Managing the Project

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Unique Features of this Project - 1

• The goal is clear but the route to it cannot be predicted with confidence
• Multiple technology and operational options available to achieve project goals
• Activity will be cost constrained
• New technologies may arrive to alter the direction of the project
• Major show-stoppers will arise unexpectedly during planning
Unique Features of this Project - 2

• Operations will take place close to the limits of the technologies involved
• Subsurface conditions may differ profoundly from the prognosis
• Unforeseen problems may force termination of operations
• Effective operations will involve multiple contingencies, defined rules and change protocols
Project Objectives

• Reach the MoHo – or Acquire data to calibrate models?
• Single well or sequence of wells?

Clarity of objectives is critical to ensure success

Articulation of objectives is a non-trivial task
Nature of the Project

• Managing uncertainty: objectives, plan, science and the technology
• Stakeholder and political aspects will dominate
• Major unknowns will arise and have to be dealt with
• Assumptions will frame the project and must be routinely challenged

Not a “normal” project, will require skilful management
Disruptive Technologies - Reelwell

**Dual Drill String (DDS)**
- Return of cuttings through inner string

**Top Drive Adapter (TDA)**
- Swivel for drill fluid in and out

**Dual Float Valve (DFV)**
- Enables downhole isolation

**Piston**
- Pushing the bit forward & isolating well bore fluids

**Flow Control Unit (FCU)**
- Control valve arrangement, operates DFV

**Annulus Control Unit (ACU)**
- Controls the annulus pressure

**OPTIONAL:** LINER DRILLING
Project Scoping

• High Level:
  – Appoint a Project Board
  – Set up a Project Office
  – Publish Project charter
  – Work out how to manage the project

• Working level
  – Refine and prioritise scientific goals
  – Clarify stakeholder requirements
  – Define success and failure criteria
Feasibility Assessment

• Build on Kanazawa workshop
• Engineering analysis of options
• Determine lowest cost / risk route to objective

Outcome:
• Approve chosen option, or stop project
• If continue: approve budget, organisation and schedule for next stage
Project Definition

- Detailed basis of design for the project systems and plan
- Ability to respond to emergence of “unknown unknowns”
- Build up project team to undertake detailed planning
- Risk reduction studies, detailed site surveys
- Implement formal project management systems
Project Execution

• Detailed execution planning
  – Disciplined, rigorous and detailed
  – Logistics will be a major factor

• Execution of the operations
  – Compliance with the plan, strict control of change

• Post project review
Operational Control

• Major change in mindset from current models
• Four key areas:
  – Organisational structure
  – Compliance with the plan
  – Communication and decision process
  – Handling of Rules, Surprises and Contingencies