

CASE HISTORY

ONE ATTEMPT WELL INTERSECT

APPLICATION

Wellbore Intercept
Unconventional – Coal Bed Methane

TECHNOLOGY

Lodestone Active Ranging System,
Keeper Gyro System, Wireline

LOCATION

Poland,
Continental Europe

CUSTOMER CHALLENGE

In order to extract gas from the CBM producer well, the client needed to drill an additional horizontal wellbore to intersect a single joint of pre-set fiberglass casing at 1055m MD and 45° of inclination.

Using Gyro and MWD survey methods alone could not provide enough accuracy to allow for a first time intersect. These traditional methods effectively mean that the operator is drilling blind and would require multiple sidetracks until the intercept is achieved, if at all. This results in extended rig time and inflated project cost.

SCIENTIFIC SOLUTION

To guarantee an intercept on the first attempt, SDI's Lodestone at bit ranging was deployed for the horizontal drilling well, while the Lodestone sonde was positioned via wireline in the single joint of fiberglass casing of the existing well at the depth of 1054.9m MD.

After the drill out the signal was immediately acquired at 1027.0m MD (drilled well) and ranging data collected all the way to 1146.01m, 1.27m from the intercept point. The sonde was tripped out of the hole and the target well intercepted at 1147.71m MD.

Utilizing a 24/7 operation with seamless integration, SDI Active Ranging, Directional Drilling, and Well Planning services were provided both on location and remotely from real time data centers in the UK and Houston. SDI was able to provide new target positioning data that could be instantly generated after each ranging sample.

The ability to range from an unprecedented 120m away ensured that the target well was consistently monitored from the start of 6" hole section, guaranteeing a successful one attempt intersect of the offset well.

CUSTOMER VALUE

SDI intersected the offset well on the first attempt, saving the client days of additional rig time. Thanks to SDI's Lodestone at bit ranging solution, the potential for fly-pasts and concerns for wellbore stability were eliminated.

