

## \* Purpose of Pipeline:

To Transfer Fluid From A to B.

### - Production ~ Pipelines:-

Transport Hydro Carbon Production Fluids From a subsea wells or subsea manifolds to facility such as a platform, a subsea manifold or a floating Production, storage and off loading vessels (FPSO)

### - Export Pipelines:-

transport Processed oil or gas between offshore facilities or to an onshore terminal.

### - Service lines:-

transport fluids to subsea facilities to assist production this includes.

- Gas lift

- water injection

- chemical injection

## \* Types of Pipeline

### • Single Pipe

- wet insulation, U values down to  $\sim 2.5 \text{ W/m}^2 \text{ K}$

- Corrosion Coating

- Concrete weight Coating

- Direct electrical Heating.

- Reeled or Barge Laid.





Date 21/10/2021

Su Mo Tu We Th Fr Sa

## • Pipe-in-Pipe

- one pipe inside another Providing a dry annulus.
- Dry insulation in the annulus achieving U-values as low as  $0.5 \text{ W/m}^2\text{K}$
- Corrosion Coating required for the outer or Carrier Pipe
- Racked or Barge Laid.

## • Bundles

- Numbers of Pipelines, service lines, Cables.
- Can accommodate dry insulation and internal heating sys
- limited to around 7.5 Km lengths.
- Fabricated onshore and towed to the offshore location
- Fabricated with towheads.
- increased risk and difficult to repair.

## • Flexibles

- Concentric layers of plastic and spirally wound steel fibers, each performing a different function.
- Layers can be adjusted to meet the specific field development requirement.
- provide a high degree of bending flexibility and dynamic behaviour.
- Commonly used for flexible risers and tie-ins.
- Expensive





Date / /

Su Mo Tu We Th Fr Sa

## • Umbilicals

- Not a pipeline but note worthy as there are a number of similarities in design, stability, routing
- Contains electrical power cables and steel and for thermoplastic hoses for chemicals and hydraulic fluid.

## • Piggy back Pipelines

- small service pipelines may be piggybacked off to the larger back of a larger pipeline using piggyback clamps and straps.
- installed together for a cost effective solution.

DeepTech



CORTEZ  
SUBSEA