

## GENERAL SPECIFICATIONS AND OPERATING PARAMETERS

# PRIMUS

## KFELS MOD V-B CLASS

<b>Shipyard Delivery</b>	November 16, 2012. Keppel FELS.
<b>Classification</b>	ABS Ⓢ A1 Self-Elevating Drilling Unit
<b>Owner</b>	Oro Negro Primus Pte Ltd.
<b>Flag</b>	Panama
<b>Dimensions</b>	234' x 208' x 25'
<b>Water Depth</b>	Rated for 35' to 400'
<b>Max Drilling Depth</b>	30,000 ft
<b>Cantilever Reach</b>	70 ft aft, 30' transverse (15' port and 15' starboard)
<b>Leg Length</b>	517 ft (460 ft below hull)
<b>Leg Spacing</b>	142' transverse 129' longitudinal
<b>Spudcan Diameter</b>	46 ft and 19 ft high
<b>Variable Deck Load</b>	Operating: 7,500 kips Survival: 5,000 kips Transit: 5,000 kips
<b>Helideck Capacity</b>	Sikorsky S-61N & S92

## DRILLING EQUIPMENT

<b>Derrick</b>	Lee C Moore Beam Leg Derrick S/N W-15285-8, 36 ft sq. base x 18 ft sq. top x 160 ft clear working height
<b>Capacity</b>	1.5 million lbs static hook load with 14 lines strung
<b>Racking Capacity</b>	270 Stands of 5 $\frac{7}{8}$ " drill pipe range II triples x 93 ft (38,409 ft) 20 Stands of 5 $\frac{7}{8}$ " HWDP range II triples x 93 ft 16 Stands of 8 $\frac{1}{4}$ " drill collar range II triples x 93 ft (1,116 ft)
<b>Drawworks</b>	NOV ADS-10T, 2 x Gear Speed Gearbox (3000 hp)
<b>Rotary Table</b>	NOV RST 495-3G - 49 $\frac{1}{2}$ " hydraulically operated, 750 sht dynamic and 1000 sht static load
<b>Iron Roughneck</b>	1 x NOV model AR3200 roughneck for tubular range 3 $\frac{1}{2}$ " to 9 $\frac{3}{4}$ " for well center ops 1 x NOV model ST-120 roughneck for tubular range 3 $\frac{1}{2}$ " to 10" for offline ops
<b>Top Drive</b>	NOV TDS-8SA, lifting capacity 750 sht hoisting, 650 sht rotating, 62,250ft lbs max continuous torque, 95,000 ft lbs intermittent, 0-270 Max rpm, 1 x 1,150 hp AC motor
<b>Catheads</b>	2 x NOV HC-26EV electrically controlled hydraulic cat-heads, 34,500 lbs line pull

## CAPACITIES

<b>Diesel</b>	3,000 bbls	<b>Drillwater</b>	3,600 bbls (plus 16,000 bbls of preload)
<b>Potable Water</b>	2,000 bbls	<b>Bulk Storage</b>	11,100 ft <sup>3</sup>
<b>Sack Storage</b>	5000 sacks	<b>Base Oil</b>	1,500 bbls
<b>Brine</b>	1,000 bbls	<b>Liquid Mud</b>	4,000 bbls

## OTHER PARTICULARS

<b>Accommodations</b>	150 Persons
<b>Jacking System</b>	KFELS OTD Fels Rack and Pinion Jacking System, c/w 9 elevating Jack sets consists of 4 pinions per chord, Total of 36 pinions, normal jacking capacity 46,800 kips (21,228 mt)
<b>Mud Pumps</b>	3 x LEWCOW-2215, 2,200 hp, 7,500 psi, c/w 2 x GEB22 AC motors
<b>Shakers</b>	5 x NOV Brandt VSM 300 (1 configured as Desander / Desilter)
<b>BOP Stack</b>	1 x Cameron 18¾" 15,000 psi, 4 x ram BOP, (2 x TL doubles), + 1 x Cameron DL 18¾" 10,000 psi annular BOP, HPHT, H <sub>2</sub> S rated (c/w test stump and test pump)
<b>BOP Controls</b>	1 x Cameron BOP / Diverter control system including local control, driller's control and toolpusher's control stations
<b>Diverter</b>	1 x Dril-Quip FDS 500 psi (27½" ID) diverter with 16" flow-line and 2 x 14" overboard lines
<b>C &amp; K Manifold</b>	1 x TechDrill API 6A PSL 3 3¼" 15k HP side / 4¼" 10k LP side Choke & Kill Manifold, HPHT service & H <sub>2</sub> S trimmed
<b>Mud Manifold</b>	1 x TechDrill API 6A PSL 3 dual 5" ID 7,500 psi WP Standpipe Manifold, HPHT & H <sub>2</sub> S trimmed
<b>Cement Manifold</b>	1 x TechDrill API 6A PSL 3 single 3" ID 15,000 psi WP Cement Manifold, HPHT & H <sub>2</sub> S trimmed
<b>Cement Unit</b>	Halliburton HT400 (Halliburton Owned) unit, 15,000 psi safe working pressure

## POWER GENERATION

<b>Main Engines</b>	5 x CAT 3516C HD DITA Diesel engines, rated at 2,150 hp, (1,603 bkW) , at 1200 rpm c/w Baylor S637/WUT AC generator rated at 2150 kVA at 1200 rpm, 600V, 60 Hz, 3 Ph
<b>Emergency Power</b>	1 x CAT 3508B DITA Diesel engine, rated at 910 hp, (682 bkW), at 1200 rpm c/w Stamford AC alternator rated at 700 ekW at 1200 rpm, 480V, 60 Hz, 3 Ph

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### HANDLING SYSTEMS

<b>Deck Cranes</b>	3 x Favelle Favco Model 7.5/10K w/ 120 ft boom, main hoist ratings – 45.4 mt @ 40 ft radius, 11 mt @ 120 ft radius (static).  All cranes – auxiliary hoist ratings – 9.8 mt at maximum radius (static)
<b>Offline Tubular</b>	1 x Forum OAC offline activities crane, 16,000 lbs maximum hoisting capacity
<b>BOP Handling</b>	2 x Ingersoll Rand BHS150R22 pneumatically operated chain hoists. Capacity of 68 mt each
<b>Xmas Tree Handling</b>	1 x Xmas Tree trolley beams rated at 20 mt c/w hoist
<b>Conductor Tensioner</b>	1 x Icon 230 mt capacity CTU suitable for 20", 30" and 36" conductor

### LIFESAVING SYSTEMS

<b>Lifeboats</b>	4 x 75 man capacity Norsafe JYN85T TELB davit launched lifeboats (200% of PoB)  Life boat #1 is designated as rescue boat
<b>Life rafts</b>	6 x 25 man RFD Surviva 25DL MKIV inflatable liferafts launched via davits located one each port and starboard (100% of POB)
<b>Lifejackets</b>	225 SOLAS approved lifejackets
<b>Lifebuoys</b>	10 installed in accordance with IMO MODU & SOLAS