



INTERMOOR

MOORING EXPERIENCE

For more information
on InterMoor:

www.intermoor.com
info@intermoor.com

an **ACTEON** company

MOORING



MODU Preset and Insert Experience (Americas/Asia)

CLIENT	RIG	YEAR	WATER DEPTH (FT)	APPLICATION
CGX Resources	Ocean Saratoga (Guyana)	2012	300	
Murphy	Ocean Rover (Malaysia)	2012	4455	Moored with polyester
Murphy	West Menang (Malaysia)	2012	4455	
LLOG	Amos Runner	2011	2460	
ATP	Ocean Victory	2011	3463	
Walter Oil&Gas	Ocean Victory	2011	1300	
Walter Oil&Gas	Saratoga	2011	1100	Moored over pipelines
Transocean	DD-I, DD-II, DD-III	2010-2011	350	Pre-sets
Diamond	Ocean Yorktown (Mexico)	2011	1000'	
Larsen Oil & Gas	Petrolia (Mexico)	2010	1200'	
Walter Oil&Gas	Ocean Voyager	2010	1300	
ATP	Ocean Victory	2009-2010	4418	Moored for hurricanes; Moored over pipelines
LLOG	Lorris Bouzigard	2010	2952	
Shell	Arctic 1 (Brazil)	2008-2010	1895	Moored over pipelines
BP	Marianas	2009	7040	Moored with polyester
Walter Oil & Gas	Ocean Saratoga	2009	2200	Moored for hurricanes
StatoilHydro	Goodrich (GoM, Canada)	2009	3600	Moored for hurricanes
BP	Marianas	2009	5000	Moored over polyester; Moored for hurricanes
Murphy Oil	Ocean Rover	2009	4300	Moored over pipelines
Walter Oil & Gas	Ocean Saratoga	2009	1400	Moored over pipelines
LLOG	Lorris Bouzigard	2009	3269	
Deep Gulf	Ocean Victory	2009	4397	
BP	Marianas	2009	6738	Moored with polyester; Moored for hurricanes
Deep Gulf	Ocean Victory	2009	448	Moored over pipelines
LLOG	Lorris Bouzigard	2009	1035	
ENI Petroleum	Marianas	2009	7141	
BP	Marianas	2008	5500	Moored over pipelines; Moored with polyester
Cabinda Gulf Oil Company	Ocean Victory (GoM)	2008	4700	Moored with polyester; Moored for hurricanes
DeepStar	Ocean Baroness	2008	6500	Moored for hurricanes
Walter Oil & Gas	Ocean Saratoga	2008	1400	Moored over pipelines; Moored for hurricanes
Marathon	Henry Goodrich	2008	3400	Moored over pipelines; Moored for hurricanes
Noble Energy	Ocean Quest	2008	3450	Moored for hurricanes
Stone Energy	Hornbeck Test Barge	2008	130	

MODU Preset and Insert Experience (Americas/Asia continued)

CLIENT	RIG	YEAR	WATER DEPTH (FT)	APPLICATION
Murphy Oil	Ocean Rover (Malaysia)	2008	4400	
LLOG	Ocean Saratoga	2008	1035	Moored for hurricanes
Amoco	Paul Romano	2008	5840	Moored for hurricanes
Noble Energy	Ocean Quest	2007	2900	Moored over pipelines; Moored with polyester
Walter Oil & Gas	Lorris Bouzigard	2007	3200	Moored with polyester
Hess	Ocean Baroness	2007	3800	Moored for hurricanes
ChevronTexaco	Versabar Bottom Feeder (Brazil)	2007	225	Moored over pipelines
Murphy Oil	Ocean Rover (Malaysia)	2007	4300	
Marathon	Henry Goodrich	2007	3400	Moored over pipelines
Noble Energy	Versabar Bottom Feeder	2007	250	
Shell	Arctic 1 (Brazil)	2007	5250	Moored over pipelines; Moored with polyester
ATP	Rowan Midland	2006	3000	Moored with polyester
Global	DD 1	2006	300	
Kerr-McGee	Ocean Concord	2006	2300	Moored for hurricanes
ChevronTexaco	Cajun Express (Jack Well Test)	2006	7000	Moored with polyester
Murphy Oil	Ocean Rover (Malaysia-Kikeh)	2006	4400	
Spinnaker	Arctic 1	2005	1750	
POGO	Lorris Bouzigard	2005	590	Moored over pipelines
Walter Oil & Gas	Ocean Quest	2005	3200	Moored over pipelines
Stone Energy	Lorris Bouzigard (VK 773)	2004	470	
Atwood/Shell	Atwood Seahawk (Malaysia)	2004	230	Moored over pipelines

MODU Preset and Insert Experience (West Africa)

CLIENT	RIG	YEAR	WATER DEPTH (FT)	APPLICATION
Addax	GSF Rig 135 (Nigeria)	2012	250	
Hess	Ocean Valiant (Equ. Guinea)	2011 - 2012	2640 +	
ExxonMobil	Transocean Rather (Angola)	2009 - 2012	4455	
ExxonMobil	GSF Celtic Sea (Angola)	2011 - 2012	4190	
Maersk	Ensco 5001 (Angola)	2011 - 2012	4059	
ENI	Transocean Marianas	2011 - 2012	221	
Maersk	Ocean Valiant (Angola)	2011	2640	
Shell	Sedco 702 (Nigeria)	2011	1739	
Noble Energy EG	Ensco 5001 (Equ. Guinea)	2010-2011	3020	Pre-sets
Noble Energy EG	Atwood Hunter (Equ. Guinea)	2009 - 2012	3020	Pre-sets
Chevron	West Setia (Angola)	2010 - 2012	4389	
Chevron	West Vencedor (Angola)	2010 -2012	386	
ENI	Scarabeo 7 (Angola)	2009 - 2012	4620	
Cabinda Gulf Oil Company	Sedneth 701 (Angola)	2008-2010	1500	
Cabinda Gulf Oil Company	Richardson (West Africa)	2009	5380	
Cabinda Gulf Oil Company	Pride Venezuela (Angola)	2009	900	
Cabinda Gulf Oil Company	Transocean Richardson (Angola)	2009	900	
Cabinda Gulf Oil Company	West Setia (Angola)	2008	1200	Moored with polyester
Cabinda Gulf Oil Company	Transocean Richardson (Angola)	2008	6000	
Cabinda Gulf Oil Company	Transocean Richardson (Angola)	2008	3200	Moored over pipelines
Total Angola	Transocean Richardson (Angola)	2008	3500	

MODU Preset and Insert Experience (West Africa continued)

CLIENT	RIG	YEAR	WATER DEPTH (FT)	APPLICATION
Noble Energy	Sedco 700 (EG)	2008	3400	
Cabinda Gulf Oil Company	Transocean Richardson (Angola)	2007	6200	
Cabinda Gulf Oil Company	Barge CMC 450-10 (Angola)	2007	250	Moored over pipelines
Cabinda Gulf Oil Company	Transocean Richardson (Angola)	2007	5000	
Esso Angola	Multiple MODUs	2007	690	
ChevronTexaco	Sedneth 701 (Angola)	2006	3400	
Hess	Sedco 700 (EG)	2006	2400	
Esso Angola	Pride South Pacific (Angola)	2005	4200	
FPS	Jamestown (Nigeria)	2004	60	Moored with polyester
Esso Angola	Pride South Pacific	2004	4000	

Permanent Mooring

CLIENT	PROJECT	YEAR	WATER DEPTH (FT)	APPLICATION
ATP	Mirage	2010	4000	Mooring Design, Installation, Tow, Upending and Hookup
Cabinda Gulf Oil Company	Tombua South Drill Center	2008	870	Provided the design, engineering, procurement, and installation for the permanent preset catenary moorings at the Tombua South drill center (Angola).
Cabinda Gulf Oil Company	Tombua Landana	2008	1250	Provided the design, engineering, procurement, and installation for the permanent preset taut-leg moorings at the Tombua Landana location (Angola).
Oilexco	Shelley FPSO	2008	140	Mooring Installation, Tow and Hookup
Petrofac	Northern Producer	2008	110	Mooring Installation, Tensioning and Hookup
ATP	MinDOC	2008	4000	Mooring with Polyester
Nexen	Ettrick	2007	110	Jacketed Spiral Strand Installation and Tensioning, Tow of Submerged Turret Buoy and Hookup (North Sea)
ATP	Gomez	2006	3000	Mooring Design, Supply, Installation and Hookup (US GOM)
Husky	White Rose FPSO	2006	400	Mooring Installation, Tow and Hookup
Cabinda Gulf Oil Company	Lobito-Tomboco	2005	1850	Permanent Drilling Rig Preset Mooring (Angola) 2007 - Maintenance of wire lubrication and equipment for the permanent pre-sets

Mooring Piles

CLIENT	PROJECT	YEAR	APPLICATION
Williams	Gulfstar One Project (Tubular Bells)	2012	Mooring Suction Piles: 16' Ø x 88' Long Estimated
ATP	Mirage	2008	Mooring Driven Piles: 84" x 205' Long; 84" x 225' Long
Technip	Shell Perdido	2007	Mooring Suction Piles: 18' Ø x 87' Long; 18' Ø x 103' Long; 18' Ø x 90' Long
Murphy Oil	Kikeh	2006	MODU Suction Anchors: 14.75' Ø x 52.5' Long
Technip	Kikeh	2006	Mooring Driven Piles: 84" x 153' Long; 84" x 163' Long; 84" x 173' Long; 84" x 182' Long
Technip	Tahiti	2006	Mooring Driven Piles: 84" x 254' Long
Enterprise Field Services, Inc.	Independence Hub	2005	Mooring Suction Piles: 18' Ø x 88' Long
Kerr-McGee	Constitution	2004	Mooring Driven Piles: 84" x 228' Long
Total	Dalia FPSO	2004	Mooring Suction Piles: 16' Ø x 70' in 4460' WD



INTERMOOR

FOUNDATIONS

FOUNDATIONS EXPERIENCE

For more information
on InterMoor:

www.intermoor.com

info@intermoor.com

an **ACTEON** company

FOUNDATIONS



Foundations Experience

CLIENT	PROJECT	YEAR
Shell	Parque das Conchas BC-10	2012
Petrobras	Papa Terra	2012
FMC Technologies	Mad Dog 2	2012
EMAS	Tamar Project	2012
Williams	Gulfstar One Project (Tubular Bells)	2012
Cameron Subsea Systems	Jack /St. Malo	2011
Cameron Offshore Systems	Liwan Project	2011
LLOG Exploration	Matterhorn MC-199	2011
FMC Technologies	Tamar Manifold	2011
LLOG Exploration	Who Dat? Tie-in Skid	2011
FMC Technologies	Bonga NW	2011
BP	PSVM Manifolds	2010
BP	Macondo	2010
Murphy Oil	Thunder Hawk	2009
FMC Technologies	Cascade and Chinook	2009
Cameron Offshore Systems	PSVM Angola Block 31	2008
Shell	Parque das Conchas BC-10	2008
ATP	Mirage	2008
FMC Technologies	Shell Perdido	2007
BP	Thunder Horse	2007
BP	Thunder Horse	2007
Technip	Shell Perdido	2007
FMC Technologies	Chevron Blind Faith	2006
Murphy Oil	Kikeh	2006
Technip	Kikeh	2006
BP	King Pump	2006
Cameron Offshore Systems	Tahiti Manifold	2005
Technip	Tahiti PLET	2005
Technip	SURF	2004
BP	Mad Dog	2004
BP	Thunder Horse Water Injection	2004



APPLICATION

Phase 2 - 5 Manifold Foundation Conductors: 48" Ø x 200' Long

17 Well Conductors 36" Ø X 187' Long

Manifold foundation

Foundation Piles: 18' Ø x 43' Long; 18' Ø x 72' Long

Mooring Suction Piles: 16' Ø x 88' Long Estimated

11 Suction piles 18' Ø X 75' long and 55' long

Foundations: 32.8' Ø x 65' Long; 32.8' Ø x 46' Long; 19.7' Ø x 31' Long

Holdback Suction piles: 12.75' Ø x 50' Long

Manifold foundation: 19' Ø x 76' Long

Tie-in skid foundation pile: 12.75' Ø x 60' Long

Manifold Foundations: 18' Ø x 60' Long

Manifold Foundation Suction Piles: 19' Ø x 60' Long; 19' Ø x 76' Long

Free Standing Riser Piles: (2) 14' Ø x 90' Long

PLET Holdback Anchor Suction Piles: 16' Ø x 95' Long

Manifold and Pump Station Suction Piles: 16' Ø x 71.5' Long (Manifold) 18' Ø x 90' Long (Pump)

Manifold Foundation Suction Piles

Well Conductor and Manifold Foundation Piles: 36" Ø x 165' Long; 48" Ø x 200' Long

Mooring Driven Piles: 84" x 205' Long; 84" x 225' Long

Manifold Foundation Suction Piles: 18' Ø x 78' Long; 18' Ø x 84' Long

NeXT PLET Suction Piles: 18' Ø x 78' Long; 18' Ø x 107' Long; 11' Ø x 67' Long

Previous Flowline Suction Anchor: 11' Ø x 46' Long

Mooring Suction Piles: 18' Ø x 87' Long; 18' Ø x 103' Long; 18' Ø x 90' Long

PLET/Manifold Suction Piles: 16' Ø x 82' Long; 16' Ø x 53' Long

MODU Suction Anchors: 14.75' Ø x 52.5' Long

Mooring Driven Piles: 84" x 153' Long; 84" x 163' Long; 84" x 173' Long; 84" x 182' Long

Subsea Pump Foundation Suction Piles: 12' Ø x 77' Long

Manifold Foundation Suction Piles: 18' Ø x 77' Long

Flowline PLET Anchors: 12' Ø x 73' Long

Initiation Suction Piles: 12' Ø x 79' Long

Wellhead Support Piles: 11' Ø x 45' Long

Water Injection Flexible Pipeline PLET: 11' Ø x 63' Long; Installation Aid Piles: 11' Ø x 66' Long in 5400' WD





INTERMOOR

SUBSEA

SUBSEA EXPERIENCE

For more information
on InterMoor:

www.intermoor.com
info@intermoor.com

an **ACTEON** company

Subsea Installation & Recovery Experience

CLIENT	PROJECT	YEAR	SCOPE OF WORK
BP	GC 699, 700, 742, 743 and 744	2012	Vessel Support for Changeout of Atlantis Subsea Equipment Including: Install six (6) mudmats, Wet Park three (3) manifolds on mudmats, Wet Park three (3) PLEMS on mudmats, Subsea test all manifolds, Recover 35 Subsea Jumpers, Recover three (3) Manifolds, Recover three (3) PLEMS, Install thirty eight (38) Subsea Jumpers, Install one (1) Manifold, Install one (1) Pigging Loop, Install and test eight (8) LTIPCs . (Ongoing Project)
LLOG Exploration	MC-199/MC503	2011	Batch HCLS Installation of Multiple 45Ton XTs
Surf Subsea	GC-490	2010	Compensators for Tree Installation
BP	MC-252	2010	Recovery of Free Standing Riser #1 and including Flooding and Recovery of SBM Air Can, Dril-Quip Air Can and Suction Pile Foundation
BP	MC-252	2010	Recovery of Free Standing Riser #2 and including Flooding and Recovery of SBM Air Can, Dril-Quip Air Can and Suction Pile Foundation
BP	MC-252	2010	CDP Manifold Recovery, BOP/HDS Manifold Recovery, Choke/Kill Manifold Recovery, Accumulator Skid Recovery, Junk Shot Manifold Recovery, Wet park of FSR1 Flexible Jumper
McMoran	EB-947	2010	Platform Recovery
ExxonMobil	Mica	2010	Tree and Jumper Recovery
International Offshore	SML 49-B	2010	Platform Recovery
Legacy Offshore	EI-292	2010	Heave Compensation
International Offshore	VR-217	2009	Platform Recovery
Tetra	EC-328A	2009	Platform Recovery
ExxonMobil	Rockefeller	2009	Jumper Installation and Recovery
LLOG	MC-72	2009	Tree Installation
ExxonMobil	Rockefeller	2009	Tree Installation
LLOG	MC-353	2009	Tree Installation
ExxonMobil	Rockefeller	2009	Tree Installation
ExxonMobil	Rockefeller	2009	Manifold Installation
Stone Energy	GOM	2008	Platform Recovery
Noble Energy	Gemini	2008	Subsea Lifts
Noble Energy	MC-292	2008	Tree Installation
LLOG	GB-378 SS03	2008	Tree Installation
Pioneer	EC-322	2008	Platform Recovery
Shell (Brazil)	BC-10	2008	Template Installation

Subsea Installation & Recovery Experience (continued)

CLIENT	PROJECT	YEAR	SCOPE OF WORK
LLOG	GB-378	2008	Tree and Jumper Recovery
LLOG	GB-378	2008	Tree Installation
Apache	MC-353	2008	Tree Installation
Stone Energy	International Frontier	2007	Heave Compensation on Salvage
BHP Billiton	Neptune	2007	Manifold Installation
Stone Energy	VR-255	2007	Platform Recovery
Newfield Exploration	Wrigley	2007	Tree Installation
Hess	Conger	2007	Tree and Jumper Recovery
Hess	GOM	2006	Tree Recovery

Cutting Projects

CLIENT	LOCATION	YEAR	DEPTH	CUTS
Pisces Energy	VK 77	2011	106	4
Pisces Energy	EI 41	2011	11	1
Manson Gulf	HI 202 #7	2011	29	1
Manson Gulf	HI 176 #2	2011	25	0
Manson Gulf	HI 167 #2	2011	32	1
Manson Gulf	HI 166 #1	2011	30	1
Manson Gulf	HI A-7 #2	2011	29	1
Manson Gulf	HI 53 #3	2011	15	1
Manson Gulf	EI 202-A	2011	53	3
Manson Gulf	EI 202-B	2011	54	7
Manson Gulf	EI 158 #10	2011	40	4
Manson Gulf	EI 188 JA	2011	38	4
Manson Gulf	ST 212-B	2011	52	4
Legacy Resources	MP 92	2011	30	2
Pisces Energy	EI 42	2011	15	0
Diamond Services	EI 147	2010	47	2
Manson Gulf	HI A-544	2010	86	3
Manson Gulf	WC 328	2010	47	4
Manson Gulf	WC 331	2010	48	4
Manson Gulf	WC405	2010	68	8
Wild Well Control	WC 442	2010	80	6
Wild Well Control	WC 472	2010	73	0
Manson Gulf	EI 308-A	2010	76	8
Wild Well Control	ST 196-C	2010	43	3
Manson Gulf	SS 145	2010	37	6
Manson Gulf	ST 212-C	2010	52	3
Cal-Dive	EC 294-A	2010	90	3
Apache	BAY MARCHAN	2010	14	1
Wild Well Control	VR 306-A	2010	34	4
Chevron	GC 6	2010	123	0





INTERMOOR

SPECIAL PROJECTS

SPECIAL PROJECTS HIGHLIGHTS

For more information
on InterMoor:










www.intermoor.com
info@intermoor.com

an **ACTEON** company

SPECIAL PROJECTS





Special Projects

CLIENT	PROJECT	YEAR	LOCATION	SCOPE OF WORK	
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 to facilitate subsea tree installation. The AHV used for the installation was the Joshua Chouest.	
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.	
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. The project was completed in five months.	
Premier Oil	Balmoral FPV	2010	UK Continental Shell	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 Bouy	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.	

Special Projects (continued)

CLIENT	PROJECT	YEAR	LOCATION	SCOPE OF WORK	
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. Piles were 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, tested and used new PS-24 Vent Cap system in lieu of butterfly valves which reduced cost, shortened delivery time and proved highly successful offshore. Completed in June 2009.	
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.	
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. The work was completed from the construction vessel DMT Emerald.	
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. The work was completed from the construction vessel DMT Emerald.	
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. The installation was performed using an operator supplied anchor handling vessel (AHV). The objectives for the project were to develop methodology for safe deployment, lowering and installation of ALMs from AHV; methodology for conductor installation using AHV and transport barge; deployment/recovery methodology for deepwater hammer from AHV; install all conductors within 0.5 m horizontal and 1 degree verticality tolerances; and install ALMs within 0.5 m horizontal and 1.5 degrees heading tolerances. All objectives were achieved. 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.	

Special Projects (continued)

CLIENT	PROJECT	YEAR	LOCATION	SCOPE OF WORK	
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. 2 AHVS used with crane along with Aquatic Reel Track System.	
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.	
Maersk	Gryphon	2008	North Sea	5 yearly chain inspection and offshore repair. Completed chain inspection, compromising 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 (12 connectors were used).	
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. With the preset mooring lines in place, a MODU can efficiently relocate as scheduled to serve the field's four drill centers through the course of the development. 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. The SEPLA installation utilized the construction vessel, Normand Cutter, while the polyester installation and hook up operations utilized the AHTS, Maersk Assister.	
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. The first two well center moorings were installed in May 2005 and the third in late 2006.	
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. Challenges included connecting the buoy to the mooring system without any means to tighten the mooring lines, install and hook-up of the mooring lines with no tolerance for twist and performing all operations in a harsh environment within a tight schedule.	
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.	