

CASE STUDY

FROM SEIZED COVERS TO LONG TERM INTEGRITY ASSURANCE



How CIU Specialist Machining Capability Delivered a Successful Sand Probes Decommissioning Project.

PROJECT OVERVIEW

Three ageing wellhead sand-probe fittings posed a significant integrity risk due to seized components, degraded sealing surfaces, unknown internal conditions, and the potential for hidden defects. Failure to safely decommission these locations could have prolonged shutdowns, increased costs, and left long-term integrity vulnerabilities.

CIU mobilised with specialist machining equipment, contingency tooling, and a structured offshore execution plan to manage all potential scenarios. The team successfully removed seized covers, retrieved a sand probe lodged within the process line, removed internal weld impingements, restored corroded sealing surfaces, and fully decommissioned all three fittings.

Each location was abandoned using a robust double-isolation solution incorporating decommissioning plugs, blanking plugs, new heavy-duty pressure-retaining covers, and isolation sealant injection. Despite multiple unforeseen challenges, the work was completed safely, efficiently, and without scope change — delivering a fully tested, long-term integrity solution that eliminates legacy concerns and reduces future maintenance requirements.

BENEFITS

3

LEGACY SAND PROBE LOCATIONS FULLY DECOMMISSIONED

4

MAJOR UNFORESEEN ANOMALIES RESOLVED ON SITE

10+

YEARS DESIGN INTEGRITY PROTECTION FOLLOWING SEALANT INJECTION

0

SCOPE CHANGES REQUIRED DESPITE CHALLENGES

SOLUTION

- **Permanent decommissioning** of three ageing sand-probe fittings, removing long-term integrity risks and restoring full containment through a robust double-isolation solution.
- **Replacement of seized and deteriorated components** including pressure-retaining covers, carrier plugs, and redundant small-bore pipework, with full restoration of damaged threads and sealing surfaces.
- **Resolution of multiple offshore challenges** such as a lodged sand probe, weld impingements, severely corroded sealing faces, and covers requiring on-site machining.
- **Installation of a complete isolation package** using specialist decommissioning plugs, 3/4" blanking plugs, heavy-duty covers, and isolation sealant injection.
- **Safe, efficient execution** using in-house machining capability and contingency tooling, ensuring all issues were resolved without impacting schedule or scope completion.



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SERVICES PROVIDED

ASSET INTEGRITY MAINTENANCE	LEGACY FITTING DECOMMISSIONING	SPECIALIST MACHINING SOLUTIONS
DOUBLE ISOLATION SOLUTIONS	ACCESS FITTING REFURBISHMENT	INTEGRITY ASSURANCE TESTING

SPECIALIST MACHINING CAPABILITY IN ACTION

Every location presented a different challenge, requiring adaptive problem-solving offshore. CIU's specialist machining capability enabled the multiskilled team to safely remove seized covers, recover a detached sand probe stuck within a fitting, re-machine corroded sealing faces, and eliminate internal restrictions that would otherwise have prevented successful installation of the decommissioning solution. This scope was completed during a single mobilisation without additional project delays and on budget.

THE RESULTS

Three complex sand probe locations were successfully decommissioned and double isolated, despite a series of unexpected challenges discovered during the work scope. Thanks to CIU's specialist machining capability, purpose-built tooling and fully prepared field team, all anomalies were resolved safely and efficiently on site. The project delivered long-term asset integrity, reduced future maintenance requirements and demonstrated the value of having the right equipment and expertise available for every contingency.



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