

Experience transfer - HPHT Wireline

Procedures, Technology and Qualification principles

Background

- Recent operational learnings and technology qualification
- HPHT definition: SIWHP > 690 bar, BHT >150 degC
 - **However**, for interventions consider HPHT planning and procedures at lower pressures
- Large remaining oil and gas deposits in deep tight reservoirs associated to HPHT

Planning and procedures

Well control planning

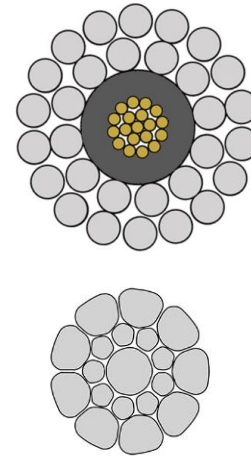
- Cable selection – Type and OD
- System integration testing -Sealing capability in PCE
- Grease type and dynamic viscosity
- Competence - HPHT training
- 2x release functions in BHA

Well control stack:

- Grease injection head configuration - Flowtubes and grease inlets
- BOP configuration
- Monitoring - Grease pressure and grease flow
- Shear seal and backup
- Flanged connections below BOP.
- Elastomer selection

Operational procedures:

- Cable running speed
- Avoid static cable
- Hydrate inhibition
- Bleed-off procedure



Technology and qualification principles

Cable technology

- Gas blocked/ filled braided cables
- E-slickline
- Composite rods
- Coated fibre cables

Qualification considerations

- System integration test with pressure control equipment (prove sealing capability with PCH/BOP)
- Shear/seal test
- Mechanical properties - Fatigue, Compression, Abrasion
- RGD properties
- Electrical properties
- Environmental exposure,
- Other - Fishing, Drum crush