



INTERMOOR

SPECIAL PROJECTS

SPECIAL PROJECTS HIGHLIGHTS

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SPECIAL PROJECTS



CLIENT	PROJECT	YEAR	LOCATION	SCOPE OF WORK	
Anadarko	Heidelberg Spar	2015	GOM	Provided engineering and offshore operations services for the installation and hook-up of the first 3 moorings (storm safe). Provided analyses, procedures, and offshore support for polyester stretch removal activities. Designed and fabricated 9 flow line and riser holdback piles.	
Bumi Armada	Armada Perkasa FPSO	2015	West Africa	Provided top chain replacement of all 10 mooring lines of the FPSO and re-positioning of 2 mooring lines, with no production shutdown required.	
Boskalis / MEGI	Zafiro Producer	2014-15	Equatorial Guinea	Provided engineering and offshore operations services to inspect and replace old mooring chains and wire ropes for 9 of the 12 mooring lines. Replaced 2 drag anchors in close proximity to the FPSO.	
BPTT	Juniper	2014-15	Trinidad & Tobago	Design, fabrication and installation of permanent MODU mooring driven piles. Pre-set mooring system, installation and hook-up of the Ocean Victory Semi-submersible.	
CABGOC	Kuito FPSO Decommissioning	2014	Angola	Provided services for the Kuito FPSO decommissioning including project management, engineering services and development of procedures to disconnect and laydown twenty (20) risers and umbilicals and release mooring lines. Disconnection, recovery, and abandonment of the CALM buoy.	
Anadarko	Red Hawk Spar	2014	GOM	Provided decommissioning services of the spar, including project management, development of procedures for decommissioning, towing, ballasting / deballasting, mooring disconnect / recovery. Prepared vessel for towing, incl. ballast / deballasting of the hull for topsides removal. Procurement of rigging. Cutting and removing the riser pull-in tubes and decommissioning. Supervised towing of the spar to reefing sight and reefing the structure.	
COOEC	Enping FPSO	2014	South China Sea	Onshore and offshore project management, installation engineering and procedures development and installation of a new FPSO – including full single point mooring system, a fixed manned drilling and pipeline production platform, and a 2.2 km subsea flexible.	
COOEC	Panyu FPSO	2014	South China Sea	Provided planning and engineering services, and installation of the mooring system using the existing mooring pattern and ensuring that the existing FPSO remained in production throughout the installation.	
LLOG	Delta House	2013-14	GOM	Designed, fabricated and installed 12 X 16' OD X 85 ft. mooring suction piles. Pre-set mooring installation and pre-set mooring hook-up of the FPS.	

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Anadarko	Innovator	2013-14	GOM	Decommissioning of 10 risers/umbilicals. Mooring line decommissioning. Wet tow of the Innovator rig from MC711 to shore.	
Hess	Ocean Valiant	2013	Equatorial Guinea	Responsible for the design and installation of mooring systems at seven mooring centers. Provided engineering procedures, mooring equipment, and offshore services. Water depth up to 2,631 ft.	
Eni Norge	Goliat	2013	Barents Sea, Norway	Provision of general mooring equipment services, including equipment rental, service and repair, and personnel for mooring operations for two complete mooring spreads.	
Saipem UK	Firenze	2012	China	Provided installation and hook-up support including navigation equipment mobilization, FPSO positioning and heading control analyses, anchor handling scenarios optimization for the FPSO mooring hook-up, marine and survey procedures, FPSO aft and forward towing equipment procurement, tow masters and surveyors for offshore operation.	
Petrobras	Papa Terra	2012	Brazil	Fabricated 17 X 36" OD x 193.6 ft (59 m) well conductors. Designed and fabricated 5 x 35-ton templates, each to guide 3 conductors. Installed 15 conductors (2 spares) batch set in one field visit in 1,200 m of water.	
Shell	BC-10 Phase 2	2012	Brazil	Pre-Installed one ALM Spacer Template (tight tolerances). Fabricated and installed 5 x 48in. (1.2m) OD ALM conductors in 5,577ft. of water.	
COOEC	Lufeng	2012	China	Buoy and riser decommissioning and recommissioning including temporary replacement of the buoy turret mooring system, installation of the new mooring system including 8 drag anchors, 8 chain and wire mooring legs, gravity base frame and clump weight, MWA, and hooking up the buoy to the mooring legs, installation of a new 8-in. flexible flowline and riser between the buoy turret mooring system and the wellhead platform.	
LLOG	Subsea Tree Installation	2011	GOM	Responsible for installation of two subsea trees at the Mississippi Canyon (MC) Block 199 in a water depth of 2,460 ft. The trees each weighed 90 kips (45 tons). Shell's patented Heave Compensated Landing System (HCLS) was utilized for subsea tree installation.	
Chevron	Kuito C Replacement Electrical Equipment	2011	Angola	Provided offshore engineering procedures, installation equipment and services as well as onshore and offshore project management and installation engineering. The field is located in water depths of 384 m to 405 m (1,260 ft – 1,330 ft). Responsible for the planning and execution of the installation of the new umbilical, UTA, EDU and EFL's. Also provided installation hardware and coordinated shipping for delivery to the DUCO yard.	
Marine Subsea AS	African Worker	2011	Norway	Completed the recovery and replacement of a damaged polyester mooring line on the African Worker accommodations barge in Angola Block 17. The complex replacement operation was completed without interruption to daily activities onboard the platform, which was a critical design component as the African Worker supports production operations for the entire field block.	
Shell	Noble Discoverer	2011	New Zealand, Ruru Field	Provided the design, engineering, procurement and installation services for 8 preset mooring legs. Water depth was 105 meters (344 ft). Provided personnel for the installation.	

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Modec	MV22	2010	Brazil, Tupi Field	Provided provision of project management, engineering support, offshore support personnel and equipment. Provided MV22 FPSO hook up mooring procedures development, riser pull in procedures, passage plan and FPSO station keeping procedures. Provision of client representative onboard the Petrobras AHTS during mooring pre-installation and polyester abandonment.	
Premier Oil	Balmoral FPV	2010	UK Continental Shelf	Provided project management to undertake the complete chain change out, replacement of connectors with long term mooring connectors, chain inspection. Procedures and personnel provided both on and offshore. Provided navigation and positioning services.	
Helix	DTS Riser Bouy Installation	2010	GOM	Responsible for planning and implementing the installation of the first detachable riser buoy in the GOM including the mooring installation and hookup as well as maintaining buoy ballast control during the 4 riser pull-ins, 2 umbilical pull-ins and hookup of 6 mooring legs.	
BP	Macondo DTS Riser Buoy	2010	GOM, MC 252	Developed procedures and drawings for the installation and recovery of the 110 mT Emergency DTS Riser Buoy, 4,700' polyester/chain tether and 180 mT clump weight. The riser buoy allowed the Producer 1 to recover oil as part of the spill containment system. Managed the offshore installation and recovery from AHTS and HOS Iron Horse. Provided 12-man crew for installation.	
ATP Oil & Gas Corporation	Mirage	2010	GOM	Responsible for the tow, upending and hookup of the ATP Mirage in 4,000 ft water depth. Provided mooring design, driven pile anchors and mooring preset installation. The project marked the first MinDOC hull design and the first permanent polyester mooring system allowed to be preset on the seafloor.	
OGX	Mooring and Positioning	2010	Brazil	Responsible for the mooring and positioning of 5 MODUs – Ocean Star, Ocean Ambassador, Ocean Quest, Ocean Lexington and Sea Explorer. Responsible for the mooring and positioning of 4 AHTS – C-Sailor, Odin Viking, Skandi Mogster and Sanko Bay. Water depth ranges from 524 to 1,640 ft.	
HESS	Okume Echo TLP Hawser Replacement	2009	GOM	Responsible for installation of complete hawser replacement kit. Replaced complete hawser system on TLP platform. Transferred hawser system from the deck of AHTS directly to TLP column padeyes.	
Murphy	Thunder Hawk PLET Anchors	2009	GOM	Designed, fabricated and installed two 16 ft diameter by 95 ft long suction piles, each weighing 159 tons. Piles are designed for 550 kip holdback capacity using “Devil’s Claw” chain ratcheting mechanism. Fabricated to meet API RP 2SK tolerance requirements for out-of-roundness. Developed and executed procedures for installing piles from an AHV without using the A-frame in 5800 ft of water. Also prototyped and tested and used new PS-24 Vent Cap system in lieu of butterfly valves which reduced cost and shortened delivery time.	
ExxonMobil	Rockefeller Parking Pile and Manifold	2009	GOM	Provided project management, installation engineering, procedure development and key offshore supervisory personnel to execute the project offshore as planned. The first mobilization of the campaign included installing a parking suction pile and landing a subsea manifold distribution unit (SMDU) on the parking pile.	

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Chevron	Captain FPSO	2009	UK Continental Shelf	Provided project management services for Chain cropping and shackles replacement. Chain inspection, procedures and personnel provided for both on and offshore. Provided navigation and positioning services.	
ExxonMobil	Rockefeller Christmas Tree	2009	GOM	Provided project management, installation engineering, procedure development and key offshore supervisory personnel to execute the project offshore as planned. The second mobilization of the campaign, the XMAS tree, was wet parked in field.	
Maersk	Curlew FPSO	2009	UK Continental Shelf	Provided project management services for chain cropping and shackles replacement. Chain/ Wire Inspection, procedures and personnel provided for both on and offshore.	
ExxonMobil	Rockefeller Jumper	2009	GOM	Provided project management, installation engineering, procedure development and key offshore supervisory personnel to execute the project offshore as planned. For the third mobilization of the campaign, two jumpers were installed and one was recovered.	
Chevron	Tombua Landana	2009	Angola	Provided design, engineering, procurement, and installation for permanent preset catenary (at the Tombua South drill center) and taut-leg (at the Tombua Landana location) moorings. The eight catenary mooring legs consisted of 10mt Stevpris new generation anchors, 3" chain, pendant wires and surface buoys in 870 ft water depth. The eight taut-leg mooring legs consisted for SEPLA anchors, 3" chain, subsea mooring connectors, 5.5" diameter polyester and H-link connectors in 1,250 ft water depth. Provided fabrication of a 60 ft suction follower and aids to allow installation of suction anchors over the side of a crane vessel. This project was the first use of SEPLA anchors and polyester for Chevron in Angola - completed in August 2009.	
Shell	BC-10 Conductor Installation	2008	Brazil	Provided installation of two Artificial Lift Manifolds (ALMs), 6 ALM conductors and 11 well conductors (all 36" dia. x 50 m long) in water depths up to 1920 m. Some industry firsts include the deepest use of a subsea hydraulic hammer, first use of such a hammer from an AHV, deepest pre-installed conductors and first pre-installed conductor from an AHV.	
Oil Exco	Shelley FPSO Mooring Installation	2008	North Sea	Responsible for the tow out, hook-up & positioning of the FPSO. Performed high level project management, engineering reviews, procedures & provision of offshore supervision. PME for mooring line installation, including polyester, subsea buoys, and chain with H links.	
Petrofac	Northern Producer	2008	North Sea	Responsible for navigation and positioning. Provision off all project management and engineering & offshore personnel. PME for Mooring line installation, tensioning and hook up. 5 ft drag anchors.	
Maersk	Janice	2008	North Sea	5 yearly chain inspection and repair. Completed chain inspection, compromising onshore & technical planning. Provision of offshore personnel to carry out the scope of work. Provided navigation and positioning services.	

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Maersk	Gryphon	2008	North Sea	5 yearly chain inspection and offshore repair. Completed chain inspection, comprising onshore & offshore marine & technical planning. Provision of offshore personnel to carry out scope of work. Provided navigation and positioning services.	
BP	Thunder Horse	2007	GOM	Responsible for suction pile structural design including pile scantlings and appurtenances.	
Nexen	Ettrick	2007	North Sea	Provided the jacketed spiral strand installation and tensioning, tow out of the submerged turret buoy and subsequent hook-up. This was the first time a buoy of this type was towed with such a large quantity of pre-attached spiral strand cable. It was also the first permanent system to be installed in the North Sea using subsea connectors.	
Chevron	Jack Well Test	2006	GOM	Engineer, provide and install an 8-point polyester/SEPLA mooring system for the DP Semi Cajun Express. The moorings are needed so the rig can conduct an extended well test. Water depth is 7,000 ft.	
Murphy	Kikeh	2006	Offshore Malaysia	Engineer, procure, and install 9 anchors and associated mooring lines. The mooring system was designed to allow relocation of the MODU and facilitate drilling operations in an area with complex subsea architecture.	
ATP Oil & Gas Corporation	Gomez	2006	GOM	Project management, design interface, procurement and installation of the SEPLA anchors and mooring system for the ATP Rowan Midland FPU. The 12 leg mooring system consisting of SEPLAs, stud link chain, subsea connectors, and polyester mooring ropes was the third permanent polyester mooring system installed in the GOM and the first permanent SEPLA mooring.	
Chevron	Lobito Tomboco	2005	Angola Block 14	Provided design, engineering, fabrication, procurement and installation of 3 permanent preset, catenary moorings for the Cabinda Gulf Oil Company. The 24 mooring legs consisted of 12 mt Stevpris anchors, 3" ground chain, 3" catenary wires and surface buoys in 4,200 ft water depth. The fast-track project was completed in under 12 months due to clients need for the moorings to be installed within strict corridors to allow the subsea structures and flowlines to be installed at a later date.	
White Rose, Husky Energy	White Rose Field Development	2004	Grand Banks, New Foundland, Canada	Developed installation engineering and procedures for the White Rose FPSO mooring system. The system consisted of driven piles, 6" chain with 2-ton clump weights, 5" jacketed spiral strand wire connected to the SBM designed mooring buoy. Developed and fabricated special installation tools to facilitate the demanding offshore operations in a harsh environment.	
Red Hawk	Red Hawk	2004	GOM GB 877	Project management, design, procurement and installation of moorings and suction anchors for Kerr McGee's Red Hawk Cell Spar. Suction anchors were installed during the 4th quarter of 2003, Polyester installed in February 2004 and the Spar was connected in March 2004.	

