DEEPBLUE
CONSULTANCY & ENGINEERING

PROJECTS TRACK RECORD S.U.R.F.
Subsea Umbilical Riser Flowline

CLIENT	PROJECT		COUNTRY	WATERDEPTH	DESCRIPTION OF PROJECT	TYPE	YEAR
YOKOHAMA RUBBER CO.	NAYARA Field	YOKOHAMA	India	40 m	1. Static & Dynamic Analysis and design of subsea hoses / Buoyancy modules with CALM Buoy. 2. Dynamic analysis of hoses in 100-10-1 yr. storms.		2025
NOVA-X	G1 FSO CALM BUOY	NOVA X	Thailand	60 m	1. Technical support for the riser design. 2. Technical support for Offshore Installation. 3. Design & Review of engineering documents and Procedures.		2024
YOKOHAMA RUBBER CO.	Balongang Field	YOKOHAMA	Indonesia	15 m	4. Static & Dynamic Analysis of subsea hoses with CALM Buoy. 5. Dynamic analysis of hoses in 100-10-1 yr. storms.		2024
YOKOHAMA RUBBER CO.	Widuri terminal	YOKOHAMA	Indonesia	25 m	1. Static & Dynamic analysis of subsea hoses with FSO 2. Static & Dynamic Analysis of subsea hoses with CALM Buoy 3. Dynamic analysis of hoses in 100-10-1 yr. storms		2024
BOUSTEAD / BSES	Royal Malaysian Navy	Boustead Heavy Industries Corporation Berhad	Malaysia	25 m	1. Design of subsea component 2. Offshore installation procedures 3. Offshore Installation design and calculation 4. Structural design of support & lifting frames 5. Technical Management of the project 6. Supply of manpower for offshore installation		2023 - 2024
BLUESEAS	Shell CPRP-07	BLUESEAS MARITIME SERVICES	Brunei	25 m	1. Design of ballast clamps for subsea 6” flowline		2023
YOKOHAMA RUBBER CO.	Pertamina CALM Buoy	YOKOHAMA	Indonesia	25 m	1. Static & Dynamic Analysis of subsea hoses 2. Dynamic analysis of hoses in 100-10-1 yr. storms		2023
VESTIGO / VANTAGE	MAMPU-1 FPSO Nautica-Muar FSO	VESTIGO Investigate, Seek, Explore / VANTAGE ENERGY GROUP	Malaysia	75 m	1. Procedures, engineering & analysis for mooring retrieval, mooring system installation and relocation of FPSO / FSO 2. Procedures, engineering, analysis for riser retrieval & hook-up at FPSO & Platform 3. Offshore Construction Manager offshore on-site		2022
YOKOHAMA RUBBER CO.	CALM Buoy Hoses	YOKOHAMA	Japan	100 m	1. CALM Buoy system hose design 2. Complete Subsea Hose static & dynamic analysis and design 3. Subsea design of hose and ancillary equipment, buoys etc.		2022

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YOKOHAMA RUBBER CO.	CALM Buoy Hoses	YOKOHAMA	Indonesia	50 m	1. CALM Buoy system hose design 2. Subsea Hose static analysis		2021
ARAMCO / KAVIN ENGINEERING	Marjan Field	aramco	Saudi Arabia	55 m	1. Detailed design of 3.4 km, 15 kV Subsea Power Cable with fibre optic and ancillary equipment, between two existing platform 2. On-bottom stability, On-bottom walking assessment 3. Route assessment and final route design 4. Installation engineering, analysis, procedures & requirements 5. Bend stiffeners, J-tube, protection 6. Specifications for the cable and its equipment		2021 / 2022
YOKOHAMA RUBBER CO.	CALM Buoy Hoses	YOKOHAMA	Japan	100 m	1. CALM Buoy system hose design 2. Complete Subsea Hose dynamic analysis and design 3. FSO 4. Complete floating Hose analysis		2020
YOKOHAMA RUBBER CO.	MVS	YOKOHAMA	Vietnam	90 m	1. Dynamic analysis of offloading hose when free floating behind FPSO 2. Dynamic analysis of offloading hose when looped back behind FPSO 3. Dynamic analysis of offloading hose when used in Tandem FPSO – Shuttle tanker 4. Loads from floating hose on full system.		2020
BLUESEAS ENERGY / EA TECHNIQUE	TST SEPAT - C	BLUESEAS MARITIME SERVICES	Malaysia	53 m	1. Detailed Riser and flowline design 2. Field lay-outs 3. Fabrication of components 4. Management of Riser / flowline system		2019
T7GLOBAL / CHOC	FSO Puteri Cakerawala	T7 GLOBAL BERHAD	Malaysia	55m	1. Detailed design of offloading floating hose system. 2. Dynamic analysis and resonance analysis of floating hose during offloading and during extreme conditions.		2019
SOA / HYUNDAI (HOB)	CALM Buoy	HYUNDAI HEAVY INDUSTRIES CO.,LTD.	Korea	34 m	1. Hydrodynamic analysis of CALM Buoy 2. Complete Mooring analysis, design and engineering, fatigue assessment etc. 3. Riser analysis, design and engineering 4. Detailed Installation Procedures		2019

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HESS EXPLORATION & PRODUCTION	Temporary Storage Tanker	HESS	Malaysia	56 m	1. Complete EPIC contract of the Temporary Storage Tanker. 2. Design of the mooring system for a Temporary Storage Tanker (TST) for condensate storage. 3. Design of the subsea flowline, riser and hose system for condensate transfer from Central Processing Platform (CPP) to the TST. 4. Design of subsea support bases and gravity systems.		
HESS EXPLORATION & PRODUCTION	Temporary Storage Tanker	HESS	Malaysia	56 m	5. Upgrading of 6-point mooring system to 8-point mooring system to increase the operability. 6. Structural modifications to install 2 chain stoppers and 1 QRH at the stern of the TST. 7. Installation engineering for the tanker, mooring and SURF. 8. Provision of all personnel for installation, management, Flowline installation management 9. EPIC of the Offshore installation of the tanker, mooring system and SURF. 10. Offshore TST changeout of 6-point moored tanker with a new 8-point moored tanker. 11. Design engineering and offshore procedures for offloading of condensate.		2017-2018
LNG LINK	FSRU	LNG Link	Indonesia	4 to 10 m	1. FEED for Mooring system 2. FEED for SURF and Hose system 3. Budgets and project execution		2017
TUFF	FPSO	TUFF	UAE	80 m	1. OCM for the offshore mooring & SURF Installation, FPSO Hook-up. 2. Engineering and design of Offshore mooring, SURF installation & Hook-up. 3. Additional DEEPBLUE engineering personnel during Offshore installation.		2016-2017

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TUFF	FPSO	TUFF	UAE	80 m	EPIC for the following: 1. Mooring system, anchors, winches 2. Subsea, Risers and umbilical 3. Detailed design of under deck strengthening for all non-process related topsides and marine equipment 4. Design of riser & Umbilical porches, floating hose porches 5. General Naval Architecture 6. Marine systems engineering and design 7. Offshore Installation support, engineering and procedures		2015-2016
ING – BANK	FPSO OSX-2 Decommissioning and lay-up	ING BANK	Indonesia	15 m	1. Decommissioning of the mooring system. 2. Detailed mooring analysis for vessel lay-up 3. Structural strength analysis of the FPSO and jetty bollards 4. Offshore installation drawings 5. Acted as owner representative		2015
BC PETROLEUM	EPV Balai Mutiara	BC PETROLEUM	Malaysia	70 m	Engineering design and Consultant for the EPV Upgrade for SURF, mooring and installation: 1. Field lay-out review and development 2. Mooring analysis, mooring fatigue, tandem analysis 3. Riser analysis 4. Design and engineering of vessel structural modifications requirements for mooring, risers, and the offshore installation 5. Specifications for mooring systems, components, vessel equipment, offloading hoses, winches and dependant structures and equipment 6. Offshore installation analysis, procedures, methodology, requirements and specifications 7. Review of Company produced engineering packages and detailed design 8. Review of Company subcontractors work and proposals 9. Marine warranty surveyor, review of 3rd party engineering		2014 - 2015

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COBALT /	Cameia	Cobalt International Energy BUMIARMADA	West Africa	2800 m	SURF, Subsea mooring and installation detailed engineering for an FPSO comprising of: 1. Field lay-out review and development 2. Mooring analysis, mooring fatigue, tandem analysis, use of synthetic moorings for deep water 3. Mooring analysis for turret and spread-moored 4. Riser and umbilical analysis coupled analysis with mooring system, for the different options 5. Design and engineering of vessel structural modifications requirements for mooring, risers, and the offshore installation 6. Specifications for mooring systems, components, vessel equipment and dependant structures and equipment. 7. Offshore Installation analysis, procedures, methodology, requirements and specifications		2014
NAE – BUMI ARMADA	ETAN FPSO	BUMIARMADA	Nigeria	1800 m	FEED study for an FPSO comprising of: 1. Field lay-out review and development 2. Mooring analysis, mooring fatigue, tandem analysis, use of synthetic moorings for deep water 3. Preliminary riser and umbilical analysis, coupled analysis with mooring system 4. Design and engineering of vessel structural modifications requirements for mooring, risers, and the offshore installation 5. Specifications for mooring systems, components, vessel equipment and dependant structures and equipment		2014
PETROBRAS – BUMI ARMADA	LIBRA FPSO	BR PETROBRAS	Brazil	2400 m	FEED study for an FPSO comprising of: 1. Field lay-out review and development 2. Mooring analysis, mooring fatigue, tandem analysis, use of synthetic moorings for deep water 3. Riser and umbilical analysis, coupled analysis with mooring system		2014

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		BUMIARMADA			4. Design and engineering of vessel structural modifications requirements for mooring, risers, and the offshore installation. 5. Specifications for mooring systems, components, vessel equipment and dependant structures and equipment		
PTTEP	FSO-2	PTTEP	Thailand	80 m	1. Review of the different alternatives for the condensate production without an FSO 2. Review of production platform requirements 3. Design and engineering of SPM CALM Buoy system 4. Subsea flow assurance of the production from the different fields		2014
ENI – BUMI ARMADA	OCTP FPSO	BUMIARMADA	Ghana	900 m	1. Field lay-out review and development. 2. Mooring analysis, mooring fatigue, tandem analysis, use of synthetic moorings for deep water 3. Preliminary riser and umbilical analysis, coupled analysis with mooring system 4. Design and engineering of vessel structural modifications requirements for mooring, risers, and the offshore installation 5. Specifications for mooring systems, components, vessel equipment and dependant structures and equipment		2013 - 2014
TULLOW	KUDU FPU	TULLOW OIL PLC	Namibia	160 m	1. Field lay-out review and development 2. Mooring analysis, mooring fatigue, tandem analysis, use of synthetic moorings for deep water 3. Preliminary riser and umbilical analysis, coupled analysis with mooring system 4. Design and engineering of vessel structural modifications requirements for mooring, risers, and the offshore installation. 5. Specifications for mooring systems, components, vessel equipment and dependant structures and equipment		2013
PTTEP	FSO-2	PTTEP	Thailand	80 m	1. Technical support to PTTEP with the change out of existing risers. 2. Offshore Installation support personnel. 3. Review of Installation Company procedures and engineering. 4. Offshore management and engineering support by DEEPBLUE		2013

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PETRONAS – TECHNIP	Bukit Tua FPSO	PETRONAS TMH Technip MHB Hull Engineering Apache	Indonesia	70 m	1. Supply of mooring and riser engineering personnel 2. Mooring analysis, mooring fatigue analysis 3. Riser analysis, riser design 4. Design and engineering of mooring and riser systems on board the FPSO 5. Design and engineering of Marine systems 6. Design and engineering of the offshore installation for mooring and risers 7. Preparation of Detailed Specifications for all mooring, risers, subsea and marine systems		2012 - 2013
PTTEP	FSO-3	PTTEP	Thailand	70 m	1. Feasibility study and pre-FEED for the development of a new FSO and integration with the existing field architecture. 2. Mooring analysis and requirements for FSO, CALM buoy 3. Flexible riser analysis		2012
BUMI ARMADA NAVIGATION	UDANG Installation	BUMIARMADA	Indonesia	150	1. Mooring system installation 2. FPSO hook-up 3. Riser installation 4. Installation commissioning 5. Offshore management and engineering support by DEEPBLUE personnel		2012
BMT ASIA PACIFIC	LNG Terminal	BMT Asia Pacific	PNG	50 m	1. Hydrodynamic analysis of CALM buoy & riser. 2. Preliminary analysis of CALM system with risers and moorings and vessel		2012
ONGC	D-1 FPSO	ओएनजीसी ONGC	India	150 m	1. Riser systems and subsea 2. Mooring system, offshore installation 3. Naval architecture, hull, vessel, structural systems 4. All marines systems on board the FPSO, marine engineering		2011 - 2012

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KEI – TJS	Sepanjang FSO	Kangean Energy Indonesia	Indonesia	45 m	1. Design and engineer of mooring system and riser system for the FSO 2. Offshore installation engineering and provision of support personnel for the offshore phase		2010 - 2011
ONGC-DPS	D-1 FPSO	ओएनजीसी ONGC	India	150 m	1. Mooring systems, riser systems, subsea components, offshore installation 2. FSO structural, marine and naval architectural requirements. 3. Preparation of technical specification and RFQs for the above in order to issue for BID to EPIC Contractor		2010
CHEVRON – EDG	FSO Vietnam Block B Gas Project FEED Study	Chevron	Vietnam	150 m	1. Mooring systems, riser systems, subsea components, offshore installation 2. FSO structural, marine and naval architectural requirements. 3. All marine systems, IG, cargo, ballast, HVAC, LQ, ER, electrical, mechanical et 4. Preparation of technical specification and RFQs for the above in order to issue for BID to EPIC Contractor		2010
ONGC – DPS	D-1 FPSO FEED Study	ओएनजीसी ONGC	India	150 m	1. Mooring systems, riser systems, subsea components, field lay-out 2. FSO structural, marine and naval architectural requirements 3. Preliminary installation method statements 4. Preparation of Technical Specification and RFQs for the above in order to issue for BID to EPIC Contractor		2010
PETROFAC – DPS	FPSO FEED Study Cendor II	Petrofac	Malaysia	80 m	1. Mooring systems, Riser Systems, Subsea components 2. FSO structural, marine and Naval Architectural requirements 3. All Marine systems, IG, Cargo, ballast, HVAC, LQ, ER, Electrical, mechanical etc 4. Preparation of Technical Specification and RFQs for the above in order to issue for BID to EPIC Contractor		2009 – 2010

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COASTAL ENERGY	Songkhla FSO	COASTAL ENERGY	Thailand	20 m	1. Design of new and review of existing system with respect to mooring, risers, offshore and subsea arrangement 2. Mooring analysis and design 3. Offloading analysis and design 4. Riser analysis and design 5. Hose analysis and design 6. Vessel mooring requirements and Installation requirements		2009 – 2010
GALOC PETROLEUM COMPANY	FPSO	GPC Galoc Production Company	Philippines	600 m	1. Mooring system, 2. Riser and SURF 3. Offshore Installation		2009 – 2010
MISTUBISHI OIL	Sepanjang FSO	MITSUBISHI	Indonesia	45 m	Review on behalf of Client the detailed design of mooring and risers, review of subcontractors		2009
QATAR PETROLEUM	BH & MM Field	Qatar Petroleum	Qatar	0 – 50 m	Feasibility study for the change out of umbilicals for 60+ platforms		2009
QATAR PETROLEUM	Halul Field	Qatar Petroleum	Qatar	0 – 50 m	Hydrodynamic engineering for electric cable		2009
LARSEN OIL & GAS	FPSO X	LARSEN OIL & GAS	Singapore	200 m	Design responsibility for field lay-out riser configuration, subsea systems, mooring systems, and offshore works		2008