Interventor
Offering additional possibilities for Well Intervention
Interventor

What is it?
• A range of load bearing hoses for extended reach fluid transfer/injection activities.

What does this technology offer?
• Interventor can deliver operational, technical and commercial benefits over alternative hoses, composite pipes and coiled tubing.

What applications can Interventor be used for?
– Emergency response
– Well intervention
– Pipeline commissioning
– Pipeline remedial work
Key features & benefits of Interventor

• Features
  – Load bearing, light weight, low MBR
  – Discrete aramid strength members (hoop & tensile)
  – Multi-functional end fitting - pressure retention, tensile anchor, hang off point.

• Benefits
  – Air transportable
  – Suspension of subsea hardware utilising hose
    • No clamping of hose to crane cable or winch steel rope
  – High fatigue resistance and corrosion eliminated
  – Fitting: compact with discrete non-interdependent functions
  – Compared to composite pipe & coiled tubing
    • Reduced overall project costs
    • Reduced equipment spread and required deck space
    • Simplified vessel sea fastenings
    • Reduced loading on subsea equipment/infrastructure
Qualification & Testing

- Characterisation testing at Strathclyde University
- Fatigue tests based on “SN” curves developed for the hose by an independent engineering company on behalf of client.
- Bending and tension tests, over a selection of dynamic bend radii, carried out by an independent test house;
  - Tests to establish performance of hose at section of hose under most stress i.e. at the chute
  - 1.2t (2600lbs) clump weight with cycles ranging from 63,000 to 540,000
  - Representative of 180 day continuous deployment with a safety factor of 10
Deformation Testing

- **Collapse**
  - Hose assemblies were subjected to external collapse pressure while internal pressure was cycled between 0 and 345 bar (5000 psi).
  - Up to 110 collapse cycles achieved before failure

- **External Crush loading**
  - Assemblies were subjected to an external crush load 50 times sufficient to completely collapse the flexible 2.8t (6200lbs)
  - Successful completion
    - 517 bar (7500psi) proof pressure test no issues
    - No loss of tensile properties (static & fatigue)
Deployment arrangement – example.
Deployment of manifold
Thank you – any questions?