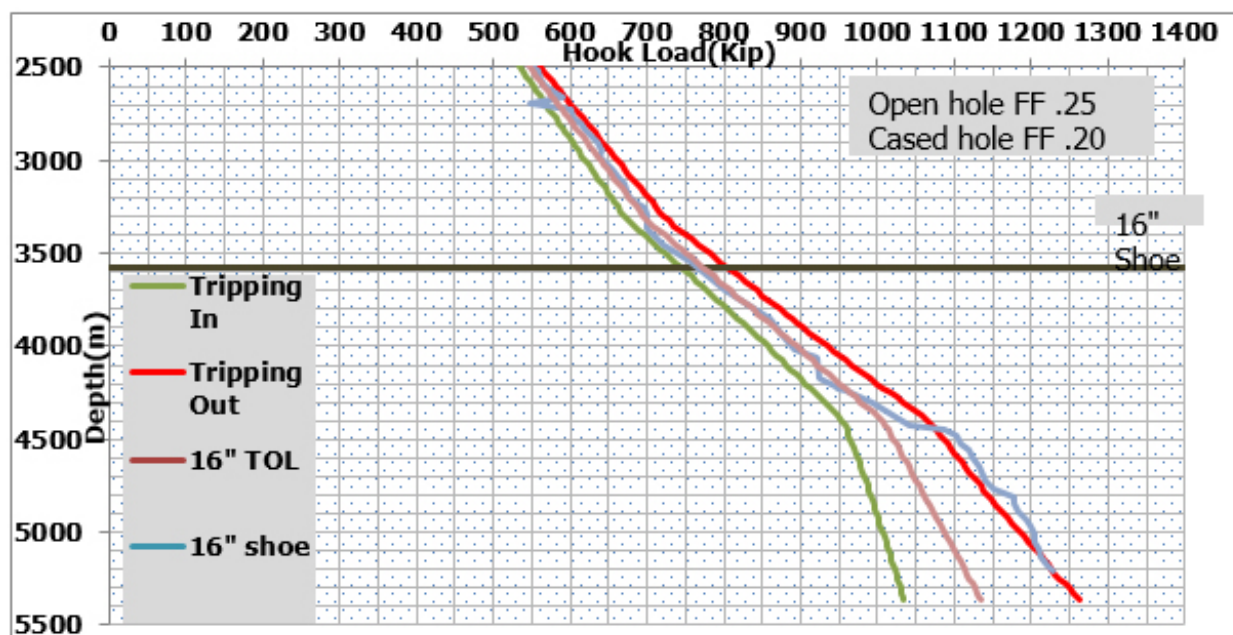


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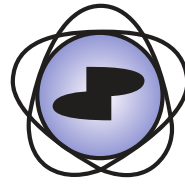
EXPAND-O-LIZER® URS (UNDERREAMED SERVICE) CENTRALIZER

TECHNOLOGY: Downhole Products Expand-O-Lizer URS is a one piece heat treated unit based on the field proven DHP Expand-O-Lizer inline centralizer sub cage design. A robust underreamed centralizer for less challenging underreamed applications where sufficient string weight is available to push the centralizer through the cased hole restriction. The Expand-O-Lizer URS is a cost effective solution in these challenging times

CHALLENGE: A major North African operator required an underreamed centralizer for their 14" x 13 3/8" Casing string, capable of passing a 16" 96# drilling liner and centralizing in a 17" underreamed hole section. The centralizer needed to compress from a start OD of 18" through 1,470m of 14.750" ID Casing and regain sufficient OD in the open hole section to effect 75% centralization.



For further information on this tool and proposed applications, please contact your local DHP representative. Specifications may be liable to change without prior notice.



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PERFORMANCE: The 13 3/8" centralized section was successfully run through the 16" liner with drag recorded closely replicating simulation predictions. Once at TD the casing was cemented and the casing hanger landed.

The customer was happy with the result and has since tasked DHP with centralizing all underreamed applications for the remaining wells in the campaign.

For further information on this tool and proposed applications, please contact your local DHP representative. Specifications may be liable to change without prior notice.