CASE HISTORY

EFFICIENT PIPE RECOVERY OPERATION IN GEOTHERMAL WELL

APPLICATION

Pipe Recovery
Geothermal

TECHNOLOGY

Cased Hole Services
+ Free Point Back Off (FPBO) service

Measurement While Drilling (MWD)
+ Falcon EM MWD

LOCATION

Asia Pacific

CLIENT CHALLENGE

A client drilling a geothermal well integrated Scientific Drilling International's (SDI) retrievable Falcon EM MWD system into the bottom hole assembly (BHA) to support well surveying and directional drilling operations. During drilling, early signs indicated the well having multiple tight spots, heightening the risk of potential stuck BHA and requiring the mobilization of Pipe Recovery services.

Lost circulation prevented cuttings from being efficiently removed to surface, while unstable formations caused caving and the development of multiple tight spots along the wellbore. Two months after the initial pipe recovery call-out, the BHA became fully stuck, necessitating immediate intervention to free the drillstring.

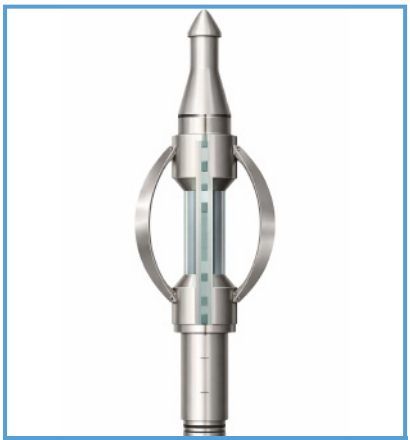
SCIENTIFIC SOLUTION

SDI offered the client its Free Point Back Off (FPBO) service, which utilizes purpose-built explosives for Pipe Recovery operations with a high success rate of severing BHA components. The team's rapid response facilitated mobilization of personnel, a wireline unit, tools and equipment, and quick deployment of explosives within 24 hours of the job call-out. A free-point indicator was first run to accurately determine the depth at which the pipe was still free to rotate and stretch, allowing precise placement of the severing shot.

SDI successfully freed the BHA with a single severing shot, allowing recovery of the majority of the assembly. The combination of precise free-point determination, accurately placed explosive charges, and the retrievability of SDI's Falcon EM MWD system maximized recovery of the drillstring and downhole electronics.

Following completion of the FPBO operation, the client sidetracked the well and successfully reached target depth, after which the well delivered a high megawatt (MW) output.

The last joint above the determined stuck point.



Falcon EM MWD Retrieveable Fish Neck.

CLIENT VALUE

With Scientific Drilling's fast response, established explosives inventory, and field expertise, the FPBO operation was completed in just three days. The efficient execution of the FPBO service maximized the client's downhole asset recovery while minimizing operational disruptions, resulting in significant cost savings by way of associated reductions to rig time, non-productive time, and possible lost-in-hole value of BHA components.

Updated April 2026