

PCP SandGuard

► OVERVIEW

The 4 ½" PCP SandGuard is designed to enhance pump longevity and minimize rod/stator issues in Coal Bed Methane (CBM) operations. Installed above the Progressive Cavity Pump (PCP), it effectively mitigates the damaging effects of sand fallback.

► OBJECTIVE

To protect the PCP system by preventing sand fallback and reducing wear, operational interruptions, and mechanical failures.

► DEPLOYMENT SUMMARY

The SandGuard was installed above the PCP on April 29, 2020. Eight months after installation, the system remains fully operational, with no reported issues related to sand fallback.

► PERFORMANCE RESULTS

Reduced PCP Restart Issues: Lower start-up amps and torque were observed compared to baseline data; no shaft breakages were recorded.

Unhindered Rotor Operations: PCP rotor successfully landed through the SandGuard for standard tagging, pull-up, and push-down procedures.

No Operational Interference: Rod removal and flushing operations proceeded without obstruction.

No Additional Failure Points: The SandGuard introduced no new vulnerabilities to the PCP system.

► KEY BENEFITS & FEATURES

- » **Complete Sand Isolation:** Prevents sand fallback into the PCP.
- » **Abrasion Mitigation:** Effectively diverts abrasive particles.
- » **Particle Size Agnostic:** Performance unaffected by sand granularity.
- » **Self-Cleaning on Start-Up:** Ensures consistent operation.
- » **Rotor Compatibility:** Allows full rotor passage through the tool.
- » **Quick Installation:** Simple and efficient deployment process.
- » **Enhanced System Protection:** Guards against shaft breakage, stator wear, and electrical stress.



PCP SANDGUARD SPECIFICATIONS

Assembly No.
E02435

Maximum OD
4.25"

Length
136.4"

Upper thread connections
2 7/8" 8 RD API EUE Box

Lower connection
2 7/8" 8 RD API EUE Pin

Material
L80

Sand Capacity
697.8 cubic inches

WELL DETAILS

Installation Date
29 April 2020

Commission Date
22 July 2020

Production Rate
220 bfpd

PCP Speed
60 RPM

Wellhead Pressure
1400 KPA

Tubing Pressure
36 KPA

PCP Motor Amps
14.2

PCP Drive Frequency
33%

Torque
at 43A FLC