WellCONTAINED™
Subsea Containment Solutions

Components of WellCONTAINED Subsea Solutions
- In-house Response Personnel
- Source Control Emergency Response Plans (SCERP)
- Capping Stack Installation Plans - Drillpipe
- Capping Stack Installation Plans - Work Wire
- Capping Stack Shut-in plans
- Logistics Plans
- Debris Removal Plans
- Dispersant Application Plans
- Capping Stack Interface Checks
- Sea Fastening Plans
- Shallow Water Capping Plans
- Relief Well Plans
- Blowout / Dynamic Kill Analysis
- Broaching Simulation and Analysis
- Bullheading Analysis
- Dynamic Temperature Modeling
- Well Control (Kick) Modeling
- Atmospheric Dispersion and Radiant Heat Analysis
- Subsea Plume Analysis
- Response Drills
- Training

Prevention and Response
Drawing from more than 40 years of experience, the WellCONTAINED Subsea Containment group provides the industry with unique, comprehensive solutions to offshore, deepwater well control events.

Prevention and response serve as cornerstones to the WellCONTAINED set of solutions, providing operators with a full-service response in a right-sized package.

The WellCONTAINED Subsea Capping Stack
WellCONTAINED delivers an adaptable-response equipment package built for a variety of subsea scenarios. Based on extensive experience in subsea well control, the kit's design criteria provides for a depth rating to 12,500 fsw, 15,000 psi shut-in pressure, and dual mechanical barriers, complete with ROV-controlled functionality.

The capping stack’s modular design facilitates rapid global deployment on a readily available Boeing 747 cargo aircraft. The system is verified by third parties and staged for deployment at our Aberdeen and Singapore locations.
A 6-stage disaster response timeline provides a roadmap to containment for all subsea and deepwater events.

**Initial Response**
a. Evacuate and account for all personnel; attend to medical needs.
b. Activate and put into action emergency response plans.
c. Make all necessary intercompany and regulatory notifications.
d. Mobilize assets and personnel to manage and assess the situation.
e. Set up Spill Response and Source Control Teams.

**Survey and Planning**
a. Personnel and equipment arrive; site survey and incident assessment conducted.
b. Formalize response plan and additional resource needs.
c. Call out additional equipment and personnel as required by the response plan.

**Mobilization of Resources**
a. Surface spill response teams begin operations.
b. Dispersant application on surface and at source (subsea).
c. Additional personnel and equipment arrive.
d. Assemble, test, and load response equipment onto vessels for transit to location.

**Interim Response**
a. Continue dispersant application.
b. Attempt direct subsea intervention operations on drilling BOPs.
c. Conduct subsea debris clearance
d. Prepare for capping stack installation
e. Monitor well for any changes in flow/conditions.

**Cap and Contain**
a. Capping stack transit to location.
b. Install capping stack on well.
c. Shut in well and monitor well data to determine if further action is required.

**Relief Well Operations**
a. Relief well rig arrives on location and spuds relief well.
b. Relief well drilling.
c. Final kill and plugging of wells.

Note: All time frames occur after incident and are dependent on the complexity of the event.