

Case Study

Drilling Beliefs & Analytics | DBA

# Twist-off Avoided with Early Washout Detection

DBA Abnormal Pressure Loss and Washout Beliefs provided timely alerts while drilling in the lateral, enabling the DSM to act before a twist-off occurred. By tripping out to inspect the drillstring, the team discovered a wash between two joints of drill pipe. The proactive decision prevented a costly fishing operation and maintained drilling continuity.

Cost avoided

**\$1.5M**



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## Event Summary

While drilling a 6.75-in. lateral section in the Delaware Basin, the Drilling Beliefs & Analytics (DBA) solution flagged Abnormal Pressure Loss Belief, notifying the rig. This alert coincided with a gradual decline in standpipe pressure (SPP) over one stand. After an initial pressure test, drilling resumed; DBA, again, detected a more pronounced SPP drop –this time with higher confidence. Based on DBA insights and personnel experience, the Drill Site Manager (DSM) elected to trip out of hole (TOOH) to investigate a potential washout.

## Response

During the trip out, rigsite personnel inspected the drillstring and identified a wash between two joints of drill pipe, confirmed by visible mud leakage at surface. DBA's accurate and timely alerts enabled the team to validate the issue quickly and take corrective action before it escalated.

## Outcome and Value Delivered

By surfacing the problem early, DBA heightened situational awareness and prompted decisive action. The combination of real-time analytics and field expertise allowed the team to prevent costly NPT events such as twist-offs, fishing operations, or sidetracks. The result: preserved well integrity, reduced operational risk, and maintained drilling efficiency.

## Well Details

**Timeframe:**

May 2025

**Location:**

Delaware Basin – US Land

**Well Section:**

6.75” Lateral

**Measured Depth:**

18,443 ft

## Key Event Timeline

**09:25**  
**First DBA Alert**

DBA Abnormal Pressure Loss Belief flagged, prompting an inspection of surface equipment.

**09:30**  
**Drilling Resumed**

Drilling resumed with heightened attention on pump pressure.

**09:52**  
**Second DBA Alert**

A second, higher-confidence alert was observed. This led to additional troubleshooting steps.

**10:30**  
**Trip Out Initiated**

Decision made to TOOH. The crew Inspected joints and connections, while tripping out.

**21:00**  
**Washout Located**

Washout located in drill pipe connection and both joints were laid out.

