

CASE STUDIES

TURKEY

TRANSATLANTIC PETROLEUM, RE-ENTRY DRILLING

BACKGROUND

Cougar DS was contracted by Mardin Heavy Oil Group to drill Alibey-1_1, the first re-entry horizontal geosteering well in Turkey targeted to improve productivity.

This is one of only a few horizontal wells drilled in Turkey; it has important implications for exploiting reserves in the Anatolian Basin.

OBJECTIVES

- To complete re-entry from existing Alibey-1_0 well using Cougar DS geosteering technology
- Maximize natural fracture exposure by geosteering along the formation dip
- Complete the reservoir section, and maximize production
- Minimize non productive time (NPT) associated with borehole and drilling problems

PROCESS

Optimized Well Delivery Process

The key to success was to engage with our client's drilling, reservoir and geology teams. Also, through in-depth planning, we reviewed the entire operation set-up.

During the execution phase, highly skilled and experienced Cougar DS personnel performed exceptional geosteering to place the wellbore in the reservoir, and optimized drilling parameters to deliver a quality wellbore reaching total depth (TD) in the shortest possible time.

RESULT

- Cougar DS completed a 414m horizontal re-entry sidetrack
- Enabled exposure of extensive natural fractures throughout the horizontal section (confirmed by logs)
- Achieved effective directional control, dog leg severity (DLS) up to 16 degrees/30m
- Delivered quality wellbore for efficient tough logging condition (TLC) log runs
- Cougar drilled the well to planned TD, successfully completed with 4 ½" liner

Cougar Drilling Solutions' geosteering services and drilling expertise combined with the use of a Cougar steerable mud motor and MWD/LWD enabled the client to maximize reservoir contact for increased productivity and efficient production from the Mardin Heavy Oil Group.