

Recent Chevron deepwater permitting experience

5 approved permits for deepwater wells (WD: 4500-6800')

- Development wells: 2 x APD+APM (injectors, no WCD/NTL10)
- Exploration/Appraisal wells: 2 x RPD, 1 x APD
 - All exploration/appraisal wells re-designed to allow full shut in

Experience from most recent approved permit (exploration well)

- APD submitted 5/20, 1 revision on 8/10, approved 8/15
- Few comments on well containment portion (RP checklist and WCST)
- Majority of comments on conventional part of APD
 - Mostly requests for additional info
 - Request to change BOP test pressures (50/50 to mudline instead of RKB)

Success factors for permitting

Challenge = keeping up with changes ...

Communication with BOEMRE region & district engineers

Transfer of learnings (info/docs required, deviations)

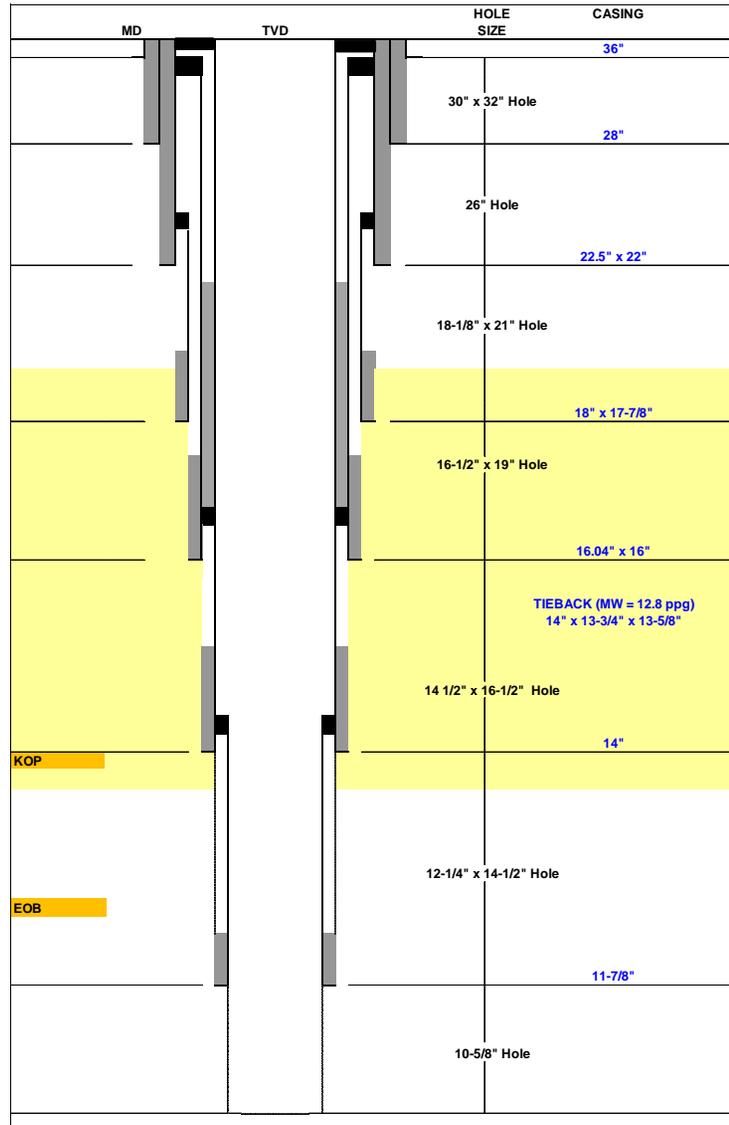
- Share comments received on APD submittals
- Permitting documents on shared server accessible to all teams
- SME's (casing design, cementing, internal BOP group), one person entering all permit applications

Well containment portion

- Roll out WCST
- Integration with MWCC interim containment plan
- "Standardized" RP checklist
- Well data supplement for containment (same document format for all permits)
 - Potential for HC bearing zones by hole section
 - Gradients – data sources & description of methodology
 - WCST (L1&2) with supplemental information
 - Broaching discussion

Well design

Well design to meet NTL-10



To date, all wells were redesigned to allow full shut-in

Challenges

- Collapse (16", 13-5/8")
- Burst (16", 22.5/23")
- Shoe strength (broaching)

Major issue

- Use of existing pre-NTL10 wells

