



STANDARD FORMAT EQUIPMENT LIST

DRILL SHIP - DISCOVERER LUANDA

Note: All equipment listed hereunder shall be operated and maintained at all times in compliance with Contractor's standard operating manuals, policies and procedures. Operational limits and/or continuous rated capacity referenced therein shall be strictly observed, in order to assure maximum operational efficiency. Exemptions, allowing certain limits or ratings to be exceeded on a temporary basis, shall be subject to mutual agreement in writing, with Operator (Company) assuming all liability for loss or damage, or any related downtime.

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A. UNIT SPECIFICATIONS		
Rig type:		Dual Activity Drill Ship
Unit/Design/Shape:		Ship Shape
Unit Flag:		Marshall Islands
Unit Classification:		DNV +1A1, "Ship Shaped Drilling Unit", EO, DYNPOS AUTR, HELDK-SH, CRANE, TEMPSTORE, CSA-2, ICS, F-AMC, CCO, OPP-F, BIS
IMO Certification:	yes/no	Yes
Which code version:		
Year of Construction: Keel Laid		2008 (Year into Service in 2010)
Construction Yard:		Daewoo Shipbuilding and Marine Engineering
Type of Positioning system (anchor/dp/combined):		Dynamically Positioning System (DPS)
A.1 MAIN DIMENSIONS/TECHNICAL DESCRIPTION		
Weight (light ship):	mt	37,609 (To be confirmed upon inclining)
Displacement at loadline:	mt	101,248 in SW
Draft at loadline (deepest):	ft	42.65
Overall length of unit:	ft	834.69
Overall width of unit:	ft	124.68
Design Draft:	ft	39.37
Thrusters below Keel:	ft	19.3
Keel to Main Deck @ CL:	ft	63.98
Thruster to Main Deck:	ft	83.3
Main Deck to Rotary Table:	ft	67.0
Keel to Rotary Table:	ft	130.98
Main Deck to Pipe Deck:	ft	37.23
Main Deck to Derrick Top:	ft	294.37 (To top of watertable)
Rotary Table to Derrick Top:	ft	226.83 (To top of watertable)
Design Draft to Rotary Table:	ft	91.60
Load Line to Rotary Table	ft	88.33
Moon pool dimensions:	ft x ft	73 x 30.4
Maximum Substructure/Rotary Load (FWD):	lbs/lbs	2,500,000 / 2,500,000
Maximum Substructure/Rotary Load (AFT):	lbs/lbs	2,500,000 / 2,500,000
Maximum Fwd/Aft Setback Load:	lbs/lbs	1,250,000 / 1,250,000
Maximum Casing Fingerboard Load:	lbs	1,000,000
Maximum Tensioner Support Beam Load	lbs	4,120,000 x 2
Max Simultaneous setback + hookload capacity + tensioner capacity:	lbs	3,500,000 setback + 2 x 2,500,000 hook +
		2 x 3,200,000 tens.
Accommodation for max. no. of personnel:		220
A.2 STORAGE CAPACITIES		
Fuel:	bbl	32594

Drilling water:	bbl	12283
Potable water:	bbl	7500
Active liquid mud:	bbl	7,890
Mud processing tank:	bbl	560
Reserve liquid mud:	bbl	11568
Bulk bentonite/barite:	ft3	16,000
Bulk cement:	ft3	16,000
Sacks storage:	sacks	16,000
Pipe racks total load:	mt	5400
Load bearing capacity:	lb/ft2	650
Drilling Riser rack total load:	mt	3,873
Load bearing capacity:	lb/ft2	1500
Production Riser rack total capacity:	mt	1759mt
Load bearing capacity:	lb/ft2	530
Miscellaneous storage area:		
Brine storage:	bbl	11095 (figure can be doubled if stored in both aux. tanks)
Heavy brine accepted (e.g. bromide):	yes/no	Yes
Base oil storage:	bbl	11095
Oil base mud storage:	bbl	
Ballast system (or preload):	bbl	336,932
A.3 PROPULSION / THRUSTERS		
A.3.1 In-Line Propulsion	yes/no	No
Shafts:	no.	N/A
Motors per shaft:	no.	N/A
Motors make/type:		N/A
Total HP per shaft:	hp	N/A
Propeller type (fixed / variable blade):		N/A
Nozzled:	yes/no	N/A
A.3.2 Thrusters		
Quantity:	no.	Six (6) each Rolls Royce thrusters
Fixed / azimuthing:		360 degree Azimuthing
Motors per thruster:	no.	1
Type motors:		AC induction motors
Total HP per thruster:	hp	7,000
Propeller type (fixed / variable blade):		Fixed
Nozzled:	yes/no	Yes
A.3.3 Dynamic Positioning		
Make / Model:		Kongsberg-Simrad / Triple-redundant

		SDP-32 Dynamic positioning system
Full DP or Mooring Assist:		Full DP
Position Reference:		-2 set Fugro dual redundant DGPS
		-1 set Sonardyne SBL/LBL/USBL acoustic reference system
A.4 OPERATIONAL CAPABILITIES		
Maximum designed water depth capability:	ft	12,000
Outfitted max. water depth capability:	ft	7,500
Drilling depth capability (rated):	ft	30,000
Transit speed towed (historical avg):	knots	N/A
Transit speed self propelled (historical avg):	knots	12
A.5 VARIABLE LOADING (VL)		
Drilling VDL at 12-13m Draft	mt	19,000 to 20,000
Extended Well Test at 12-13m Draft	mt	18,000 to 19,000
Transit at 8 - 12 m Draft	mt	18,000
A.6 ENVIRONMENTAL LIMITS		
A.6.1 DRILLING		
Draft:	ft	42.65
Max. wave height:	ft	30
Max. wind velocity:	knots	60
Heading off Bow:	degrees	+/- 30
Static List or Trim:	degrees	3
Max. heave (double amplitude):	ft	15.4
Heave Period (double amplitude):	seconds	25.6
Max. pitch (double amplitude):	degrees	16.2
Pitch Period (double amplitude):	seconds	12.1
Max. roll (double amplitude):	degrees	4.1
Roll Period (double amplitude):	seconds	17
A.6.2 STORM CONDITIONS		
Draft:	ft	42.65
Max. wave height:	ft	50
Max. wind velocity:	knots	100
Heading off Bow:	degrees	+/- 30
Static List or Trim:	degrees	5
Max. heave (double amplitude):	ft	51
Heave Period (double amplitude):	seconds	29.2
Max. pitch (double amplitude):	degrees	15.4
Pitch Period (double amplitude):	seconds	25.8

Max. roll (double amplitude):	degrees	23.5
Roll Period (double amplitude):	seconds	35
A.6.3 DAMAGED		
Draft:	ft	42.65
Max. wave height:	ft	0
Max. wind velocity:	knots	50
Heading off Bow:	degrees	+/- 90
Static List or Trim:	degrees	17
Max. heave (double amplitude):	ft	0
Heave Period (double amplitude):	seconds	0
Max. pitch (double amplitude):	degrees	0
Pitch Period (double amplitude):	seconds	0
Max. roll (double amplitude):	degrees	0
Roll Period (double amplitude):	seconds	0
A.7 MOORING SYSTEM		
A.7.1 Anchor Winches		
Quantity:	no.	2
Make / Model:		Pusnes
Type (electricity/hydraulic/diesel):		Hydraulic
Motors per winch:	no.	
Motor make / type:		
Total HP per winch:	hp	
Rated pull:	mt	20
Speed low gear:	m/min	15
Test load:	mt	
Control locations (local/remote/both):		local
Emergency release (type/location):		
A.7.2 Fairleads		
Quantity:	no.	None
Make:		
Free rotating range:	degrees	
A.7.3 ANCHORS		
A.7.3.1 Anchors – Primary		
Quantity:	no.	2
Make:		Kumhwa
Type:		Stockless, High-holding power
Weight:	mt	10.125

A.7.3.2. Anchors - Spare		
Quantity:	no.	None
Make:		
Type:		
Weight:	lt	
A.7.4 Anchors Lines		
A.7.4.1 Wire		
Quantity (installed / spare):	no.	None
Make / Type:		
Specification:		
Diameter:	in	
Weight per unit length:	lbs/ft	
Useful length (nominal):	ft	
Classification:		
Breaking strength:	lt	
A.7.4.2 Chain		
Quantity (installed / spare):	no.	2
Make / Type:		Dai Han
Specification:		
Diameter:	in	4
Weight per unit length:	lbs/ft	76
Useful length (nominal):	ft	1172
Classification:		NV Grade-2
A.7.5 Anchors Line Running & Retrieval System		
Primary type (pennant-buoy or chaser):		
A.7.5.1 Pennant Lines		
Quantity:	no.	None
Make:		
Type:		
Length:	ft	
Diameter:	in	
A.7.5.2 Anchor Buoys		
Quantity:	no.	None
Volume each:	ft3	
Type:		
Foam filled:	yes/no	

A.7.5.3 Chaser		
Quantity:	no.	None
Make:		
Type:		
A.7.6 Towing Gear Fwd.		
Towing bridle size:	in	3
Hook-up system:		
Rating:	mt	200
Spare bridle:	yes/no	No
Towing Gear Aft		
Drum Capacity:		984
Wire size:	ft.	2.24
SWL:	in.	100
	mt	
A.7.7 Supply Vessel Mooring System		
Locations (port/stbd/both):		Both
System:		2 x vertically mounted Right Angle 30k Capstans 1 port 1 stbd just aft amidship.
		4 x Inline 30k Capstans. 2 stern and 2 bow
Rating:	lt	See above
A.8 MARINE LOADING HOSES		
Locations of loading manifolds (port/stbd/both)		Fr42 P&S
A.8.1 Potable Water Hose		
Quantity:	no.	2
Size:	in	3" (3sections of 50')
Maker / Type:		Contitech Beattie
Color coding:	yes/no	Yes
Make / Type connection:		Hammer Union- Outer Ferrule ASTM A105/106 Zinc Plated Carbon Steel c/w 3" Fig 100. Unvalved Breakaway Weak Link at Intermediate Section.
A.8.2 Drilling Water Hose		
Quantity:	no.	2
Size:	in	3" (3sections of 50')
Maker / Type:		Contitech Beattie
Color coding:	yes/no	Yes

Make / Type connection:		Hammer Union- Outer Ferrule ASTM A105/106 Zinc Plated Carbon Steel c/w 3" Fig 100. Unvalved Breakaway Weak Link at Intermediate Section.
A.8.3 Liquid Mud		
Quantity:	no.	2 - replacement required due to age
Size:	in	6
Maker / Type:		Contitech Beattie /
Color coding:	yes/no	Yes
Make / Type connection:		Shipside: Hammer Union Fig 100 - Supply Boat: TODO Dry Disconnect
A.8.4 Bentonite Transfer Hose		
Quantity:	no.	2 - replacement required due to age
Size:	in	6 (3sections of 50')
Maker / Type:		Contitech Beattie
Color coding:	yes/no	Yes
Make / Type connection:		Hammer Union- Outer Ferrule ASTM A105/106 Zinc Plated Carbon Steel c/w 6" Fig 100. Unvalved Breakaway Weak Link at Intermediate Section.
A.8.5 Cement Hose		
Quantity:	no.	2 - replacement required due to age
Size:	in	6" (3sections of 50')
Maker / Type:		Contitech Beattie / BM10S
Color coding:	yes/no	Yes
Make / Type connection:		Hammer Union- Hammer Union- Outer Ferrule ASTM A105/106 Zinc Plated Carbon Steel c/w 6" Fig 100. Unvalved Breakaway Weak Link at Intermediate Section.
A.8.6. Base Oil Hose		
Quantity:	no.	2- replacement required due to age
Size:	in	4
Maker / Type:		Contitech Beattie / 300 PSI SWP
Color coding:	yes/no	Yes
Make / Type connection:		Shipside: Hammer Union Fig 100 - Supply Boat: TODO Dry Disconnect
A.8.7. Diesel Fuel Oil		
Quantity:	no.	2 - replacement required due to age
Size:	in	4
Maker / Type:		Contitech Beattie / 300 PSI SWP
Color coding:	yes/no	Yes

Make / Type connection:		Shipside: Hammer Union Fig 100 - Supply Boat: TODO Dry Disconnect
A.8.8 Completion Fluid Transfer Hoses		
Quantity:	no.	2 - replacement required due to age
Size:	in	4
Maker / Type:		Contitech Beattie / 300 PSI SWP
Color coding:	yes/no	Yes
Make / Type connection:		Shipside: Hammer Union Fig 100 - Supply Boat: TODO Dry Disconnect
A.8.9 Sludge Transfer Hoses		
Quantity:	no.	2- replacement required due to age
Size:	in	4
Maker / Type:		Contitech Beattie / 300PSI SWP
Color coding:	yes/no	Yes
Make / Type connection:		Shipside: Hammer Union Fig 100 - Supply Boat: TODO Dry Disconnect
A.9 CRANES, HOISTS, AND MATERIALS HANDLING		
A.9.1. Cranes, Revolving, Main		
Quantity:	no.	2
Specification (API, etc)		DNV
Make:		NOV
Type:		Pedestal / OC 4000KCE Electro Hydraulic knuckleboom
Location (stbd, port, aft, frwd):		
Boom length:	ft	N/A
Hook reach below main deck (block/whip):	ft/ft	N/A
Block capacities w/ Knuckleboom		
Load/radius (minimum radius):	mt/ft	100/26.2
Load/radius (maximum radius):	mt/ft	16.1/147.6
Block capacities w/o Knuckleboom		
Load/radius (minimum radius):	mt/ft	N/A
Load/radius (maximum radius):	mt/ft	N/A
Whip Capacity -1 Fall (Load/Radius)	mt/ft	20/145
Hook load indicator automatically corrected for boom angle:		Yes
Alarm (audible, visual, both):		Both
Automatic brake:	yes/no	Yes
Safety latch on hooks:	yes/no	Yes
Crown saver (limit switch):	yes/no	Yes
Boom illumination:	yes/no	Yes
Baskets for personnel transfer:	no.	2
Crane Attachment		Single Line Hook

Number	no.	4
Capacity	mt	20
Crane Attachment		2 Part Blocks and Hook
Number	no.	2
Capacity	mt	40
Crane Attachment		5 Part Blocks and Hook
Number	no.	4
Capacity	mt	100
Crane Attachment		Riser Handling Yokes
Number	no.	2
Capacity	mt	30
Crane Attachment		Slip Joint Lift Beam
Number	no.	1
Capacity	mt	50
Crane Attachment		Pipe Gripper Yoke (3-1/2" to 20")
Number	no.	1
Capacity	mt	5
Crane Attachment		Electro-Magnet Yoke
Number	no.	1
Capacity		
-Using Magnets(All magnets in contact)	mt	4
-Using riser Lift Points (Magnets Removed)	mt	8
-Using Lift Points (Magnets not removed)	mt	4
A.9.2. Cranes, Revolving, Main, AHC Subsea Crane		
Quantity:	no.	1
Specification (API, etc)		DNV
Make:		NOV
Type:		Pedestal / OC 4475KSCE Electro AHC CRZ Hydraulic knuckleboom
Location (stbd, port, aft, frwd):		Port Aft
Boom length:	ft	N/A
Hook reach below main deck (block/whip):	ft/ft	N/A
Block capacities w/ Knuckleboom		
Load/radius (minimum radius):	mt/ft	8m
Load/radius (maximum radius):	mt/ft	30/ 164
Block capacities w/o Knuckleboom		
Load/radius (minimum radius):	mt/ft	N/A
Load/radius (maximum radius):	mt/ft	N/A
Whip Capacity -1 Fall (Load/Radius)	mt/ft	20/145
Hook load indicator automatically corrected for boom angle:		
		Yes
Alarm (audible, visual, both):		Both
Automatic brake:	yes/no	Yes
Safety latch on hooks:	yes/no	Yes

Crown saver (limit switch):	yes/no	Yes
Boom illumination:	yes/no	Yes
A.9.3 Forklifts		
Quantity:	no.	2
Make / Type:		Cat P5000-D
Rated Capacity:	mt	2.3
Explosion proof:	yes/no	Yes
A.9.4 Monorail Overhead Cranes		
Quantity:		3 (2 fwd/1 aft) for lifting thruster motors
Make:		Hochang
Type:		electric
Rated Capacity:	mt	30
Location:		Aft/fwd machinery spaces
Quantity:		1
Make:		Hochang
Type:		electric
Rated Capacity:	mt	40
Location:		D/G Rooms
A.9.5 Riser/Tubular Handling System		
Quantity:		2
Make:		NOV
Location:		Aft side of Rig Floor
Rated Capacity:		2' Wide belt with capacity of 20k lbs. and 90k lbs. on carts. Table capacities below:
		-2 x 8 1/4" DC or
		-2 x 9 1/2" DC or
		-3 x 6 1/2" DC or
		-2 x 13 3/8" casing Joints or
		-2 x 20" Casing Joints or
		-6 x 5" DP or
		-5 x 6 5/8" DP
Location:		Fwd side of Rig Floor
Rated Capacity:		Capable of transferring riser and slip joints (up to 58" OD). Rated at:
		90k lbs. on carts and 20k lbs. on belt.
A.9.6 BOP Handling System		
A.9.6.1 BOP Skid Carts		

Make / Type:		Subsea Ventures Inc. BOP skid cart system. Hydraulic actuated with forward/aft and port/starboard ability from both well centers to BOP storage/maintenance position.
Quantity:	no.	3
Rated capacity:	Short Ton	375
A.9.6.2 Spider Beams		
Make / Type:		Oil State Spider beams. Each beam is independently operated by a hydraulic transmission to a rack and pinion system and is capable of hanging off and transferring tubular strings between well centers
Quantity:	no.	2 sets (4 total)
Rated capacity (ea):	mt	365 mt per set or 182 tons per beam dynamic capacity
Tree Carts		
Make / Type:		SVI Xmas Tree Carts also capable of interfacing with moonpool Palfinger crane
Quantity:	no.	3
Rated Capacity:	mt	90
A.9.6.3 Moonpool LMRP Winch		
Quantity:	no.	1 (LMRP Winch)
Make:		Patco 54kip winch with 4 sheave crane block
Type:		Hydraulic
Rated capacity:	kip	420
Wire diameter:	in	1.5
Automatic brakes:	yes/no	No
Overload protection:	yes/no	No
Automatic spooling:	yes/no	No
Certified for man-riding	yes/no	No
A.9.7 Air Hoists / Derrick Winches		
A.9.7.1 Rig Floor Winches (Utility)		
Quantity:	no.	4
Make:		Ram (Utility)
Type:		HW-16-W7MR
Rated capacity:	lb.	13,784

Wire diameter:	in	3/4
Automatic brakes:	yes/no	Yes
Overload protection:	yes/no	Yes
Automatic spooling:	yes/no	No
Certified for Manriding	Yes/no	No
A.9.7.3 Rig Floor “Man-Riding” Winch		
Quantity:	no.	2
Make:		RAM
Type:		ML336A-250-38 Catalina
Rated capacity:	lb	336
Wire diameter:	in	3/8
Non-twist wire:	yes/ no	
Automatic brakes:	yes/no	Yes
Overload protection:	yes/no	Yes
Automatic spooling:	yes/no	Yes
Certified for man-riding:	yes/no	Yes
A.9.7.4 MOONPOOL WINCHES (UTILITY)		
Quantity:	no.	6 – (4 at Fwd Rotary and 2 at Aft Rotary)
Make:		Ram (Utility)
Type:		HW-16-W7MR
Rated capacity:	lb	16,000
Wire diameter:	in	7/8
Automatic brakes:	yes/no	Yes
Overload protection:	yes/no	Yes
Automatic spooling:	yes/no	No
Certified for man-riding	yes/no	No
A.9.7.5 Moonpool “Man-Riding” Winches		
Quantity:	no.	2
Make:		RAM
Type:		ML336A-250-38 Catalina
Rated Capacity:	lb	336
Wire Diameter:	in.	3/8
Non-twist Wire:	yes/no	Yes
Automatic Brakes:	yes/no	Yes
Overload Protection:	yes/no	Yes
Automatic Spooling:	yes/no	Yes
Certified for Man-riding:	yes/no	Yes
A.10 HELICOPTER LANDING DECK		

Location:		Forward
Dimensions:	ft x ft	74.8 x 89.2
Perimeter safety net:	yes/no	Yes
Load capacity:	mt	21.3
Designed for helicopter type:	yes/no	Sikorsky S-61 or Chinook 234
Tie down points:	yes/no	Yes
Covered by foam fire system:	yes/no	Yes
Helideck lighting to aviation specification as required by country of operation:	yes/no	Yes
A.10.1 Helicopter Refueling System		
Fuel storage capacity:	u.s. gals	2050
Jettisonable:	yes/no	No
Fuel transport containers:	qty	1
Volume (ea):	u.s. gals	500 tote tank
Covered by foam fire system:	yes/no	Yes
Heli-refueling system type:		Pumped with no gravity feed
A.11 AUXILIARY EQUIPMENT		
A.11.1 Water Distillation		
Quantity:	no.	2
Make:		Demitec 1 st Stage
Type:		Reverse Osmosis
Capacity (each/total):	m3/day	75
Quantity:	no.	1
Make:		Demitec 2 nd Stage
Type:		Reverse Osmosis
Capacity (each/total):	m3/day	75
A.11.2 Boilers		
Quantity:	no.	None
Make / Type:		
Capacity (total system):	M3/hr	
A.11.3 Air Conditioning		
Quantity:	no.	
Make / Type:		Hi-Air
Capacity (total system):	tons	
A.11.4 Electric Welding Sets		
Quantity:	no.	
Current capacity:	amp	

Make / Model		
Type:	fixed/ portable	
Quantity:	no.	
Current capacity:	amp	
Make / Model		
Type:	fixed/ portable	
A.11.5 High Pressure Cleaner		
Quantity:	no.	2
Make / Type:		Unitor
Electric/pneumatic/diesel:		Electric
Max delivered pressure:	bar	160
B. GENERAL RIG SPECIFICATIONS		
B.1. DERRICK AND SUBSTRUCTURE		
B.1.1 Derrick / Mast		
Make / Type:		NOV Dual Activity
Rated for wind speed		
With full set back:	knots	60
With no set back:	knots	100
Height:	ft	253' (TOS – Top of gin pole)/ 220' (TOS – derrick top)
Dimensions of base:	ft x ft	80 x 80
Dimensions of crown:	ft x ft	
Gross nominal capacity:	lb.	2,500,000 (Fwd)
	lb.	2,500,000 (Aft)
Maximum number of lines:	no.	12, 14 (Fwd) / 12, 14 (Aft)
Ladders with safety cages and rests:	yes/no	Yes
Platform for crown sheave access:	yes/no	Yes
Counter balance, system for rig tongs and pipe spinning tong:	yes/no	No
Lighting system explosion proof:	yes/no	Yes
B.1.2 Racking Platform		
Make / Type:		Varco
Racking platform capacity of 4-1/2" DP:	ft	14,175 Aft
Racking platform capacity of 6-5/8" DP:	ft	30,375 Forward
		30,375 Aft
Racking platform capacity of 6-5/8" HWDP:		10 stands of 4 Fwd

		10 stands of 4 Aft
Racking platform capacity of 6-1/2" DC:		7 stands of 4 Fwd
		7 stands of 4 Aft
Racking platform capacity of 8" or 8-1/2" DC:		12 stands of 4 Fwd
		12 stands of 4 Aft
Racking platform capacity of 9" or 9-1/2" DC:		4 stands of 4 Fwd
		4 stands of 4 Aft
Racking platform capacity of casing:		Adjustable casing fingerboards designed to accommodate the following stands of range 3 triples;
		112 stands of 5"
		112 stands of 7"
		84 stands of 9 5/8"
		70 stands of 13 3/8"
		24 stands of 20"
B. 1.3 Racking Arm		
Make / Type:		Varco / PRS-5
Quantity:	no.	2
B. 1.4 Pick up System		
Make / Type:		Varco / PLS-5
Quantity:	no.	1
B. 1.5 Casing Stabbing Board		N/A, Automated pipe handling system fitted
Make / Type:		
Adjustable from/to height above rotary:	ft/ft	
B. 1.6 Substructure		
Make / Type:		DSME
Height (above main deck):	ft	67
Length:	ft	130
Width:	ft	92
Clear height below R/table beams:	ft	
B. 1.7 Weather Proofing		
Rig floor windbreaks height:	ft	26.2'
Derrick man windbreaks height:	ft	20'
B.1.8 Derrick TV Camera System		
Camera located at:		2 explosion proof cameras at Crown (fixed)
		2 explosion proof cameras (Level +144 ft)

		2 explosion proof cameras (racking boards)
		2 explosion proof cameras above the Rig Floor (26' 6")
		1 explosion proof below Crown
		2 explosion proof cameras Drawworks Drum (fixed)
		2 explosion proof at upper mezz. Level
Make / Type:		Hernis 400
Zoom/Pan/Tilt-function	yes/no	Yes
Monitor located at:		Driller's Cabin, CCTV system throughout rig video network.
B.2 DRAWWORKS AND ASSOCIATED EQUIPMENT		
B.2.1. Drawworks		
Make / Type:		NOV Active Heave Drawworks
Number	no.	2
Motors make/type:		General Electric / GEB-22A3
Quantity:	no.	5 on Fwd /4 Aft Drawworks Total 9
Rated input power continuous:	hp	1150
Rated output power continuous:	hp	5750/Fwd and 4600/Aft DW unit
Rated input power maximum:	hp	1400
Rated output power intermittent:	hp	7000 Fwd / 5600 Aft
Drum type:		Lebus grooving
Drum diameter:	in	73.5
Maximum line pull 16 lines (fwd only):	st/mt	1050 / 952
Maximum line pull 14 lines:	st/mt	1000 / 907
Maximum line pull 12 lines:	st/mt	750 / 680
Spinning cathead type:		None
Breakout cathead type:		None
Crown block safety device make / type:		Integrated in drilling control software
Independent fresh water cooling system for drawworks and electric brake:	yes/no	Yes
		Normal braking is achieved by the use of regenerative braking using the AC motors.
B.2.2. Auxiliary Brake		
Make:		NOV
Model:		
Independent back-up system type:		Dual Piston Disc Brakes
		Mainly for parking and emergency capabilities in case of power failure.

B.2.3. Sandline		None
Make:		
Length capacity:	ft	
Line size / type:	in	
Breaking strength:		
Safe working load:	lt	
	lt	
B.2.4 Wireline		
Make:		None
Length capacity:	ft	
Line size / type:	in	
Breaking strength:	lt	
Safe working load:	lt	
B.2.5 Automatic Driller		
Make / Type:		NOV Active Heave Drawworks
B.3 DERRICK HOISTING EQUIPMENT		
B.3.1 Crown Block		
Make / Type:		NOV
Number	no.	2
Rated Capacity:	st	1000
No. of sheaves:	no.	8
Fwd Sheaves diameter:	in	7 x 72" ID and 2 x 107" ID
Fwd Sheave grooved for line size:	in	2
Aft Sheave diameter:	in	7 x 72" ID and 2 x 107" ID
Aft Sheave grooved for line size:	in	2
B.3.2 Travel Block		
Make / Type:		NOV
Number	no.	2
Rated Capacity:	st/mt	1,000 / 907
No. of sheaves:	no.	7
Sheaves diameter:	in	7x72" ID
Sheave grooved for line size:	in	2
B.3.3 Hook		
Make / Type:		N/A – Double pins on Travelling Blocks
Number	no.	
Rated Capacity (fwd/aft):	st	
Complete with hook locking device:	yes/no	

B.3.4 Swivel		
Make / Type:		N/A
Number	no.	
Rated Capacity:	lt	
Test / working pressure:	psi/psi	
Gooseneck and washpipe min. ID 3-3/4":	yes/no	
Left hand pin connection size:	in	
Access fitting for wireline entry on top of gooseneck:	yes/no	
B.3.5 Drilling line		
Diameter:	in	2
Type:		6 x 26
Length (original):	ft.	Spooler capacity = 15,000'
Support frame for drum / cover:	yes/no	Yes/No (reel is mounted in interior)
Drilling line drum power driven:	yes/no	Yes
Spare reel drilling line:	yes/no	Yes
Location (rig, shore, etc.):		Shore
B.3.6 Anchor Dead Line		
Make / Type:		NOV/ FRH200CHR
Weight sensor:	yes/no	Yes
B.3.7 Drilling String Motion Compensator		
Make / Type:		Active Heave Drawworks
Number	no.	
Stroke:	ft	
Capacity – compensated:	lt	
Capacity – locked:	lt	
B.3.8 Block Guidance System		
Make / Type:		MH/Hydraulic
B.3.9 Retraction System for Traveling Block		
Make / Type:		MH/ Hydraulic
B.4 ROTATING SYSTEM		
B.4.1. Rotary Table		
Fwd Make / Type:		NOV / RST 75.5"
Number:	no.	1
Maximum Opening:	in.	75 ½
Rated Capacity:	st/mt	1375 / 1250

Static Vertical Load Capacity:	st/mt	1375 / 1250
Vertical Load Capacity During Rotation:	st/mt	1000 / 910
Two speed gearbox:	yes/no	No
Maximum Speed Continuous:	rpm	5
Maximum Speed Intermittent:	rpm	15
Emergency chain drive:	yes/no	N/A
Driven by an independent electric motor:	yes/no	No
Electric motor type/make:		3x hydraulic Char-Lynn GEROLER-DISC-Ventil-motors 10-950
Output Power	hp	
Maximum Continuous Torque:	ft lbs	45,000
Drip pan/mud collection system	yes/no	Yes
Aft Make / Type:		NOV / RST 60.5"
Number:	no.	1
Maximum Opening:	in.	60 ½
Rated Capacity:	st/mt	1000 / 907
Static Vertical Load Capacity:	st/mt	1000 / 907
Vertical Load Capacity During Rotation:	st/mt	750 / 680
Two speed gearbox:	yes/no	No
Maximum Speed Continuous:	rpm	5
Maximum Speed Intermittent:	rpm	15
Emergency chain drive:	yes/no	No
Driven by an independent electric motor:	yes/no	No
Electric motor type/make:		3x hydraulic Char-Lynn GEROLER-DISC-Ventil-motors 10-950
Output Power	hp	
Maximum Continuous Torque:	ft lbs	45,000
Drip pan/mud collection system	yes/no	Yes
B.4.2. Master Bushings		
Make / Type:		NOV
Number	no.	
Insert Bowls:		(see G.1.7)
B.4.3. Kelly Bushing		N/A
Make / Type:		
Lock down assembly:	yes/no	
B.4.4. Top Drive		
Make/Model:		Maritime Hydraulics / MDDM 1000
Number	no.	2
Type (electric/hydraulic):		Electric/Hydraulic
Rated capacity:	st/mt	1000 / 907

Test/working pressure:	psi/psi	7500
If driven by electric motor		
Make / Type:		ABB AMH423 LM6 AC motor
Maximum continuous torque:	ft lbs	62,900
Two speed gearbox:	yes/no	No
Maximum rotary speed:	rpm	227
Remote operated kelly cock:	yes/no	IBOP Upper (automatic), and Lower (manual)
Cooling system type:		Water-Glycol
B.4.4.1. Top Drive Makeout/Breakout System		
Make:		Maritime Hydraulics
Number:	No.	2
Model:		BJ64
Type:		Pipe Handler
Max. breakout torque that can be applied by system:	ft lbs	150,000
C. POWER SUPPLY SYSTEMS		
C.1 RIG POWER PLANT		
C.1.1 Diesel Engines		
Quantity:	no.	6
Make / Type:		MAN B&W 14V 32/40
Maximum continuous power:	kW	6720
At rotation speed of:	rpm	720
Equipped with spark arrestors:	yes/no	Yes
Mufflers installed:	yes/no	Yes
Total fuel consumption, drilling (average)	bbl/day	
C.1.2 DC – Generator		
Quantity:	no.	N/A
Make / Type:		
Continuous power:	kw	
At rotation speed of:	rpm	
Output volts:	volts	
C.1.3 AC – Generator		
Quantity:	no.	6
Make / Type:		LDW
Maximum continuous power:	kw	6720
At rotation speed of:	rpm	720
Output volts:	volts	11,000

C.1.4 VFD System		
C.1.4.1 Propulsion VFD		
Number of VFD:	no.	6
Make / Type:		Siemens SIPLINK
Maximum continuous power (total):	MW	33
Output volts:	volts	2 KV
C.1.4.2 Drilling VFD		
Number of VFD:	no.	29
Make / Type:		Siemens SIPLINK
Maximum continuous power (total):	MW	24
Output volts:	volts	1.1 KV
C.1.5. Transformer System		
Quantity:	no.	
Make / Type:		
Continuous power (each):	kva	
Output volts:	volts	
Frequency:	hz	
C.1.6. Emergency Shutdown		
Emergency shutdown switches for the complete power system (AC and DC), located at the following points:		Fwd and Aft Muster Stations (x 4), Helideck (P&S), ECR, W/H
C.1.7. Auxiliary Power Supply		
Power supply for a mud logging unit:	yes/no	Yes
Power supply available		
Output volts:	volts	480V, 3 phase / 120V, 1 phase
Frequency:	hz	60
Current:	amps	60
Phase:	single/three	
C.1.8. Compressed Air Systems		
Air Compressors – High Pressure:		
Quantity:	no.	2
Make:		Greenfield
Model:		D63-A
Rated capacity:	ft3/hr	19,780
Working press:	psi	4,000
Prime mover (electric/diesel):		Electric
Continuous power:	hp	150
Air dryers:		

Quantity:	no.	
Make / Type:		
Rated capacity:	ft3/min	
Air Compressors – Medium Pressure (rig air):		
Quantity:	no.	4
Make:		Ingersoll Rand
Model:		HXPE250-2S
Rated capacity:	ft3/hr	54,746
Working press:	psi	150
Prime mover (electric/diesel):		Electric
Continuous power:	hp	250
Air dryers		
Quantity:	no.	2
Make / Type:		Ingersoll Rand
Rated capacity:	Nm3/hr	5202
Air Compressors – Low Pressure (bulk air)		No dedicated system
Quantity:	no.	
Make:		
Model:		
Rated capacity:	ft3/hr	
Working press:	psi	
Prime mover (electric/diesel):		
Continuous power:	hp	
Air dryers:		
Quantity:	no.	
Make / Type:		
Rated capacity:	ft3/min	
C.2 EMERGENCY GENERATOR		
C.2.1. Engine		
Quantity:	no.	1
Make / Type:		STX-MAN-B&W / 4-Stroke, 14 cylinder, trunk piston in-line type
Maximum output:	Kw/hp	2310/3098
At rotation speed:	rpm	720
Starting methods (automatic, manual, air/hydraulic):		Automatic, Manual, Air
Max. angle of operation	degrees	
C.2.2. AC – Generator		
Quantity:	no.	1

Make / Type:		Hyundai/ Self excited, brushless
Maximum output:	kw	2100
At rotation speed:	rpm	720
Output volts:	volts	480
Capable of back-feeding power to main bus:	yes/no	Yes
D. DRILLSTRING EQUIPMENT		
D.1 TUBULARS		
D.1.1 Kellys		
Quantity:	no.	None
Nominal size OD:	in	
Shape type (hexagonal, square, triangular):		
Total/working length:	ft	
Connection type:		
API classification:		
D.1.2 Kelly Saver Subs (TDS)		
Quantity:	no.	None
Nominal kelly size:	in	
Connection type:		
API classification:		
Protector:	yes/no	
D.1.3 Drill Pipe		
Drill pipe OD:	in	
Grade:		
Total length:	ft	None
Range:		
Weight:	lbs/ft	
Internally plastic coated:	yes/no	
Tool joint OD/ID:	in/in	
Tapered shoulder tool joints (box/pins)	deg. / deg.	
Connection type:		
Type of hardfacing:		
API classification:		
Thread Protector	yes/ no	
Drill pipe OD:	in	
Grade:		
Total length:	ft	None
Range:		

Weight:	lbs/ft	
Internally plastic coated:	yes/no	
Tool joint OD/ID:	in/in	
Tapered shoulder tool joints (box/pins):	deg. / deg.	
Connection type:		
Type of hardfacing:		
API classification:		
Thread protectors:	yes/no	
Drill pipe OD:	in	
Grade:		
Total length:	ft	
Range:		
Weight:	lbs/ft	
Internally plastic coated:	yes/no	
Tool joint OD/ID:	in/in	
Tapered shoulder tool joints (box/pins):	deg. / deg.	
Connection type:		
Type of hardfacing:		
API classification:		
Thread protectors:	yes/no	
Drill pipe OD:	in	
Grade:		
Total length:	ft	
Range:		
Weight:	lbs/ft	
Internally plastic coated:	yes/no	
Tool joint OD/ID:	in/in	
Tapered shoulder tool joints (box/pins):	deg. / deg.	
Connection type:		
Type of hardfacing:		
API classification:		
Thread protectors:	yes/no	
Drill pipe OD:	in	
Grade:		
Total length:	ft	
Range:		
Weight:	lbs/ft	
Internally plastic coated:	yes/no	
Tool joint OD/ID:	in/in	
Tapered shoulder tool joints (box/pins):	deg. / deg.	
Connection type:		

Type of hardfacing:		
API classification:		
Thread protectors:	yes/no	
D.1.4 Drill Pipe Pup Joints		
Spec. (Drill Pipe Pup Joint)		
Grade:		
Length:	ft	
Quantity:	no.	
Length:	ft	
Quantity:	no.	
Length:	ft	
Quantity:	no.	
Length:	ft	
Quantity:	no.	
Length:	ft	
Quantity:	no.	
Spec (Drill Pipe Pup Joint):		
Grade:		
Length:	ft	
Quantity:	no.	
Length:	ft	
Quantity:	no.	
Length:	ft	
Quantity:	no.	
Length:	ft	
Quantity:	no.	
Spec (Drill Pipe Pup Joint):		

Grade:		
Length:	ft	
Quantity:	no.	
Length:	ft	
Quantity:	no.	
Length:	ft	
Quantity:	no.	
Length:	ft	
Quantity:	no.	
Length:	ft	
Quantity:	no.	
D.1.5 Drill Pipe Casing Protectors		
Initial stock:		None
Make / Type:		
OD:	in	
Installation tools (manual/hydraulic/none):		
D.1.6. Heavy Weight Drill Pipe (e.g. Hevi-Wate)		
Quantity:	no.	None
Nominal size OD:	in	
Weight:	lbs/ft	
Range:		
Tool joint OD:	in	
Tool joint ID:	in	
Type of hardfacing:		
Internally plastic coated:	yes/no	
Connection type:		
Thread Protectors:	yes/no	
Quantity:	no.	
Nominal size OD:	in	
Weight:	lbs/ft	
Range:		
Tool joint OD:	in	
Tool joint ID:	in	
Type of hardfacing:		
Internally plastic coated:	yes/no	
Connection type:		

Thread Protectors:	yes/no	
D.1.7 Drill Collars		
Quantity:	no.	None
OD Body:	in	
ID Body:	in	
Nominal length of each joint:	ft	
Drill collar body (slick / spiral):		
Recess for "zip" elevator:	yes/no	
Recess for slips:	yes/no	
Stress relief pin groove:	yes/no	
Boreback on box:	yes/no	
Connection type:		
Quantity:	no.	None
OD Body:	in	
ID Body:	in	
Nominal length of each joint:	ft	
Drill collar body (slick / spiral):		
Recess for "zip" elevator:	yes/no	
Recess for slips:	yes/no	
Stress relief pin groove:	yes/no	
Boreback on box:	yes/no	
Connection type:		
Quantity:	no.	None
OD Body:	in	
ID Body:	in	
Nominal length of each joint:	ft	
Drill collar body (slick / spiral):		
Recess for "zip" elevator:	yes/no	
Recess for slips:	yes/no	
Stress relief pin groove:	yes/no	
Boreback on box:	yes/no	
Connection type:		
D.1.8 Short Drill Collars		None
Quantity:	no.	
OD Body:	in	
ID Body:	in	
Nominal length of each joint:	ft	
Stress relief pin groove:	yes/no	
Boreback on box:	yes/no	
Connection type:		

D.1.9 Non-Magnetic Drill Collars		
Quantity:	no.	None
OD body:	in	
ID body:	in	
Nominal length of each joint:	ft	
Drill collar body (slick / spiral):		
Recess for "zip" elevator:	yes/no	
Recess for slips:	yes/no	
Stress relief pin groove:	yes/no	
Boreback on box:	yes/no	
Connection type:		
D.1.10 Core Barrels		
Quantity:	no.	None
Make:		
Model:		
Size OD x ID:	in x in	
Length:	ft	
Top connection type:		
Spiral stabilizing ribs:	yes/no	
Subs and handling tools:	yes/no	
D.1.11 Stabilizers		
Hole size:	in	
Quantity:	no.	None
Make:		
OD blades:	in	
Type blades (straight/spiral/welded/integral/sleeve):		
Type of blade hardfacing:		
OD body or fishing neck:	in	
ID body:	in	
Connection type:		
Float valve receptacle:	yes/no	
D.1.12 Roller Reamers		
Hole size:	in	
Quantity:	no.	None
Make:		
OD body:	in	
ID body:	in	
OD fishing neck:	in	
Cutters, supplied sets:	no.	
Cutters, type:		

Connection, type:		
D.1.13 Shock Absorbers (Damping Sub)		
Quantity:	no.	None
Make / Type:		
OD body:	in	
ID body:	in	
OD fishing neck:	in	
Connection, type:		
D.1.14 Drilling Jars		
Quantity:	no.	None
Make:		
Type (mechanical/hydraulic; up/down)		
OD body:	in	
Min. ID body:	in	
OD fishing neck:	in	
Stroke:	in	
Connection, type:		
D.1.15 Inside BOP Valves		
Quantity:	no.	None
Make:		
OD:	in	
Min. drill pipe ID required:	in	
Connection type:		
Working pressure rating:	psi	
Quantity:	no.	
Make:		
OD:	in	
Min. drill pipe ID required:	in	
Connection type:		
Working pressure rating:	psi	
Quantity:	no.	
Make:		
OD:	in	
Min. drill pipe ID required:	in	
Connection type:		
Working pressure rating:	psi	
D.1.16 Full Open Safety Valve		
Quantity:	no.	None

Make / Type:		
Working pressure:	psi	
Max. OD body:	in	
Min. ID body:	in	
Connection type:		
Quantity:	no.	None
Make / Type:		
Working pressure:	psi	
Max. OD body:	in	
Min. ID body:	in	
Connection type:		
Quantity:	no.	
Make / Type:		
Working pressure:	psi	
Max. OD body:	in	
Min. ID body:	in	
Connection type:		
D.1.17 Circulation Head		
Quantity:	no.	None
Make / Type:		
Valve make:		
Valve type:		
Valve size (ID):	in	
Valve working pressure:	psi	
Bottom connection type:		
Top connection type:		
Wireline stripper:	yes/no	
D.1.18 Kelly Cocks		
(Upper and Lower IBOPs)		
Quantity:	no.	None
Make / Type:		
Working pressure:	psi	
Max. OD body:	in	
Min. ID body:	in	
Connection type:		
Quantity:	no.	
Make / Type:		
Working pressure:	psi	

Max. OD body:	in	
Min. ID body:	in	
Connection type:		
Quantity:	no.	
Make / Type:		
Working pressure:	psi	
Max. OD body:	in	
Min. ID body:	in	
Connection type:		
Quantity:	no.	
Make / Type:		
Working pressure:	psi	
Max. OD body:	in	
Min. ID body:	in	
Connection type:		
D.1.19 Circulation Subs		
Quantity:	no.	None
Make / Type:		
OD body:	in	
Ball size:	in	
Dressing kits:	no.	
Connection type:		
D.1.20 Cup Type Testers		
Quantity:	no.	None
Make:		
Size test cup for casing weight:	in-lb/ft	
Connection:		
D.1.21 Plug Type Testers		
Quantity:	no.	None
Make:		
Size test plugs:	in	
Connection:		
D.1.22 Drop-In Valves		
Quantity:	no.	None
For nom. OD drillpipe:	in	
Make / Type:		
Max. OD of dart.:		

D.1.23 Bit Subs (Box-Box)		
Quantity:	no.	None
OD size:	in	
ID size:	in	
Top connection:		
Bottom connection:		
Bored for float valve:	yes/no	
Quantity:	no.	None
OD size:	in	
ID size:	in	
Top connection:		
Bottom connection:		
Bored for float valve:	yes/no	
Quantity:	no.	None
OD size:	in	
ID size:	in	
Top connection:		
Bottom connection:		
Bored for float valve:	yes/no	
Quantity:	no.	None
OD size:	in	
ID size:	in	
Top connection:		
Bottom connection:		
Bored for float valve:	yes/no	
Quantity:	no.	None
OD size:	in	
ID size:	in	
Top connection:		
Bottom connection:		
Bored for float valve:	yes/no	
Quantity:	no.	None
OD size:	in	
ID size:	in	
Top connection:		
Bottom connection:		
Bored for float valve:	yes/no	
D.1.24 Crossover Subs		
Quantity:	no.	None
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	None

OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	

Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		

Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		

Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	
ID size:	in	
Pin Connection:		
Box Connection:		
Quantity:	no.	
OD size (max/min):	in/in	

ID size:	in	
Pin Connection:		
Box Connection:		
D.1.24 Circulating Subs		
Quantity:	no.	None
OD size:	in/in	
ID size:	in	
Drill Pipe Connection:		
Hammer Union Connection:		
Quantity:	no.	
OD size:	in/in	
ID size:	in	
Drill Pipe Connection:		
Hammer Union Connection:		
Quantity:	no.	
OD size:	in/in	
ID size:	in	
Drill Pipe Connection:		
Hammer Union Connection:		
Quantity:	no.	
OD size:	in/in	
ID size:	in	
Drill Pipe Connection:		
Hammer Union Connection:		
Quantity:	no.	
OD size:	in/in	
ID size:	in	
Drill Pipe Connection:		
Hammer Union Connection:		
D.1.26 Drilling Bumper Subs		
Quantity:	no.	None
Make:		
OD:	in	
Stroke:	in	
Connection type:		

D.1.27 Hole Openers		
Quantity:	no.	None
Make:		
OD:	in	
Connection type:		
D.1.28 Underreamer		
Quantity:	no.	None
Make / Type:		
OD Min / OD Max:	in/in	
Connection type:		
D.2. HANDLING TOOLS		
D.2.1 Drill Pipe Elevators		
Size:	in	None
Quantity:	no.	
Make:		
Model:		
Rated capacity:	st	
Size:	in	
Quantity:	no.	
Make:		
Model:		
Rated capacity:	st	
Size:	in	
Quantity:	no.	
Make:		
Model:		
Rated capacity:	st	
Size:	in	
Quantity:	no.	
Make:		
Model:		
Rated capacity:	st	
Size:	in	
Quantity:	no.	
Make:		
Model:		
Rated capacity:	st	

D.2.2 Drill Collar Elevators		None
Size:	in	
Quantity:	no.	
Make:		
Model:		
Rated capacity:	st	
D.2.3 Tubing Elevators		None
Size (max/min):	in/in	
Quantity:	no.	
Make:		
Model:		
Rated capacity:	st	
D.2.4 Drill Pipe Hand Slips		
Size:	in	None
Quantity:	no.	
Make / Type:		
Size:	in	
Quantity:	no.	
Make / Type:		
Size:	in	
Quantity:	no.	
Make / Type:		
D.2.5 Semi-Automatic DP Slips		
Size range (largest/smallest):	in/in	None
Quantity:	no.	
Make / Type:		
D.2.6 Drill Collar Slips		
Size:	in	None
Quantity:	no.	
Make / Type:		
Size:	in	
Quantity:	no.	
Make / Type:		

D.2.7 Drill Collar Safety Clamps		
Quantity:	no.	None
Range:	in-in	
Quantity:	no.	
Range:	in-in	
Quantity:	no.	
Range:	in-in	
D.2.8 Tubing Slips		
Size:	in	
Quantity:	no.	None
Make / Type:		
D.2.9 Tubing Spider		
Slip Size (max/min):	in/in	
Quantity:	no.	None
Make:		
Adaptor Plate:		
D.2.10 Drill Collar Lifting Subs		
Quantity:	no.	None
For OD DC:	in	
Connection Type:	Pin/Box	
OD of Tube	in	
Quantity:	no.	
For OD DC:	in	
Connection Type:	Pin/Box	
Quantity:	no.	
For OD DC:	in	
Connection Type:	Pin/Box	
D.2.11 DC Lifting Plugs		
Quantity:	no.	None
For OD DC:	in	
D.2.12 Lifting Subs and Caps		
Lifting Caps		
Quantity		None
SWL	Klb	
OD	In.	

Pin		
Lifting Caps		
Quantity		
SWL	Klb	
OD	In.	
Box		

Lifting Caps		
Quantity		
SWL	Klb	
OD	In.	
Pin		
Lifting Caps		
Quantity		
SWL	Klb	
OD	In.	
Pin		
Lifting Caps		
Quantity		
SWL	Klb	
OD	In.	
Box		
E.1.1 Hydraulic Connector		
Size:	in	
Make:		
Surface controlled hydraulic operated dump valves:	no.	
Size:	in	
		N/A
E.1.2 Flex Joint / Riser Adaptor		
Flex joint		
Make / Type:	Hydril	Annuflex
Size:	in	18.765in
Max deflection:	deg	10
Riser adaptor:		
Make / Type:	Vetco	HMF-flange-G up
Size:	in	18.765in
E.2 PRIMARY BOP STACK (FROM BOTTOM TO TOP)		
Stack complete with		
- guide frame:	yes/no	Yes
- pick up attachment:	yes/no	Yes
- transport base:	yes/no	Yes
Size (bore):	in	18-3/4
Working pressure:	psi	15,000
H2S service:	yes/no	Yes

E.2.1 Alternate Hydraulic Connector		
Alternate connector available:	yes/no	No
Connector make/model:		
Adaptor available:	yes/no	
E.2.2 Hydraulic Wellhead Connector		
Size:	in	18-3/4
Make / Type:		Vetco Super HD-H4
Working pressure:	psi	15,000
Hot tap for underwater intervention	yes/no	Yes
Spare Connector same type:	yes/no	No
E.2.3 Ram Type Preventers		
Preventers		
Quantity:	no.	1
Bore size:	in	18-3/4
Working pressure:	psi	15,000
Make:		Hydril
Model:		Compact Dual Ram
Type (single/double):		Double
		Bottom Cavity 4-1/2" – 7" VBR'
		Top Cavity 4-1/2" – 7" VBR's
Ram locks:	yes/no	Yes (Hydril MPL's)
Preventers connection type – top:		Studded 18-3/4" 15K Flange
Preventers connection type – bottom:		18-3/4" 15K Flanged
Side outlets:	yes/no	Yes
Size:	in	3 1/16 ID bore
Connection type:		Studded 4-1/16" 15K Flange BX-155
Preventers		
Quantity:	no.	1
Bore size:	in	18-3/4
Working pressure:	psi	15,000
Make:		Hydril
Model:		Compact Dual Ram
Type (single/double):		Double
		Bottom Cavity 5.5" – 7-5/8" VBR's
		Top Cavity DP Blind/Shear Ram w/22" operators
Ram locks:	yes/no	Yes (Hydril MPL's)
Preventers connection type – top:		Studded 18-3/4" 15K Flange
Preventers connection type – bottom:		18-3/4" 15K Flanged
Side outlets:	yes/no	Yes

Size:	in	3 1/16 ID bore
Connection type:		Studded 4-1/16" 15K Flange
Preventers		
Quantity:	no.	1
Bore size:	in	18-3/4
Working pressure:	psi	15,000
Make:		Hydril
Model:		Compact Dual Ram
Type (single/double):		Double
		Bottom Cavity Casing Shear 13-3/8" with 22"operators
		Top Cavity DP Blind/Shear Ram with 22"operators
Ram locks:	yes/no	Yes (Hydril MPL's)
Preventers connection type – top:		Studded 18-3/4" 15K Flange
Preventers connection type – bottom:		18-3/4" 15K Flanged
Side outlets:	yes/no	Yes
Size:	in	3 1/16 ID bore
Connection type:		Studded 4-1/16" 15K Flange
E.2.4 Stack Configuration		
(Blind/Shear/Pipe/Variable)		
Top rams: Double		DP Blind/Shear Ram/Top and Casing Shear 13 3/8"/Bttm with 22"operators
Top rams: Double		DP Blind/Shear Rams w/22"operators on top. Fixed Pipe Rams 7-5/8"bottom with 15 1/2"operators
Middle rams:		Variable Pipe Ram 4-1/2" to 7" with 15 1/2"operators
Lower rams:		Variable Pipe Ram 4-1/2" to 7" with 15 1/2"operators
Position of side outlets-kill:		
Upper:		Between the MPR and the UPR
Lower:		Between the LPR Ram and the Stack Connector
Position of side outlets-choke:		
Upper:		Between the Casing Shear Ram and Lower Shear Ram
Lower:		Between the MPR and LPR
E.2.5. Annular Type Preventer On Stack		None
Size:	in	
Working pressure:	psi	
Make / Type:		

E.2.6 Mandrel		
Make / Type:		Vetco / Super HD/H4 High Angle Release "E" Pin
Size:	in	18-3/4
E.2.7 Fail-Safe Hydraulic Valves		
(Kill and Choke)		
Quantity on each side outlet:	no.	2
Size (ID):	in	3 1/16"
Make / Type:		WOM / Dual fail-safe "close" valves
Working pressure:	psi	15000
Solid block:	yes/no	Yes
E.2.8 Subsea Accumulators		
Quantity:	no.	16 {80 gallon} Piston Style
Useful capacity per accumulator (w/o pre-charge):	u.s. gal	80 gallon
Bottle working pressure:	psi	6500
E.2.9 Hydraulic Control Pod/Receptacles		
Quantity:	no.	2
Redundancy:	%	100
Color coded:	yes/no	Yes
Remote regulation of operating pressure for functions requiring lower operating pressure:	yes/no	Yes
Spare control pod:	yes/no	No
E.3 PRIMARY LOWER MARINE RISER PACKAGE (FROM BOTTOM TO TOP)		
Hydraulic Connector		LMRP Connector
		Funnel Up orientation for LMRP guidelineless re-entry and connection to BOP
Make / Type:		Vetco / DWHD-H4 Connector
Size:	in	18-3/4
Working pressure:	psi	15,000
Hot tap for underwater intervention:	yes/no	Yes
Spare connector same type:	yes/no	No
E.3.2 Annular Type Preventer (LMRP)		
Size:	in	18-3/4
Working pressure:	psi	10,000
Make / Type:		Hydril / GX Single Annuflex

E.3.3 Flex Joint		
Make / Type:		Oilstates / Flex unit
Size:	in	18-3/4"
Max deflection:	degrees	+/- 10 Degrees
E.3.4 Riser Adapter		
Make / Type:		ABB Vetco / HMF-G Connector Box Up
Size:	in	21
E.3.5 Connection Lines to Riser		
Type (rigid loops, coflexip, etc.):		Rigid Loops
E.4 SECONDARY BOP STACK (FROM BOTTOM TO TOP)		None
E.5. SECONDARY LOWER MARINE RISER PACKAGE (FROM BOTTOM TO TOP)		None
E.6 PRIMARY MARINE RISER SYSTEM		
E.6.1 Mariner Riser Joints		
Make / Model:		Vetco HMF Riser
OD:	in	21.25
ID:	in	19.25
Wall thickness:	in	0.875
Average length of each joint:	ft	75
Weight of one complete joint (in air):	lbs	35,000 to 55,000 lbs
Quantity:	no.	100
Pipe material:	grade	API-5L / X-80
Minimum yield strength:	psi	3400
Type riser connectors:		Vetco HMF flanged connection
Dogs:	no.	None
PUP JOINTS		
Quantity:	no.	1
Length:	ft	40 (1.00 Wall Thickness)
Quantity:	no.	1
Length:	ft	20 (1.00 Wall Thickness)
Quantity:	no.	1
Length:	ft	15 (1.00 Wall Thickness)
Quantity:	no.	1
Length:	ft	10 (1.00 Wall Thickness)
Quantity:	no.	1
Length:	ft	5 (1.00 Wall Thickness)

E.6.2 Telescopic Joint		1
Make / Type:		Vetco / HMF-G
Size (ID):	in	26 / 21
STROKE:	ft	85
Double seals:	yes/no	Yes (Dual Independent)
Spare telescoping joint:	yes/no	Yes
Location:		Yard
Rotating support ring for riser tensioners:	type	Yes
Connection points:	no.	6
E.6.3 Kill/Choke Lines		
Quantity:	no.	2
Outside diameter:	in	6-1/2"
Inside diameter:	in	4-1/2"
Working pressure:	psi	15,000
E.6.4 Booster Lines (If Fitted)		
Quantity:	no.	1
Outside diameter:	in	4-1/2
Inside diameter:	in	3.83
Working pressure:	psi	6,000
E.6.5 Hydraulic Supply Lines		
Quantity:	no.	1
Outside diameter:	in	3-1/2
Inside diameter:	in	2.30
Working pressure:	psi	5,000
E.6.6 Upper Ball (Flex) Joint		
Intermediate		
Make / Type:		Oil States / HMF Classs G Flex joint
Size:	in	21"
Maximum deflection:	degree	20
Spare upper ball (flex) joint:	yes/no	no
Upper		
Make / Type:		Oil States / HMF Class G Flex joint
Size:	in	21"
Maximum deflection:	degree	10
Spare upper ball (flex) joint:	yes/no	no
E.6.7 Buoyancy Modules (if Fitted)		
Make:		Balmoral

Quantity of buoyed riser joints:	no.	24
Riser tub OD:	in	21.25
OD of buoyed riser joints:	in	54
Length of each module:	ft	15
Volume of each module:	ft3	76.25
Buoyancy of each module in seawater:	Lbs lift	2364 -10 per Joint
Rated water depth:	ft	6,000 Black
Make:		Balmoral
Quantity of buoyed riser joints:	no.	24
Riser tub OD:	in	21.25
OD of buoyed riser joints:	in	53
Length of each module:	ft	15
Volume of each module:	ft3	76.25
Buoyancy of each module in seawater:	Lbs lift	2676 – 10 per Joint
Rated water depth:	ft	4,000 Yellow
Make:		Balmoral
Quantity of buoyed riser joints:	no.	25
Riser tub OD:	in	21.25
OD of buoyed riser joints:	in	53
Length of each module:	ft	15
Volume of each module:	ft3	76.25
Buoyancy of each module in seawater:	Lbs lift	2959 -10 per Joint
Rated water depth:	ft	2,000 Green
Make:		
Quantity of buoyed riser joints:	no.	
Riser tub OD:	in	
OD of buoyed riser joints:	in	
Length of each module:	ft	
Volume of each module:	ft3	
Buoyancy in seawater:	st/ft3	
Rated water depth:	ft	
Make:		
Quantity of buoyed riser joints:	no.	
Riser tub OD:	in	
OD of buoyed riser joints:	in	
Length of each module:	ft	
Volume of each module:	ft3	
Buoyancy in seawater:	st/ft3	
Rated water depth:	ft	

Make:		
Quantity of buoyed riser joints:	no.	
Riser tub OD:	in	
OD of buoyed riser joints:	in	
Length of each module:	ft	
Volume of each module:	ft ³	
Buoyancy in seawater:	st/ft ³	
Rated water depth:	ft	
E.6.8 Marine Riser Spider		
E.6.9 Marine Riser Gimbal		
Make / Type:		Vetco / 3000 kips gimbal accommodates 6 degrees
E.6.10 Riser Handling Tools		
Quantity:	no.	2
		Riser Handling Tool
Quantity:	no.	
Type:		
E.6.11 Riser Test Tools		
Quantity:	no.	2
		Vetco
E.6.12 Instrumented Riser Joint		
Quantity:	no.	None
Make:		
Type:		
Length:	ft	
Functions:		
Tension:	yes/no	
Mud temp:	yes/no	
Mud weight:	yes/no	
Other:		
E.6.13 Riser Flood / Fill System		
Quantity:	no.	None
Make:		
Type:		
Length:	ft	
Automatic operation:	yes/no	

Manual override:	yes/no	
No. of inlet valves:	no.	
Size of valves (ID):	in	
E.7 SECONDARY MARINE RISER SYSTEM		
E.8 DIVERTER BOP		
Make / Type:		Vetco / CSO
Max bore size:	in	20
Working pressure:	psi	500
Number of diverter outlets:	no.	3
Outlet OD:	in	2 x 16" and 1 x 4"
Insert packer size ID:	in	20
E.8.1 Diverter Flowlines		
Quantity:	no.	2
OD of flowlines:	in	16
Running from diverter to		
Valve types:		Hydril DS 16-500 deflector/selector valve
Size:	in	16
Working pressure:	psi	500
Control valve type (air/hydraulic/etc.):		hydraulic
Remote controlled from:	location	Rig Floor
	location	BOP Module
	location	Toolpusher Office
E.8.2 Diverter Control Panels		
Driller's panel		
Make:		Hydril
Model:		
Location:		Rig Floor
Locking/unlocking control:	yes/no	Yes
Remote panel		
Make:		Hydril
Model:		
Location:		Toolpusher Office
Locking/unlocking control:	yes/no	Yes
E.9 SUBSEA SUPPORT SYSTEM		

E.9.1 Riser Tensioners		
Quantity:	no.	6
Make / Type:		Hydrolift / Direct acting Cylinder 22" ID cylinder x 9" OD rod
Capacity each tensioner:	lbs	800,000
Maximum stroke:	ft	50
Wireline size:	in	N/A
Line travel:	ft	N/A
Independent air compressors:	yes/no	Yes (Nitrogen)
Independent air drying unit:	yes/no	No
E.9.2 Guideline System		
Quantity:	no.	None
Make / Type:		
Capacity each tensioner:	st	
Maximum stroke:	ft	
Wireline size:	in	
Line travel:	ft	
Line storage drums with tensioners:	yes/no	
E.9.3 Remote Guideline Replacement Tool		None
Make / Type:		
E.9.4 Remote Guideline Cutting Tool		None
Make / Type:		
E.9.5 Pod Line Tensioners		
Quantity:	no.	None
Make / Type:		
Capacity each tensioner:	st	
Maximum stroke:	ft	
Wireline size:	in	
Line travel:	ft	
E.9.6 Tensioner/Compensator		
Air Pressure Vessels		
Quantity:	no.	30 for Tensioners 12 Standby
Total capacity:	ft ³	3856.36 91.818 per vessel
Rated working pressure:	psi	3000 PSI
Pressure relief valve installed:	yes/no	Yes
E.10 BOP CONTROL SYSTEM		

E.10.1 Surface Accumulator Unit		
Make:		Hydril
Model / Type:		
Location:		BOP Module
Soluble oil reservoir capacity:	u.s. gal	550
Oil/water mix. Capacity	u.s. gal/min	1350
Glycol reservoir capacity:	u.s. gal	650
No. of bottles installed:	no.	60
Useful capacity per accumulator (w/o pre-charge)	u.s. gal	15
Bottle working pressure:	psi	6000
Control manifold model:		
Regulator type:		PRV set at 5500psi
Total useful accumulator volume (surface and stack) equals all preventer opening and closing volumes:	yes/no	Yes
Plus percent additional volume:	%	50
E.10.2 Accumulator Hydraulic Pumps		
Electric driven		Yes
Quantity:	no.	3
Make:		Union Pumps Quintuplex
Model:		QD100
Each driven by motor of power:	hp	100
Flow rate of each pump:	u.s. gals/min	25
At minimum operating pressure:	psi	5000
Air driven:		
Quantity:	no.	None
Make:		
Model:		
Each driven by motor of power:	hp	
Flow rate of each pump:	u.s. gals/min	
At minimum operating pressure:	psi	
E.10.3 Driller's Control Panel		
Graphic control panel at driller's position showing subsea functions with controls for the following functions of the BOP stack		
Marine riser connector:	yes/no	Yes
All annular type BOP's:	yes/no	Yes
All ran type BOP's:	yes/no	Yes
Lock for ran type BOP's:	yes/no	N/A
Wellhead and LMRP connector:	yes/no	Yes

Inner and outer kill and choke line valves:	yes/no	Yes
Low acc. Pressure warning:	yes/no	Yes
Low reservoir level warning:	yes/no	Yes
Low rig air pressure warning:	yes/no	Yes
Pressure regulator for annular:	yes/no	Yes
Flowmeter:	yes/no	Yes
Quantity of pressure gauges:	no.	
Emergency push button for automatic riser disconnection:		Yes
Other control functions:	yes/no	Yes
Control panel make:		Hydril
Control panel model:		
E.10.4 Remote Control Panels		
Ability to operate main closing unit valves directly:	yes/no	NO
Quantity:	no.	
Make / Model:		
Locations:		
Locations:		
Locations:		
Operating system routing (direct/via primary control panel):		
E.11 SUBSEA CONTROL SYSTEM		
E.11.1 Hose Reels		
Quantity:	no.	4 (2 are from Multiplex cable and 2 from hydraulic supply)
Location:		Mezz Deck STBD Upper and Lower
Make / Type:		
Maximum storage length each:	ft	12,500
Drive motor type:		Air
E.11.2 Pod Hose		
Type:		Multiplex Cable
Number:	no.	2
Length:	ft	12000
Type:		Emergency Hydraulic Supply
Number:	no.	2
Length:	ft	12,000
E.11.3 Pod Hose Manifold		
Make / Model:		

Surface test stump:	yes/no	
E.11.4 Surface Test Pod	yes/no	No
E.12 ACOUSTIC EMERGENCY BOP CONTROL SYSTEM		
Make / Model:		NONE
Type (Fixed / Portable):		
Number of functions:	no.	
Type of functions:		
LMRP connector release:	yes/no	
Shear ram close:	yes/no	
Other		
E.13 SUBSEA AUXILIARY EQUIPMENT		
E.13.1 Hole Position Indicator		
Make / Type:		
Quantity of monitors:	no.	
Monitor location:		
Monitor location:		
Recorder:	yes/no	
E.13.2 Riser Angle Indicator		Yes
Make / Type:		Hydril
Quantity of monitors:	no.	3
Monitor location:		2 on LMRP one on the UFJ
Monitor location:		
Recorder:	yes/no	Yes
E.13.3 Slope Indicators		
Make:		Hydril
Quantity:	no.	3
Provision for installation on		
BOP:	yes/no	yes
Pin connector:	yes/no	yes
Other:		LMRP Flex
E.13.4 Underwater TV System		
Make / Type:		None
Quantity of TV monitors:	no.	
Monitor location:		
Monitor location:		

Reels/cables for maximum water depth:	ft	
TV frame type:		
Pan/tilt unit:	yes/no	
Spare camera:	yes/no	
Spare cable:	yes/no	
E.13.5 ROV System		
Quantity:	no.	2
Make:		Oceaneering
Type:		
Monitor location:		
Monitor location:		
Provided by (operator, contractor):		Operator
Maximum water depth:	ft	10,000
Cameras – color:	no.	
CAMERAS – B&W:	no.	
Manipulators		
Quantity:	no.	
Type (specially correspondent, rate, grabber)		
Functions:		
Quantity:	no.	
Type (specially correspondent, rate, grabber)		
Functions:		
Quantity:	no.	
Type (specially correspondent, rate, grabber)		
Functions:		
Sonar		
Type:		
Type:		
E.14 CHOKE MANIFOLD		
E.14.1 Choke Manifold		
Make:		WOM
Minimum ID:	in	3-1/16"
Maximum WP:	psi	15,000
H2S service:	yes/no	Yes
Quantity of fixed chokes:	no.	0
Make:		
Model:		
Size (ID):	in	
Quantity of adjustable chokes:	no.	2

Make:		Shaffer
Model:		Manual Chokes
Size (ID):	in	2
Quantity of power chokes:	no.	2
Make:		Swaco
Model:		Super Chokes
Size (ID):	in	2
Power choke remote control panel:	yes/no	Yes
Make:		Elctroflow Controls
Model:		
Location:		Driller's Shack
Glycol injection:	yes/no	Yes it has the Capability
E.14.2 Flexible Choke & Kill Lines		
Quantity:	no.	2
Make / Type:		Coflexip 2ea 90ft sections to make 1 hose.
ID:	in	3-1/16"
Working pressure:	psi	15,000
E.15 BOP TESTING EQUIPMENT		
E.15.1 Hydraulic BOP Test Pump		
Make:		Hydril
Model / Type:		
Pressure rating:	psi	22,500
Chart recorder:	yes/no	Yes
E.15.2 BOP Test Stump		
Quantity:	no.	2 {27" – 30"}
Test pressure:	psi	15,000
Type:		Vetco
Size:	in	18-3/4"
Connected to deck (welded/bolted):		Not connected
E.16 WELLHEAD RUNNING/RETRIEVING/TESTING TOOLS (RT/RRT/TT)		
Wellhead make:		None
Wellhead type:		
Wellhead size:	in	
Pressure rating:	psi	

E.16.1 RT's For Casing Installation		None
Mechanical RT – casing housing sizes:	in	
Hydraulic RT – casing housing sizes:	in	
Pack Off RT – casing housing sizes:	in	
Hanger RT – casing housing sizes:	in	
Hanger RT – casing type:		
Seal Assembly RT – casing sizes:	in	
E.16.2 RRT's For Casing Installation		None
Seal Assembly RRT – casing sizes:	in	
Wear Bushing RRT – casing sizes:	in	
Seat Protector RRT – casing sizes:	in	
E.16.3 Miscellaneous Tools		
TEMPORARY GUIDE BASE RT:	yes/no	No
BOP stack TT:	yes/no	No
Multi-purpose TT:	yes/no	No
Conductor casing jetting head:	yes/no	No
Clean out tool:	yes/no	
Lock ring wellhead release tool:	yes/no	
Seal assembly torque tool:	yes/no	No
Utility guide frame:	yes/no	No
Guide frame adaptor sizes:		
E.16.4 Booster Lines (if Fitted)		None
OD drill pipe:	in	
Quantity:	no.	
Connection type:		
Grade:		
Hang off method (sq. shoulder/doughnut):		
E.16.5 Mini Hose Bundle for use with hydraulic running tools	yes/no	
Control line ID:	in	None
Quantity of lines:	no.	
Control line ID:	in	
Quantity of lines:	no.	
E.16.6 Emergency BOP Recovery System		
Emergency BOP recovery system:	yes/no	Yes
Make / Type:		

F. MUD SYSTEM / BULK SYSTEM		
F.1 HIGH PRESSURE MUD SYSTEM		
System working pressure:	psi	7,500
System test pressure:	psi	11,250
Built to which design pressure:	psi	7,500
F.1.1 Mud Pumps		
Quantity:	no.	3
Make:		National
Model:		14-P-220
Type (Triplex / Duplex / Hex) :		Triple
Liner sizes available:	in	
Mud pump drive motors:	no.	2 ea
Motor type:		NOV-AC CM628TUT
Continuous power rating per motor:	hp	1350
Fluid end:	type	
Maximum working pressure:	psi	7,500 w/5" Liners
Test pressure:	psi	11,250
Pump stroke counter:	type	Proximity Sensor
Supercharging pump:	type	Mission Magnum
Driven by motor of power:	hp	200 hp @ 1750 rpm
Discharge/Suction line ID:	in/in	5 / 10
M.P Pulsation Dampener:	type	N/A
Reset Relief Valve:	type	None
Working flowrate per pump at 90% of max spm:	u.s. gal/min	633 (approx)
Line size:	in	6.5"
Pump speed (90% of max.):	spm	95
Pump pressure:	psi	
Working flowrate @ 100% volumetric output:	u.s. gal/min	572
F.1.2 Transfer Pumps / Mixing Pumps		
Mixing/Transfer pumps		
Quantity:	no.	6 (In Mixing Pump Room)
Make:		
Model:		2500 Supreme
Type:		8X6 with 12" impeller
Drive motor type:		Electric
Power output:	hp	125hp/460V
Transfer pumps		

Quantity:	no.	6 (In Reserve Pit Room)
Make:		Halco
Model:		2500 Supreme
Type:		8X6 with 12" impeller
Drive motor type:		Electric
Power output:	hp	125hp/460V
F.1.3 Booster Pump		
Quantity:	no.	None
		Main mud pumps used to boost riser
Make / Type:		
Pumping capacity (each):	u.s. gal/min	
Drive motor type:		
Power output:	hp	
F.1.4 Standpipe Manifold		
Quantity of standpipes:	no.	2 Fwd and 2 Aft
Standpipes ID:	in	5"
H-Type Standpipe manifold:	yes/no	Yes
Kill line outlet:	yes/no	Determined by standpipe lineup, but no dedicated line
Fill-up/bleed-off line outlet:	yes/no	Yes
Outlets (total):	no.	6 forward and 6 aft
ID:	in	3.0625
Type connections:		
Dimensions OD x ID:	in x in	
Design standard:		API-6A, PSL-2, DD, P+U, H2S per NACE
F.1.5 Rotary Hoses		
Quantity:	no.	2
Make / Type:		Contitech
ID X length:	in x ft	4 1/16 x 111 1/2'
Snubbing lines:	yes/no	yes
F.1.6 Cementing Hose		
Type (coflexip, etc.):		Coflex
Length:	ft	110
ID:	in	4
Working pressure:	psi	15000
F.1.7 Chiksan Steel Hoses		
Integral non-screwed:	yes/no	Yes
Make / Type:		FMC 15K

ID:	in	2
Section length:	ft	4 / 6 / 8
Quantity:	no.	2 / 2 / 1
Sweep swivels, make/type:		FMC LS15 15K
Nom. Size ID:	in	2
Fittings, non-screwed type:	yes/no	Yes
Suitable for H2S service:	yes/no	Yes
F.2 LOW PRESSURE MUD SYSTEM		
F.2.1 Mud Tanks		
Quantity:	no.	24
Total capacity:	bbl	19450
Capacity, tank No. P1:	bbl	493
Type (active/reserve):		Active
Capacity, tank No. P2:	bbl	493
Type (active/reserve):		Active
Capacity, tank No. P3:	bbl	493
Type (active/reserve):		Active
Capacity, tank No. P4:	bbl	493
Type (active/reserve):		Active
Capacity, tank No. P5:	bbl	493
Type (active/reserve):		Active
Capacity, tank No. P6:	bbl	493
Type (active/reserve):		Active
Capacity, tank No. P7:	bbl	493
Type (active/reserve):		Active
Capacity, tank No. P8:	bbl	493
Type (active/reserve):		Active
Capacity, tank No. S1:	bbl	493
Type (active/reserve):		Active
Capacity, tank No. S2:	bbl	493
Type (active/reserve):		Active
Capacity, tank No. S3:	bbl	493
Type (active/reserve):		Active
Capacity, tank No. S4:	bbl	493
Type (active/reserve):		Active
Capacity, tank No. S5:	bbl	493
Type (active/reserve):		Active
Capacity, tank No. S6:	bbl	493
Type (active/reserve):		Active
Capacity, tank No. S7:	bbl	493

Type (active/reserve):		Active
Capacity, tank No. S8:	bbl	493
Type (active/reserve):		Active
Capacity, tank No. P1:	bbl	1450
Type (active/reserve):		Reserve
Capacity, tank No. P2:	bbl	1450
Type (active/reserve):		Reserve
Capacity, tank No. P3:	bbl	1450
Type (active/reserve):		Reserve
Capacity, tank No. P4:	bbl	1450
Type (active/reserve):		Reserve
Capacity, tank No. S1:	bbl	1450
Type (active/reserve):		Reserve
Capacity, tank No. S2:	bbl	1450
Type (active/reserve):		Reserve
Capacity, tank No. S3:	bbl	1450
Type (active/reserve):		Reserve
Capacity, tank No. S4:	bbl	1450
Type (active/reserve):		Reserve
Capacity degasser tank:	bbl	2 tanks at 56bbl each
Mud agitator in each tank:	yes/no	Yes
Mud guns in each tank:	yes/no	No
F.2.2 Settling Tank		
Quantity:	no.	5 port and 5 stbd.
Total capacity:	bbl.	560
F.2.3 Pill / Slug Tank		
Number		4
Capacity:	bbl	103 each
Mud agitator:	yes/no	Yes
Mud guns:	yes/no	No
F.2.4 Trip Tank		
Number		3
Capacity:	bbl	91bbl each
Capacity/unit length:	bbl/ft	
Level indicator:	yes/no	Yes
Electric pump make:		Halco
Number		3
Model / type:		2500 Supreme / 4X3 with 12" impeller

Motor output:	hp	40
Facility for casing fill-up:	yes/no	Yes
Alarm and strip chart recorder (see H.1.11):	yes/no	Yes
F.2.5 Stripping Tank		
Capacity:	bbl	10
Capacity/unit length:	bbl/ft	
Equalizing facility with trip tank:	yes/no	No
Transfer pump:	yes/no	No
F.2.6 Chemical Mixing Tank		
Number		2
Capacity:	bbl	7 each
Chemical mixer type:		Dual Turbine Impeller
F.2.7 Shale Shakers		
Primary:		
Quantity:	no.	6
Make / Model:		Axiom
Type:		AX-1
Driven by no. of electric motors:	no.	2
Design flowrate (total):	gpm	500
F.2.8 Desander		None
Quantity:	no.	
Make / Model:		
Type:		
Number of cones x size:	no. x in	
Centrifugal pump type:		
Centrifugal pump type:	in x in	
Driven by electric motor of:	hp	
Is pump dedicated to desander:	yes/no	
Max. flowrate:	bbl/min	
F.2.9 Desilter		None
Quantity:	no.	
Make / Model:		
Type:		
Number of cones x size:	no. x in	
Centrifugal pump type:		
Centrifugal pump type:	in x in	
Driven by electric motor of:	hp	
Is pump dedicated to mud cleaner:	yes/no	
Max. flowrate (each):	bbl/min	

F.2.10 Mud Cleaner		None
Quantity:	no.	
Make / Model:		
Type:		
Number of cones x size:	no. x in	
Centrifugal pump type:		
Centrifugal pump type:	in x in	
Driven by electric motor of:	hp	
Is pump dedicated to desander:	yes/no	
Max. flowrate:	bbl/min	
F.2.11 Mud/Gas Separator (Poor Boy)		
Make / Type:		NOV / 204176
Gas discharge line ID:	in	12
Gas discharge location, primary:		Top of derrick
Can discharge be tied into burner system:	yes/no	No
Mud seal height:	mt	5
Calculated gas throughput	mmscf	
F.2.12 Degasser		
Quantity:	no.	4 @ 1000 gpm per each
Make / Type:		Brandt / DG-10
Centrifugal pump type:		Halco 2500 Supreme
Driven by electric motor of power:	hp	125
Discharge line running to:		Vent Line
Vacuum pump make:		Ingersol Rand
Type:		D-255
Flowline Degasser		
Quantity	no.	1 @ 1000 gpm per each
Make/ Type:		MI SWACO/ Horizontal De-gasser
Centrifugal pump type:		Marathon
Driven by electric motor of power:	hp	50
Discharge line running to:		Top of Crown
Vacuum pump make:		
Type:		
F.2.13 Mud Agitators		
Quantity:	no.	16
Make / Model:		Brandt / MA-25
Driven by electric motor of:	hp	25
Located in tanks		Active Mud Pits P1, P2, P3, P4, P5, P6, P7,

		P8, S1, S2, S3, S4 S5, S6, S7, S8
Quantity:	no.	8
Make / Model:		Brandt / MA(X) 25
Driven by electric motor of:	hp	25
Located in tanks (See F.2.1 for tank numbers)		Reserve Mud Pits P1, P2, P3, P4, S1, S2, S3, S4
Quantity:	no.	14
Make / Model:		Brandt / MA 7.5
Driven by electric motor of:	hp	7.5
Located in tanks (See F.2.1 for tank numbers)		Process Mud Pits P1, P2, P3, P4, P5, S1, S2, S3, S4 and S5
		Slug Pits PS1, PS2, SS1 and SS2
F.2.14 Mud Centrifuge		Furnished by Operating Company
Quantity:	no.	2
Make / Model:		Swaco
Feed pump make / model:		
Driven by motor of power:	hp	
Capacity:	bbl/min	
F.2.15 Mud Hopper		
Quantity:	no.	4
Make / Model:		150 L
Type:		
Pump:	Make/Model	Mission 2500 Supreme 8X6 with 12" impellar with a 125 hp electric motor
F.2.16 Mud Laboratory and Facilities		
Separate room:	yes/no	Yes
Equipped with		
Mud balance:	yes/no	Yes
Marsh funnel:	yes/no	Yes
Filtration kit:	yes/no	Yes
Sand content kit:	yes/no	Yes
Stopwatch:	yes/no	Yes
F.3 BULK SYSTEM		
F.3.1 Barite / Bentonite Silos		
Quantity:	no.	4
Capacity of each silo:	ft ³	4000
Locations:		Reserve Pit Room

Type weight loadcell:		4 load cells per tank
Manufacturer:		NOV
Pressure rating:	psi	69.6 (Design)/59.5 (Operating)
Relief valve(s) installed:	yes/no	Yes
F.3.2 Cement Silos		
Quantity:	no.	4
Capacity of each silo:	ft ³	4000
Locations:		Reserve Pit Room
Type weight loadcell:		4 load cells per tank
Manufacturer:		NOV
Pressure rating:	psi	69.6 (Design)/59.5 (Operating)
Relief valve(s) installed:	yes/no	Yes
Separate mud/cement loading facilities:	yes/no	Yes
Discharge line for cement independent from barite/bentonite discharge line:	yes/no	Yes
F.3.3 Surge Tank for Barite/Bentonite		
Quantity:	no.	2
Capacity of each silo:	ft ³	175
Locations:		Mixing Area
Type weight loadcell:		
Manufacturer:		
Pressure rating:	psi	
Relief valve(s) installed:	yes/no	Yes
F.3.4 Surge Tank for Cement		
Quantity:	no.	1 supplied by Schlumberger
Capacity of each tank:	ft ³	
Locations:		Cement Room
Type weight loadcell:		
Manufacturer:		
Pressure rating:	psi	
Relief valve(s) installed:	yes/no	
F.3.5 Bulk Transfer System		
(See also C.1.8. Compressed Air Systems)		
Independent air system for the silos and surge tanks consisting of a high-volume low-pressure compressor and air drier:	yes/no	No
Air reduced from main air supply through pressure regulators:	yes/no	Yes
Separate volume tank and drier:	yes/no	No

G. CASING/CEMENTING EQUIPMENT		
G.1 CASING EQUIPMENT		
G.1.1 API Casing Drifts		
For casing OD, weight, quantity:	in/lbs/ft/no.	
G.1.2 Clamp-On Type Casing Thread Protectors		
For casing OD, quantity:	in/no.	None
G.1.3 Casing Elevator		
Quantity:	no.	None
For OD casing:	in	
Make / Type:		
Capacity:	st	
Quantity:	no.	
For OD casing:	in	
Make / Type:		
Capacity:	st	
Quantity:	no.	
For OD casing:	in	
Make / Type:		
Capacity:	st	
G.1.4 Single Joint Casing Elevators		
Quantity:	no.	None
For OD casing:	in	
Make / Type:		
Safety latches:	yes/no	
Wire rope size:	in	
Swivel size:	in	
G.1.5 Slip Type Elevator / Spiders		
Quantity:	no.	None
Make / Type:		
Capacity:	st	
W/slips for OD casing sizes:	in	
G.1.6 Casing Slips		
Quantity:	no.	None
Make / Type:		

For OD casing:	in	
Quantity:	no.	
Make / Type:		
For OD casing:	in	
Quantity:	no.	
Make / Type:		
For OD casing:	in	
Quantity:	no.	
Make / Type:		
For OD casing:	in	
Quantity:	no.	
Make / Type:		
For OD casing:	in	
G.1.7 Casing Bowls		
Quantity:	no.	
Make / Type:		
For OD casing (max/min):	in/in	
Quantity:	no.	
Make / Type:		
For OD casing (max/min):	in/in	
Quantity:	no.	
Make / Type:		
For OD casing (max/min):	in/in	
Quantity:	no.	
Make / Type:		
For OD casing (max/min):	in/in	
Quantity:	no.	
Make / Type:		
For OD casing (max/min):	in/in	
Quantity:	no.	
Make / Type:		
For OD casing (max/min):	in/in	
G.1.8 Casing Tongs		
Quantity (sets):	no.	None
Make / Type:		
W/belts for OD casing (max/min):	in/in	
G.1.9 Power Casing Tongs		
Quantity (sets):	no.	None
Make / Type:		

W/jaws for OD casing (max/min):	in/in	
Max output torque	ft lbs	
Torque indicator:	yes/no	
Back-up arm:	yes/no	
Quantity (sets):	no.	
Make / Type:		
W/jaws for OD casing (max/min):	in/in	
Max output torque	ft lbs	
Torque indicator:	yes/no	
Back-up arm:	yes/no	
G.1.10 Power unit for casing and tubing tongs		
Quantity:	no	0
Driven by electric motor:	yes/no	
G.1.11 Casing Circulating Head (Swedge)		None
For OD casing:	in	
Connection type:		
G.1.12 Casing Spears (Internal)		
Quantity:	no.	None
Make / Type:		
For OD casing:	in	
For casing weight:	lbs/ft	
Pack-off:	yes/no	
G.1.13 Casing Cutters (Internal)		
Quantity:	no.	None
Make / Type:		
For OD casing (max/min):	in/in	
G.1.14 Crossover to Handle Casing with DP		
Quantity:	no.	None
For OD casing:	in	
Casing connection:		
Drill pipe connection type:		
Rated capacity:	st	
G.1.15 Casing Scrapers		
Quantity:	no.	None
Make:		
For OD casing:	in	

For casing weight:	lbs/ft	
OD body:	in	
Connection type:		
G.2. CEMENTING EQUIPMENT		
G.2.1 Cement Unit		
Owner: Schlumberger		
Free placement basis:	yes/no	yes
Make / Type:		2CPS 3000
No. of triplex pumps:	no.	2
Maximum working pressure:	psi	15,000
Maximum flowrate (total):	bbl/min	27
Unit powered by (electric/diesel):		Electric
Recirculating mixing system:	yes/no	yes
Liquid additive system	yes/no	yes
Premix/batch tank:	bbl/min	18
Quantity:	no.	2
Capacity (total):	bbl	200
Pressure recorder:	yes/no	yes
G.2.2 Cementing Manifold		
Discharge manifold working pressure:	psi	15,000
Cement pump discharge lines min. ID:	in	3"
Cement pump discharge lines working pressure:	psi	15,000
G.2.3 Cement Kelly		
Quantity:	no.	None
Nominal size OD:	in	
Total length:	ft	
Working length:	ft	
Connection type:		
Cement head:	yes/no	
H. INSTRUMENTATION /COMMUNICATION		
H.1 DRILLING INSTRUMENTATION AT DRILLER'S POSITION		NOV Cyber Base

H.1.1 Weight Indicator		
Make / Type:		
Sensor type:		Load Pins/Deadman Load Cell
Calibrated for number of lines strung (6, 8, 10, 12, etc.)	no.	16 fwd/12 aft
H.1.2 Standpipe Pressure Gauges		
Quantity:	no.	4
Make / Type:		WOM
Pressure range:	psi-psi	0-10,000
H.1.3 Choke Manifold Pressure Gauge		
Quantity:	no.	2
Make / Type:		WOM
Pressure range:	psi-psi	0 – 15,000
H.1.4 Rotary Speed Tachometer		
Make / Type:		
Capacity range:	rpm-rpm	0 - 15
H.1.5 Rotary Torque Indicator		
Make / Type:		
Max torque:	ft lbs	45,000
H.1.6 Motion Compensator Instruments		
Make / Type:		NOV/MRU-H (3 Fwd Drawworks/3 Aft Drawworks)
Hook position indicator:	yes/no	Yes
Lock / unlock indicator:	yes/no	Yes
H.1.7 Pump Stroke Counters		
Make / Type:		Proximity Sensors
One pump stroke indicator and one cumulative pump stroke counter for each pump:	yes/no	Yes; cumulative pump stroke counted in software; no dedicated counter for cumulative
H.1.8 Tong Torque Indicator		
Make/Type:		
Capacity range:	lbs-lbs	0 – 35,000 lbs line tension
H.1.9 Pit Volume Totalizer		
Make / Model:		
Floats in active mud tanks:	yes/no	Yes
Floats in reserve mud tanks:	yes/no	Yes
Loss / Gain indicator:	yes/no	Yes

[illegible]

Parameter recorded:		
Parameter recorded:		
Parameter recorded:		
Parameter recorded:		
Parameter recorded:		
Parameter recorded:		
Parameter recorded:		
Parameter recorded:		
H.3 INSTRUMENTATION AT CHOKE MANIFOLD		
H.3.1 Standpipe Pressure Gauge		
Make / Type:		WOM
Pressure range (maximum):	psi	10,000
H.3.2 Choke Manifold Pressure Gauge		
Make / Type:		WOM
Pressure range (maximum):	psi	15,000
H.3.1. and H.3.2. combined on one panel:	yes/no	Yes
Visible from choke operating position:	yes/no	Yes
H.4 STANDPIPE PRESSURE GAUGE (AT STANDPIPE)		
Make / Type:		WOM
Pressure range (maximum):	psi	0 – 10,000
Visible from driller's position:	yes/no	Yes
H.5 DEVIATION EQUIPMENT		
H.5.1 Measuring Device		
Quantity:	no.	
Make / Type:		
Deviation range:	degree	
H.5.2 Wireline Winch		
Make / Model:		N/A
Wire length (nominal):	ft	
Depth counter:	yes/no	
Wire size:	in	
Pull indicator:	lbs	

H.6 CALIBRATED PRESSURE GAUGES		
Make/type instrument gauges:		
Size:	in	
Connection:		
Range:	psi	
Quantity:	no.	
Facilities to install gauges on:		
Standpipe manifold:	yes/no	
Choke manifold:	yes/no	
Cement unit:	yes/no	
H.7 RIG COMMUNICATION SYSTEM		
H.7.1 Telephone System		
No. of stations:	no.	
Make / Type:		Phontech (JELEC)/Soundpower
Explosion proof:	yes/no	
No. of stations:	no.	
Make / Type:		AVAYA (JELEC)/Automatic Exchange Telephone
Explosion proof:	yes/no	
No. of stations:	no.	
Make / Type:		
Explosion proof:	yes/no	
No. of stations:	no.	
Make / Type:		
Explosion proof:	yes/no	
No. of stations:	no.	
Make / Type:		
Explosion proof:	yes/no	
No. of stations:	no.	
Make / Type:		
Explosion proof:	yes/no	
H.7.2 Public Address System		
Can be combined with above:	yes/no	
Make / Type:		

Explosion proof:	yes/no	
H.7.3 Drill Floor – Derrickman's Talkback (For Intercom System)		
No. of stations:	no.	
Location:		
Make / Type:		Federal/Echo - PCX
Explosion proof:	yes/no	
H.7.4 Hand-Held VHF Radios		
Quantity:	no.	
Make / Type:		
H.8 ENVIRONMENTAL INSTRUMENTATION		
H.8.1 Temperature Indicators		
Air temperature:	yes/no	Yes
Make / Model:		WAMOS
Sea water temperature:	yes/no	Yes
Make / Model:		
Recorder:	yes/no	Yes
H.8.2 Barometric Pressure Indicator		
Make / Model:		WAMOS
Recorder:	yes/no	Yes
H.8.3 Humidity Sensing Indicator		
Make / Model:		WAMOS
Recorder:	yes/no	Yes
H.8.4. Wind speed / Direction Meter		
Make / Model:		WAMOS
Recorder:	yes/no	Yes
H.8.5 Wave Profile Recorder		
Make / Model:		N/A
Recorder:	yes/no	
H.9. ADDITIONAL MODU SPECIFIC INSTRUMENTATION		

H.9.1 Roll, Pitch and Heave Indicator		
Make / Model:		Seatex MRU; Kongsberg TSS Dynamic Motion Sensor
Recorder:	yes/no	Yes
Quantity:		2 Seatex, 1TSS
H.9.2 Gyro Compass		
Make / Model:		Navigation Gyro Compass
Located at:		Binnacles fitted at both Bridge Wings
H.9.3 Echo Sounder		
Make / Model:		Skipper/IR301
Located at:		
Recorder:	yes/no	Yes
H.9.4 Current Indicator		N/A
Make / Model:		
Located at:		
Recorder:	yes/no	
H.9.5 Weather Facsimile Recorder		
Make / Model:		JRC
Located at:		Bridge
Recorder:	yes/no	Yes
H.9.6 Radar		
Quantity:	no.	1 Weather Radar
Make / Model:		ADC/DOPRAD FURY
Located at:		Bridge
Bandwidth:	cm	Variable with pulse width
Quantity:	no.	1 Navigation Radar
Make / Model:		Kongsberg K-Bridge
Located at:		1 – X Band antenna at engine exhaust funnel
		1 – X Band antenna at radar mast
		1 – S Band antenna at radar mast
Frequency:		X Band: 9410MHz±30MHz
		S Band: 300MHz_10MHz
H.10 RADIO EQUIPMENT		
Location:		

H.10.1 SSB Transceiver		
Quantity:	no.	1
Make / Model:		Thrane & Thrane/Sailor TU5250
Power:	watts	250
Frequency range:	mhz-mhz	2, 4, 6, 8, 12, 16
(Synthesized/crystal):		
Facsimile capable:	yes/no	No
Telex capable:	yes/no	Yes
H.10.2 E.P.I.R.B's		
Quantity:	no.	2
Make / Model:		JOTRON/Kongsberg
H.10.3 VHF Radio Telephone		
Quantity:	no.	7
Make / Model:		ICOM/IC-M504
Power:	watts	25
Channels:		Full Range Marine VHF
H.10.4 VHF Radio Transceiver		
Quantity:	no.	2
Make / Model:		Thrane & Thrane/RT5020
Power:	watts	25
H.10.5 Radio Beacon Transmitter		
Quantity:	no.	1
Make / Model:		SKANTI/AT-80
Power:	watts	
H.10.6 Aeronautical VHF Transceiver		
Quantity:	no.	1
Make / Model:		JOTRON/TR710
Power:	watts	
Frequency range:	hz-hz	
(Synthesized/crystal):		
H.10.7 Watch Receiver		
Quantity:	no.	
Make / Model:		
Frequency:	khz	
H.10.8 Scrambler		
Quantity:	no.	
Make / Model:		

H.10.9 Telex		
Quantity:	no.	1
Make / Model:		Nera F77
H.10.10 Satellite Communication System		
Make / Model:		Nera F77 & Thrane & Thrane Sat C
Type:		
Facsimile link:	yes/no	Yes: Nera F77
Telex link:	yes/no	Yes: Nera F77 & Sat C
Telephone link:	yes/no	Yes: Nera F77
Other capabilities:		
I. PRODUCTION TEST EQUIPMENT		
I.1 BURNERS		
Make / Type:		None
Quantity:	no.	
Capacity:	bbl/day	
Weight:	st	
Water requirement at 100 psi:	bbl/min	
I.2 BURNER BOOMS		SLB's equipment
Make / Type:		None
Quantity:	no.	
Length:	ft	
Horizontal:	yes/no	
Height above sea level (at drilling draft):	ft	
Maximum wind speed:	knots	
Walkway and handrails:	yes/no	
Burner platform size:	ftxft	
Burner mounting rotatable:	yes/no	
Regulatory approvals:		
I.3 LINES REQUIRED ON BURNER BOOMS		

I.3.1 Oil Line		
ID:	in	None
Working pressure:	psi	
Connection type at burner end:	type	
H2S:	yes/no	
Pressure gauge connection at barge end:	in	
I.3.2 Gas Line		
ID:	in	
Working pressure:	psi	1500
Extended beyond burner by:	ft	
Connection type at burner end:	type	Flange
H2S:	yes/no	No
Pressure gauge connection at barge end:	in	
I.3.3 Water Line		No information at time
ID:	in	
Working pressure:	psi	
Connection type at burner end:	type	
Pressure gauge connection at barge end:	in	
I.3.4 Air Line		No information at time
ID:	in	
Working pressure:	psi	
Connection type at burner end:	type	
Pressure gauge connection at barge end:	in	
I.3.5 Pilot Gasline		
ID:	in	None
Working pressure:	psi	
Connection type at burner end:	type	
Pressure gauge connection at barge end:	in	
I.4 SPRINKLER SYSTEM		
Sufficient to give protection to rig and personnel against heat radiation damage from the burners:	yes/no	Provided by Burner Systems
I.5 FIXED LINES FOR WELL TESTING		
I.5.1 Drillfloor To Separator Area		
Type (screwed/welded, both):		Both

Quantity:	no.	1
Size ID:	in	4" Line
Working pressure:	psi	15000
Connection type on drill floor:		Flange
Connection type at separator:		Flange
Number of valves / lines:	no.	
Size of valves:	in	
H2S:	yes/no	No
I.5.2 Separator Area to Each Burner Boom		
Type (screwed/welded, both):		Both
Quantity:	no.	1
Size ID:	in	4" Line
Working pressure:	psi	1500
Connection type on separator:		Flange
Connection type at boom:		Flange
Number of valves / lines:	no.	
Size of valves:	in	
H2S:	yes/no	No
Valves installed near separator area for switching gas to either burner:	yes/no	No
I.5.3 Mud Pumps to Both Burner Booms		
Type (screwed/welded, both):		None
Quantity:	no.	
Size ID:	in	
Working pressure:	psi	
Number of valves / lines:	no.	
Size of valves:	in	
Connected to fire fighting pumps:	yes/no	
Rate line capacity at 300 psi:	bbl/hr	
I.5.4 Rig Air System to Burners		None at this time
Type (screwed/welded, both):		
Quantity:	no.	
Size ID:	in	
Working pressure:	psi	
Non-return valves fitted:	yes/no	
I.5.5 Oil Storage Tank To Overboard		
Type (screwed/welded, both):		
Quantity:	no.	
Size:		
Working pressure:	psi	

Location		
Connection type at separator area:	type	
I.5.6 Export Line		
Type (screw/welded, both):		Welded
Size:		4" Line
Working Pressure:	psi	150
Location:		From fwd to aft port of vessel
Connection types:		Flange
I.5.7 Separator To Ventstack Of Rig		
Type (screw/welded, both):		None at this time
Quantity:	no.	
Size ID:	in	
Working pressure:	psi	
Connection type at separator area:	type	
I.5.8 4" Sand Control Stimulation Line		
Type (screw/welded, both):		None
Quantity:	no.	
Size ID:	in	
Working pressure:	psi	
Connection type at separator area:	type	
I.6. AUXILIARY POWER AVAILABILITY		
I.6.1 For Field Laboratory		
Quantity:	kw	
Volts:	v	
Frequency:	hz	
I.6.2		
Quantity:	kw	
Volts:	v	
Frequency:	hz	
I.6.3		
Quantity:	kw	
Volts:	v	
Frequency:	hz	

J. WORKOVER TOOLS		
(NOT APPLICABLE)		
K. ACCOMMODATION		
K.1. OFFICES		
K.1.1 Company Representative's Office		
Quantity:	no.	7
Complete with desk, filing cabinet(s) and other necessary furniture:	yes/no	Yes
Unrestricted view to drill floor:	yes/no	1 Yes, 6 No
K.1.2 Contractor's Representative's Office		
Quantity:	no.	5
Unrestricted view to drill floor:	yes/no	1 Yes, 4 No
K.1.3 Radio Room		
Quantity:	no.	1
K.1.4 Hospital Room		
Number of beds/bunks:	no.	6
Wash basin:	yes/no	Yes
Medical cabinet:	yes/no	Yes
Dangerous drugs:	yes/no	Yes
K.2 LIVING QUARTERS		
K.2.1 Accommodations		
Total beds:	no.	220
Quantity of single bed rooms:	no.	None (*However, there are 10 "1+1" bedrooms)
Toilets (private/shared/communal):		Private
Quantity of two bed rooms:	no.	100 (*10 are "1+1")
Toilets (private/shared/communal):		Private
Quantity of four bed rooms:	no.	0
Toilets (private/shared/communal):		N/A
Quantity of six bed rooms:	no.	0
Toilets (private/shared/communal):		N/A
Quantity of eight bed rooms:	no.	0

Toilets (private/shared/communal):		N/A
K.2.2 Galley		
Quantity:	no.	1
K.2.3 Mess Seating Capacity		
Main mess:	no.	85
Aux. Mess:	no.	0
K.2.4 Meeting Rooms		
Quantity:	no.	2
K.2.5 Recreation Rooms		
Quantity:	no.	1
Recreation facilities		
TV:	no.	Not yet installed
VCR:	no.	Not yet installed
Pool Table:	no.	0
Ping Pong Table:	no.	1
Computer:	no.	Not yet installed
Other:		
K.2.6 Other Rooms		
Laundry:	no.	1
Dry food store:	no.	1
Refrigerator:	no.	2 (Chiller and Freezer)
Change rooms:	no.	2 (Male / Female)
Prayer room:	no.	0
Cinema:	no.	1
Workout / Weight Room:	no.	1
L. SAFETY EQUIPMENT		
L.1 GENERAL SAFETY EQUIPMENT		
L.1.1 General Personnel Protective Gear		
Safety hats (contractor only/everyone/not supplied):		Contractor
Safety boots (contractor only/everyone/not supplied):		Contractor
Safety clothing (contractor only/everyone/not supplied):		Contractor

Ear Protection (contractor only/everyone/not supplied):		Everyone
Rubber gloves (contractor only/everyone/not supplied):		Contractor
Rubber aprons (contractor only/everyone/not supplied):		Contractor
Fullface visors (contractor only/everyone/not supplied):		Contractor
Eye shields (for grinding machines, etc.) (contractor only/everyone/not supplied):		Contractor
Dust masks (contractor only/everyone/not supplied):		Contractor
Rubber gloves – elbow length for chemical handling (contractor only/everyone/not supplied):		Contractor
Explosion proof handtorches c/w batteries (contractor only/everyone/not supplied):		Contractor
Safety belts c/w lines (contractor only/everyone/not supplied):		Contractor
L.1.2 Eye Wash Stations		
Quantity:	no.	9
Make / Model:		
Located at:		2 on Drillfloor
Located at:		1 Upper Shaker
Located at:		1 Aft Shaker
Located at:		1 Possum Belly
Located at:		1 Upper Sack
Located at:		1 Lower Sack
Located at:		1 Mud Pump Room
Located at:		1 Subsea Workshop
L.1.3 Derrick Safety Equipment		
Derrick escape chute (rem chute):	no.	None
Make / Type:		
Derrick safety belts:	no.	
Make / Type:		
L.1.4 Derrick Climbing Assistant		
Make / Type:		Personnel Elevator
Make / Type:		DBI Sala Fall Arrest System on all ladders above 10ft and all ladders in the Derrick
L.1.5 Fresh Air Blower (Bug Blowers)		
Quantity:	no.	0
Make / Type:		

Located at:		
Located at:		
L.2 GAS/FIRE/SMOKE DETECTION		
L.2.1 H2S Monitoring System		
Make / Type:		
Sampling points at		
Bellnipple:	yes/no	Yes
Drillfloor:	yes/no	Yes
Shale shaker:	yes/no	Yes
Mud tanks:	yes/no	Yes
Ventilation system into living quarters:	yes/no	Yes
Other:		
General alarm:	yes/no	Yes
Alarm types (audible, visual, both) at		
Driller's console:		Both
Engine room:		Both
Mud room:		Both
Living quarters each level:		Both
Central area each structural level:		
Other: Mud Logging Equipment Area:		Both
Central alarm panel:	yes/no	Yes
Located at:		Bridge
L.2.2 Combustible Gas Monitoring System		
Make / Type:		
Sampling points at		
Bellnipple:	yes/no	Yes
Drillfloor:	yes/no	Yes
Shale shaker:	yes/no	Yes
Mud tanks:	yes/no	Yes
Ventilation system into living quarters:	yes/no	Yes
Other:		
General alarm:	yes/no	Yes
Alarm types (audible, visual, both) at		
Driller's console:		Both
Other:		
L.2.3 H2S Detectors (Portable)		
Quantity:	no.	2
Make / Type:		
Phials for H2S: measuring range		
From 1 to 20 ppm:	no.	

From 100 to 600 ppm:	no.	
L.2.4 CO2 Gas Detectors (Portable)		
Quantity:	no.	2
Make / Type:		
Phials for H2S: measuring range		
From 1 to 20 ppm:	no.	
From 20 to 200 ppm:	no.	
L.2.5 Explosimeters		
Quantity:	no.	2
Make / Type:		
L.2.6 Fire/Smoke Detectors in Accommodation		
Make / Type:		
Fire detection:	yes/no	Yes
Smoke detection:	yes/no	Yes
Central alarm panel:	yes/no	Yes
Location:		Bridge
L.3 FIRE FIGHTING EQUIPMENT		
L.3.1 Fire Pumps		
Quantity:	no.	3
Make / Model:		Centrifugal
Type:		Eureka OFG 250x350
Output (each):	u.s. gal/min	1040 m3/hr – 1790 rpm
All offtake points supplied by each pump:	yes/no	Yes
Location of pumps:		Port/Stbd Aft Machinery Spaces, Stbd Fwd/Fwd Machinery Space
Fire fighting water delivery conforms to IMO MODU Spec:	yes/no	Yes
IMO MODU Spec Version:		
L.3.2 Hydrants and Hoses		
Hydrants positioned such that any point may be reached by a single hose length from two separate hydrants:	yes/no	Yes
Quantity of hydrants:	no.	217 (includes First Aid hydrants)
Hose connections / hydrant:	no.	JIS 2"
		Vendor: NK Co.
Hose max. diam.:	in	2"
Length:	ft	15 meters / 50 ft, 20 meters / 65 ft, 25 meters / 82 ft, 25m (Freshwater Firewater System)

		Accom Only)
		*depending upon location
L.3.3 Portable Fire Extinguishers		
Quantity (total):	no.	213
Type 1 - CO2:	no./lbs	2 / 25kg CO2 Semi-portable
	no./lbs	41 / 5kg CO2 Portable
Type 2 – Dry chemical:	no./lbs	4 / 2kg Dry Powder
	no./lbs	112 / 12kg Dry Powder
	no./lbs	5 / 25kg Dry Powder (Semi-Portable)
	no./lbs	11 / 45kg Dry Powder (Semi-Portable)
Type 3 – Foam:	no./lbs	9 / 45 Liter Semi Portable Foam w/ Applicator
Additional	no./lbs	29 / 9 Liter Water – Stored Pressure Extinguishers
Mounted adjacent to access ways and escape routes:	yes/no	Yes
L.3.4 Fire Blankets		
Location:		Fire Locker
Quantity:	no.	1
L.3.5 Fixed Foam System		
Automatically injected into fixed fire water system at central point with remote manual control:	yes/no	Yes
Make / Type:		TYCO
Quantity foam stored on site:	ft3	3000 Liters
Eductor tube:	yes/no	Optional
Foam nozzles:	no.	See Fire Control Plan
Located at:		
Located at:		
Located at:		
Quantity of monitors:		11 Foam Monitors
Located at:		4 Main Deck, 3 Heli-deck, 2 Aft of Accommodations C- Deck Port/Stbd, 2 Upper Mezzaine Deck Port/Stbd
L.3.6 Helideck Foam System		
Dedicated system adequate for at least 10 minutes fire fighting at the rate quoted in the IMO MODU code:	yes/no	No
IMO MODU code version:		
Make / Type:		SKUM (Water Oscillating Monitor) FJM-WTO
Quantity of monitors:	no.	3

Foam type:		AR-FFF
Rate:	u.s. gal/min	5413 liters/min @ 7.5 Bar
L.3.7 Fixed Fire Extinguishing System		
Protected spaces		
Engine room:	FM200/CO2	CO2 & Water Mist - Both Port and Stbd.
Engine Control Room:	FM200/CO2	CO2
Paint locker:	FM200/CO2	CO2
Emergency generator:	FM200/CO2	CO2
Electrical Switchboard Room:	FM200/CO2	CO2 Both Port and Stbd.
Oil Purifying Room:	FM200/CO2	CO2 & Water Mist - Both Port and Stbd.
Galley Exhaust Duct:	FM200/CO2	CO2
Mud Module VFD Room	FM200/CO2	FM200 Both Port and Stbd.
Mud Module electrical Room		FM200 Both Port and Stbd.
BOP Module Subsea Office	FM200/CO2	FM200
BOP Module BOP MCC	FM200/CO2	FM200
Mezz Deck Transformer Room	FM200/CO2	FM200 Both Port and Stbd.
Drill Shack Lower MCC / Drillers Cabinet	FM200/CO2	FM200
Drill Shack Upper MCC	FM200/CO2	FM200
Additional Protected Spaces covered by CO2: Port/Stbd Aft Machinery Spaces, Cargo Pump Room, Thermal Oil Heater, Fwd/Fwd and Fwd/Aft Machinery Spaces		
Alarms (audible, visual or both):		Upon opening cabinets and deployment – Yes Locally and on F&G on Bridge
Automatic shutting of mechanical ventilation in protected spaces:	yes/no	Yes (only for CO2) Option is available for FM 200 system.
Remote manual release located at:		CO2: CO2 Room, Fwd Paint Locker, Galley Range Hood FM200: Local at FM 200 storage tanks, or from control panel outside protected space or adjacent space
		*Cannot release CO2 or FM 200 thru vessel automation.
Remote manual release located at:		
L.3.8 Manual Water Deluge System	yes/no	Yes
Protected spaces:		Drill Floor, Moon Pool, Bridge Windows, Heli-fuel Loading Station, Heli-fuel Storage Tank Port Side B-Deck, Foam Deluge P/A Cargo Offload Station
Water supplied from fire main line:	yes/no	Yes
L.3.9 Water Sprinkler System in Accommodation		
Automatic:	yes/no	Yes
Working pressure:	psi	6 Bar

Pressurized tank capacity:	ft3	3000 Liters
L.4 BREATHING APPARATUS		
L.4.1 General Sets		
Quantity:	no.	None
Make:		
Type:		
Bottle duration:	min	
Located at:	qty/loc	
Located at:	qty/loc	
Located at:	qty/loc	
Located at:	qty/loc	
Located at:	qty/loc	
Located at:	qty/loc	
L.4.2 Escape Sets		
Quantity:	no.	18
Make / Type:		Scott / Elsa
Bottle duration:	min	10
Located at:		101 Level of Derrick (2), Fwd Mach Space (4), Reserve Mud Pit Room (4), Cargo Pump Room (2), Aft Mach Space (4), Shale Shaker (2)
L.4.3 Cascade Stations		
Quantity:	no.	None
Make / Type:		
Locations / outlets at location:		
L.4.4 Breathing Air Recharge Compressor		
Quantity:	no.	1
Make / Type:		Bauer / Model: C11/ DV – E3
Located at:		Stbd Side F- Deck
L.4.5 Compressed Air Breathing Apparatus Trolley Unit		None
Positive pressure:	yes/no	
Make / Type:		
Air line length:	ft	
Compressed air bottles		
Quantity:	no.	
Size:	ft3	
Including:		
Face mask:	yes/no	

Demand valve:	yes/no	
Microphone:	yes/no	
Safety harness:	yes/no	
Safety line (incorporating phone line):	yes/no	
L.4.6 Air Purity Test Equipment		
Quantity:	no.	
Make / Type:		
L.5 EMERGENCY FIRST AID EQUIPMENT		As Per Life Saving Plan
L.5.1 First Aid Kits		
Quantity:	no.	
L.5.2 Burn Kits		
Quantity:	no.	
L.5.3 Resuscitators		
Quantity:	no.	
Charged (spare) oxygen cylinders:	no.	
L.5.4 Stretchers		
Quantity:	no.	
Type:		
Located at:		
Quantity:	no.	
Type:		
Located at:		
L.6 HELIDECK RESCUE EQUIPMENT		
L.6.1 Storage Boxes		
Quantity:	no.	1
Construction material:		Fiberglass
Max height open: (49"x25"x30")	in	30"
L.6.2 Equipment		
Aircraft axe:	yes/no	Yes
Large firemans rescue axe:	yes/no	Yes
Crowbar:	yes/no	Yes
Heavy duty hacksaw:	yes/no	Yes
Spare blades:	yes/no	Yes

Grapple hook:	yes/no	Yes
Length of wire rope attached:	ft	
Quick release knife:	yes/no	Yes
Bolt croppers	yes/no	Yes
Additional		8" Crescent Wrench, Aircraft Axe Large 15", Bolt Cutters, Large Crow Bar (24"), Grapple Hook, Hack Saw and 6 Spare Blades, Fire Rescue Blanket, Lt. Weight Aluminum Ladder (3 meter), Side Cutter Pliers, Assorted Screw Drivers, Portable Safety Lamps (2), Rescue Knife with V-Blade, Large Axe
L.7 RIG SAFETY STORE		
Equipment to repair, recharge and restock safety equipment as listed below:		
Foam concentrate:	yes/no	Yes
Dry chemical charges:	yes/no	Yes
CO2 charges for dry chemical extinguishers:	yes/no	Yes
CO2 charges for water extinguishers:	yes/no	Yes
CO2 charges for foam extinguishers:	yes/no	Yes
Discharge hoses, control nozzles and horns and washers for CO2 extinguishers:	yes/no	Yes
Discharge hoses, control nozzles and horns and washers for dry chemical extinguishers:	yes/no	Yes
Fire blankets:	yes/no	Yes
Fireproof gloves:	yes/no	Yes
Rubber gloves-elbow length:	yes/no	Yes
Rubber aprons:	yes/no	Yes
Rubber boots:	yes/no	Yes
Full face visors:	yes/no	Yes
Eye shields (for grinding machines, etc.)	yes/no	Yes
Dust masks:	yes/no	Yes
Spare safety helmets, boots, overalls:	yes/no	Yes
Gloves, hand torches, batteries, etc.	yes/no	Yes
Spare lifebuoys:	yes/no	Yes
Spare lifebuoy lights:	yes/no	Yes
Fresh air blowers/inductors for ventilating enclosed spaces:	yes/no	Yes
Spare life jackets:	yes/no	Yes
Safety belts c/w line:	yes/no	Yes
Full safety harnesses:	yes/no	Yes
Spare derrickman's safety belts:	yes/no	Yes
Spare SCBA bottles, charged:	yes/no	Yes

L.8 EMERGENCY WARNING ALARMS		
Approved system to give warning of different emergencies	yes/no	Yes
L.9 SURVIVAL EQUIPMENT		
L.9.1 Lifeboats		
Make / Type:		Beihai
Quantity:	no.	6
Capacity:	person/craft	75
Locations (fore, aft, port, stbd):		2 Port Fwd, 1 Port Aft
		2 Stbd Fwd, 1 Stbd Aft
Fire protection:	yes/no	Yes
Radios:	yes/no	Yes
Flares:	yes/no	Yes
Food:	yes/no	Yes
First aid kits:	yes/no	Yes
Make / Type:		
Quantity:	no.	
Capacity:	person/craft	
Locations (fore, aft, port, stbd):		
Fire protection:	yes/no	
Radios:	yes/no	
Flares:	yes/no	
Food:	yes/no	
First aid kits:	yes/no	
L.9.2 Life Rafts		
Make / Type:		Elliot
Quantity:	no.	16
Capacity:	person/craft	25
Locations (fore, aft, port, stbd):		4 Port Fwd, 4 Stbd. Fwd, 4 Port Aft 4 Stbd. Aft
Fire protection:	yes/no	No
Radios:	yes/no	Yes
Flares:	yes/no	Yes
Food:	yes/no	Yes
First aid kits:	yes/no	Yes
L.9.3 Rescue Boat		
Make / Type:		Beihai BH – HR7FRB
Engine power:	hp	BUKH+STEYR 236 Diesel Engine 212 Hp 4300rpm

		Alamarine 230 Water Jet
L.9.4 Life Jackets		
Make / Type:		Ocean Mate / Type 1 SOLAS 74/83
Quantity:	no.	300
L.9.5 Life Buoys		
Make / Type:		Bridgebuoy & Deckbuoy USCG / SOLAS
Quantity:	no.	16
		2 – Lights and Smoke, 7 Lights, 2 30meter rope, 4 Plain, 1 Lighted Ex. Rated
L.9.6 Work Vests		
Make / Type:		
Quantity:	no.	
L.9.7 Embarkation Ladders		
Make / Type:		HAE SUNG ENT CO. / HS - E - 01
Quantity:	no.	6
L.9.8 Distress Signals		
Make / Type:		Pains Wessex MK3 (Handheld) Flares
		Pains Wessex MK7 (Parachute) Flares
Quantity:	no.	12 / 12 respectively
M POLLUTION PREVENTION EQUIPMENT		
M.1 SEWAGE TREATMENT		
Make / Model:		Omnipure / 15MXMP
System type:		Multiple Pass
Conforms to (Marpol Annex IV, etc.):		
M.2 GARBAGE COMPACTION		
Make / Model:		Enviro-Pak Model R6 Compactor
		Enviro-Pak Model 4000 Compactor
		Enviro-Pak Model B35 BA/ER
System type:		
Conforms to (Marpol Annex IV, etc.):		
M.3 GARBAGE DISPOSAL / GRINDER		

Make / Model:		Macerator 550 - MC
System type:		
Conforms to (Marpol Annex IV, etc.):		
M.3 INCINERATER		
Make / Model:		None
System type:		