CASE STUDY

QUEST GWD ALLOWS STRATHCONA RESOURCES TO NAVIGATE DENSE FIELD AND SUCCESSFULLY PLACE WELLS ON NEW PAD

TECHNOLOGY

- Quest™ gyro-while-drilling (GWD) system
- SPEAR™ solid-state sensors

APPLICATION

- Wellbore placement
- Collision risk mitigation
- Pad drilling

LOCATION

- Orion Lake, Alberta, Canada

INDUSTRY CHALLENGE + OBJECTIVE

Strathcona Resources, an operator in Alberta, Canada, was drilling a pad with multiple surface and intermediate hole sections using 8-in. drill collars. The new pad was in close proximity to a large number of existing pads, with the additional wells at times having only 10 to 15 meters of separation and trending within 10° azimuth of each other. Due to these challenges, the risk of wellbore collision was extremely high, and magnetic interference between the wellbores would make drilling with MWD data difficult or impossible. We suggested implementing our Quest GWD system in partnership with a third-party service company as a solution.

TECHNOLOGY + SERVICE SOLUTION

- We suggested implementing our Quest GWD system, powered by SPEAR solid-state sensors.
- The solid-state SPEAR sensors measure the earth's rotational rate precisely and accurately.
- The sensors are able to handle harsher downhole environments when compared to conventional GWD systems.
- The shorter SPEAR sensor package, loaded into a compact collar, allows greater steerablility and sensor placement closer to the bit without the need for non-mag.

RESULTS + VALUE DELIVERED

- We ran the Quest GWD system in seven of eight surface hole sections and in five of eight intermediate sections for both injector and producer wells.
- Despite the incredibly crowded field (Fig. 1), we were able to navigate through the narrow well separation windows and assist with placing the wells correctly, achieving the operator's directional objectives.
- Running the Quest GWD system with the service company's EM telemetry system enabled us to take the surveys with almost no reshoots, while the accelerated data transfer of the telemetry and solid-state sensors in our Quest GWD system improved survey speed and accuracy.

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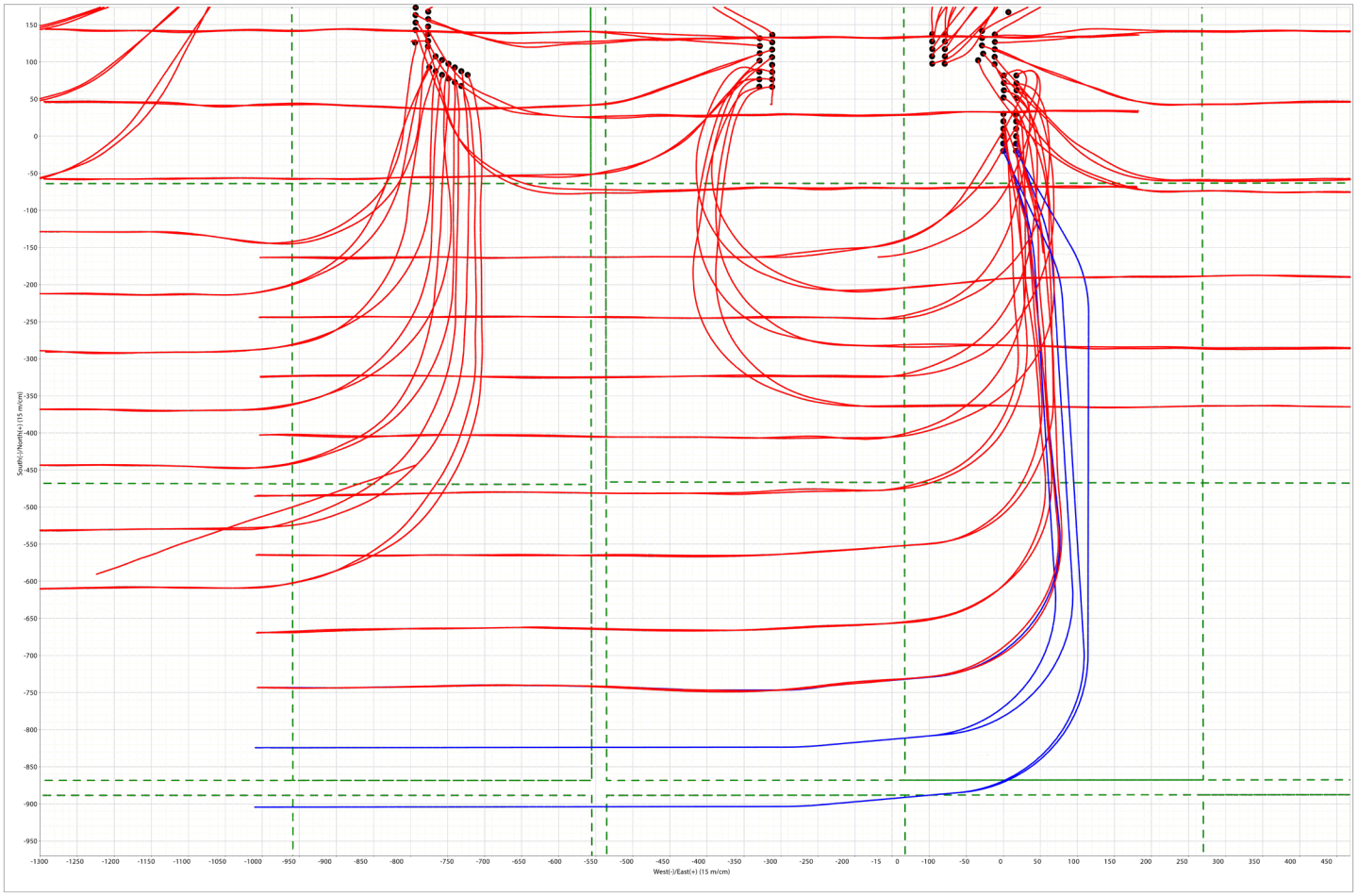

This image shows the dense network of existing and new wells.

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