

Pryor Trust Blowout

DATE OF EVENT: 22nd Jan 2018

OUTCOME: 5 Fatalities

THE CIRCUMSTANCES:

- The onshore Pryor Trust gas well in Oklahoma was in the process of being drilled.

WHAT HAPPENED:

- Drilling operations had been ongoing for 10 days.
- The mud logger noticed signs that the drill pipe had inadvertently entered a different geological formation.
- Gas started to escape from drill mud returning to the surface. Mud was diverted to a separator so the gas could be safely flared.
- The size of the flare indicated that there was a significant amount of gas in the mud, meaning the well was under balanced, allowing gas to flow from the well.
- Drilling continued under balanced until the drill bit required changing.
- The well was circulated for a period of time, the flaring continued, indicating that the well remained under balanced.
- Gas continued to enter the well during the drill pipe removal, but indications of this were not noticed or acted upon.
- Mud was observed bubbling in the well prior to the blowout, but no action was taken until it was too late.

MAH Barriers

Alarm System

- The alarm system was deactivated for the 14 hours prior to the blowout because irrelevant nuisance alarms flooded the driller.

Control System Competency

- The drillers were using new electronic logging system they were not trained in how to use.

Flow Checks

- Flow checks were inadequate and not carried out as required by procedure.

Any of these 3 barriers could independently have prevented this incident by providing confirmation of mud being replaced by gas entering the well.

Photo showing inside the Drillers Cabin located on the drill floor →



7Cs Discussion Points

- **Change Management** – There was a change in well conditions but no action was taken. Do you have set trigger points for stopping the job when something changes?
- **Culture & Complacency** – Alarms were ignored & signs of well control situation not acted upon. What monitoring activities do you undertake to ensure procedures are being followed?

