Media Release

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WOODSIDE USES LARGE-SCALE COMPUTING TO DELIVER SEISMIC RESULTS IN HOURS

Woodside, the pioneer of the Australian LNG industry, has become one of a handful of companies worldwide to simultaneously use more than 1 million virtual Central Processing Units (vCPUs) on Amazon Web Services (AWS) infrastructure.

In late November, Woodside successfully executed the million-vCPU scale computing workload across three AWS regions in the United States. The vCPUs performed full-waveform inversion on 3,200 km2 of 3D seismic data from the Greater Sunrise gas resource, located offshore Timor-Leste.

The computing power deployed was equivalent to a stack of standard laptops 4.2 km high. The extra capacity provided by the AWS infrastructure allowed analyses to run in parallel, an approach that delivered results in less than two hours, compared with the industry-standard weeks.

"Three years ago, I challenged our subsurface and digital teams to get seismic delivered in days, not weeks," said Woodside Chief Technology Officer Shaun Gregory.

"They met the 'days' challenge last year and have now surpassed it. Being able to get seismic results in hours - about 150 times faster - means that we can be decision-ready sooner. It is another example of how our technology work program, which is only a few years old, is delivering proven value to the business while making work even more meaningful and engaging for our people," he said.

AWS Vice President Engineering Bill Vass said Woodside was one of the leading innovators globally.

"Woodside is the first energy company to reach this scale," he noted.

The seismic breakthrough comes after Woodside and AWS agreed to a new partnership in 2020, whereby AWS became Woodside's strategic cloud provider.

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