

Case study

# Deep water development

**Project details**

	<b>Start date</b> 2013
	<b>End date</b> 2014
	<b>Location</b> EAF

**Overview**

This was a deep-water development, in. It is located approximately 80 miles (130 kilometres) northwest of the Shetland Islands in water depths of approximately more than 1,000 metres).

ADIL's client had a 50% stake in the project as a non-operated partner. It was agreed by the partners that a review should be undertaken to define ways to reduce CAPEX to make the project more competitive.

**ADIL approach**

The client initially asked ADIL for support to optimise the FPSO to be used on the project. ADIL challenged the client that the focus should be on taking an integrated approach to reviewing the entire project, starting with framing and benchmarking exercises.

ADIL was subsequently engaged by the client to assist in the review of the technical side of the project and make recommendations for the project to be more economically attractive. The challenge was also to maintain a

reasonable first oil date and, in parallel, consider options for enhancing recovery.

The ambitious plan of tackling this was undertaken by a small integrated team of client and ADIL personnel, supported by team members in their other offices. ADIL utilised their extensive experience to provide key positions in the integrated organisation.



**ADIL identified over \$600 million of realised savings, and a further \$800 million of unrealised savings.**

A review of the project's engineering studies demonstrated that each was individually very strong, but there was limited integration between these elements. It also identified that excellent work had been done on subsurface assessments, understanding the potential value of the asset. However, this had not been fully integrated with other disciplines on the project.

ADIL supported the client to align all the stakeholders (subsurface, drilling and completion, commercial, facilities and subsea) and integrate these functions to ensure the overall development remained viable.

ADIL's scope of work included:

- Development of an FPSO configuration/SoR, highlighting the key changes that would save considerable weight and cost
- Assurance and redefinition of production profiles with the view to achieving 'fit for purpose' design



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## **Deliverables**

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This specifically included:

- Identification that test separation systems and gas separation systems were over specified
- Detailed flow assurance which identified that two of the wells would either not flow or not flow for very long
- Field flow assurance confirming achievable production profiles (less than Operators numbers; gas lift requirements significantly less than Operator assumptions)