

DIAL Datasheet

Digital Intelligent Annulus Vent (DIAV)

The safer and greener solution to well integrity problems.

About

Sustained Annular Pressure (SAP) is excessive casing pressure in wells that persistently rebuilds after bleed-down.

Affecting more than 30% of wells and costing operators billions of dollars annually, SAP results from gas migration through any number of conduits: a leaking cement sheath, tubing connections, downhole accessories, packers or wellhead seals, casing degradation or failure of any other well barriers.

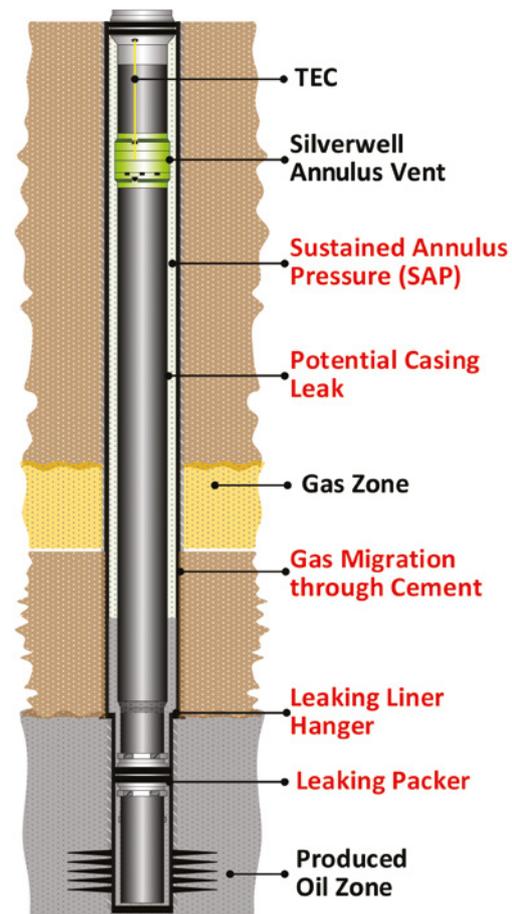
Oil & gas wells are routinely visited to check for potential well integrity problems such as annulus pressure build-up, and any excess pressure is bled to the atmosphere. Not only does this cost the operator and create safety concerns to personnel and property, it also poses a hazard to the environment. This is especially true in the presence of corrosive gases or poisonous gasses.

Silverwell offers a safer and greener solution with its Digital Intelligent Annulus Vent (DIAV). It offers continuous monitoring of the annulus, and the DIAV valve will open venting pressurized gas in the annulus to the production tubing. Silverwell enables all of this without any greenhouse gas emissions or placing personnel at the wellsite where they face risks.

Solution

The main components of Silverwell's DIAV system stem directly from their field proven gas lift equipment. Similar to its Digital Intelligent Artificial Lift (DIAL) counterpart, the DIAV unit consists of a metal-to-metal actuated seal to selectively block or vent flow from the annulus to the tubing. It also includes a back check valve to keep any production pressure from reaching the annulus. Opposed to its DIAL counterpart, the DIAV unit would be installed as near as possible to the tubing hanger. This maintains any completion fluid in the annulus as well as reducing the TEC Demands. The DIAV system uses the same surface equipment as the DIAL system, and other Silverwell components can be included on the same TEC.

Operationally, the DIAV system continually monitors the annulus pressure. When it reaches a specified pressure, it can alert the operator to vent the casing or automatically vent the annulus without human intervention.



Applications

- All oil & gas wells which can potentially be affected by SAP

Features

- All-electric system with 1 TEC line
- Can use the same TEC as other Silverwell equipment
- Field proven valves and actuators (200+ years cumulated run life)
- Continuous monitoring of A annulus and tubing pressure
- Automated venting to tubing when A annulus pressure reaches set target
- Digital technology / Remote monitoring

Benefits

- Eliminates well site visits
- No greenhouse gas emissions
- Enables continuous well production while managing Sustained Annular Pressure
- Downhole venting, no surface risk
- No changes required on wellhead
- Fully automated solution

Specification

For the full specification, please refer to the Slimline and Concentric DIAL Datasheets.

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ARTIFICIAL LIFT INTELLIGENCE

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