A NEW CRUDE FROM GHANA'S OCTP DEVELOPMENT
Sankofa crude oil - origins

Sankofa crude oil is being produced as part of the Sankofa Oil and Gas Project. This integrated offshore deepwater project is developing the Sankofa and Gye Nyame group of fields in the Offshore Cape Three Points (OCTP) block, located approximately 60km offshore Ghana.

The project includes volumes of about 500 million barrels of oil in place, and around 41 billion cubic metres of non-associated gas that will be used entirely by the domestic market for the production of electricity.

A major oil and gas development for Ghana
When the Sankofa field commences gas production in the second half of 2018, Ghana will be able to reduce its oil imports by up to 12 million barrels/year and to cut carbon emissions by 1.6 million metric tons of CO₂ annually. The Sankofa gas project is supported by $700 million in World Bank Group’s guarantees, its largest ever, which will underpin $8bn of investment in the local economy.

Keydates

2006 March: Vitol awarded OCTP licence
2009 July: Gas discovery. Eni becomes operator
2012 September: Oil discovery
2015 July: World Bank guarantees underpin project
2017 February: FPSO sets sail from Singapore arriving Ghana in April
2017 Oil production commences, delivering First Oil in May
2018 Gas & condensate production start-up

Project partners

Vitol (35.56%)
Vitol is an independent energy and commodities company and has been operating for over 50 years, trading over seven million barrels of crude oil and products every day. Our core business is the trading and distribution of energy products around the world. We are also invested in energy assets that facilitate the flow of energy from, into and across key markets, globally.

Ghana National Petroleum Corporation (20%)
Ghana’s National Oil Company, established in 1983 as a strategic commercial vehicle for State participation in the oil and gas industry, with the mandate to undertake exploration, development, production and the disposal of petroleum. It is the National Gas Aggregator and a partner in all petroleum agreements in Ghana.

Eni (operator 44.44%)
Eni is an energy company operating in 73 countries, engaged in oil and natural gas exploration, field development and production; refining and chemicals activities; sale of gas, electricity, LNG and oil products. Eni boasts a solid competitive position based on its focus on innovation, efficiency, sustainability and the environment.
Sankofa crude oil
Yields & properties

Sankofa crude oil is a medium density, low sulphur, intermediate crude, with low acidity and a low mercaptan content. Its gravity is 28.9° API. The sulphur content is 0.30% m/m

<table>
<thead>
<tr>
<th>Key Properties</th>
<th>Sankofa</th>
<th>Ten Blend</th>
<th>Jubilee</th>
</tr>
</thead>
<tbody>
<tr>
<td>API Gravity @ 60 °F</td>
<td>28.9</td>
<td>33.6</td>
<td>36.4</td>
</tr>
<tr>
<td>Viscosity @20 °C mm²/s</td>
<td>38.60</td>
<td>15.61</td>
<td>7.00</td>
</tr>
<tr>
<td>Sulphur % m/m</td>
<td>0.30</td>
<td>0.43</td>
<td>0.26</td>
</tr>
<tr>
<td>Acidity mg KOH/G</td>
<td>0.18</td>
<td>0.08</td>
<td>0.07</td>
</tr>
<tr>
<td>Pour Pt. °C</td>
<td>21</td>
<td>15</td>
<td>-3</td>
</tr>
<tr>
<td>Nickel ppm</td>
<td>7.08</td>
<td>8.15</td>
<td>16.00</td>
</tr>
<tr>
<td>Vanadium ppm</td>
<td>2.36</td>
<td>4.07</td>
<td>0.20</td>
</tr>
</tbody>
</table>

GHANA

Key

- Ghana Gas Pipeline
- WAGP - Oil Pipeline
- Oil Field
- Gas Field
- Oil & Field
- Dev./Prod. Lease
- Exploration Permit
FPSO John Agyekum Kufuor characteristics

18 subsea wells and subsea facilities are connected to the John Agyekum Kufuor floating production storage offloading (FPSO), moored in about 900m of water depth.

- Storage capacity of 1,700,000 bbls
- Oil offloaded in tandem configuration
- Designed to accept tankers up to 320,000 DWT, enabling first and second port VLCC loading
- Sankofa standard cargo size of 950,000 barrels, +/-5% for operational flexibility
- One/two nominal cargoes per month

Vitol Asia Pte Ltd, Singapore
Wataru Ishikuro
Email: wai@vitol.com

Vitol Services Ltd, London
Adam Slaski
Email: asl@vitol.com