Next Generation Directional MWD Tool Requirements for Improving Safety and Accuracy

DEA-164
Discussion and Proposal for a JIP Market/Technology Feasibility Study

Son Pham – ConocoPhillips
Robert Estes – Baker Hughes
Next Generation MWD
What is Required?

• Industry needs **Directional MWD tools** that can navigate accurately under:
  — Distorted magnetic field
  — High angles
  — Interceptions
• Improve **safety**
• Determine **absolute and relative positions** quickly & accurately
• Consensus on “**new standard**” measurements will improve reliability

• **SAGD - Twinning**
• **Intersection** applications growing
• Proximity data near old wells with large ellipses (limited or no survey data)
• Next generation tools should be **used routinely** for better well placement and safety
• Incorporating **Ranging measurements & MWD error models** in software for improved clearance analysis
Participants

CONFIRMED

- **ConocoPhillips** - Son Pham
- **Baker Hughes** - Robert Estes
- **Maersk** - Simon McCulloch
- **Apache** - Alan Vasick
- **ATK Missile Products** - Daniel Tilmont
- **NOV** - David Herrington
- **Bench Tree** – Aubrey Holt

TENTATIVE

- **BP** - William Allen
- **Horizontal Tech** - John English
- **BSEE** – Julian Pham
- **Shell** - Lisa Grant
- **& others**
Budget

- Project Study: $290k
- Expenses: $60k
- Total: $350k
- Per Participants: $50k Assuming 7 participants
- Cap (+40%) $490k exceed initial budget only with JIP approval
- Cap cost $70k Assuming 7 participants
Estimated Timeline

Study conducted by two independent consultants - Gordon Richardson & Robert Waters

• June/July 2012 – Finalize JIP Contract & Plan
• August – Start of Study
• Study – 6-8 months
• January - Phase I Presentation
• March 2013 – Phase II – Final Report
• September 2014 – Release Report to Public

Project participants will have access to Reports/Presentations 18 months before releasing to public