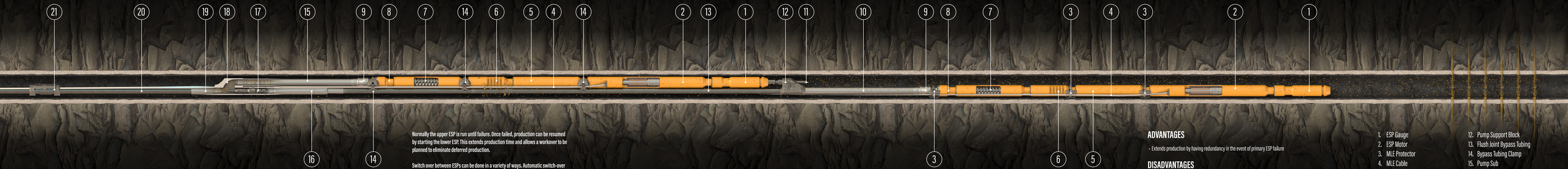
System 05: Y-Tool Only Completions

Dual ESP With Single Y-Tool & Pump Support - Redundancy



Normally the upper ESP is run until failure. Once failed, production can be resumed by starting the lower ESP. This extends production time and allows a workover to be planned to eliminate deferred production.

Switch over between ESPs can be done in a variety of ways. Automatic switch-over is achieved by either having ESP check valves above each pump, or incorporating a Y-valve.

Slickline switch-over is achieved by having a blanking plug in the Y-tool for producing the upper ESP, and replacing the blanking plug with an isolation sleeve for producing with the lower ESP.

ADVANTAGES

- Extends production by having redundancy in the event of primary ESP failure

DISADVANTAGES

- No access to the reservoir below with the ESPs installed

1. ESP Gauge
2. ESP Motor
3. MLE Protector
4. MLE Cable
5. ESP Seal Protector
6. ESP Pump Intake
7. ESP Pump
8. Discharge Pressure Sub
9. Discharge Head
10. Handling Sub
11. Spear
12. Pump Support Block
13. Flush Joint Bypass Tubing
14. Bypass Tubing Clamp
15. Pump Sub
16. Telescopic Swivel
17. Bypass Nipple & Blanking Plug
18. Y-Tool
19. Top Nipple
20. Handling Sub
21. Production Tubing Connection

UMS Flowell
Performance Under Pressure