

The Life Cycle of an Unconventional Gas Opportunity: Quantifying Risk Versus Reward

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The early phases of exploitation of an Unconventional Gas opportunity differ significantly from that for a conventional play. Typically, the phases that precede full scale development are:

- Exploration, to test the play concept and gain early insights into play extent
- Appraisal, to establish existence of sufficient overall volumetric scope and to get early indications of per-well recovery and optimal completion practices
- Pilot - determine if consistent economic per-well yields can be achieved.

This talk will discuss a probabilistic, decision-focused methodology that can be used to:

- Determine appropriate volume/rate thresholds for each phase
- Estimate the probability of exit at each decision gate (along with the risked capital exposure up to that point),
- Calculate the chance of proceeding post-pilot as well as the chance of a full project, full cycle economic return, and the minimum average yield needed to assure an economic venture, and
- Gain insights into optimal pilot size.