

Dual Pool® 626 Shale Shaker Fleet Delivers Superior Performance Offshore Thailand



FIELD REPORT 176

- Data driven analysis from 194 wells drilled by 9 rigs over a 10-month period.
- Rigs with Dual Pool® 626 shakers required 34% less base oil addition and used 36% fewer screens per 1500m drilled.
- Derrick technology increased capacity while decreasing overall footprint with fewer shakers per rig.

Situation

Derrick's data-driven well comparison tool was introduced to a major operator in Thailand to compare selected Key Performance Indicators (KPIs) from the offshore drilling fleet of 9 rigs, with a focus on 6 1/8" sections drilled with synthetic based drilling fluid. Four drilling rigs each with three Derrick Dual Pool 626 shale shakers and five drilling rigs each with four NOV® VSM™ 300 shale shakers were selected for the analysis. Over a 10-month period in 2023-2024, the selected KPIs; base oil addition, mud consumption, and shaker screen consumption, sourced from the daily mud reports, were analyzed with quarterly updates of findings provided to the operator.

Findings

Analysis of the rigs operating with Derrick shakers showed Dual Pool performed better than NOV's shakers in the selected KPIs. Base oil addition was 34% or 41m³ less per section drilled. Mud consumption was 35% or 54m³ less per section drilled. The values were derived from an average of total base oil addition and mud consumption per total meters drilled for all the 6 1/8" sections over the course of 194 wells. Derrick Pyramid screens proved to be 56% more durable than NOV's screens, drilling 329 meters per screen versus NOV's 210 meters per screen.

Performance

Data provided by the customer indicated all four rigs using Derrick shakers showcased lower screen usage, requiring 36% fewer screens per 1500m drilled. The base oil addition for each rig similarly highlights Dual Pool's

impressive performance in terms of ensuring effective solids removal, reducing base oil additions needed to maintain low gravity solids (LGS) percentages.

Lower Operating Costs

In a side-by-side comparison of the selected KPIs categorized by manufacturer, Derrick's shakers show a clear performance advantage over NOV, with lower operating costs benefitting the rig operator. All of this was achieved with fewer shakers per rig.

Shaker/KPI Average	Rigs with NOV Shakers	Rigs with Derrick Shakers
# of Rigs	5	4
# of Shakers per rig	4	3
# 6 1/8" Sections	101	93
Avg. Section Length (m)	1459	1554
Avg. Drilling Days	5.7	5.35
Avg. Meter / Screen (Durability)	210	329
Avg. Screens Consumed / 1500 m drilled	7.1	4.6
Avg. Base Oil Addition (m ³ /m)	0.081	0.054
Avg. Mud Consumed (m ³ /m)	0.104	0.068
Avg. LGS%	3.97	3.58
Avg. ROP (m/hr)	25.63	28.10

