

1. Hod A P&A – 2023 / 2024
2. AkerBP upcoming P&A scope
- next few years
3. Final P&A Goal for all of us

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Hod A P&A

- **History**
 - Discovered 1974
 - On production 1991
 - First unmanned platform in Norway – 8 slots
 - Stopped production in 2012
- **Hod A P&A**
 - Phase 1 – Intervention scope Pre- P&A 2023
 - Phase 2 – Permanent P&A during dec 2023 through sept 2024

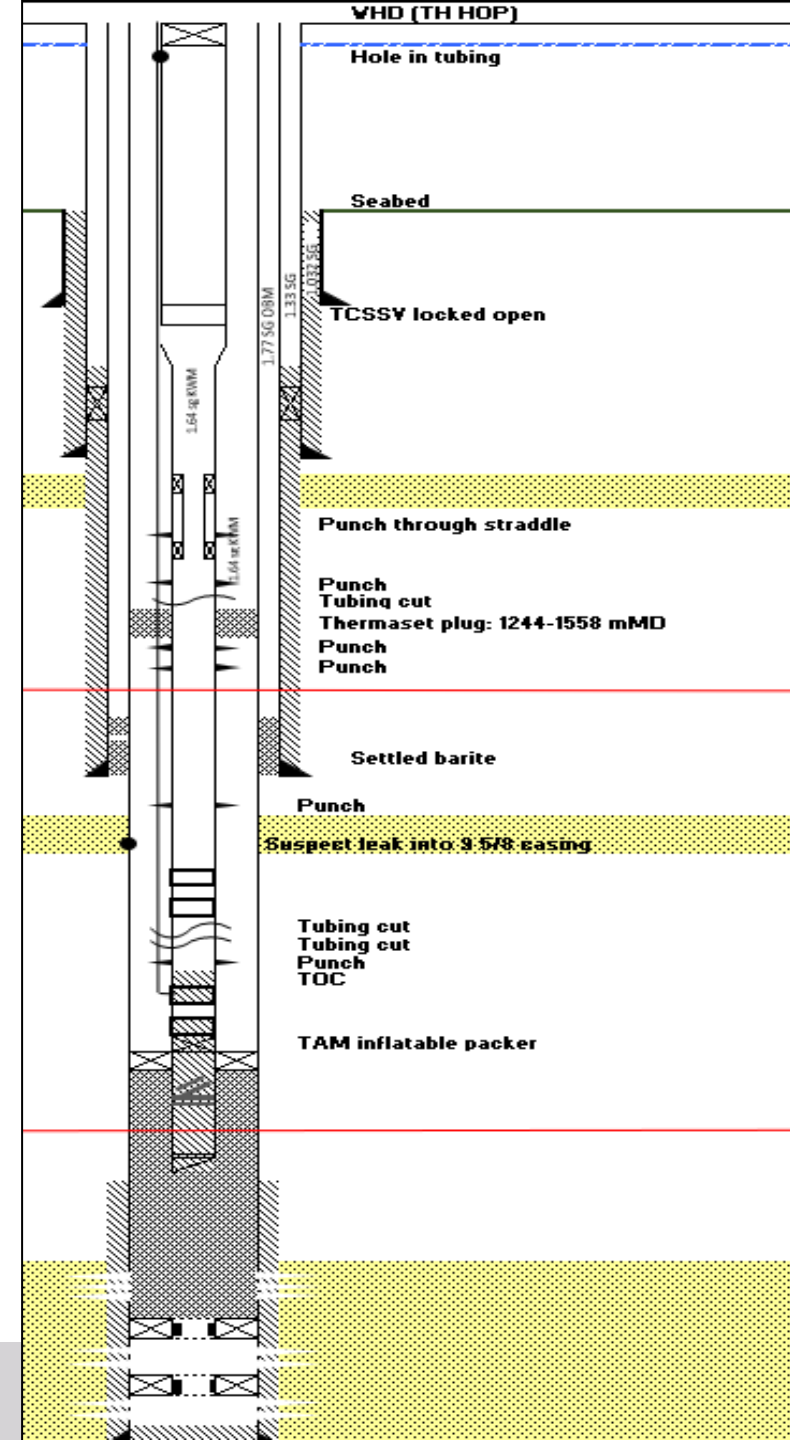


Hod A-2 T3

A-2 T3 Status prior to Phase 2 – rig P&A

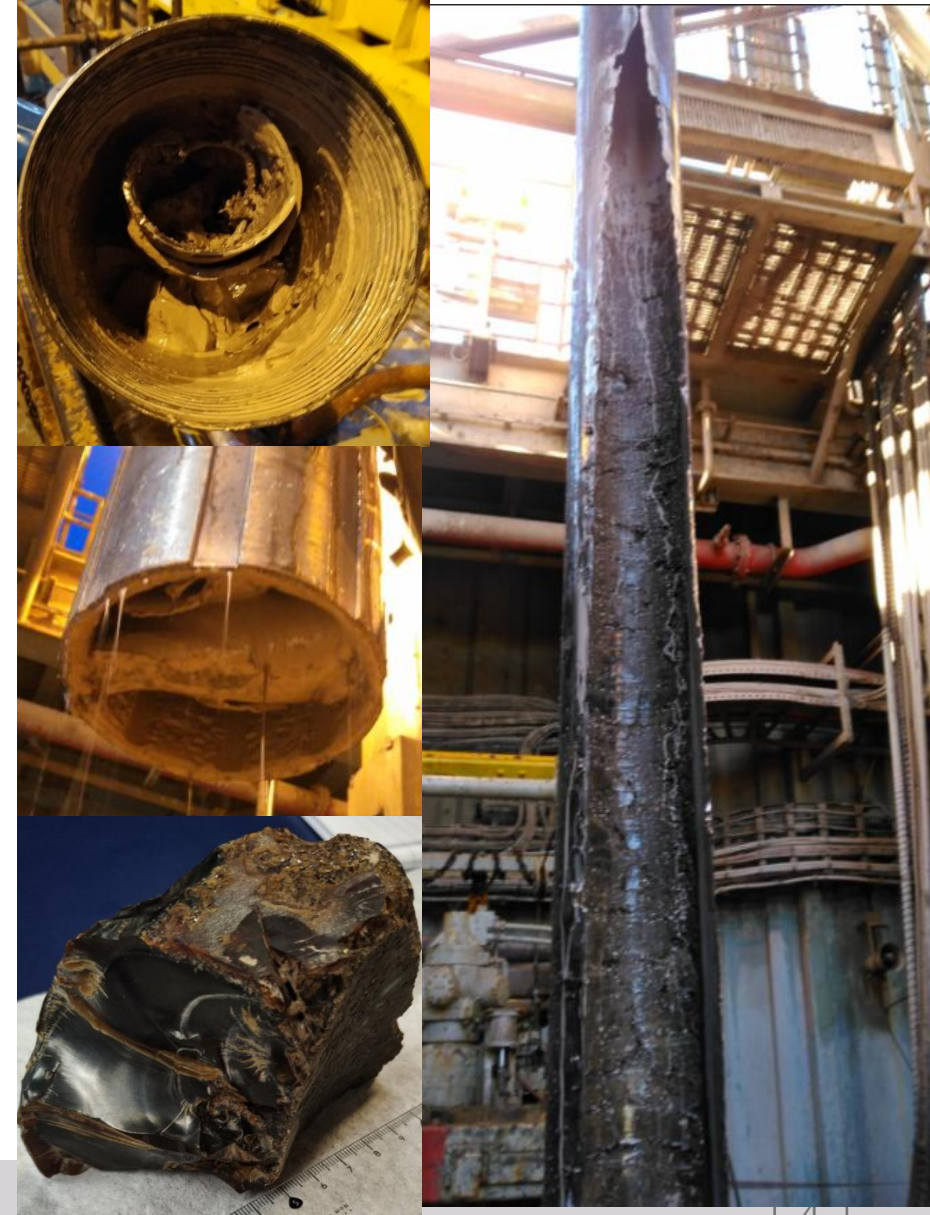
Issues on Hod:

- P&A 11-12 yrs after production stop
- Velocity strings installed – CT Straddles
- Thermaset in A-annulus
- Deepset gauge w/ctrl line



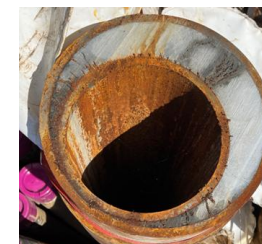
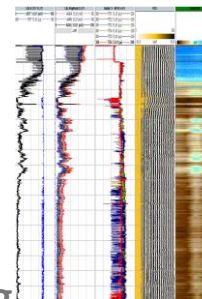
A-2 T3 FINAL STATUS

- A leak in the 9 5/8" with access to SOI 7 was discovered during Phase 1, after isolating SOI 9.
- Milling required to remove tubing had cut hole in 9 5/8" and damaged 13 3/8" at 1350 m.
- Chokes installed (various LCM, Thermaset, inflates, and cement had been tested.

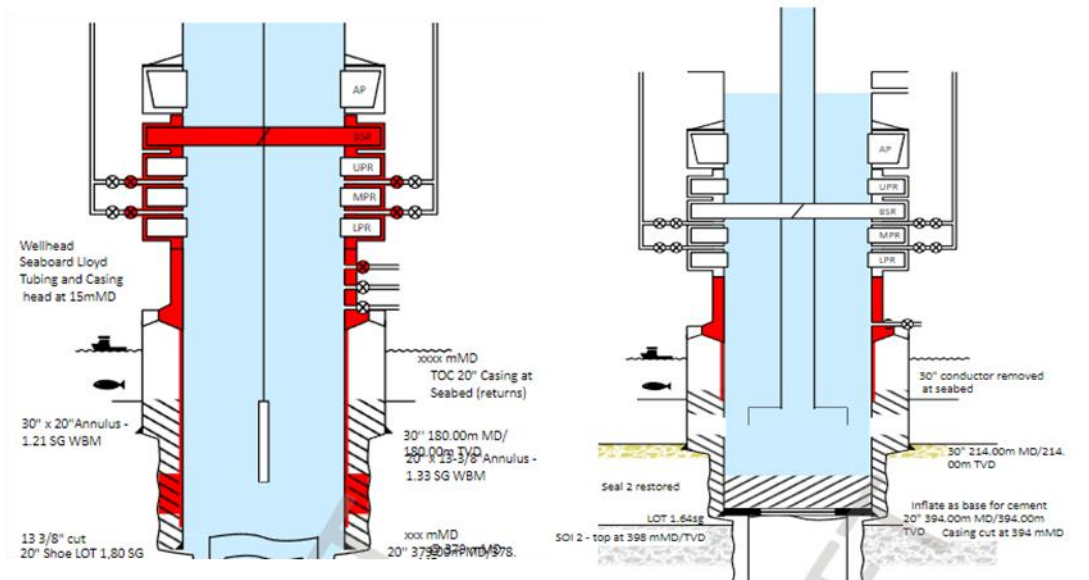


New technology / methodology

- SJI – Slot Jet Isolate used to puncture casing and wash out settled barite for easier retrieval of casing
- CICM – Circumferential cement bond logging on drill pipe.
- Sandwich joints – enhanced methodology for cemented casing retrieval, dependent on 13 3/8” casing cement
- Bismuth – Taken the plugs a step forward
- using bismuth beads instead of casted bismuth

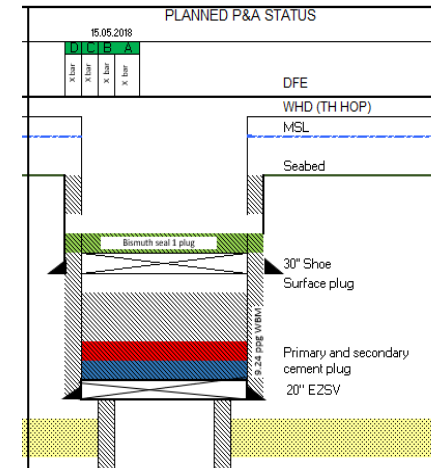


How we did it



Log 20» casing with wireline

Section mill a 7 m window in 20» csg



Bridge plug placed in the 20» casing

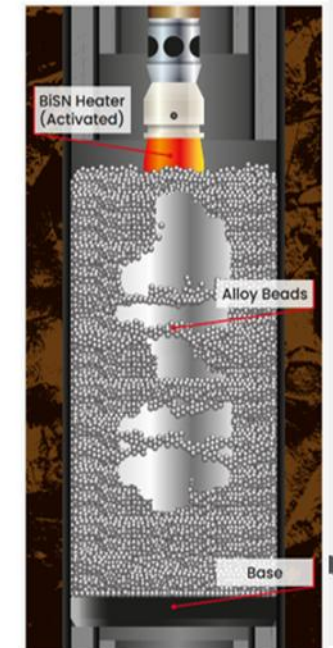
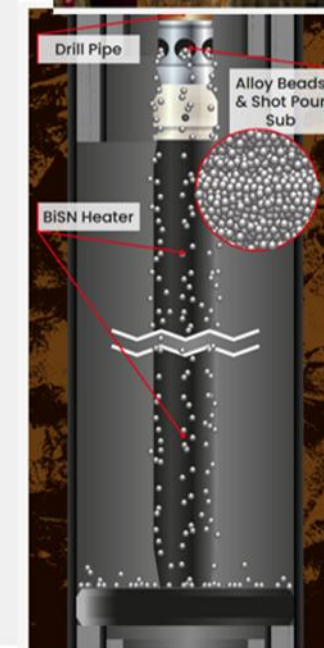


Big bag lifted into rigfloor



Funnel installed into stick up on drill pipe

Start to pour beads - controlled



Ula Tambar Oda P&A and Decom

Mission:

- Permanent plug & abandonment, removal and disposal of Ula Q, Ula D, Ula P, Oda and Tambar-facilities, performed safely, in accordance with approved disposal plans, giving best value to Aker BP and JV partners, and to the satisfaction of other stakeholders and the wider society"



Valhall WP P&A and Decom

Mission:

- Permanent plug & abandonment, removal and disposal of Valhall WP



Aker BP P&A Projects

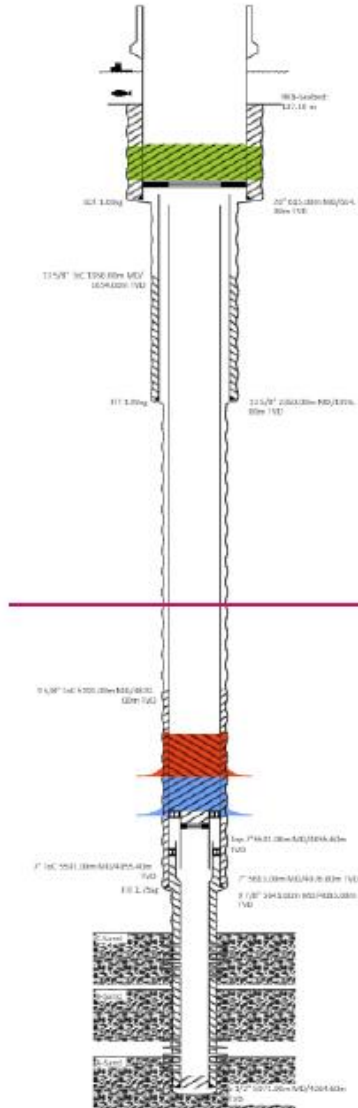
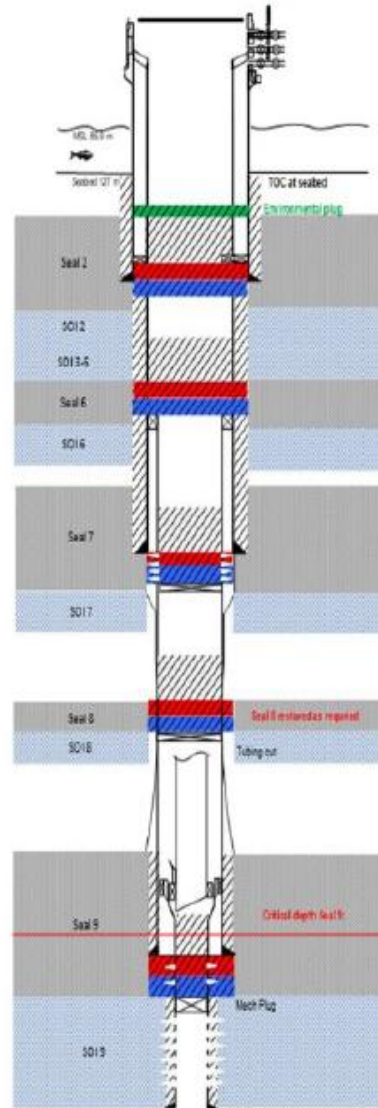
Platform / Field	No. of wells	Planned P&A execution period
Valhall WP	19	2026 to 2030
Ula	18	2028 to 2032
Tambar	6	2028 to 2032
Oda	3 (Subsea Template)	2028 to 2032

Aker BP P&A challenges

For 2026 → and onwards

Valhall WP

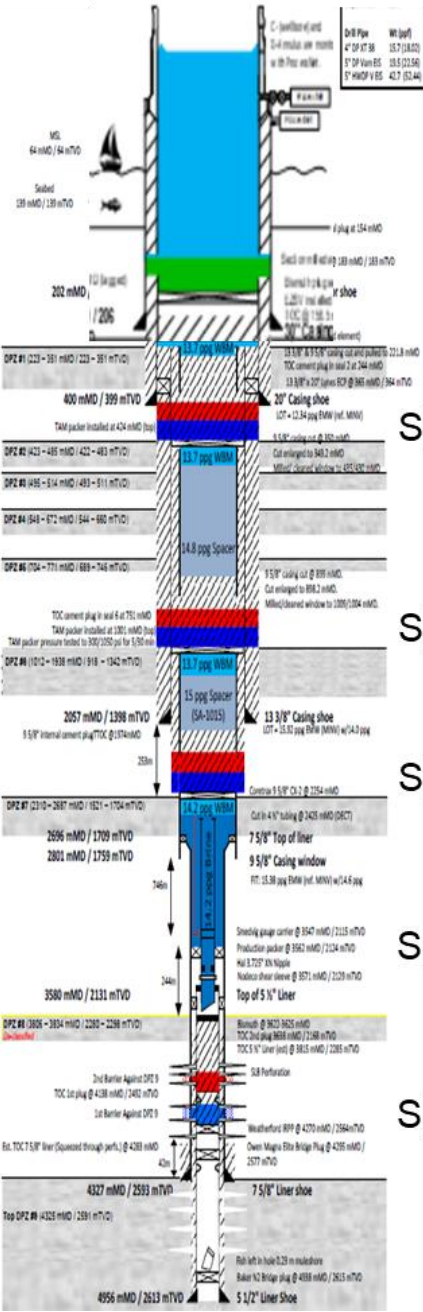
- Through Tubing Cementing
- Dual Liner, cross sectional barrier (9 5/8" inside 11 3/4")
- Bismuth as a deep set permanent cross-sectional barrier?
- Casing Milling
- POB limitations - Utilization of offshore personnel



Ula – Tambar – Oda

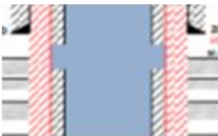
- Well diagnostic
 - Dual string logging
 - Modular rig concept
 - Packer removal
- Through tubing cementing
- Casing milling – new tools with increased efficiency
- Bismuth as a deep set permanent cross-sectional barrier
- High energy melt solution
- Combination run – able to combine several service tool on a single run

P&A learnings from earlier jobs

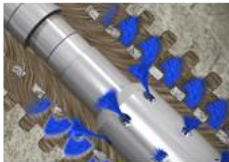


Bismuth - Surface Plug

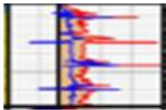
Internal Cement Plug



Section Milling & log cmt



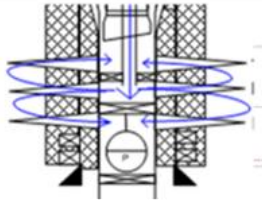
Perf, Wash & Cement



Log & test Shale Barrier

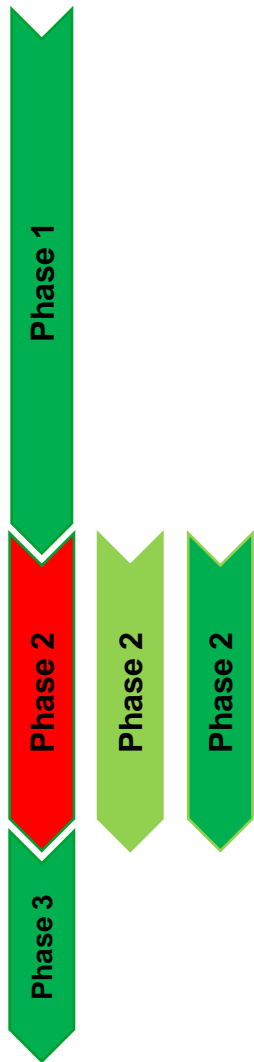


Drill Pipe logging while drilling well



Barrier Verification thru 2 cmt csg

Current Industry Technology Gap preventing Rigless P&A and Slot Recovery



Activities	Fluid systems	Cement systems	Wireline	Coil Tubing	Heavy lifting	High torque force	Swarf
Well head integrity check							
Drift run							
Integrity logging							
Injection test / killing well							
Cement squeeze perforations							
Install deep set plug							
Punch tubing							
Circulate heavy fluid (tubing + annulus)							
Cut tubing							
Remove tree, install BOP							
Pull tubing							
Log cement							
Clear annulus							
Install add. barrier(s) and top plug							
Suspend well for rig program							
Cut casing and conductors							
Pull casing and conductors							
PERMANENT ABANDONMENT							