

Case Study

Drilling Beliefs & Analytics | DBA

Drillstring Washout Identified in Real Time

While drilling the 6.75" section, DBA Abnormal Pressure Loss and Washout Beliefs provided early warning of a developing washout. Real-time analytics detected a significant pressure drop trend, prompting the rig to trip out before a twist-off occurred. The rig subsequently confirmed a drill pipe connection washout, validating DBA's timely detection.

Cost avoided

\$1.5M



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Event Summary

While drilling ahead, the Drilling Beliefs & Analytics (DBA) solution flagged abnormal pressure loss with high confidence. The alert coincided with a visible pressure trend, validating concerns of a wash. Upon tripping out, the rig confirmed a washout at the drill pipe connection. DBA's alerts provided the confidence needed to act before the situation escalated.

Response

Rigsite personnel performed surface checks, then tripped out to investigate. The washout was located and defective joints laid out, preserving the BHA and drill pipe integrity.

Outcome and Value Delivered

DBA's timely detection, combined with the Drill Site Manager's (DSM) vigilance, prevented a twist-off that would have required fishing and possibly a sidetrack. The avoided cost of \$1.5M underscores the critical value of real-time washout detection in maintaining drilling efficiency and safeguarding equipment.

Well Details

Timeframe:

April 2025

Location:

Delaware Basin – US Land

Well Section:

6.75” Lateral

Measured Depth:

14,548 ft

Key Event Timeline

12:00
Pressure Loss Trend

DSM observed gradual standpipe pressure decline over several stands.

14:20
DBA Alert

Spiked to 0.77, indicating potential washout; pump pressure dropped ~300 psi.

18:00
Decision to POOH

DSM elected to trip out of hole, inspecting for wash.

22:45
Action

Inspection revealed a wash at 766 ft on a drill pipe connection.

