



## Field Development Process Facility Project

**Client** - An independent Australian oil and gas company with a focus on exploration.

**Challenge** – Our client was the majority owner and operator of a remote oil and gas discovery off the coast of New Zealand. The client contracted Alpha Petroleum Services to provide Project Management support throughout the \$430 million field development project.

The Alpha process facilities team were tasked with delivering a state-of-the-art process facility within a very tight schedule of twenty months. The process facility was capable of processing –

- 50,000 Barrels of Oil Per Day (BOPD)
- 118,000 Barrels of Water Per Day (BWPD)
- 25 million cubic feet of Gas Per Day (MSCFD)

**Alpha Petroleum Services Approach** – A dedicated Alpha Process team, led by the Process Lead Engineer produced the conceptual design for the required process facility. This effort included designing for required uptime, achieving nameplate throughputs, correct sparing philosophy and ensuring the plant equipment was suitable for the harsh metocean conditions it would face.

The team then sub-contracted a third-party engineering company to assist Alpha in preparing specifications and drawings in adequate detail to enable the process equipment bidding process. The Alpha team pre-screened and produced a list of qualified bidders for the process equipment bidding process. The team managed the bidding process, meetings, clarifications, negotiations and contract award on behalf of the client.

It was determined that the host facility contractor (an FPSO in this case) would be responsible for completing the detailed design, as well as for purchasing, fabrication, installation and commissioning of the production handling system. This included design of all interface equipment between the subsea facilities and the FPSO. The Alpha team, acting as the owner's representative, provided technical and commercial oversight of the detail design, engineering, manufacturing, testing, installation, training, class certification, commissioning and start-up activities. At the peak of pre-commissioning activities, the Alpha team and their QA/QC inspectors were overseeing more than 1,000 contractors and staff per day onboard the FPSO.

Throughout all phases of the development, Alpha interacted with the authorities and our client to ensure that the field was brought on-stream in full compliance with New Zealand laws and regulations. Alpha also advised our client on establishing accounting, logistics and other back office procedures and systems necessary for successful operations.

**Result** – The team achieved the stated goals of initial production only twenty months after the partners reached FID (Final Investment Decision). With advantageous oil prices and aggressive execution, investment was recovered within five months. The process facility has operated for over ten years now with uptime more than 99%. Alpha continued to work with the client in many areas, including technical support, field development and expansion, exploration support, and acquisition support.