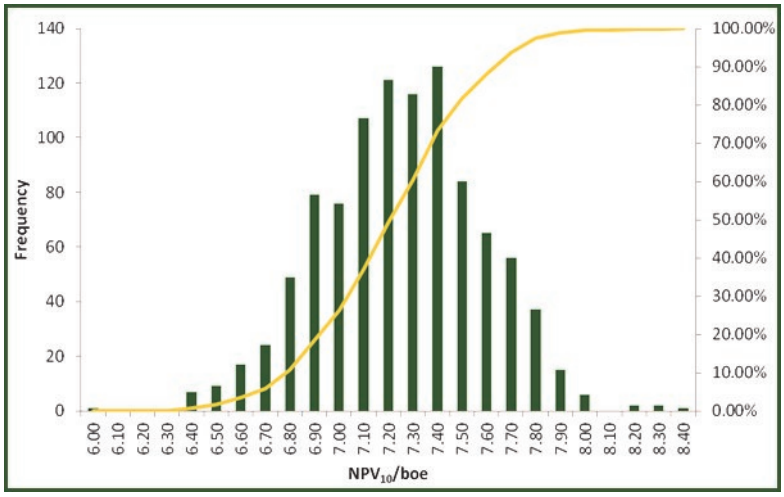
Prospective Resources Evaluations Enable Clients to Identify and Target Opportunities



Depiction of a frequency histogram of the net present value (NPV) per BOE discounted at 10 percent of a P50 potentially recoverable volume of a hypothetical offshore oil prospective reservoir.

Knowledge

D&M employs experienced petroleum engineers, geologists, geophysicists, petrophysicists, and economists to support prospective resources studies. These team members have completed thousands of projects in more than 100 countries.

Integrity

D&M prospective resources reports have been used for multi-billion dollar initial public offerings, as guides for projects worldwide for national oil companies, privatizations, certifications, financial consortiums, and as substantiation for loans totaling billions of dollars.

Service

The firm uses industry-standard methodologies and the latest technology tools to quantify and evaluate the risk and uncertainty of prospective resources in alignment with the Society of Petroleum Engineers' Petroleum Resources Management System (PRMS) and NI 51-101 guidelines.

DeGolyer and MacNaughton

Turning Questions Into Answers

DeGolyer and MacNaughton (D&M) is an industry leader in the evaluation of prospective resources. D&M's expertise in the valuation of prospective resources is recognized by large international exploration firms, national oil companies, and financial institutions. It has quantified the values and the geologic and/or economic chance factors and volumetric uncertainties associated with the probabilistic estimation of thousands of potential hydrocarbon volumes in more than 100 countries. These analyses have varied in scope from large portfolio-level appraisals encompassing many countries and basins to volumetric estimates of prospects in one license block. Moreover, the firm has made presentations and seminars to explorationists, national oil companies, and investors around the world.

Critical to these types of analyses is the objective quantification of the various geologic chance factors (trap, reservoir, migration, and source) and range of volumetric uncertainty. Moreover, an understanding of the engineering and economic chance factors is crucial to developing an integrated analysis that is consistent with the PRMS and NI 51-101 guidelines.

Why D&M?

D&M is unique in that the firm has extensive global experience. D&M prospective resources reports are recognized by global financial institutions for a high standard of quality and are designed specifically to be compliant with PRMS and NI 51-101 guidelines, and are appropriate for Competent Person's Reports (CPR) as well as for filings with various stock exchanges.

D&M evaluates prospective resources using a fully integrated, probabilistic methodology that begins with a rigorous, independent review of technical data and analogous fields. Potential production profiles associated with prospective resources are subsequently generated through D&M's proprietary software SYPHER following probabilistic volumetric analysis. Economic modeling of each prospective reservoir incorporates various economic factors and development practices based on the potential probabilistic resources quantities estimated. Beyond the relevant fiscal regime and binding contracts, these economic factors include the following:

- Operating expenses
- Capital expenses
- Potential production profiles
- Depreciation/time value of money
- Taxes
- Field life
- Development well costs
- Development timing
- Abandonment costs

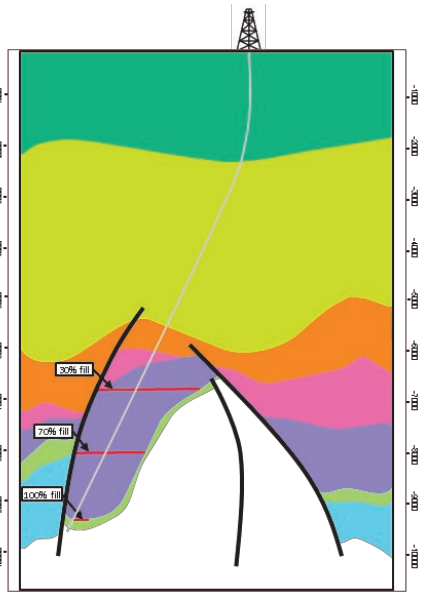
Furthermore, the firm's experience with global reserves and prospective resources supports its ability to offer development planning and production cost estimates.

Prospective Resources Evaluation Methodology: Geologic Interpretation

Support
D&M personnel travel around the world to provide one-on-one support to clients, and D&M staff can be available 24/7 for conference call consultations.

Advanced Technology
D&M has made significant investments in computing resources to ensure that it can meet client needs.

Solutions
D&M's prospective resources reports are preferred by the financial and petroleum industry because of consistency in approach, application of unique tools and experienced exploration staff, technical objectivity, and the ability to deliver reports that comply with major global financial exchange requirements.



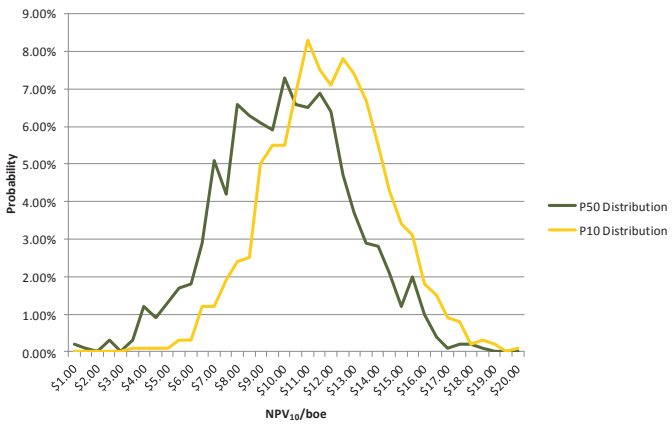
D&M's geologic interpretation is fully integrated and probabilistically modeled. Each individual volumetric parameter is investigated using a probabilistic approach with attention to variability. The volumetric parameter variability is based on the structural and stratigraphic uncertainties due to the depositional environment and quality of the seismic data. Analog field data are statistically incorporated to derive uncertainty limits and constraints on the net pore volume. Uncertainty associated with the depth conversion, seismic interpretation, gross sand thickness mapping, and net hydrocarbon thickness assumptions are also derived from studies of analogous reservoirs, multiple interpretative scenarios, and sensitivity analyses.

Statistical measures describing the probability distributions are input to a Monte Carlo simulation to produce low, best, high, and mean estimate prospective resources for each prospect. These estimates represent the volumetric uncertainty associated with each reservoir. P_g is estimated by quantifying the probability of each of the following individual geologic chance factors: trap, source, reservoir, and migration. The product of these four probabilities is computed as P_g.

Economic Evaluation

D&M's fully probabilistic modeling integrates all phases of the prospective resources valuation using SYPHER, a proprietary, simulation-based software package developed by the firm. The inputs are used to simulate potential reservoir performance and generate potential production profiles, monthly cash flows, and recovery factor ranges based on actual rock and fluid physics.

In preparation for an appraisal report, D&M creates a refined and feasible development plan, providing capital and operating expenses associated with probabilistically derived potential production profiles. The economic models utilized for valuation by the firm account for the fiscal regime associated with each potentially productive area and all binding contracts.



SERVICES AVAILABLE

- Probabilistic volumes estimations
- Probabilistic geologic chance factors
- Probabilistic economic chance factors
- Probabilistic portfolio appraisal estimations (fully risked potential present worth at various discount factors)

DeGolyer and MacNaughton

Worldwide Petroleum Consulting

5001 Spring Valley Road
Suite 800E
Dallas, Texas 75244
214/368-6391
www.demac.com
demacweb@demac.com