

CHALLENGE

To improve drilling rates of penetration during the initial install of ExxonMobil-Pason DAS software in conjunction with AlphaAutomation™

SOLUTIONS

- Design a robust installation plan
- Optimize drilling parameters
- Monitor operations remotely
 - Employ an in-house optimization engineer

RESULTS

- Established a drilling performance benchmark at 995 ft/day
- 18% penetration rate improvement
- Improved AFE of 4.1 days resulting in a \$382K savings to the operator

HIGH
PERFORMANCE
HIGH VALUE




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Alpha Sets Drilling Record for an Oil Major in the Delaware Basin

Delaware Basin Case Study

THE APP

This case study is about the successful installation of ExxonMobil-Pason DAS application within the AlphaApp platform to automate drilling while using complex automation control algorithms to optimize rate of penetration, reduce stick-slip and maximize drilling energy in conjunction with AlphaAutomation's advanced auto driller. IMPORTANT: AlphaApps can host any third-party application on its EDGE server located at the rig site.

SET UP A NEW APP ECOSYSTEM WITHIN EDGE AT THE RIG SITE

An oil major in the Delaware basin, planned to use the ExxonMobil-Pason DAS application to improve drilling performance. Within a short time frame, Precision installed and set up DAS within AlphaApps then utilized it in combination with AlphaAutomation. Our team, comprised of field electrical engineers, IT, Alpha subject-matter experts, and operations, collaborated with the third-party app owner to successfully install and test the software.

The app was extensively and successfully tested at a training rig for Alpha compatibility to ensure optimum service delivery before field deployment.

TAKING DRILLING PRODUCTIVITY TO THE NEXT LEVEL

Our operator drilled in a batch sequence that placed our pad near several offset wells. And offset wells drilled by competitors without applications and automation, plateaued at an average of 600ft/day (see Figure 1 on page 2). Two of these wells pushed drilling performance footage to as much as 820 ft/day.

Precision improved drilling efficiency to 995 ft/day using AlphaAutomation and AlphaApps. The intermediate section on the batch drill and the subsequent complete well allowed the operator to break the record in Delaware. AlphaAutomation and AlphaApps are essential to the operator's huge success (see fig 2 on page 2) paving the way to set a new benchmark in drilling performance.

AFE RESULT

4.1

Days AFE Savings

RATE OF PENETRATION

+18%

Improvement over offsets on same pad

FOOTAGE PER DAY

+15%

Improvement in ft/day compared to previous record

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FIGURE 1

Figure 1 shows the footage-per-day on the Y-Axis and the nine fastest well drilled on the field. The bars inside the green box represent the three wells on the same pad (PAD A). The green bar shows Precision's footage-per-day compared to competition wells on the same pad. This well utilized the ExxonMobil-Pason DAS app with Alpha Automation.

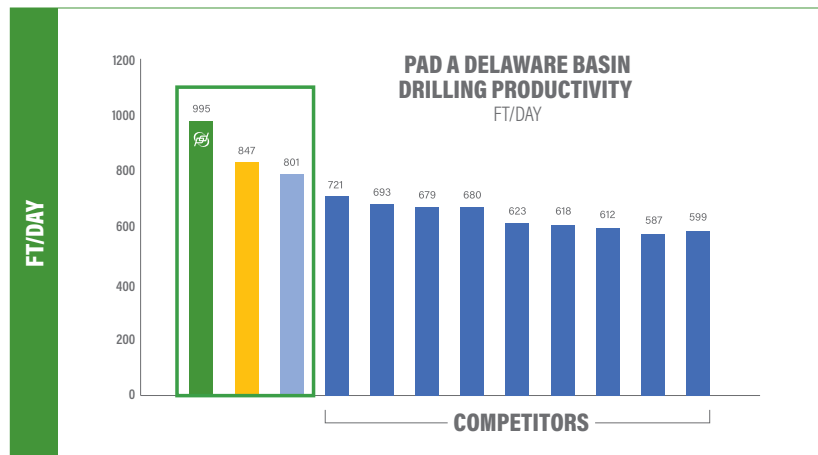


Figure 1

FIGURE 2

Figure 2 shows the time vs. depth chart for three completed wells and an intermediate batch drilled section. The competitor 1 & 2 wells were drilled on PAD A prior to Precision Drilling wells. The intermediate section (light green) set the record for penetration rates for the operator with an 18% increase in penetration rate. The next well (dark green) set a new operator record for the fastest well with 4.1 days AFE savings.

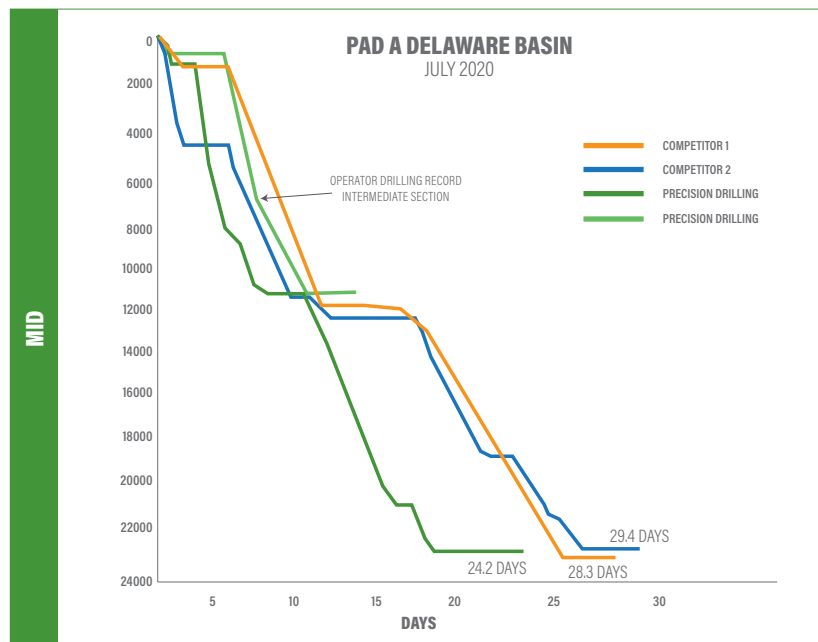


Figure 2