

Case Study

VICTUS™ Light Spiral for Drag Reduction in Unconventional Well

APPLICATION

RIH 5-1/2" Production String in a long horizontal well

TECHNOLOGY

VICTUS™ Light Spiral

LOCATION

UAE, Unconventional Well

CUSTOMER CHALLENGE

Deploy 5-1/2" production string in a long horizontal HPHT gas well. Overcome the challenges of helical buckling and high drag forces, all without the ability to circulate or rotate during RIH. Gain high standoff for good quality cement enabling efficient production.

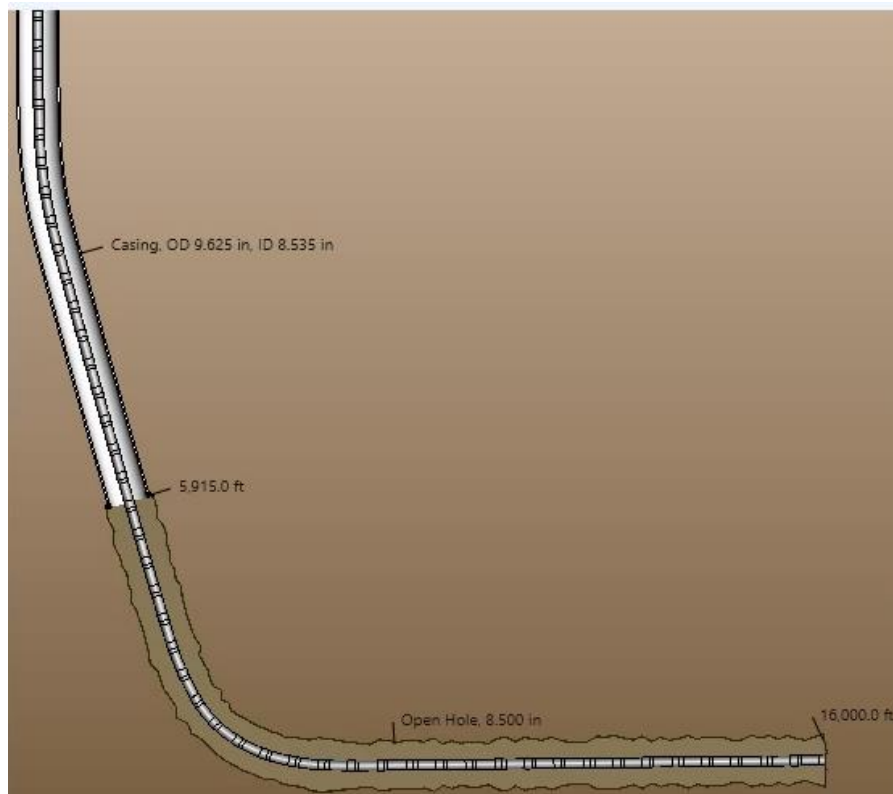
CUSTOMER VALUE

Successful deployment of the 5-1/2" production string to 16000ft (~14344ft deviated to horizontal section) with solid composite centralizers - VICTUS™ Light Spiral (1/joint) in open hole (10085ft).

VICTUS™ Light Spiral



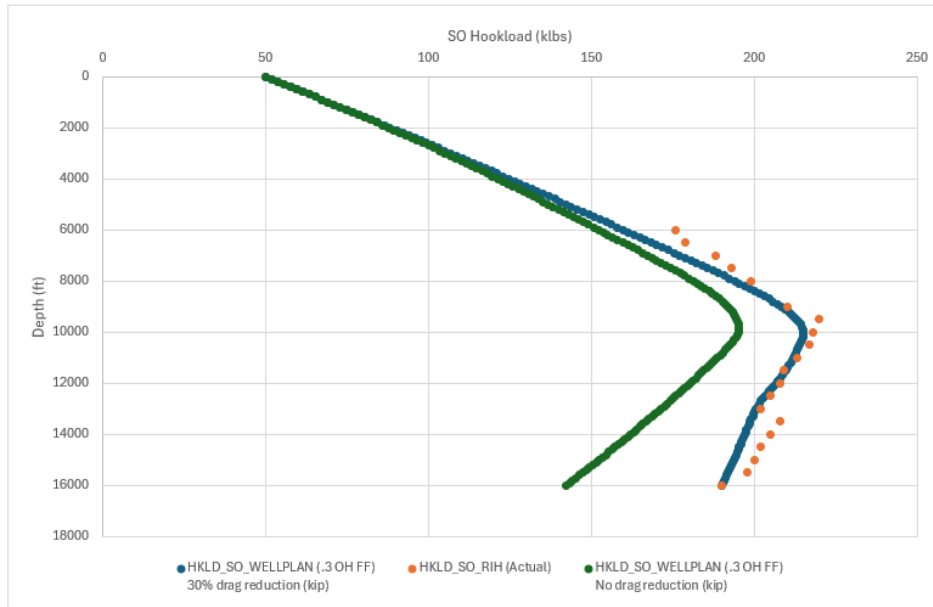
Unconventional Well



CASE STUDY OBJECTIVE

To perform a comparative analysis between utilizing Varel VICTUS Light Spiral composite centralizers versus not utilizing centralizers in the open hole while running the 5.5” production string in a highly deviated well (UC well application).

SIMULATION VS ACTUAL RIG DATA



The simulated data shows that VICTUS Light Spiral composite centralizers has similar hook load values of 190klbs at TD for both simulation (blue plot) and actual values (orange plot). It is observable that without the centralizers (green plot), the hookload plot is significantly less in value compared to the plot with centralizers (blue plot). It suggests that an overall drag reduction of 30% was achieved with the VICTUS Light Spiral in the open hole.

CONCLUSION

In conclusion, the simulation results closely aligned with the actual rig data for the RIH of 5-1/2” production string supporting the accuracy of the simulation model and validating its reliability. Furthermore, the findings confirm that the use of centralizers contributed to reducing friction and drag, as evidenced by the higher hookload values observed during the operation. These results highlight the importance of centralizers in optimizing wellbore operations and improving efficiency in RIH operation.

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Doc#	Rev #	Document Title	Description	
UAE-EN-CS-014	1	Case Study: VICTUS™ Light Spiral for Drag Reduction in Unconventional Well	To do a comparative analysis between the simulation and actual rig hookload data to evaluate the drag reduction contribution of Varel composite centralizers.	