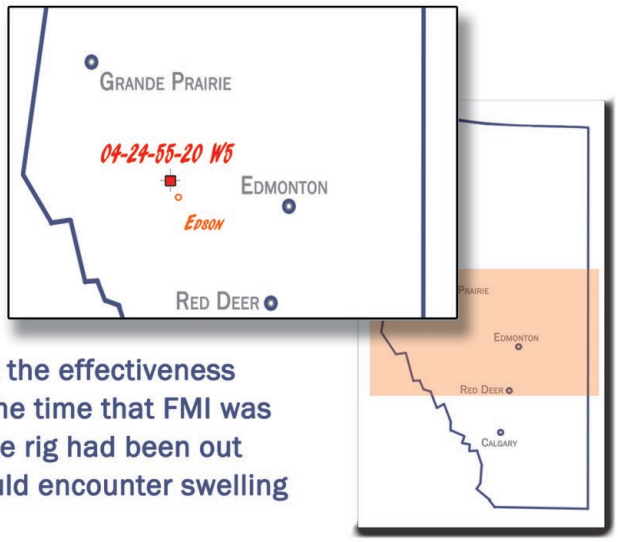
FMI

Sunday, October 3rd, 2010

Fairborne Energy Ltd

LSD 04-24-55-20 W5 - Edson, AB



FMI was called out by Fairborne for a run in the challenging Edson area. With a measured depth of 2970m to the end of the intermediate casing, and multiple coal seams to pass through, this application was going to be a severe test on the effectiveness of the Fill Drill Stubby to effectively land the casing string. By the time that FMI was on location and the rig was ready to run in the casing string, the rig had been out of the hole for a number of hours, and it was likely that we would encounter swelling and bridges.

On lease, FMI was told of potential issues with sands at 1400m, a long coal seam starting at 2820m, and finally another coal seam at 2910m. Moreover, the angle of the well bore was running near parallel through the two coal seams around 67 and 82 degrees, increasing their effective length to almost double the vertical depth. Running in, we passed through the 1400m mark without issues, continuing on through. Several hours later, we encountered the first bridge at 2825m in the first Coal Seam. This was quite a severe bridge, and required approximately 45 minutes of constant stroking of the Stubby tool to clear. While actuating, the tool was making between 1 and 2 foot gains per 3 foot stroke. After clearing the bridge, the casing string was continually worked every meter while we continued to run in until 2917m and encountered a second bridge. The Fill Drill was used again to clear this bridge, requiring roughly 10 stokes to clear. Once through, the casing was eventually landed at TD without further incident.

The Casing Landing Tool was drilled out on the following Tuesday. The total drilling operation took about one hour with no issues. The 513 PDC bit was rotated by a Mud Motor with a 1.5 degree bend sub at 80 RPM on 4" drill string with 2-4 Decs on bit, and pumps engaged at 10,500 Kpa pumping 700 liters. After drilling out the tool, Fairborne was able to drill the final 1000m of their well without a bit trip. Once recovered, the bit was graded a 1-2. Finally, Fairborne had no issues landing their multi-stage packer assembly in the open hole portion of the well. This run was an excellent example of the Fill Drill Stubby's ability to successfully land a casing string despite well and formation issues that have hampered conventional technology in this area of Alberta in the past. Using a bit designed specifically to meet Fairborne's requirement to deal with coal seams and prevent packing off, FMI was able to land the casing string on time, and without any issues that have been experienced in the past utilizing conventional shoe technology.

LEFT: *A Picture of PD 427 while arriving at lease*
CENTER: *The Crew Preparing The Fill Drill Stubby For the Casing Run*
ABOVE: *Pason Monitor Displaying Successful Landed Casing Depth*