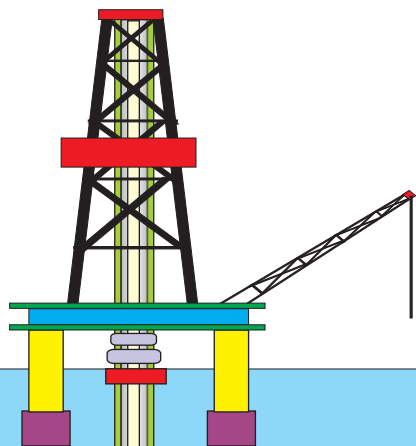
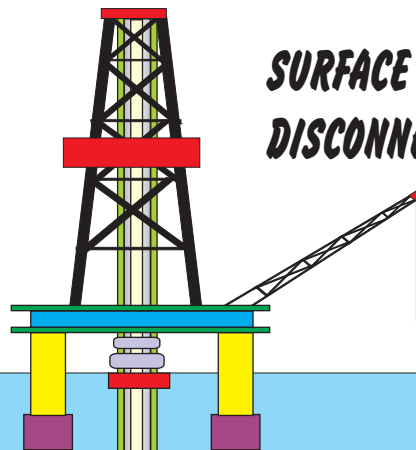


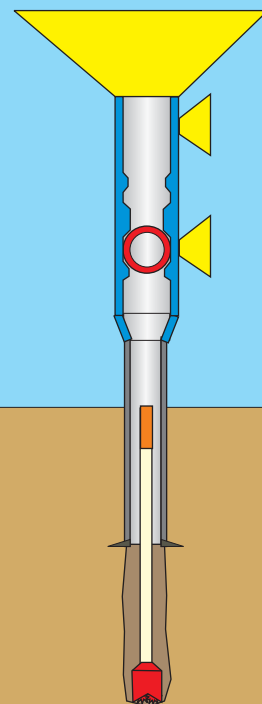
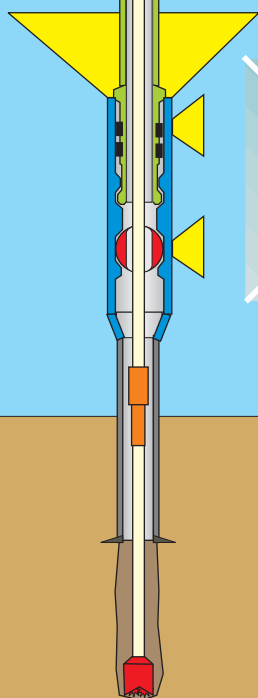
**SURFACE STACK
CONNECTED**



**SURFACE STACK
DISCONNECTED**



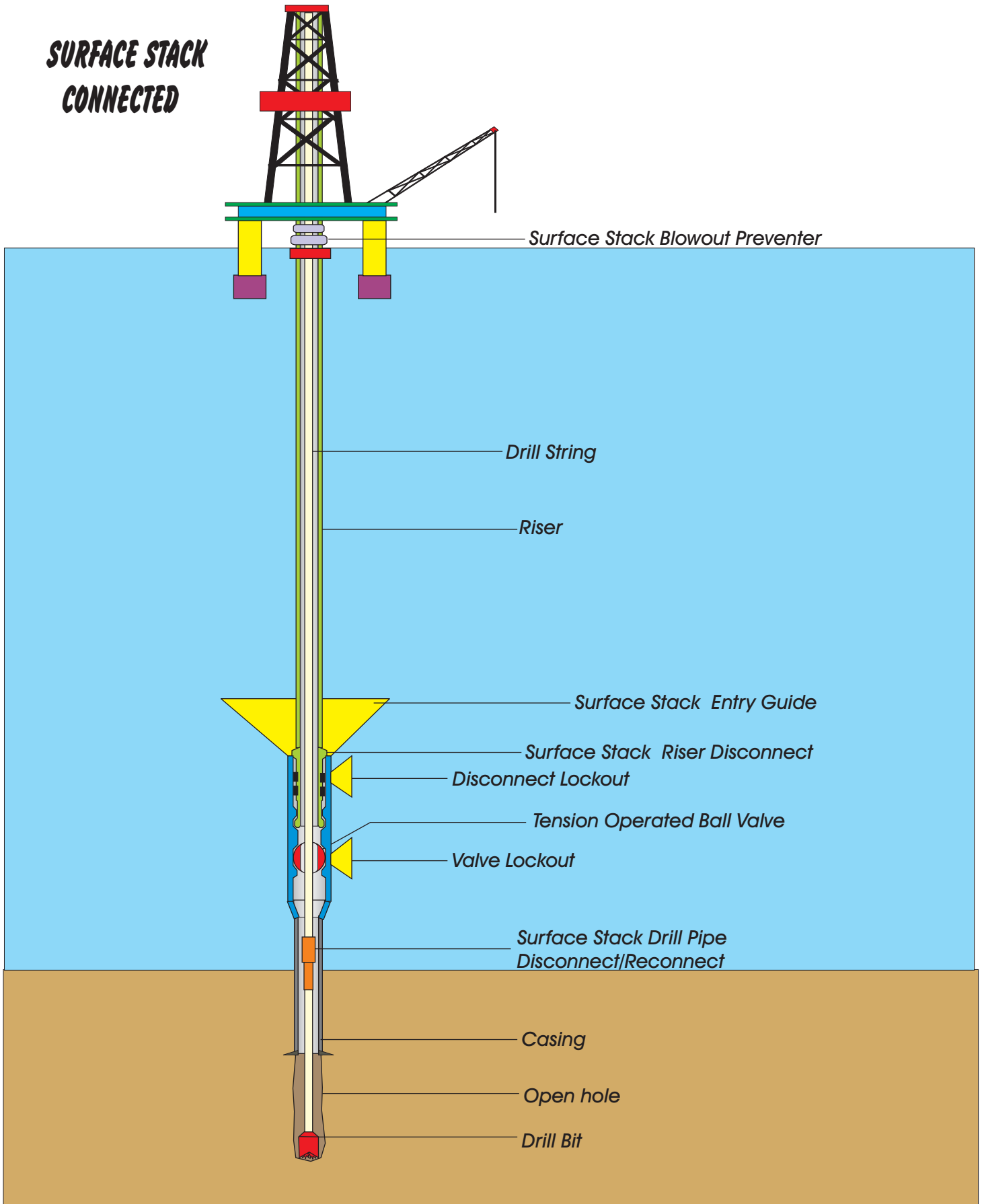
SS-DS
SURFACE STACK
DISCONNECT SYSTEM



SURFACE STACK DISCONNECT SYSTEM (SS-DS)



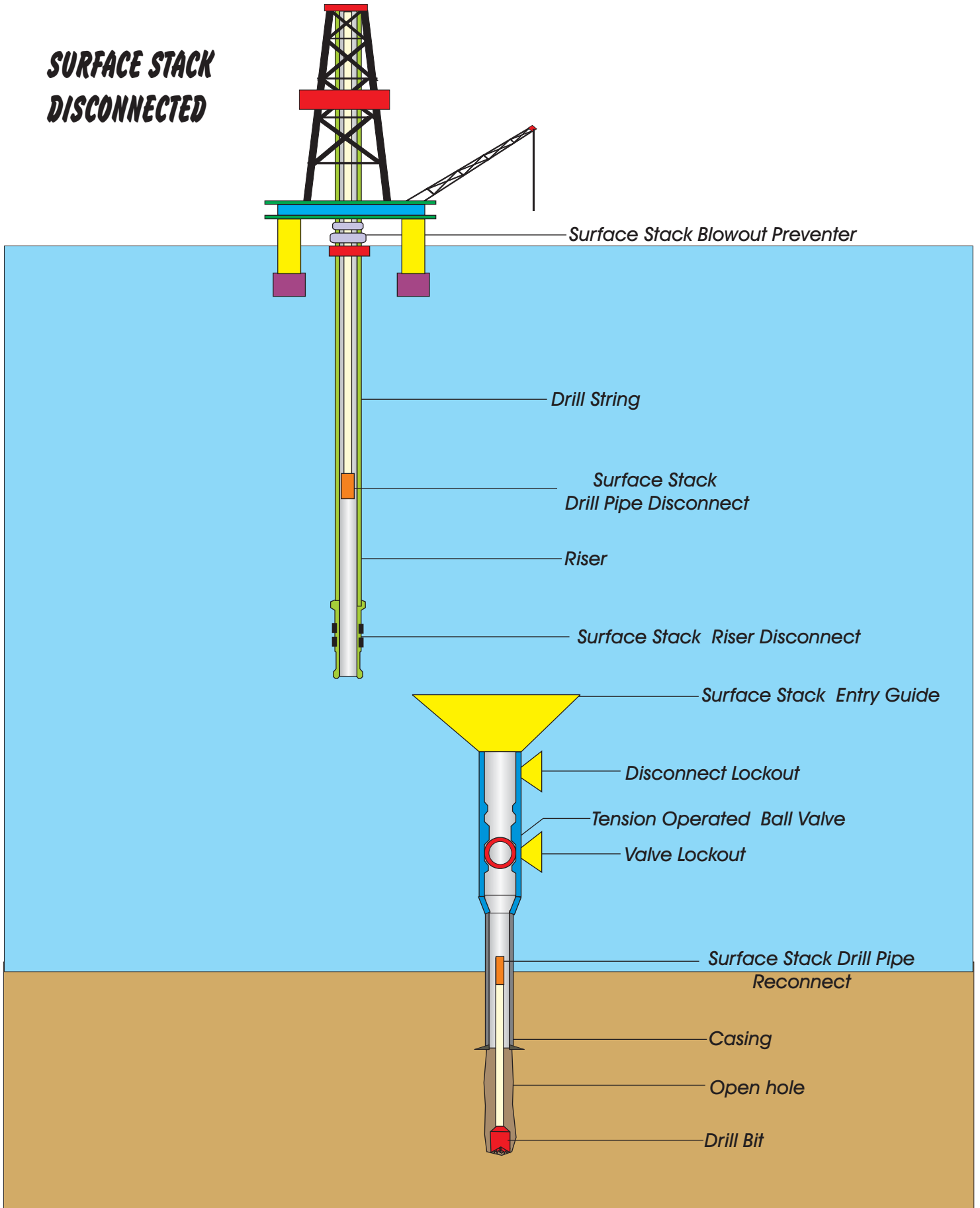
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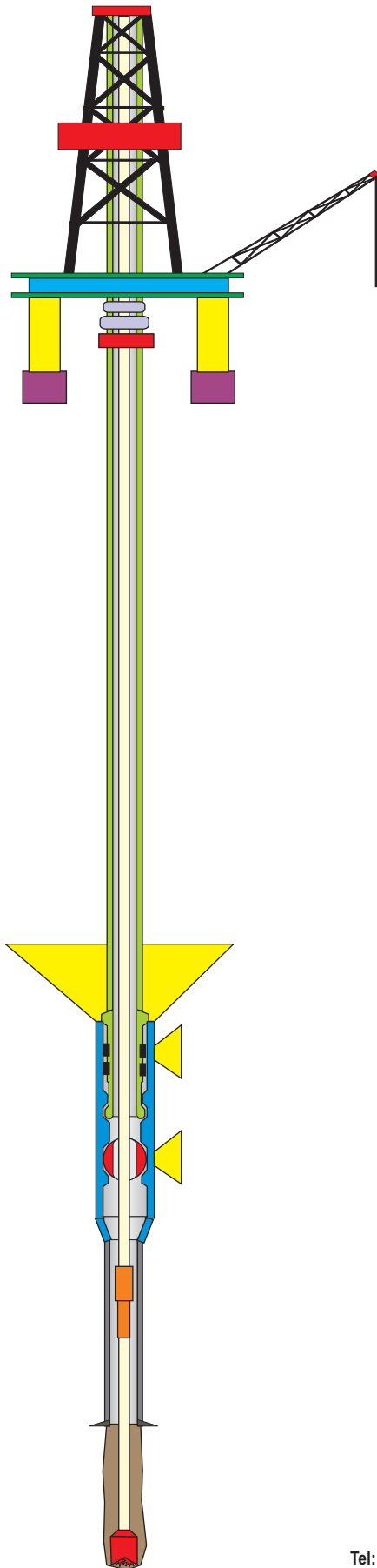




SURFACE STACK DISCONNECT SYSTEM (SS-DS)

**SURFACE STACK
DISCONNECTED**





TIW SURFACE STACK DISCONNECT ASSEMBLY WITH RISER DISCONNECT, TENSION OPERATED BALL VALVE, DRILL PIPE DISCONNECT AND DRILL PIPE RECONNECT

PURPOSE

The TIW Surface Stack Disconnect Assembly allows for the Riser and Drill Pipe to be disconnected from the wellbore during unplanned events such as extreme weather related conditions, mooring failure or riser leaks. The TIW Surface Stack Disconnect Assembly allows the drill pipe to be released downhole, the well bore shut-in and the riser disconnected all from the surface without control line activation or any special tool runs.

FEATURES

1. TIW Surface Stack Riser Disconnect features a Polished Bore Receptacle and Seal Assembly with a very unique positive tension latch mechanism. The positive latch allows the riser to be disconnected with out rotation.
2. TIW Tension Operated Ball Valve acts as a shut-off valve when the riser is disconnected. When tension is applied against the riser from the drilling vessel, the ball valve is in the open position. Once the riser is disconnected, the ball valve automatically closes and contains any well bore pressure from below.
3. TIW Surface Stack Drill Pipe Disconnect is uniquely designed for disconnecting from the drill pipe at any time and/or depth during the drilling operations. This eliminates having to trip the complete drill string prior to disconnecting the riser and shutting in the wellbore
4. TIW Surface Stack Drill Pipe Reconnect provides the ability to reconnect to the drill pipe, establish circulation, continue drilling or trip out of the hole after the riser has been reestablished.