

CASE HISTORY

SDI PLACES WELLS WITH 1.5 M SPACING, 37.5 DAYS AHEAD OF SCHEDULE

APPLICATION

Precision Gyro Surveying

TECHNOLOGY

Titan 2 Drilling Motor, gyroMWD (EM), and Wireline Keeper Gyro

LOCATION

Jordan

CUSTOMER CHALLENGE

The customer required 11 directional wells to be drilled within extremely close proximity as part of an In-Situ Conversion Process (ICP) project. These wells consisted of heater, producer, and observation wells, which all had to conform to a precise interrelated pattern to achieve the project objectives. The drillers' targets were planned as small as 24 cm in radius, utilizing an 8 ½ in (22 cm) bit to land the well over the targets, with center to center proximity of 1.5 m. The top target's TVD was 230 m and would require extremely tight control of survey accuracy and optimal well placement in both directional and vertical sections of the well. The client was using a rig with a short mast (7 m), adding further equipment complexity to the operation.

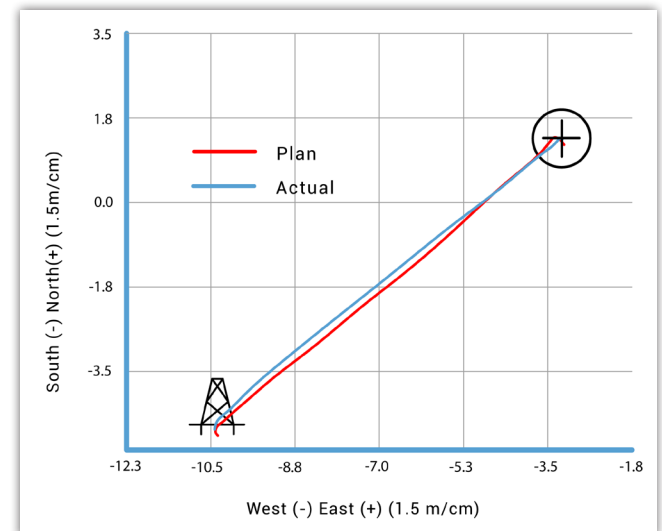
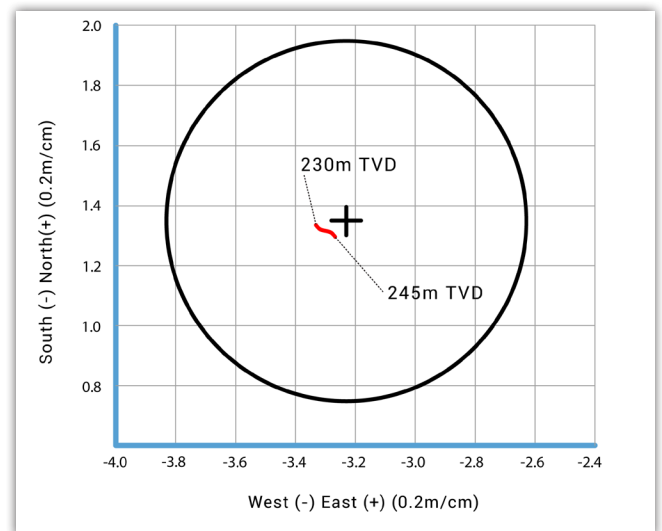
SCIENTIFIC SOLUTION

Prior to starting operations, Scientific Drilling worked closely with the customer to develop comprehensive drilling and surveying programs to ensure the project objectives were met. A number of test wells were also drilled to confirm BHA response and capability to hit the planned targets. SDI drilled the wells, utilizing SDI's EM gyroMWD for high accuracy navigation and custom built 6 ½" Titan 2 Drilling Motors with shortened power sections, to deliver superior reliability and meet the client's 6 m length requirement. SDI's Wireline Keeper Gyro was run using the customer's wireline truck, while each BHA was still in hole, to provide definitive surveys and allow any real-time corrections required.

The Customer identified the need for SDI to issue Pattern Delivery Reports at end of each well; detailing results as each well was completed. This allowed amendments to be made as the project progressed, and resulted in flawless execution of the well pattern.

CUSTOMER VALUE

The 11 well project was successfully and safely completed with all targets intercepted according to plan. With a major focus on drilling optimization, the project was finished 37.5 days ahead of schedule, providing the customer significant cost savings.



ALL WELLS TARGETS INTERCEPTED IN PROJECT

SDI successfully drilled all 11 wells using their precision gyro surveying technology, delivering optimal placement and the ultimate drilling confidence.

Updated November 2015

Copyright © 2015 Scientific Drilling International