Ryder Scott integrates upstream, midstream services into turnkey product

-- **Sandeep Khurana**, *head advisor upstream and midstream integrated services*

Ryder Scott has responded to recent increased demand for integrated services by forming an in-house group with facilities engineering expertise. For decades, industry has recognized Ryder Scott for its work in general reservoir engineering, reserves evaluations, field development planning and economics.

We have also conducted management advisory services for more than 20 years. During that time, we have leveraged our multidisciplinary expertise on turnkey projects while calling on trusted alliance partners in facilities engineering, marketing and HSE (health, safety, and environment).

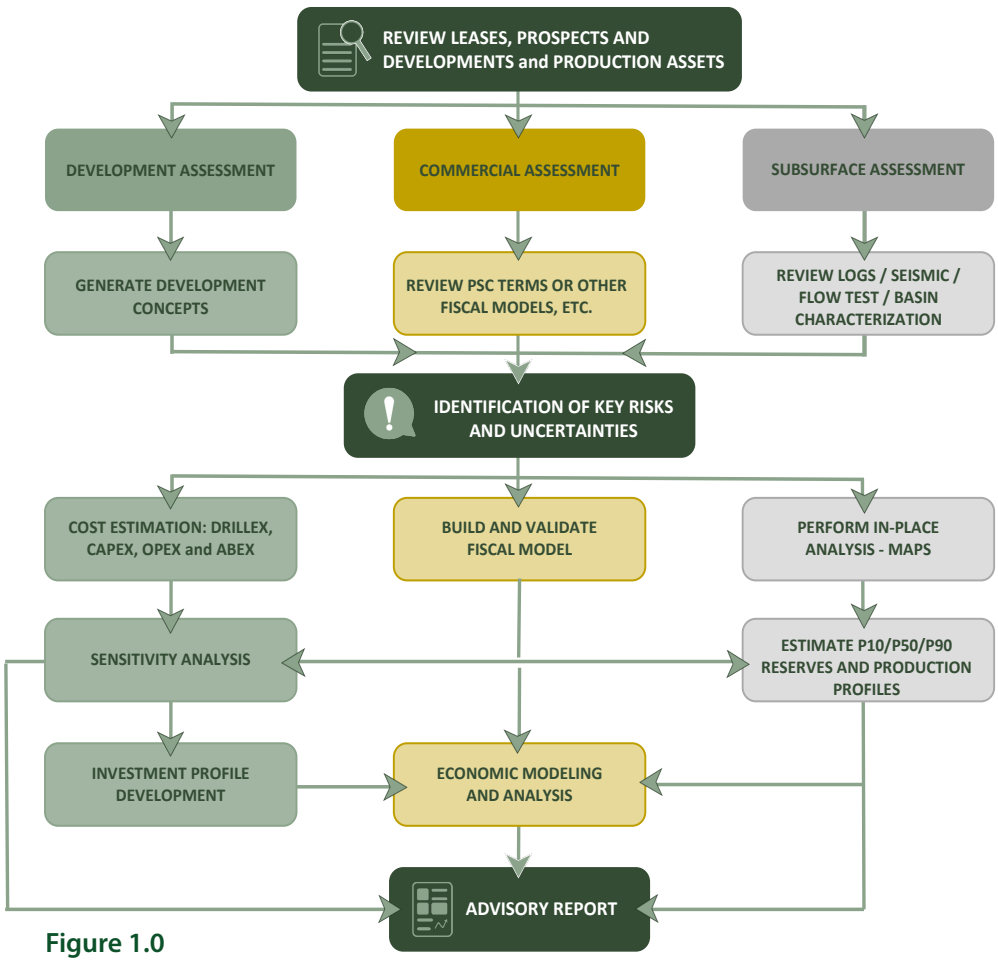

Figure 1.0
Overall Capabilities

While we have continued to fill those requests, we now are glad to announce an expanded focus by creating the Integrated Services Group within our firm. Ryder Scott saw the need to do this because clients increasingly contacted us to discuss development downstream of the wellhead, including facilities engineering and more recently, HSE stewardship that leads to carbon-neutral emissions.

To acquire funding and project contracts, other clients have requested assessments related to financial and legal engagements. Now, with commodity prices falling, Ryder Scott has become part of the solution to put a more resilient approach in play and confirm profitability for our clients.

A flow chart of our overall services is in Figure 1.0. We aim to capture value for our clients by incorporating three independent work streams — subsurface, development and commercial assessments — into one integrated product.

Each work stream has its own objective as follows:

- **Subsurface work stream** — Review basin geology and reservoir engineering work to generate estimated product flow streams subject to technical uncertainties in forecasting. That feeds into the surface facilities to monetize hydrocarbon resources.
- **Development engineering work stream** — Review the drilling, facilities and project execution plan. Project execution entails reviewing major contracts to deliver an in-place project. Execution also addresses HSE with emphasis on regulatory requirements and permits. The objective is to assess the development schedule, costs and related risks.
- **Commercial work stream** — Review fiscal regimes, production-sharing arrangements, etc. The objective is to assess the commercial parameters and assumptions within the business case for each project and simulate an economic or fiscal model. Our services extend to providing advice on the optimum business model.

In just the past six months, we have used those work streams to perform assessments for international unconventional basin entry, midstream and LNG business restructuring, and for an overseas company investment in an operatorship in the U.S. Gulf of Mexico.

The key features of our new, in-house facilities engineering group, as it provides development assessments, are to conduct technical reviews, generate investment profiles, perform HSE evaluations, and conduct risk identification and mitigation advisory services.

Figure 2.0 – right, depicts a more detailed overview of our methodology.

Using our development-assessment methodology, we generate investment profiles, analyze sensitivities, benchmark against industry norms, review and evaluate operations and liabilities, and, if necessary, perform physical inspections and analyze asset integrity and safety performance.

By integrating our subsurface, development and commercial assessments into one product, we can appropriately value an asset, understand technical risk, price risk into the investment and ensure that our client reaches its financial goals. At Ryder Scott, we will assess oil and gas

resources, guide the development of projects, safeguard investments, lower transaction costs, quantify profitability, increase confidence in investment decisions and realize full development potential to add maximum value.

For more information, please contact Sandeep Khurana at sandeep_khurana@ryderscott.com.

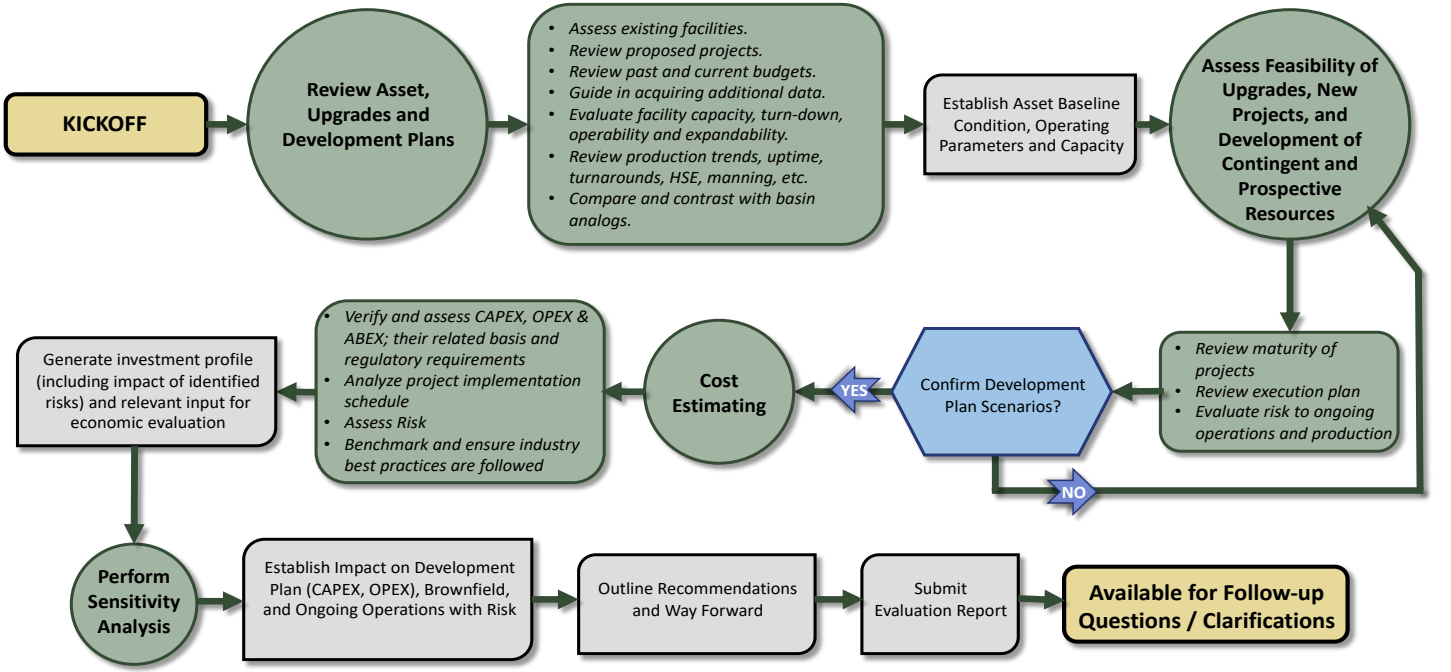

Figure 2.0 Development Assessment Methodology