

Marmore First Take

Shale Oil Discovery: Miracle for Manama?

April 2018

Highlights

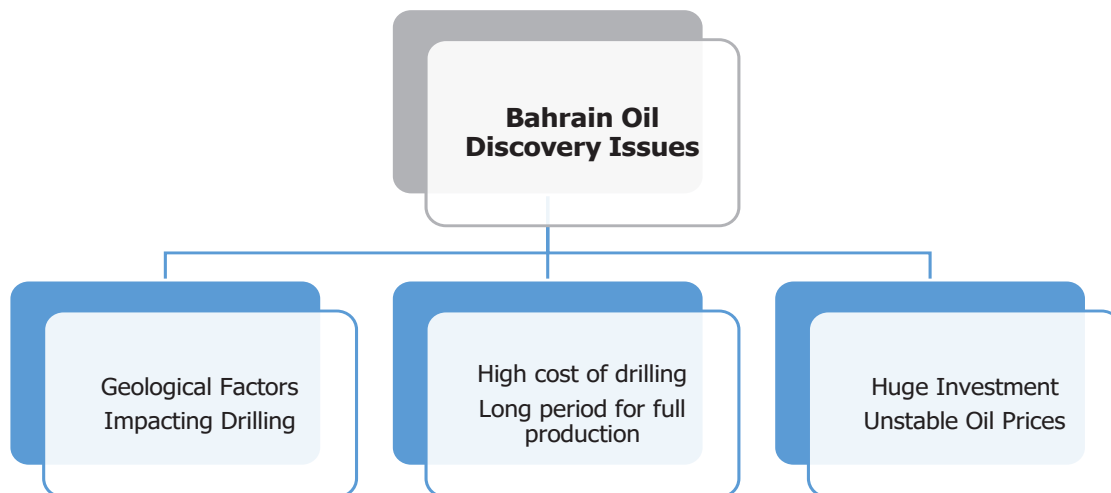
- Bahrain's Higher committee for Natural Resources and Economic Security on April 1 2018 announced discovery of massive offshore oil reserves in the Khaleej Al Bahrain Basin, one of the largest discoveries since 1930's, when Bahrain first started extracting oil in its history. The tight oil discovery was made in shallow waters off the country's western coast. The find also contains 14 trillion cubic feet of gas.

Bahrain Oil and Gas Insights 2017

Bahrain Oil & Gas Metrics	Values
Current Proven Oil Reserves	124 Billion Barrels
Khalij Basin New Oil Reserve	80 Billion barrels
Current Oil Production	45,000-50,000 Barrels per day
Current Natural Gas Reserves	3.25 Trillion Cubic feet
Gas Reserve Discovered	14 trillion Cubic feet.
Current Gas production	15.5 Billion Cubic meters

Source: The Oil and Gas years, Gulf News & BP Statistical Review of World Energy 2017

- This discovery is the biggest crude oil find which is expected to dwarf its current reserves of 124 Billion barrels and according to some estimates it is expected to produce 200,000 barrels per day in future. Furthermore, as per initial estimates, gas reserves discovered in the shallow water are expected to be close to Oman's gas reserves. (10-13 Trillion Cubic feet)
- The Khalij al-Bahrain which spans nearly 2,000 square kilometres, in the shallow waters is expected to see drilling kicks by Halliburton on two wells in 2018 and production is expected to start by 2022-2023.
- Geologically, reserves are located under hard to reach deep pockets of rock, requiring horizontal drilling and this would be the world's first unconventional offshore oil project. Technically international experience suggests that recoverable oil from proven oil reserves can be less or can be challenging. In case of Bahrain, the amount of oil that can be recovered for commercial purpose is still not clear, however it will require hydraulic fracking and this makes new discovery a challenge.



- Shale oil generally means any rock (sedimentary) that contains solid bituminous that are released as petroleum like liquids when the rock is heated, or in other words tight oil is found in impermeable shale and limestone deposits that is mostly extracted by hydraulic fracking and in case of Bahrain, there's a layer with moderate conventional reservoir properties on top of the organic rich rock source.
- Fracking technology has revolutionized oil production in the US and has added to global oil production/output significantly in the recent years, however, it is still novel in the entire MENA region and coupled with that offshore unconventional drilling is very strange equation.
- However one must bear in mind that deep offshore fracking is a herculean task, given that fact that deep wells are needed to drilled up to the depths of 3,000 feet, on top of it rock crushing machines, waste water treatment, tonnes of sands and encounter with pancaked layers with oil soaked have to be dealt and arranged for respectively.
- Extraction and development of new oil field in Bahrain is two-way challenge-cost-wise and secondly with risk of recovery; attached to the project, because in Middle East cost of oil production per barrel is \$10, whereas drilling of fracked oil in US is five times more expensive than conventional sources-leaving clouds of uncertainty on cost and probable rate of recovery front for Bahrain.
- But it must be noted that new oil discovery is a boon for Bahrain amidst ballooning budget deficits and economics diversification plans. Bahrain Government earned oil and gas revenue of \$4.3 Bn but ran budget sank negatively to reach a deficit of \$2.7 Bn for 2017.

- Oil discovery often proves to be the strong harbour for economic growth and investment especially for the oil dependent countries, and historically such discoveries had been the major thrust to oil rich and oil dependent economies. Perhaps in case of Bahrain, nature's benevolence with cutting-edge technology, huge financial investment and certainly patience would potentially invite more robust crude oil production for the country and improve its economic calculus.
- Despite the fact that full scale technical recovery will take few years, and host of technical issues are to be confronted-"oil discovery" provided much needed boost to the economy that has been assigned negative rating by all major credit rating agencies. The rating for Bahrain stands as follows, BB- by Fitch, B+ by S&P and BB+ by Moody's for 2018.

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About marmore

Our vision

To be the first choice for obtaining strategic intelligence on the MENA region.

Our mission

Serving businesses and institutions with reliable information and intelligence about MENA, needed to catalyse growth, understand the larger environment and facilitate decision-making.

Our aim

Advocate intellectual research on MENA economies, businesses and financial markets and provide customized, actionable solutions.

Our foundation

- A subsidiary of Markaz: Investment bank and asset management firm with 40+ years of history
- Markaz research activities commenced in 2006
- Marmore established in 2010 to intensify the research activities
- Publishes research reports and provides consulting services

Consulting services

Marmore provides customized consulting services based on specific requirements of our clients. Marmore's bespoke consulting services marries the challenges of cost, time, scope and data availability to generate actionable outcomes that are specific to our clients' needs.

What type of consulting services we provide?

- Industry market assessment (market size, competitors, regulations)
- White label reports (industry reports, company newsletters, periodic research)
- Databases (competitors' information, target clients insights)
- Company valuation (buy/sell side advisory)
- Due diligence / Business evaluation
- Feasibility studies (market and financial)
- Business plans
- C-Suite support to leaders with intellectual, industry related needs

How do we execute consulting engagement?

Our seven step process to execute consulting engagements:

- Step 1: Requirement and scope analysis
- Step 2: Proposal submission
- Step 3: Project initiation
- Step 4: Fieldwork / research
- Step 5: Analysis & reporting
- Step 6: Review & approval
- Step 7: Report submission / presentation

Published research

Industry research

Marmore's industry reports provide information on industry structure, key players, market analysis, demand drivers, competitive analysis and regulatory requirements.

Economic research

These reports are produced as thematic discussions based on current issues in the economy. The reports aid key stakeholders such as investors, businessmen, market participants, and policy makers in understanding the impact of a particular theme on the economy.

Infrastructure research

Infrastructure research highlights bottlenecks in the sector and areas requiring urgent investments. Our infrastructure report analyses the link between economic development and infrastructure and showcases supply & demand challenges in the GCC and investment opportunities.

Capital market research

Capital market reports provide an analysis of stock & bond markets in the MENA region including outlook. These reports are strategic in nature and provides investment perspective to readers.

Policy research

Marmore has partnered with several leading thought leaders and institutions of repute to generate economic policy research studies in key areas like energy, labor, economic structure and public sector.

Periodic research

Our periodic reports capture GCC stock markets' earnings, risk premium studies, and economic development & outlook.

Regulatory research

Our regulatory research series is an effective consolidation, analysis and summary of key business, economic, and market regulations that impact business environment.

