

challenge: case study

challenge us with your stuck projects

situation

io issued an invitation to clients to challenge us on a field development currently viewed as uneconomic. A client supplied a field development concept which was believed to be unviable, due to, low GOR, heavy waxy oil and lack of subsurface data.

value driver

The challenge to io was to consider the processing facilities and offtake, to determine a development concept viable at sub 50\$/bbl.

result

The application of alternative low tech know how to yield a economically viable concept at 50\$/bbl using a single production well to acquire reservoir data, trucking emulsions, address technical issues, and help unlock the field development.



challenge

Alleviating concerns about the technology requirements and economic effectiveness of development plans for this heavy oil field. Heavy oil production issues included viscous flow and wax deposition requiring a heating solution for separation and flow assurance issues of emulsion production. The client's assumption was oil resources would support initial production of 2,000 bopd followed by phased production build-up of 30,000 bopd. Wells have the potential for sand production and high water cuts which impacts on oil rates.



io approach

The application of “preliminary assessment and risk identification” and “rapid concept development” toolkits with io Heavy-Oil SMEs to develop some unidentified field development.



actions taken

- ✓ identified an alternative early production solution as part of an appraisal programme, using low cost technology based on rental equipment, modules, site bolted tank, temporary buildings and utilities
- ✓ prepared plans for a single production well to acquire reservoir & well data, and fluid samples
- ✓ outlined suitable fluid testing programme in terms of wax risk and emulsion behaviour
- ✓ developed a scalable economic model based on an initial well infrastructure footprint, including value levers for operational optimisation

challenge capability

io provide rapid assessment and concept development to improve economic effectiveness

We use our powerful thinking and creative solutions to unlock stuck projects and value. We provide rapid assessment and concept development to improve economic effectiveness. Challenge us to get your projects moving.

Why not get in touch to find out more about how the io way can add value to your business by delivering greater certainty and higher decision quality.

There are lots of ways to connect with us:

Drop us an email to hello@ioilandgas.com

Follow us on social media where we post interesting articles, insights and commentary pieces

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assessment of situation

- ✓ a team of subject matter experts who quickly break apart the challenging problem
- ✓ our holistic approach with rapid integration of multidiscipline workflows
- ✓ analysis of technical uncertainties that need addressing early to reduce the risks
- ✓ assessment of commercial value and strategic project drivers

development of concepts

- ✓ the 'io toolbox' for innovative business problem solving
- ✓ decision quality framework allows for rapid concept option comparison
- ✓ most cost effective concept and risk mitigation activities
- ✓ economic modelling and sensitivity analysis techniques

improve value

- ✓ solutions based on multidisciplinary technical and commercial collaboration
- ✓ integrated implementation and alignment to find the best value solution
- ✓ recommendations on implementation of the concept development case
- ✓ value chain analysis and collaboration with clients on the planned next steps