NanoMalaysia Develops 10AS Nano for Drilling Fluid Application Project

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NanoMalaysia Bhd (NMB) has recently launched Synergy 10AS Nano, its patented drilling fluid loss additive.

The company said the launch followed a successful four-year test and development phase aligning with Malaysia's National Energy Policy to reduce carbon emissions via energy efficiency improvements.

As an effort to further reduce energy consumption in the country's oil and gas industry, the scale-up of the graphene-carboxymethyl sago starch (GCSS)-based fluid loss additives for drilling fluid application project was a collaboration between NMB, MY Synergy Factors (M) Sdn Bhd (MSF), and Universiti Teknologi Petronas (UTP).

The project has an estimated investment of about RM1.75 million under the National Graphene Action Plan (NGAP) 2020, which focuses on developing graphene-based technologies by collaborating with Malaysian industries and universities through NanoMalaysia's Venture Builder Model.

Synergy 10AS Nano is developed to resolve the high cost of drilling operations by controlling the fluid-loss properties of drilling fluids (DF) at high pressure and high temperature (HPHT) and to meet customer demand for HPHT DF loss additive products at a competitive price.

Synergy 10AS Nano is benchmarked on Petroliam Nasional Bhd's (Petronas) technical standards.

NMB chief executive officer Dr Rezal Khairi Ahmad said the Synergy 10AS Nano would

address the need to improve energy efficiency in the oil and gas sector.

Rezal said using GCSS as one of the main components makes it an environmentally friendly and cost-effective replacement for drilling fluid products currently available in the market, providing a circular economy twist.

"Notwithstanding the foresight on the need for this technology in the oil and gas industry a few years ago, it is also a timely and clear pioneering response to the National Energy Policy launched earlier in September this year, which prioritizes energy efficiency as the country's immediate step towards reducing carbon emissions," he said.

MSF managing director Agus Sahar said the company is confident that Synergy 10AS Nano will see quick acceptance by all the major players in the oil and gas industry, as it is a product that meets and exceeds industry standards.

"Furthermore, as our additives are produced locally, there will be a shorter lead time as conventional additives have to be imported," said Sahar.

The venture's current production capacity is up to 10 MT per month.

It is running performance tests at clients' facilities ahead of actual field trials for the industry, which will be followed by verification and improvements based on individual clients' requirements.

In the near term, the venture will focus on locally established drilling projects, a specific addressable market with an annual growth rate of five to eight per cent, and worth around RM350 million.

Expanding plans through collaboration with regional and international companies are expected to help the country achieve its goal of increasing the gross domestic product (GDP)

to RM3.4 trillion by 2030.

This is in line with the National Advanced Materials Technology Roadmap 2021-2030 and the National Energy Policy 2022-2040, as mentioned earlier.

Read the original article on New Straits Times.