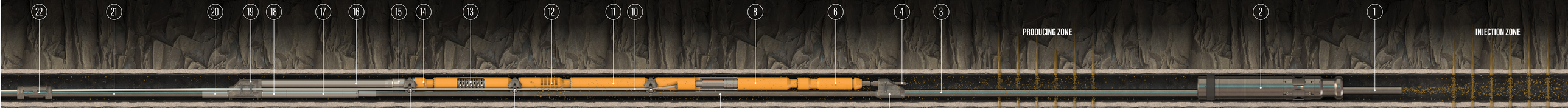
System 04: Y-Tool Completions
Dump Flood - Single ESP With Pump Support



Water injection is a common method of increasing a depleting oil reservoir pressure to increase the reservoir productivity. Conventional water flood projects may not be economically viable.

A low-cost method can be done with an existing producing well that has watered out, by installing an electrical submersible pump (ESP) and produce water from the existing production zone and inject it into an injection zone.

UMS Flowell's Y-tool with pump support can be used with an ESP for dump flood applications as an alternative to inverted ESPs using conventional ESPs. The system is run without a blanking plug installed in the bypass nipple.

The production zone and injection zone are isolated with a packer and the master valve on the Christmas tree is closed. When the ESP is started the water from the production zone is produced through the bypass tubing into the injection zone.

UMS Flowell
Performance Under Pressure

APPLICATIONS INCLUDE

- Producing water from one zone and injecting it into another zone using conventional ESP equipment

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