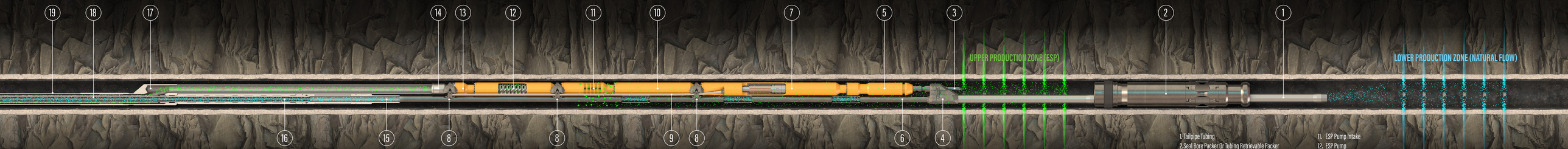
System 21: Dual Zone - Single ESP -Concentric Tubing Strings

Upper Zone ESP / Lower Zone Natural Flow (Seal Bore Packer Or Tubing Retrievable Packer)



UMS Flowell
Performance Under Pressure

Multiple reservoirs can be produced independently in the same well bore.

In cases where the upper zone requires an ESP and the lower zone flows naturally, a dual zone completion can be used with two concentric production tubing strings.

A flow crossover with high strength bypass tubing is used with a pump support. Zone isolation is either with a seal bore packer or a retrievable tubing packer.

The seal bore packer allows zonal isolation during workover, where the tubing retrievable packer does not.

ADVANTAGES

- Increased production by producing two zones independently with dissimilar productivity
- Only need to drill one well to maximise production from both zones
- Seal bore packer allows zone isolation with an isolation valve during workover to prevent zone communication where the tubing retrievable packer does not

1. Tailpipe Tubing
2. Seal Bore Packer Or Tubing Retrievable Packer
3. Spear
4. Pump Support Block
5. ESP Gauge
6. Flush Joint Bypass Tubing
7. ESP Motor
8. Bypass Tubing Clamp
9. MLE Cable
10. ESP Seal Protector
11. ESP Pump Intake
12. ESP Pump
13. Discharge Pressure Sub
14. Discharge Head
15. Telescopic Swivel
16. Stinger
17. Flow Crossover
18. Inner Tubing (Lower Zone Injection)
19. Outer Tubing (ESP Production From Upper Zone)