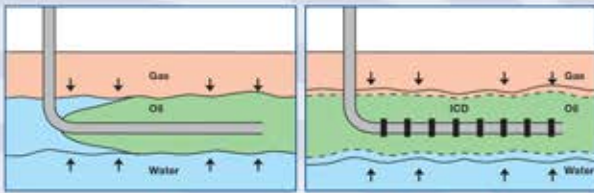




QFLUX ICD



The QFlux ICD is the evolution of inflow control devices and the design is based on experience in optimized recovery in horizontal wells.

Inflow Control Device

In a horizontal well, reservoir permeability heterogeneity causes irregular drainage of the reservoir. The produced (or injected) fluid would pass directly through the screen with very little pressure drop over the screen resulting in production from the reservoir sections with the highest permeability.

In homogeneous reservoirs, friction from the flow along the horizontal section results in a higher pressure at the toe compared to the heel, leading to the highest production at the heel (coning). This uneven production can lead to early water or gas break through resulting in lost recovery and revenues.

By installing QFlux the two effects are eliminated leading to a more uniform drainage of the reservoir and a higher ultimate recovery. The QFlux are at best placed within isolated sections for regulating the flow. The choking effect of the orifices creates a flow restriction and a differential pressure on the higher permeable sections of the reservoir allowing tighter sections to contribute. This balancing of the inflow profile equalizes flow along the length of the well and will result in a better drainage and delaying water or gas breakthrough.

The result is an uniform production (or injection) from the entire horizontal well with a higher ultimate recovery.

Features

The QFlux design provides;

- A design based on friction loss and reservoir heterogeneity permeability or production profile
- A specific flow rate and pressure drop by altering orifice size
- Pressure drop rating based on real test data, not on extrapolating
- Up to 6 orifices
- Loss of pipe strength compensated by housing
- Orifice mounted in housing and not in pipe
- Removable housing-cover for installing orifices on site anticipation on well data
- Large robust orifices for easy installation in housing
- Designed and tested for 20 year field life
- Can be used in combination with well screens or as a single sub



Customized design

The design is customized to your demands;

- Customized ICD modelling based on analyses of well data and focused on production and reservoir objectives.
- Reservoir modelling for optimum well location within the pay thickness
- Material grades: 316L/Duplex - Ceramics
- Pressure drop 1 - 400 psi
- Flow rate 0 - 1200 bbl/day
- Fits all screen sizes
- Works with SIS, αSIS and QSIS

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