



The "PACIFIC SANTA ANA" is an upgraded Dual Activity Samsung 12000 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 FT-DGD drilling riser and equipped for single and/or Dual Gradient Drilling (DGD)



Pacific Santa Ana UDW Drillship

GENERAL

Flag:	Liberia
Owner:	Pacific Santa Ana Ltd., a subsidiary of Pacific Drilling Limited
Manager:	Pacific Drilling Services Inc.
Year Built:	New Build – to be delivered in December, 2011
Design:	Samsung 12000 Double Hull
Builder:	Samsung Heavy Industries, South Korea
Classification:	ABS +A1, "Drilling Unit", +AMS, +ACCU, +DPS-3, NBLES, DLA, CDS

OPERATING PARAMETERS

Maximum transit speed:	11.5 knots	
Operating conditions:	Wave: 19ft	Wind 50: knots
Station-keeping conditions:	Wave: 28ft	Wind 60: knots
Storm conditions:	Wave: 47ft	Wind 100: knots
Water depth:	Equipped: 10,000ft (3048m)	Maximum: 12,000ft (3657m)
Drilling depth:	Equipped: 35,000ft (10,668m)	Maximum: 40,000ft (12,186m)

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	1000m 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 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 spread	
Moonpool:	84 ft x 41 ft (25.6 m x 12.5 m)	
Accommodation:	200 berths	
Burner Boom:	1 x 80' Swan neck burner boom installed on aft ship, ship will weather vane	



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
Cranage:	4 x 85 MT electro-hydraulic knuckle-boom cranes at 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
Ref. 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 2000 kips compensating crown block plus AHC
Draw-works:	2 x NOV SSGD-5750, 2000 kips single speed gear driven by 1150 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, 2400 kips rotating (Main); 1 x Hydralift HPS 1000-2E-AC-KT, 2000 kips (Auxiliary)
Travelling block	2 x NOV 2000 kips, 7 x 72" sheaves
Motion Comp.:	2 x NOV CMC-1000-25 with 25 ft max stroke static load 2000 kips; compensating load 1000 kips
Mud Pumps:	6 x NOV 14-P-220, 7500 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 ea. VSM 300 shale shakers
Degasser:	2 x Brand DG-12 vacuum degasser
Centrifuges:	2 x Brandt HS 3400 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 5,000 ft 4.1/2" Drill string with XT43 connections, S-135, 0.430 Wall Thickness
Drill-collars / HWDP:	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
Pipe Handling:	Outfitted to facilitate offline tubular handling with system consisting of: 2 x Hydro-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:	2 x Shaffer NXT 18 3/4" 15K triple (rated for 12,000'); 1 x Shaffer 18 3/4" 10K annular; Vetco SHD H4 18 3/4" 15K wellhead connector
LMRP:	1 x Shaffer 18 3/4" 10K annular; 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 220 ton BOP gantry crane with dual lifting hoists 1 x Multi-purpose cart rated 1000 tons (Lower BOP, X-tree handling, riser hang-off capabilities)
Control System:	Shaffer Multiplex Control System suitable for 12,000'
Riser Details:	Shaffer 21" OD; 90 ft joints; Class H 3.5 million lbs; 58" buoyancy
Choke & Kill:	3.1/16" x 15K C&K Manifold H ₂ S Service
Diverter:	Shaffer CSO (or equivalent) with 75-.1/2" bore, 500 psi
Riser Tensioner:	8 x Dual Wireline 225kips with 50 ft stroke