

## Install BOP



- Develop decision tree on rigid vs. hydraulic release of ring gasket – Completed. Use hydraulic release and remove gasket with LMRP.
- Hydrates in diverter joint - Could glycol be injected into diverter joint? Pump down boost line? Yes we can and put this in the plan.
- Risk of riser plugging with hydrates – Pump glycol down boost line.
- Evaluate feasibility/value of snubbing in the stack with clump weight/compensated crane?? Too complicated and labor intensive. Low probability of success.
- Landing BOP – consider design funnel on base of BOP to help centralize. Increases hydrate risk due to stabbing at a higher elevation in the oil column. Looking at lazer guided BOP positioning.
- Determine how long to wait before latching to give time for warming/dissociation - Not required.
- Evaluate use of shroud to hold hydrate inhibitor if methanol used? Not needed.
- Degree of control with stack placement? Less than 1 foot – closer is better for hydrate temp management and need to land BOP quickly – (temperature should help on venturi effect) – In plan
- Guidance system such that BOP is positively in place before landing assuming loss of visibility, involving ROV operators and consider how Horizon stack could be utilised? Lasers on outside of HC connector. Lase foot print onto Horizon LMRP landing plate (upper plate on BOP)
- Lateral movement is a risk with currents – use marker to rehearse accuracy of placement – In plan
- How to manage loss of visibility when landing BOP? Referencing between stacks? Lasers.
- DDII is the right rig for this work but need rig DPO operators involved in process res. working

DRAFT