

Novel Technology Developed for Crude Optimisation

Gone are the days of lengthy laboratory tests for crude oil. The R&D team of Bharat Petroleum Corporation Limited (BPCL) has developed a 'crude horoscope predictor' tool, **BPMARRK**[®] to predict crude oil properties. As the horoscope (*kundli*) is predicted using few general information about the person, this tool predicts around 500 properties of any crude oil using 4 parameters. This is a game changer as it generates the output within an hour as compared to the other conventional processes which require around 3-4 weeks of laboratory testing. This tool is built by testing more than 100 crude oils from different regions.

It has been validated in our BPCL refineries and five other refineries for real-time plant monitoring & optimization with an error of only ± 1.5 wt. %. This **Universal tool** can be used by multiple stakeholders across the value chain for fast business and operational decisions related to crude oils. It enables Oil Suppliers, International Trades and Supply Chain Optimization for advanced planning, selection of crude oil and Process Engineers for unit-level optimization of refinery operations. It also helps to update the crude oil assays of oil wells wherein the properties get changed with ageing.

This proprietary technology of BPCL has been appreciated widely and has won many laurels. BPCL is in the process of partnering with one of the leading international consultants for real time optimization. **BPMARRK**[®] is commercially available and its patents have been granted in India, USA, Europe and African Intellectual Property Organization. The device has been indigenously manufactured for commercial use.

BPMARRK[®]: Real-time Crude Assay for monitoring & optimization of crude distillation units



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