

The “PACIFIC SANTA ANA” is an upgraded Dual Load Path Samsung 12,000 design dynamically-positioned drillship capable of operating in moderate environments and water depths up to 3,657 m (12,000 ft) using 18¾” BOP and 21” OD marine drilling riser, adapted for single and dual gradient drilling. In areas where dual activity patent is valid, drillship will operate in single activity only.



PACIFIC SANTA ANA UDW Drillship

GENERAL

Flag:	Liberia
Owner:	Pacific Santa Ana SARL
Manager:	Pacific Drilling Services, Inc.
Year built:	2011
Design:	Samsung 12000 Double Hull
Builder:	Samsung Heavy Industries, South Korea
Classification:	ABS classed: A1, Drilling Unit, AMS, ACCU, DPS-3

OPERATING PARAMETERS

Maximum transit speed:	11.5 knots	
Operating conditions:	Wave: 19 ft	Wind: 50 knots
Station-keeping conditions:	Wave: 28 ft	Wind: 60 knots
Storm conditions:	Wave: 47 ft	Wind: 100 knots
Water depth:	Equipped: 10,000 ft (3,048 m)	Maximum: 12,000 ft (3,657 m)
Drilling depth:	Equipped: 40,000 ft (12,000 m)	Maximum: 40,000 ft (12,186 m)

MAIN DIMENSIONS / CAPACITIES

Length:	748 ft	228 m
Breadth:	137 ft	42 m
Depth:	62 ft	19 m
Transit draft:	28 ft	8.5 m
Operating draft:	39 ft	12 m
Maximum load displacement:	105,800 ST	96,000 MT
Variable deck load – Operating:	22,046 ST	20,000 MT
Variable deck load – Transit:	18,740 ST	17,000 MT
Variable deck load – Survival:	22,046 ST	20,000 MT
Brine:	6,290 bbls	1,000 m ³
Base oil:	3,145 bbls	500 m ³
Active mud:	6,698 bbls	1,065 m ³
Reserve mud:	6,290 bbls	1,000 m ³
Liquid (riser) mud:	3,145 bbls	500 m ³
Waste mud / reserve mud:	3,145 bbls	500 m ³
Sacks:	10,000 sacks	-
Drill water:	17,611 bbls	2,800 m ³
Potable water:	8,176 bbls	1,300 m ³
Diesel:	38,997 bbls	6,200 m ³
Pipe racks:	Storage for 3,000 MT of drill pipe and casing	
Riser storage:	Storage for 131 joints of 90 ft length, 21” outside diameter riser with 58” buoyancy	
Well test area:	Storage area aft designed for up to 2,500 MT of well test equipment	
Helideck:	89 ft Aluminium Pancake Octagon, rated for Chinook	
ROV:	ROV deployed over side, space for one port and one starboard full spreads	
Moonpool:	84 ft x 41 ft (25.6 m x 12.5 m)	
Accommodation:	200 berths	
Burner boom:	1 Each 80 ft Swan neck burner boom installed on aft ship, ship will weather vane	

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MACHINERY

Main power:	6 x 7,000 kW STX-MAN 720 RPM, each driving one 7,000 kW 11,000 V generators
Power distribution:	11 kV, 440 V, 60 Hz, 3-Phase Drilling Drive System
Emergency power:	1 x 1,350 kW driving 1 x 1,350 kW generator 440 V system
Craneage:	4 x 85 MT electro-hydraulic knuckle-boom cranes at 18 m (59 ft) radius

STATION-KEEPING

Positioning:	Kongsberg-Simrad System for DP-3 Operations
Propulsion:	6 x 4,500 kW variable speed AC drives
Thrusters:	6 x Rolls Royce Aquamaster fixed pitch Azimuthing in water removable thrusters
Reference system:	Dual redundant DGPS or equivalent; Dual HiPAP hydro acoustic position reference system

DRILLING EQUIPMENT

Derrick:	200 ft x 60 ft x 80 ft derrick to handle 135 ft-tubular with 2 x NOV 2,000 kips compensating crown block plus AHC
Draw-works:	2 x NOV SSGD-5750, 2,000 kips single speed gear driven by 1,150 HP AC motors with 2" line
Rotary:	1 x Varco BJ RST 75-1/2" hydraulic (Main); 1 x Varco BJ RST 60-1/2" hydraulic (Auxiliary)
Top drive:	1 x TDX-1250, 2,400 kips rotating (Main); 1 x Hydralift HPS 1000-2E-AC-KT, 2,000 kips (Auxiliary)
Travelling block:	2 x NOV 2,000 kips, 7 x 72" sheaves
Motion compensator:	2 x NOV CMC-1000-25 with 25 ft max stroke static load 2,000 kips; compensating load 1,000 kips
Mud pumps:	6 x NOV 14-P-220, 7,500 psi (3 Mud + 3 Seawater for DGD; up to 5 Mud for single gradient)
Cementing unit:	Third Party Services – Schlumberger CPS-665, remote control, LAS
Shale shakers:	7 each VSM 300 shale shakers
Degasser:	2 x Brandt DG-12 vacuum degasser
Centrifuges:	2 x Brandt HS 3,400 centrifuges with 45 HP power pack and control system
Drill-pipe:	10,000 ft 6.5/8" Casing landing string with 6.5/8" FH connections, V-150, 0.813 Wall Thickness
	6,500 ft 6.5/8" Drill string with 6.5/8" FH connections S-135, 0.625 Wall Thickness
	10,000 ft 6.5/8" Drill string with 6.5/8" FH connections S-135, 0.522 Wall Thickness
	10,000 ft 6.5/8" Drill string with 6.5/8" FH connections S-135, 0.362 Wall Thickness
	10,000 ft 5.7/8" Drill string with 585 Turbotorque connections, S-135, 0.361 Wall Thickness
Drill-collars / HWDP:	5,000 ft 4.1/2" Drill string with XT43 connections, S-135, 0.430 Wall Thickness
Pipe handling:	12 x 9 1/2", 30 x 8 1/4", 30 x 6 3/4" / 60 x 6 5/8" HWDP, 40 x 5.7/8" HWDP
	Outfitted to facilitate offline tubular handling with system consisting of:
	2 x Hydra-Racker System HR-IV (for 3.1/2" to 16" tubulars) 2 x Hydratong MPT-200 (for 3.1/2" to 9.3/4" tool-joints)

SUBSEA SYSTEMS

BOP:	6 Ram cavities: 2 x NOV-Shaffer NXT 18 3/4" 15k triple; 1 x NOV-Shaffer 18 3/4" 10k annular; GE-Vetco SHD H4 18 3/4" 15k wellhead connector
LMRP:	1 x NOV-Shaffer 18 3/4" 10k annular; GE-Vetco ExF H4 18 3/4" 15k High Angle Release LMRP connector
BOP / Xmas tree handling:	1 x BOP trolley with skid rated 470 tons; 2 x 240 ton BOP gantry crane with dual lifting hoists
	2 x X-mas tree skids rated 120 tons
	1 x Multi-purpose cart rated 1,000 tons (Lower BOP, X-tree handling, riser hang-off capabilities)
Control system:	NOV-Shaffer 5 th Gen. Multiplex Control System suitable for 12,000 ft
Riser details:	Shaffer 21" OD; 90 ft joints; Class H FT-DGD 3.5 million lbs; 58" buoyancy – 10,000 ft
Riser gantry crane:	One riser gantry crane with 2x25 MT Hoist
Choke & kill:	3.1/16" x 15k C&K Manifold H2S Service
Diverter:	NOV-Shaffer 21 1/4", 500 psi CSO for 75 1/2" Rotary table
Riser tensioner:	8 x Dual Wireline 225 kips with 50 ft stroke