



IADC EQUIPMENT LIST

RIGSCO-REF NUMBER

[EMAIL: sales@rigsco.com](mailto:sales@rigsco.com)

IADC EQUIPMENT LIST

MODU



IADC EQUIPMENT LIST

EQUIPMENT LIST

TABLE OF CONTENTS

SECTION A – UNIT SPECIFICATIONS

A1	Main Dimensions/Technical Description
A2	Storage Capacities
A3	Jack-Up Systems
A4	Operational Capabilities
A5	Variable Loading
A6	Environmental Limits
A7	Mooring System
A8	Marine Loading Hoses
A9	Cranes, Hoists and Materials Handling
A10	Helicopter Landing Deck
A11	Auxiliary Equipment

SECTION B – GENERAL RIG SPECIFICATIONS

B1	Derrick and Substructure
B2	Drawworks and Associated Equipment
B3	Derrick Hoisting Equipment
B4	Rotating System

SECTION C – POWER SUPPLY SYSTEMS

C1	Rig Power Plant
C2	Emergency Generator



IADC EQUIPMENT LIST

SECTION D – DRILLSTRING EQUIPMENT

D1	Tubulars
D2	Handling Tools
D3	Fishing Equipment

SECTION E – WELL CONTROL / SUBSEA EQUIPMENT

E1	Diverter BOP
E2	Low Pressure BOP
E3	High Pressure BOP
E4	Other Blowout Preventers
E5	BOP Control System
E6	Choke Manifold
E7	Flexible Choke & Kill Lines (BOP to Manifold)
E8	Flexible BOP Control Hoses
E9	BOP Testing Equipment
E10	BOP Handling

SECTION F – MUD SYSTEM / BULK SYSTEM

F1	High Pressure Mud System
F2	Low Pressure Mud System
F3	Bulk System

SECTION G – CASING / CEMENTING EQUIPMENT

G1	Casing Equipment
G2	Cement Equipment



IADC EQUIPMENT LIST

SECTION H – INSTRUMENTATION / COMMUNICATION

H1	Drilling Instrumentation at Driller's Position
H2	Drilling Parameter Recorder
H3	Instrumentation at Choke Manifold
H4	Standpipe Pressure Gauge
H5	Deviation Equipment
H6	Rig Communication System
H7	Environmental Instrumentation
H8	Navigation Instrumentation
H9	External Communications Equipment

SECTION I – PRODUCTION TEST EQUIPMENT

I1	Burners
I2	Burner Room
I3	Lines Required on Burner Booms
I4	Sprinkler System
I5	Fixed Piping for Well Testing
I6	Auxiliary Power Availability

SECTION J – WORKOVER TOOLS

SECTION K - ACCOMODATION

K1	Offices
K2	Living Quarters



IADC EQUIPMENT LIST

SECTION L – SAFETY EQUIPMENT

L1	General Safety Equipment
L2	Gas/Fire/Smoke Detection
L3	Fire fighting Equipment
L4	Breathing Apparatus
L5	Emergency First Aid Equipment
L6	Helideck Rescue Equipment
L7	Emergency Warning Alarms
L8	Survival Equipment

SECTION M – POLLUTION PREVENTION EQUIPMENT

M1	Sewage Treatment
M2	Garbage Compaction
M3	Garbage Disposal / Grinder
M4	Incinerator
M5	Oily Water Separator



IADC EQUIPMENT LIST

A. UNIT SPECIFICATIONS

GENERAL

Unit name	: Rigsco #123
Rig type	: Self-Elevating Mobile Offshore Drilling Unit
Unit / design / shape	: Gusto MSC-CJ46-X100-D
Unit flag	: Singapore
Unit classification	DNV 1A1 Self-Elevating Drilling Unit : Rigsco
Owner	
IMO Certification	: IMO MODU Code consolidates edition : Code for the Construction and Equipment of Mobile Offshore Drilling Units, 2009 IMO MODU Code consolidated edition
- Which code version	
Year of construction	: 2006 (Strike Steel), October 2009 (delivered)
Construction yard	: Rigsco Marine, Dubai, UAE
Date of use	: XXXX-XX-XX
Annual Survey next due date	: XXXX-XX-XX
UWILD or DryDock next due date	: XXXX-XX-XX
Special Periodical Survey - Renewal Survey Due Date	: XXXX-XX-XX

A.1 MAIN DIMENSIONS / TECHNICAL DESCRIPTION

Light ship	kips	: 24,862
Displacement at loadline	kips	: 30913
Draft at loadline (deepest)	ft	: 14.76
Overall length of unit (inc. helideck)	ft	: 311.4
Overall width of unit (inc. anchor racks)	ft	: 224.1
Hull length	ft	: 214.02
Hull width	ft	: 203.4
Hull depth	ft	: 26.2
Number of legs/length	no. x ft	: 3 x 483.5
Leg length available below hull	ft	: 419
Type of leg		: Triangular open truss X-broad structure
Leg spacing (centre to centre):		
- Transverse	ft	: 150.9
- Longitudinal	ft	: 131.2
Independent leg or mat		: Independent Leg
Spud can diameter/bearing area	ftxft ²	: 40.91 x 1614/each
Spud can bearing pressure	kips/ ft ²	:
Spud can height	ft	: 12.7
Spud can jetting system	yes/no	: Yes (low and high pressure)
- Bottom jets	yes/no	: 12 ea
- Top jets	yes/no	: N/A
- Side jets	yes/no	: N/A
- Upper Jets	yes/no	: N/A



IADC EQUIPMENT LIST

Water supply from mud pumps	yes/no	: Yes
Pressure	psi	: 1450 (max)
Mat dimensions:		
- Length	ft	: N/A
- Width	ft	: N/A
- Depth	ft	: N/A
Cantilever or slot		: Cantilever (MSC X-Y)
Skid-off	yes/no	: No
Cantilever envelope:		
- Reach aft, from/to	ft/ft	: 0/70
- Transverse, port/stbd	ft/ft	: -20 /+20
Slot dimensions:		
- Length	ft	: N/A
- Width	ft	: N/A
Mat slot dimensions:		
- Length	ft	: N/A
- Width	ft	: N/A
Max cantilever load		
(Combined hook + rotary + setback)	kips	: 2,734
Max rotary load	kips	: 1,500
Max setback load	kips	: 1,120
Fuel consumption (avg. drilling)	bbbl/day	: 172 bbl/day (4 engines x 75% gensets)
Accommodation for maximum number personnel	no.	: 120 beds
(See K.2.1)		

A.2 STORAGE CAPACITIES

Fuel	bbbl	: 4,431
Drilling water	bbbl	: 22,606
Potable water	Bbbl	: 2,635
Mud processing tank (see F.2)	Bbbl	: 261
Active liquid mud (see F.2)	Bbbl	: 3,972
Independent oil base mud storage:	Bbbl	: 1,584
- Agitated	yes/no	: Yes
Independent base oil storage	Bbbl	: 1,331
Independent brine storage	Bbbl	: 1,296
- Heavy brine accepted (e.g. bromide)	yes/no	: Yes
Bulk bentonite/barite (see F.3)	ft ³	: 8,475
Bulk cement (see F.3)	ft ³	: 7486
Sack storage	Sacks	: 5,000
Pipe rack	t	: 5,926
- Upper racks dimensions	ft x ft	: 72.8 x 35
- Maximum load capacity	lb/ft ²	: 614.4



IADC EQUIPMENT LIST

- Lower rack dimensions	ft x ft	: 66.7 x 23.6
- Maximum load capacity	lb/ft ²	: 819.2
Other rack (port)	ft x ft	: 49 x 18.4
- Maximum load capacity	lb/ft ²	: 819.2
Other rack (starboard)	ft x ft	: 49 x 18.4
- Maximum load capacity	lb/ft ²	: 819.2
Miscellaneous storage area	ft ²	: 50
Operator storage area	ft ²	: In above
Preload capacity	st	: 9,225
- Time to fill and dump preload	hrs	: 8

A.3 JACK-UP SYSTEMS

A.3.1 Jacking Systems

Make/type		: Gusto MSC
No. of jacking units/pinion drives	no.	: 3 / 6
Maximum jacking load	ton	: 296 per unit
Jacking speed	ft/min	: 1.5
Rack chocks available	yes/no	: Yes (Fixation system)
- Required for field tow	yes/no	: Yes
- Required for ocean tow	yes/no	: Yes

A.3.2 Raw Water Systems

Pump location (water tower or leg)		: Leg
Suction distance below hull (max)	ft	: 80
Salt water service pump:		
- Quantity	no.	: 4
- Make-type		: Ritz Pumpenfabrik GmbH
- Capacity	m ³ /h	: 400
- Pressure	psi	: 938
Horsepower	hp	: 127.4
Dedicated preload pumps		
- Quantity	no.	: 1
- Make/type		: Desmi S 100-80-220 N/D09-02
- Capacity	bbl/min	: 15
- @ pressure	psi	: 571
Horsepower	hp	: 50

A.3.3 Corrosion protection

Anodes Fitted	yes/no.	: Yes
Located in spud cans		: Yes (internal and external)
Located on legs	yes/no.	: Yes



IADC EQUIPMENT LIST

Located in sea chests	yes/no.	: Yes
Located in preload tanks	yes/no.	: No
Impressed current system installed	yes/no.	: No
Anti-fouling system fitted water pumps and the sea chest)	yes/no.	: Yes (installed in seawater lines from raw
Corrosion Protection design life		: 5 years

A.4 OPERATIONAL CAPABILITIES

Max designed water depth capability	ft	: 350
Outfitted max water depth capability	ft	: 350
Normal min water depth capability	ft	: 22 (subject to site specific review)
Drilling depth capability (rated)	ft	: 30,000
Transit speed towed (historical average)	knots	: 4 (subject to sea state conditions)
Leg (spud can) below hull in transit	ft	: 0
Max leg length permitted in tow:		: Legs Fully Retracted
- Ocean tow (wet)	ft	: 483 (legs fully retracted)
- Field tow	ft	: 483 (legs fully retracted)
Number of tugs for field tow	no.	: 3 x 6,000 hp, total bollard 180 tons
Associated min bollard pull per tug	t	: 150 total
Anti-roll system	yes/no	: No
Maximum preload reaction per leg	kips	: 16,629
Bearing pressure at max preload	lb/ft ²	: 9,749
Thrusters	yes/no	: No
- Quantity	no.	: N/A
- Fixed/Azimuthing		: N/A
- Total horsepower per thruster	hp	: N/A

A.5 VARIABLE LOAD CAPACITY

(VL)

Transit VL capacity	MT	: 2,500
Drilling VL capacity	MT	: 3,500
Survival VL capacity	MT	: 2,500
Jacking VL capacity	MT	: 2,500

A.6 ENVIRONMENTAL LIMITS

Transit:

- Max. wave height	ft	: 32.8
- Max. wave period	sec	: 11
- Max. wind velocity	knots	: 100 (ocean move) / 70 (field move)
\- Max. current velocity	knots	: 1
- Max. heave (double amplitude)	ft	: TBD
- Max. pitch (double amplitude)	degrees	: 12



IADC EQUIPMENT LIST

- Max. roll (double amplitude)	degrees	: 12
Working Water Depth	ft	: 350
Drilling:		
- Air gap (below bottom main hull)	ft	: 50
- Max. wave height	ft	: 32.8
- Max. wave period	sec	: 11
- Max. wind velocity	knots	: 70
- Max. current velocity	knots	: 1
Survival:		
- Air gap (below bottom main hull)	ft	: 50
- Max. wave height	ft	: 50
- Max. wave period	sec	: 15
- Max. wind velocity	knots	: 100
- Max. current velocity	knots	: 1
Jacking		
Maximum wave height	ft	: Swell not exceed 6.6 ft
Maximum wave period	sec	:
Maximum wind velocity	knots	: 15.55
Maximum pitch (double amplitude)	degrees	: 12
Maximum roll (double amplitude)	Degrees	: 12
A.7 MOORING SYSTEM		
A.7.1 Anchor Winches		
Quantity		: 2
Make/model		: Rolls-Royce MW 350/38E
Type (electric/hydraulic/diesel)		: Electric
Total HP per winch	hp	: 36/72/72
Rated pull	st	: 48.3/96.6/96.6
Control locations (local/remote/both)		: Both
A.7.2 Anchors		
Quantity	no.	: 2
Make/type		: Delta
Weight	lbs	: 7,716
A.7.3 Anchor Lines		
Wire:		: Galvanized
- Quantity (installed + spare)	no.	: 4



IADC EQUIPMENT LIST

- type		: IWRC (6X36) EIPS
- Construction		: 6 x 36 IWRC
- Diameter	in.	: 1 1/2"
- Useful length (nominal)	ft	: 3000

A.7.4 Towing Gear

Towing bridle chain size	in.	: 2 1/2"
Hook-up system		: Ingersoll Rand FA5i-16XK1/36XX
Rating	kips	: SWL 826.7
Spare bridle	yes/no	: Yes

A.7.5 Supply Vessel Mooring System

System description		: Manual
Rating		: N/A
Location (port/stbd/both)		: Both

A.8 MARINE LOADING HOSES

Location of loading manifolds (port/stbd/both)		: 2 (Both) Stb/Port
--	--	---------------------

A.8.1 Potable Water Hoses

Quantity	no.	: 1
Size	in.	: 4
Make/type		: Alfagomma T-509E
Color coding	yes/no	: Yes (Blue)
Make/type connection		: Evertite Coupling MxF

A.8.2 Drilling Water Hose

Quantity	no.	: 2
Size	in.	: 4
Make/type		: Alfagomma T-203AA
Color coding	yes/no	: Yes (Yellow)
Make/type connection		: Fig. 200 MxF, Fig. 200 FxF

A.8.3 Fuel Oil Hose (Diesel oil)

Quantity	no.	: 2
Size	in.	: 4
Make/type		: Alfagomma T-609AA
Color coding	yes/no	: Yes
Make/type/connection		: Fig. 200 MxF, Fig. 200 MxTodo-Matic

A.8.4 Liquid Mud Hose

Quantity	no.	: 2
----------	-----	-----



IADC EQUIPMENT LIST

Size	in.	: 4
Make/type		: Alfagomma T-706AA
Color coding		: Yes
Make/type connection	yes/no	: Fig. 200 MxF, Fig. 200 FxF

A.8.5 Bulk Cement Hose

Quantity	no.	: 2
Size	in.	: 6
Make/type		: Alfagomma T-706AA
Color coding	yes/no	: Yes (Grey)
Make/type connection		: Fig. 200 MxF, Fig. 200 FxF

A.8.6 Brine Hose

Quantity	no.	: 2
Size	in.	: 6
Make/type		: Alfagomma T-203AA
Color coding	yes/no	: Yes
Make/type/connection		: Fig. 200 MxF, Fig. 200 FxF

A.8.7 Dirty Oil

Quantity	no.	: 3
Size	in.	: 1 ½
Make/type		: Alfagomma T-605AA
Color coding	yes/no	: Yes
Make/type connection		: Marpol Flange x Fig. 200 F, Fig. 200 MxF, Marpol Flange x Fig. 200 M

A.9 CRANES, HOISTS AND MATERIAL HANDLING

A.9.1 Cranes, Revolving

Quantity	no.	: 1
Specification (API etc)		: API 2C and ABS
Make		: Favelle Favco
Type		: 7.5/10K
Location (port-fwd)		: Aft/Stbd/Port
Boom length	ft	: 135
Hook reach below main deck (block/whip)	ft/ft	: Dependant on boom angle
Line length (block TBD / whip TBD)		
Block capacities and hoisting speeds:		
- Load/radius/speed (min radius)	st/ft(ft/sec)	: 50t / 32.8 ft (0.6 ft/sec)
- Load/radius/speed (max radius)	st/ft(ft/sec)	: 10t / 134.8 ft
Whip capacity and hoist speed	st/ft(ft/sec)	: 5t / all ft (4.6 ft/sec)
Hook load indicator automatically		
Corrected for boom angle	yes/no	: Yes



IADC EQUIPMENT LIST

- 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
CCTV	yes/no	: Yes
Quantity	no.	: 1
Specification (API etc)		: API 2C and ABS
Make		: Favelle Favco
Type		: Electro-hydraulic
Location (port-fwd)		: Port Forward
Boom length	ft	: 135
Hook reach below main deck (block/whip)	ft/ft	: Dependant on boom angle
Line length (block TBD / whip TBD)		
Block capacities and hoisting speeds:		
- Load/radius/speed (min radius)	st/ft(ft/sec)	: 50t / 32.8 ft (0.6 ft/sec)
- Load/radius/speed (max radius)	st/ft(ft/sec)	: 10t / 134.8 ft
Whip capacity and hoist speed	st/ft(ft/sec)	: 5t / all ft (4.6 ft/sec)
Hook load indicator automatically corrected for boom angle	yes/no	: 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
CCTV	yes/no	: Yes
Quantity	no.	: 1
Specification (API etc)		: API 2C and ABS
Make		: Favelle Favco
Type		: Electro-hydraulic
Location (port-fwd)		: Starboard
Boom length	ft	: 135
Hook reach below main deck (block/whip)	ft/ft	: Dependant on boom angle
Line length (block TBD / whip TBD)		
Block capacities and hoisting speeds:		
- Load/radius/speed (min radius)	st/ft(ft/sec)	: 10t / 134.8 ft
- Load/radius/speed (max radius)	st/ft(ft/sec)	: 50t / 32.8 ft
Whip capacity and hoist speed	st/ft(ft/sec)	: 5t / all ft (4.6 ft/sec)
Hook load indicator automatically corrected for boom angle	yes/no	: Yes



IADC EQUIPMENT LIST

- 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
CCTV	yes/no	: Yes
Quantity	no.	: 1
Specification (API etc)		: API 2C and ABS
Make		: National Oilwell Varco
Type		: Knuckle boom pipe handling crane with gripper
yoke for 2 7/8" to 20" tubulars		
Location (fwd/aft/port/stbd)		: Starboard side cantilever pipe rack deck
Boom length	ft	: 73
Hook reach below main deck (block/whip)	ft/ft	: N/A
Block capacities and hoisting speeds:		
- Load/radius/speed (min radius)	st/ft(ft/sec)	: 7 t @ 10.5 - 73 ft with hook adaptor
- Load/radius/speed (max radius)	st/ft(ft/sec)	: 3.5 t @ 10.5 - 73 ft with gripper yoke
Whip capacity and hoist speed	st/ft(ft/sec)	: N/A
Hook load indicator automatically corrected for boom angle	yes/no	: Yes
- Alarm (audible, visual, both)		: Both
Automatic brake	yes/no	: Yes
Safety latch on hooks	yes/no	: Yes
Crown saver (limit switch)	yes/no	: N/A
Boom illumination	yes/no	: Yes
A.9.2 Forklifts		
Quantity	no.	: 1
Make/type		: Caterpillar
Rated capacity	st	: 3.3
Explosion proof	yes/no	: Yes
A.9.3 Monorail Overhead Cranes		
Quantity	no.	: N/A
Type		: N/A
Rated capacity	st	: N/A
Location(s)		: N/A
A.9.4 Air Hoists / Derrick Winches		
A.9.4.1 Rig Floor Winches (Non man-riding)		
Quantity	no.	: 3 (+1 on cellar deck)



IADC EQUIPMENT LIST

Make		: NOV (Ingersoll-Rand)
Type		: FA5-24MX1
Rated capacity	lbs	: 11000
Hoisting Speed	m/min	: 16
Wire diameter	in	: 3/4
Automatic Disc brakes	yes/no	: Yes
Overload protection	yes/no	: Yes (air)
Automatic spooling	yes/no	: No

A.9.4.2 Monkey Board Work Winch

Quantity	no.	: 2
Make		: NOV (IR)
Type		: LS600R
Rated capacity	lbs	: 1322.8
Line speed	fpm	: N/A
Wire diameter	in	: 1/4
Automatic brakes	yes/no	: Yes
Overload protection	yes/no	: Yes (air)
Automatic spooling	yes/no	: No

A.9.4.3 Rig Floor "Man-Riding" Winch (Utility)

Quantity	no.	: 2(+1 cellar)
Make		: NOV(Ingersoll-Rand)
Type		: FA21 – MK1
Rated capacity	lbs	: 11000
Hoisting Speed	mpm	: 21
Wire diameter	in.	: 0.787
Non-twisted wire	yes/no	: Yes
Automatic brakes	yes/no	: Yes
Overload protection	yes/no	: Yes
Automatic spooling	yes/no	: Yes

A.9.4.4 Utility Winch (i.e. Deck Winch)

Quantity	no.	: 2
Make		: NOV
Type		: FA51-24 XK1/3772
Rated capacity	lbs	: 11000
Hoisting Speed	mpm	: 16
Wire diameter	in	: 0.787
Automatic Disc brakes	yes/no	: Yes
Overload protection	yes/no	: Yes
Automatic spooling	yes/no	: Yes



IADC EQUIPMENT LIST

Locations		: Deck
A.9.4.5 BOP Hoists (see E.10.1)		: Ingersoll Rand
A.9.5 Transfer Baskets/Containers		: Yes
A.9.5.1 Personnel Transfer Baskets		
Quantity	no.	: 1 x Billy Pugh Model #X871-4 : 1 x Billy Pugh Model #X904-4
Make/type		: N/A
A.9.5.2 Cargo Containers		
Quantity	no.	: 5
Make/type		: Shop Fabricated
A.9.6 Vacuum Sack lifter		
Quantity	no.	: N/A
Make /Model		: N/A
A.10 HELICOPTER LANDING DECK		
Location (fwd/aft/port/stbd)		: Fwd
Dimensions	ft/ft	: 72.2 x 72.2
Perimeter safety net	yes/no	: Yes
Deck Load capacity	lb/ft ²	: Suitable for S61N Helicopter, 205 lbs/ft
Maximum helicopter weight	kips	: 20.5
Designed for helicopter type		: S61N
Tie down points	yes/no	: Yes
Covered by foam fire system (see L.3.6)	yes/no	: Yes
A.10.1 Helicopter Refueling System		
System make/type		: Wilmax Engineering Pte Ltd*
Fuel storage capacity	US gal	: 740
Jettisonable	yes/no	: Yes
Fuel transport containers	no.	: 2
- Volume	US gal	: 740
Covered by foam fire system (see L.3.6)		: Yes
A.11 AUXILIARY EQUIPMENT		
A.11.1 Water Distillation		
Quantity	no.	: 2
Make/type		: Alfa Laval DPU-36-C125
U.V. Sterilizer	no.	: N/A
Make/type		: N/A
Capacity		: 13208.6/26417.2 per day (subject to location)



IADC EQUIPMENT LIST

Booster heater	yes/no	: N/A
Make/type		: N/A
Effect	kW	: N/A

A.11.2 Boilers

Quantity	no.	: None
Make/type		: N/A
Capacity (total system)	lbs/hr	: N/A

A.11.3 Air Conditioning

Make/type		: Carrier (Viking Airtech)
Cooling Capacity (total system)	kw	: 1,286
Max temperature rating	oF	: 14° to 113°

A.11.4 Electric Welding Sets

Quantity	no.	: 2
Current capacity	amp	: 500
Make/model		: Lincoln
- Type (fixed/portable)		: Fixed

A.11.5 High Pressure Cleaner

Quantity	no.	: 3
Make/type		: Kärcher HD 13/12 ST-H
Electronic/pneumatic/diesel		: Electric
Max delivered pressure	psi	: 1740.5
- With steam	yes/no	: Yes. Heater +80°C
High pressure lance and hose	no.	: N/A

A.11.6 Fuel oil purifier

Quantity	no.	: 1
1 future provision to be reserved		
Make/type		: Mitsubishi SJ50GH
Capacity		: N/A
Sludge removal kit	yes/no	: N/A

A.11.7 Ballast , Bilge, Fire, Drill, Pot Water Oil and Fuel system Pumps

Quantity	no.	: 1
Make		: DESMI
Type		: HD33EFM-1U2B2S
Capacity	Bbl/min	: N/A
Part of VMS	yes/no	: N/A



IADC EQUIPMENT LIST

Monitored on alarm screens	yes/no	: N/A
Quantity	no.	: 2
Make		: DESMI
Type		: HD41EFM-1U3B2S
Capacity		: N/A
Part of VMS	yes/no	: N/A
Monitored on alarm screens	yes/no	: N/A
Monitored on alarm screens	yes/no	: N/A

A.11.8 Diaphragm Sump Pumps

Quantity	no.	: N/A
Make		: N/A
Type		: N/A
Capacity		: N/A
Part of VMS	yes/no	: N/A
Monitored on alarm screens	yes/no	: N/A

B. GENERAL RIG SPECIFICATIONS

B.1 DERRICK AND SUBSTRUCTURE

B.1.1 Derrick/Mast

Make/Type		: NOV SSBN 750 -35x35x160 ft.
Rated For Windspeed	m/s	: 36.0 (operating), 51.4 (survival)
- With Full Set Back	m/s	: 36.0
- With No Set Back	m/s	: 51.4
Height	ft	: 160
Dimensions Of Base	ft x ft	: 35 x 35
Dimension Of Crown	ft x ft	: 18 x 18
Gross Nominal Capacity	metric ton	: 875
Maximum Static Hook Load	metric ton	: 680
Maximum Number Of Lines	no.	: 14
Ladders With Safety Cages And Rests	Yes/no	: Yes, above 2.5 meter from drill floor
Platform For Crown Sheaves Access	Yes/no	: Yes
Counter Balance, System For Rig Tongs And		
Pipe Spinning Tongs	Yes/no	: Yes
Lighting System Explosion Proof	Yes/no	: Yes
Block Hang Off Line	Yes/no	: Yes

B.1.2 Racking Platform

Make/Type		: National Oilwell Varco Vertical / Pneumatic
Total Current Simultaneous Capacity-Drill Pipe:		



IADC EQUIPMENT LIST

5 1/2" DP:	ft	: 30,000
6-3/4" DP:	ft	: 1,300
8" DC: (alternative to 6-3/4" DP)	ft	: 1,300
9 1/2" DC:	ft	: 32,600
Tubing belly board	Yes/no	: Yes

B.1.3 Automated Pipe Handling

Make/Type		: NOV BR6-SD
Vertical Column Racker		
Description		: Bridge Racker
Tubular Handling Capacities		
- Racking Gripper Head	in/lb	: N/A
Make/Type		: N/A
Description		: N/A
Tubular Handling Capacities		
- Catwalk Ramp	in	: N/A
- Monkey Arm	in	: N/A

B.1.4 Casing Stabbing Board

Make/Type		: NOV STB-250-90C-12-5
Adjustable From/To Height Above Rotary	ft / ft	: 0 / 50

B.1.5 Substructure

Make/Type		: DDW/MSC
Drill Floor Height (Above Main Deck)	ft	: 41
Length	ft	: 70
Width	ft	: 46
Setback Capacity	kips	: 899
Simultaneous Setback-Hook Load Capacity	kips	: 1,500
Rotary Beam Capacity (Total)	kips	: 1500
Clear Height Below Rotary Table Beams (To Main Deck)	ft	: 39.27

B.1.6 Weather Proofing

Rig Floor Windbreaks	Yes/no	: Yes
- Height	ft	: N/A
Derrickman Windbreaks	Yes/no	: Yes
- Height	ft	: N/A
Around Process Pits	Yes/no	: Yes
- Height	ft	: N/A

B.1.7 Derrick TV Camera System



IADC EQUIPMENT LIST

Camera Located At		: 10 total located at derrick, drill floor, pipe deck & solid control area
Service & Access Basket, Crown Block		
Make/Type		: Pelco
Zoom/Pan/Tilt-Function	Yes/no	: Yes/Yes/Yes
Monitor Located At		: Driller's Cabin, OIM & DSV

B.2 DRAWWORKS AND ASSOCIATED EQUIPMENT

B.2.1 Drawworks

Make/type		: NOV D3000AC
Motors make/type		: NOV CM628TUT
- Quantity	no.	: 3
Rated power (600V)	hp	: 1,230
Drum size (diameter & length)	in x in	: 35 x 72
Drum type (grooved/smooth)		: Grooved
- For drill line size	in	: 1-3/4
Brake type (disk/drum)		: Disc
Max load @ 14 lines	metric ton	: 703
Max load @ 12 lines	metric ton	: 603
Max load @ 10 lines	metric ton	: 512
Makeup cathead type		: NOV CAT P-15
Breakout cathead type		: NOV CAT P-15
Crown block safety devices	yes/no	: Yes (Dual)
- Make/type		: NOV Software & Hardware
Independent fresh water cooling system for drawworks and electric brake	yes/no	: No. Air cooling (AC Motors regenerative + disc parking brake)
Automatic driller	yes/no	: Yes
Make/type		: NOV Cyberstation

B.2.2 Auxiliary Brake

Make		: NOV Computerized aux brake
Model		: D3000
Independent back-up system type		: Yes

B.2.3 Sandline

Make		: N/A
Length capacity	ft	: N/A
Line size/type	in.	: N/A
Breaking strength	lbs	: N/A
Safe working load	lbs	: N/A

B.2.4 Slickline Unit



IADC EQUIPMENT LIST

Make/model		: Mathey Surveyor II 2-775 series
Wire length (nominal)	ft	: 30,000
Wire size	in.	: 0.92
Breaking strength	lbs	: 1,550
Safe working load	lbs	: 3,400
Depth counter	yes/no	: Yes
Pull indicator	lbs	: Yes, 3,400

B.3 DERRICK HOISTING EQUIPMENT

B.3.1 Crown Block

Make/type		: NOV CBC-750
Rated capacity	st	: 750
No. of sheaves	no.	: 6
Sheave diameter	in.	: 60
Sheave grooved for line size	in.	: 1-3/4

B.3.2 Travelling Block

Make/type		: NOV HTB-750, 7x60", 1-3/4"
Rated capacity	metric ton	: 680
No. of sheaves	no.	: 7
Sheave diameter	in.	: 60
Sheave grooved for line size	in.	: 1-3/4

B.3.3 Hook

Make/type		: Refer to B.3.2
Rated capacity	metric ton	: 680
Complete with spring assembly/hook locking device	yes/no	: Refer to B.3.2

B.3.4 Swivel

Make/type		: Intergrated in NOV TDS8-SA
Rated capacity	st	: 750
Test/working pressure	psi/psi	: 11250 / 7500
Gooseneck and washpipe min ID	in.	: 3-1/2
Left hand pin connection type	in.	: N/A
Access fitting for wireline entry on top of gooseneck	yes/no	: Yes

B.3.5 Drilling Line

Diameter	in.	: 1-3/4
Construction		: 6x19 RL IWRC IPS
Length (original)	ft	: 7,500



IADC EQUIPMENT LIST

Drilling line reel		: NOV DLR-44-2286
- Drum cover	yes/no	: No
- Drilling line drum power driven	yes/no	: Yes
Spare drilling line	yes/no	: No
- Location (rig, shore, etc)		: Yes
Roller guides	yes/no	: Yes

B.3.6 Dead Line Anchor

Make/type		: NOV/Dreco FRH-160-CR Rotary Slip
Weight sensor	yes/no	: Yes
Dead line dampener	yes/no	: No

B.3.7 Block Guidance System

Make/type		: NOV
-----------	--	-------

B.4 ROTATING SYSTEM

B.4.1 Rotary Table

Make / type		: NOV D-495
Maximum opening diameter	in.	: 49-1/2
Rated capacity	metric tons	: 726
Two speed gearbox	yes/no	: No
Emergency chain drive	yes/no	: No
Driven by an independent electric motor	yes/no	: Hydraulic Motor
- Output power	hp	: 70
- Maximum torque	ft-lbs	: 38,200
Drip pan/mud collection system	yes/no	: Yes

B.4.2 Master Bushings

Make/type		: NOV/MPCH
Inserts bowls (see G.1.8)		: API Nos. 1, 2 and 3

B.4.3 Kelly Bushing

Make/type		: N/A
Lock down assembly	yes/no	: N/A

B.4.4 Top Drive

Make / type		: NOV TDS-8SA
Type (electric/hydraulic)		: Electric
Rated capacity	metric ton	: 750
Test/working pressure	psi/psi	: 11,250 / 7,500
Output power	hp	: 1,150
Maximum continuous torque	ft-lbs	: 62,250 at 94 rpm



IADC EQUIPMENT LIST

Max intermittent torque	ft-lbs	: 100,000
Two speed gear box	yes/no	: No
Maximum rotary speed	rpm	: 270
Remote operated kelly cock	yes/no	: Yes
Cooling system type		: Air, Local
Upper Inside BOP (see also D.1.15)		
- Quantity	no.	: 2
- Make/type		: NOV
- Working pressure	psi	: 15,000
- Max. OD body	in.	: 8 ½" TJ OD
- Min. ID body	in.	: 4" TJ OD
- Connection type (box)		: 7 5/8" API Reg. RH Box
-Connection type (bottom)		: 7 5/8" API Reg. RH Box

B.4.4.1 Top Drive Makeup/Breakout System

Make/Type		: NOV
Model		: PH-100
Max. makeup torque	ft-lbs	: 100,000
Max. breakout torque	ft-lbs	: 100,000
Raised backup system	yes/no	: No
- Make/type:		: N/A
- Working height (range)	ft/ft	: 20.8

C. POWER SUPPLY SYSTEMS

C.1 RIG POWER PLANT

C.1.1 Diesel Engines

Quantity	no.	: 5
Make/type		: Caterpillar 3516B HD LA3705
Maximum continuous power	kVA	: 2,150 (1720ekW)
At rotation speed of	rpm	: 1,200
Equipped with spark arrestors	yes/no	: Yes
Mufflers installed	yes/no	: Yes
Water cooled	yes/no	: -
Total Fuel Consumption, Drilling (av)	bbl/day	: 172 (subject to actual operation)

C.1.2 DC - Generator

Quantity	no.	: N/A
Make/type		: N/A
Continuous power	kW	: N/A
- At rotation speed of	rpm	: N/A
Output volts	volts	: N/A



IADC EQUIPMENT LIST

C.1.3 AC - Generator

Quantity	no.	: 5
Make/type		: KATO 6P6-3300
Continuous power	kW	: 1720
- At rotation speed of	rpm	: 1,200
Output volts L-L	volts	: 690

C.1.4 SCR System

Number of SCR	no.	: N/A
Make/type		: N/A
Maximum continuous power (total)	kw	: N/A
Output volts	volts	: N/A

Quantity	no.	: N/A
Make		: N/A
Model		: N/A
Rated capacity	st.	: N/A

Size	in.	: N/A
Quantity	no.	: N/A
Make		: N/A
Model		: N/A
Rated capacity	st.	: N/A

C.1.5 VFD System

Number Of VFD	no.	: N/A
Make/Type		: N/A
Maximum Continuous Power (Total)	Kw	: N/A
Output Volts	Volts	: N/A

C.1.6 Transformer System

Quantity	no.	: 2 (Aux)
Make/Type		: NORATEL/NOV
Continuous Power (Each)	Kva	: 2,000
Output Volts	Volts	: 480
Frequency	Hz	: 60

Quantity	no.	: 2 (Drilling)
Make/Type		: NORATEL/NOV
Continuous Power (Each)	Kva	: 4,000
Output Volts	Volts	: 480
Frequency	Hz	: 60



IADC EQUIPMENT LIST

Quantity	no.	: 3 (Jacking)
Make/Type		: NORATEL/NOV
Continuous Power (Each)	Kva	: 700
Output Volts	Volts	: 440
Frequency	Hz	: 60

C.1.7 Emergency Shutdown

Emergency shutdown switches for the complete power system (AC and DC), located at the following points and port lifeboat station

: Drillers cabin,
OIM office,
Barge control room,
Lifeboat stations (Fwd,Port, Stbd)
Loading Station (Port, Stbd)

C.1.8 Compressed Air Systems

Air Compressors - Cold Start:

- Quantity	no.	: 1
- Make		: Sperre
- Model		: LL2/77
- Rated capacity	ft3/min	: 20.6
- Working pressure	Psi	: 145
- Prime mover (electric/diesel)		: Diesel
- Continuous power	hp	: 5.6

Air Compressors - Medium Pressure (Rig Air):

- Quantity	no.	: 3
- Make		: Sullair
- Model		: LS200S-125HH/W
- Rated capacity	ft3/min	: 507.9
- Working pressure	psi	: 125
- Prime mover (electric/diesel)		: Electric
- Continuous power	hp	: 125

Air dryers:

- Quantity	no.	: 2
- Make		: Sullair SM-600-DDS
- Rated capacity	ft3/min	: 824

Air Compressors - Low Pressure (bulk air)

- Quantity	no.	: 1
- Make		: Sullair
- Model		: LS200S-150L/W
- Rated capacity	ft3/min	: 752.2
- Working pressure	psi	: 150



IADC EQUIPMENT LIST

- Prime mover (electric/diesel) : Electric
 - Continuous power hp : 150

Air Dryers:

- Quantity no. : 2
 - Make/type : Sullair SM-750-DDS
 - Rated capacity ft3/min : 726.3

C.1.9 Air Receivers

Volume (total) Drillfloor air receiver ft3 : 123.6
 Pressure psi : 123.6
 Location : Drill floor

C.2 EMERGENCY GENERATOR

C.2.1 Engine

Quantity no. : 1
 Make/Type : Caterpillar 3516B HD LA3705
 Maximum output kW : 2,150 (1720ekW)
 - At rotation speed rpm : 1,200
 Automatic starting yes/no : Yes
 Starting methods (air, hydraulic, battery) : Air

C.2.2 AC - Generator

Quantity no. : 1
 Make/Type : KATO LSAM 53S7-6P
 Maximum output ekW : 1,812
 - At rotation speed rpm : 1,200
 Output volts : 690
 Capable of back-feeding power to main bus yes/no : Yes

C.2.3 Emergency Generator supply

Supply to

1. : Emergency lighting transformer 100kVA
2. : 480V/110V transformer
3. : 480V/230V clean power transformer
4. : Lifeboat davit winches(fwd, stb, port)
5. : BOP control
6. : DC Welding machine (#1)
7. : Fuel oil purifier
8. : Rig air compressor
9. : Breathing air compressor (#1)
10. : UPS



IADC EQUIPMENT LIST

- 11. : Remote valves HPU (ballast system)
- 12. : Drill floor LER A/C
- 13. : Cranes (port)
- 14. : Raw water pump (#1)
- 15. : Fire pump
- 16. : Bilge pump
- 17. : Mud mixing pump (#1)
- 18. : Emergency generator room supply fan
- 19. : Fuel oil service pump (#1/2)
- 20. : Jockey pump
- 21. : Sprinkler pump
- 22. : Auxiliary fire pump

C.2.4 Machinery space ventilation

Main engine room

Supply fans no. : N/A

Exhaust fans no. : N/A

Mud pump room

Supply fans no. : N/A

Exhaust fans no. : N/A

Emergency generator room

Exhaust fans no. : N/A

D. DRILLSTRING EQUIPMENT

D.1 TUBULARS

D.1.1 Kellys

Quantity no. : N/A

Nominal size OD in. : N/A

Shape type(hexagonal, square or triangular) : N/A

Total/Working Length ft/ft : N/A

Connection type : N/A



IADC EQUIPMENT LIST

E. WELL CONTROL

E.1 DIVERTER BOP / Overshots and Risers system

		: Vetco Gray / KFDJ-500 Standard Bore
- Maximum bore - housing	in.	: 49 1/2", Mandrel OD 24", 30", 32"
- Min through bore dia	in.	: 27-1/2
- Working pressure	psi	: 500
Packer 10" ID	psi	: 500
Packer 15" ID	psi	: 500
Packer 22" ID	psi	: 500
Packer 17 3/4" ID		: 500
- Overshot spool NOM: 32" EC-6 box up / pin down		: -
Overall length 5 feet		
- Overshot packer 30" EC-6 box up 30" packer down		
Overall length 29.6 feet		: -
- Overshot packer 24" EC-6 box up 24" packer down		: -
Overall length 5.54 feet		
- Overshot mandrel 24" with 18-3/4 10M flange down		: -
Overall length 9.75 feet		
- Handling clamp for 49-1/2" rotary		: -
- Diverter running tool		: -
-Diverter test tool		: -
- Diverter insert handling tool		: -
- Diverter housing protector		: -



IADC EQUIPMENT LIST

Annular	no.	: N/A
- Make/type		: N/A
- Maximum bore	in.	: N/A
- Working pressure	psi	: N/A
Bottom connection		: N/A
- Size	in.	: N/A
- Working pressure	psi	: N/A
- Gasket type		: N/A
Number of diverter outlets	no.	: N/A
Outlet OD (nominal)	in.	: N/A

E.1.1 Diverter Flowlines

Quantity	no.	: 3
Nominal size of flowlines	in.	: 14"/12"/12"
Running from diverter to		: Flowline/Overboard stbd/ps
Valve make/type		: Eaton/Gate
- Quantity	no.	: 3
- Size	in.	: 14"/12"/12"
- Working pressure	psi	: 500
- Valve operator (air/hydraulic)		: Hydraulic

E.1.2 Diverter Control Panel

Primary make/type		: Shaffer/Koomey
- Location		: Driller's cabin
Remote make / type		: Shaffer/Koomey
Location		: OIM office

E.2 LOW PRESSURE BLOWOUT PREVENTERS

All appropriate components H2S rated	yes/no	: N/A
--------------------------------------	--------	-------

E.2.1 Ram Type Preventers

Quantity	no.	: N/A
Make/model		: N/A
Type (single/double/triple)		: N/A
Size	in.	: N/A
Working pressure	psi	: N/A
Ram locks	yes/no	: N/A
Type (manual/hydraulic)		: N/A
H2S service	yes/no	: N/A
Side outlets	no.	: N/A
- Size	in.	: N/A



IADC EQUIPMENT LIST

- Working pressure	psi	: N/A
Bottom connection		: N/A
Top connection		: N/A
Shear ram boosters	yes/no	: N/A

E.2.2 Available Rams (Installed and Spare)

Quantity/type/size	no./type/in	: N/A
--------------------	-------------	-------

E.2.3 BOP Ram Configuration (Normal)

Upper		: N/A
Middle upper		: N/A
Middle lower		: N/A
Lower		: N/A

E.2.4 Annular Preventer

Quantity	no.	: N/A
Make/type		: N/A
Size	in.	: N/A
Working pressure	psi	: N/A
Bottom connection		: N/A
Top connection		: N/A

E.2.5 Kill Line Valves

Quantity	no.	: N/A
Make/type		: N/A
Size	in.	: N/A
Working pressure	psi	: N/A
Gasket type		: N/A
Hydraulic/manual/non-return		: N/A

E.2.6 Choke Line Valves

Quantity	no.	: N/A
Make/type		: N/A
Size	in.	: N/A
Working pressure	psi	: N/A
Gasket type		: N/A
Hydraulic/manual		: N/A

E.3 HIGH PRESSURE BLOWOUT PREVENTERS API & MR - 0175

All appropriate components H2S rated	yes/no	: Yes
--------------------------------------	--------	-------

E.3.1 Ram Type Preventers



IADC EQUIPMENT LIST

Quantity	no.	: 2 x Double
Make/model		: Shaffer (NOV)
Type (single/double/triple)		: 18-3/4" 15M SLX , DOUBLE RAM BOP
Size	in.	: 18 ¾"
Temp ratings API Spec 16A:	deg F	: -
Working pressure	psi	: 15,000
Ram locks	yes/no	: Yes
Type (manual/hydraulic)		: Hydraulic
H2S service	yes/no	: Yes
Side outlets	no.	: 4 of flanged per unit
- Size	in.	: 4 1/16" 15000 psi WP, BX155
- Working pressure	psi	: 15,000
- Studded	yes/no	: Yes
- Blind flanges		: 8 @ 4-1/16" 15K
Bottom connection		: Flanged 18 ¾ 15000 psi WP, BX164
Top connection		: Studded, 18 ¾ 15000 psi WP, BX164
Shear ram boosters	yes/no	: yes

E.3.2 Available Rams (Installed)

Quantity/type/size	no./type/in	: 3 set/shear rams
Quantity/type/size	no./type/in	: 2 set/pipe rams/5 ½"
Quantity/type/size	no./type/in	: 2 set/pipe rams/5"
Quantity/type/size	no./type/in	: 2 set/variable rams/3 ½ - 5 ½"
Quantity/type/size	no./type/in	: 1 set/pipe rams/3 ½"
Quantity/type/size	no./type/in	: 2 set/casing rams/7"
Quantity/type/size	no./type/in	: 2 set/casing rams/9 5/8"
Quantity/type/size	no./type/in	: 2 set/casing rams/13 3/8"

E.3.3 BOP Ram Configuration (Normal)

Upper		: Variable Ram
Middle upper		: Shear Ram
Middle lower		: 5 ½" Pipe Ram
Lower		: Variable Ram

E.3.4 Annular Preventer

Quantity	no.	: 1
Make/type		: Shaffer SBOP 18-10M
Temp Rating Deg F	deg F	: - 27 F – 250 Deg F
Size	in.	: 18 ¾"
Element Nitrile temp rating	deg F	: -
Working pressure	psi	: 10,000



IADC EQUIPMENT LIST

Bottom connection		: Flanged 18 ¾ 15000 psi WP, BX164
Top connection		: -
H2S service	yes/no	: Yes
Lifting frame	yes/no	: Yes

E.3.5 Kill Line Valves

Quantity	no.	: 1
Make/type		: EEC/Gate
Size	in.	: 3 1/16
Working pressure	psi	: 15,000
Gasket type		: BX-154
Hydraulic/manual/non-return		: Hydraulic/Auto

Quantity	no.	: 1
Make/type		: EEC/Gate
Size	in.	: 3 1/16
Working pressure	psi	: 15,000
Gasket type		: BX-154
Hydraulic/manual/non-return		: Manual

E.3.6 Choke Line Valves

Quantity	no.	: 2
Make/type		: Masterflo P25/Gate
Size	in.	: 3 1/16
Working pressure	psi	: 15,000
Gasket type		: BX-154
Hydraulic/manual/non-return		: Hydraulic

Quantity	no.	: 2
Make/type		: Masterflo P25/Gate
Size	in.	: 3 1/16
Working pressure	psi	: 15,000
Gasket type		: BX-154
Hydraulic/manual/non-return		: Manual

E.4 OTHER BLOWOUT PREVENTERS

None

E.5 BOP CONTROL SYSTEM

E.5.1 Accumulator Unit

Make/model		: Koomey (NOV)
Quantity	no.	: 1



IADC EQUIPMENT LIST

Location		: Cantilever
Fluid reservoir capacity	US gal	: 1,150
No of bottles installed		: 40 BOP + 7 DIVERTER
Oil/water mix rate	USgpm	: N/A
Glycol reservoir capacity	US gal	: N/A
Total accumulator capacity (w/o precharge)	US gal	: 198
System working pressure	Psi	: 3,000
Control manifold model		: UM2R106H10
Regulator type		: HTR-5
Total useful accumulator volume equals all preventer opening and closing volumes	gal	: 249.84
	gal	: 141.87
	yes/no	: Yes
- Plus percent additional volume	%	: 50

E.5.2 Accumulator Hydraulic Pumps

Electric driven:

- Quantity	no.	: 2
- Make/model		: NOV 100T-4H
- Each driven by motor of power	hp	: 100
- Flow rate of each pump	US gpm	: 46.6
- At operating pressure	psi	: 3,000
- Operable off emergency generator	yes/no	: Yes

Air driven:

- Quantity	no.	: 1
- Make/model		: NOV FA42
- Flow rate of each pump	US gpm	: 16.6
- At operating pressure	psi	: 75

E.5.3 Primary Control Panel

Control panel make/model		: Koomey Model MGB2K9EP-1K-11DIV
Location		: PLC Remote controlled Toolpusher's / Drillers cabin panel

Panel controls for the following functions

- All annular BOPs	yes/no	: Yes
- All ram BOPs	yes/no	: Yes
- Lock for ram BOPs	yes/no	: Yes
- Diverter System	yes/no	: Yes
- Kill and choke line valves	yes/no	: Yes
- Low accumulator pressure warning	yes/no	: Yes
- Low reservoir level warning	yes/no	: Yes
- Low rig air pressure warning	yes/no	: Yes
- System pressure regulator	yes/no	: Yes



IADC EQUIPMENT LIST

- Pressure regulator for annular	yes/no	: Yes
- Flowmeter	yes/no	: No
- Quantity of pressure gauges	no.	: 7
- Other control functions	yes/no	: Yes
- Spare control function	no.	: TBD

E.5.4 Remote Control Panels

Make/model		: Shaffer
Location		: OIM office, Driller's cabin
Location		: Safe refuge area
Ability to operate main closing unit valves directly	yes/no	: Yes
System routing (direct or thru panel)		: Through Panel
Remote control of system pressure regulator	yes/no	: Yes
Remote control of annular pressure regulator	yes/no	: Yes

E.6 CHOKE MANIFOLD API & MR - 0175

All appropriate components H2S rated	yes/no	: Yes
--------------------------------------	--------	-------

E.6.1 Choke Manifold (For Instrumentation, see H.3)

Nominal size	in.	: 3 1/16
Minimum ID	in.	: 3 1/16
Maximum working pressure	psi	: 15,000
Quantity of fixed chokes	no.	: 0
- Make/model		: N/A
- Size (ID)	in.	: N/A
Quantity of adjustable chokes	no.	: 2
- Make/model		: Masterflo P25E
- Size (ID)	in.	: 3 1/16
Quantity of power chokes	no.	: 2
- Make/model		: Masterflo P25E
- Size (ID)	in.	: 3 1/16
Power choke remote control panel	yes/no	: Yes
- Make/model		: RB PIPETECH/PT9234E
- Location		: Driller's Cabin
Glycol injection	yes/no	: Connection supplied

E.7 FLEXIBLE CHOKE & KILL LINES (BOP to Manifold)



IADC EQUIPMENT LIST

Quantity	no.	: 2
Make/type		: Coflexip
Temp rating	Deg C	: -
ID	in.	: 3 1/16
Working pressure	psi	: 15,000
H ₂ S service	yes/no	: Yes
Length	ft	: TBD
Connections		: N/A
Adaptors 3-1/16" 15K flange - 3" 2202 union	yes/no	: N/A

E.8 FLEXIBLE BOP CONTROL HOSES

Quantity	no.	: 16
Make/model		: Stork
ID	in.	: 14 x 1", 2 x 2"
Working pressure	psi	: 5,000
Fire resistant	yes/no	: Yes

E.9 BOP TESTING EQUIPMENT

E.9.1 Hydraulic BOP Test Pump

Make/model		: Shaffer 2T 20000 GTM
Type		: Air
Pressure rating	psi	: 20,000
Chart recorder	yes/no	: Yes
Test hose length	ft	: TBD
Test hose WP	psi	: TBD

E.9.2 BOP Test Stump

Size	in.	: 18¾ 15M API BX-164 Flanged
Box thread		: N/A
Test mandrel	yes/no	: N/A
Size	in	: N/A

E.10 BOP HANDLING

E.10.1 BOP Hoist System

Make/type		: NOV (IR)
Quantity of hoists		: 4
Number of lift points on BOP	no.	: 4
System safe working load (max BOP wt)	Mt	: 37-1/2 and 54-1.2

E.10.2 Work Platforms

BOP work platform (adjustable/fixed/none)		: Fixed
Conductor pipe platform	yes/no	: Yes (removable)



IADC EQUIPMENT LIST

E.10.3 Conductor Pipe Tensioning and BOP Tensioning Unit

Make/type		: CTU / ICON T230A
Tension capacity	st	: 227
Number of lift points	no.	: 4
Stroke	mm	: 350
Size conductor Clamp/bush	inch	: 30" and 36"

Make/type		: BTU / NOV
Tension capacity	st	: 110
Number of lift points	no.	: 2

F. MUD SYSTEM / BULK SYSTEM

F.1 HIGH PRESSURE MUD SYSTEM

System working pressure	psi	: 7,500
System test pressure	psi	: 11,250

F.1.1 Mud Pumps

Quantity	no.	: 3
Make		: National Oilwell Varco
Model		: 14-P-220
Type (triplex/duplex)		: Triplex
Mud pump drive motors/pump	no.	: 2 / pump
- Motor type		: AC
- Continuous power rating per motor	hp	: 2 x 1230
Fluid end	type	: 14-P-220 Triplex Slush Pump
- Maximum working pressure	psi	: 7,500
- Test pressure	psi	: 11,250
Pump stroke counter type		: Proximity Switch
Supercharging pump type		: Mission Magnum 8x6x14
- Driven by motor of power	hp	: 100
Discharge/suction line ID	in./in.	: 5 / 10
Mud pump pulsation dampener type		: Hydril K-P Dampener
Reset relief valve		: RETSCO "Type-F" Flanged Pressure Gauge
Working flowrate per pump at 90% of max spm:		: 105
- Liner size	in.	: 6-1/2, 6, 7
- Pump speed (90% of max)	spm	: 105
- Pump pressure	psi	: 5,360
- Working flowrate	US gpm	: 633

F.1.2 Transfer Pumps / Mixing Pumps



IADC EQUIPMENT LIST

Mixing/Transfer Pumps:

- Quantity	no.	: 2
- Make/model		: Mission Magnum
- Type/Size		: 6x5x14
- Impeller size	in.	: 11
- Output capacity (each)	USgpm	: 900
- RPM		: 1,800
- Drive motor type		: Electric
- Power output	hp	: 100

Gel Tank Pumps:

- Quantity	no.	: N/A
- Make/model		: N/A
- Type/Size		: N/A
- Impeller size	in.	: N/A
- Output capacity (each)	US gpm	: N/A
- RPM		: N/A
- Drive motor type		: N/A
- Power output	hp	: N/A

F.1.3 Mud charging pumps

Quantity	no.	: 3
Make/type		: Magnum Mission
Type/Size		: 8x6x14
Impeller size	in.	: 10.0
Capacity (each)	US gpm	: 1,200
RPM		: 1,800
Drive motor type		: Marathon 75kW, 1800 RPM
- Power output	hp	: 100

F.1.4 Standpipe Manifold

Quantity of standpipes	no.	: 2
Make		: NOV
Standpipes ID	in.	: 5-1/8
H-Type standpipe manifold	yes/no	: Yes
Kill line outlet	yes/no	: Yes
Fill-up line outlet	yes/no	: Yes
Bleed-off line outlet	yes/no	: Yes
Bleed off choke	yes/no	: Yes

F.1.5 Rotary Hoses

Quantity	no.	: 2
----------	-----	-----



IADC EQUIPMENT LIST

Make/type		: Contitech
ID	in. x ft	: 4"
Working pressure	psi	: 7,500
Snubbing lines	yes/no	: Yes

F.1.6 Circulating Hoses

Quantity	no.	: 1
Type (armor sheath/flexible steel pipe)		: Armor Sheath
Length	ft	: 70
ID	in.	: 3
Working pressure	psi	: 15,000

F.1.7 High Pressure Flexible Steel Pipe

Make/type		: MSI
Integral connections/fittings (non-threaded)	yes/no	: Yes
ID	in.	: 2
Working pressure	psi	: 15,000
Section length	ft	: 10
- Quantity	no.	: 5
Section length	ft	: 15
- Quantity	no.	: 10
Sweep swivels, make/type		: MSI
- Nominal size ID	in.	: 2
Suitable for H2S services	yes/no	: Yes

F.2 LOW PRESSURE MUD SYSTEM

F.2.1 Mud Processing Tanks

Sand trap tank, useable volume	bbl	: 75 bbl / 12 m ³
Degasser tank, useable volume	bbl	: 62 bbl / 10 m ³
- Agitated	yes/no	: No
Desander tank, useable volume	bbl	: 62 bbl / 10 m ³
- Agitated	yes/no	: No
Desilter tank, useable volume	bbl	: 62 bbl / 10 m ³
- Agitated	yes/no	: No
Mud cleaner tank, useable volume	bbl	: N/A
- Agitated	yes/no	: N/A
Centrifuge tank, useable volume	bbl	: N/A
- Agitated	yes/no	: N/A
Overflow tank, useable volume	bbl	: N/A
- Agitated	yes/no	: N/A
Total useable capacity	bbls	: 261 bbl / 42 m ³



IADC EQUIPMENT LIST

F.2.2 Mud Tanks

Quantity	no.	: 9
Total capacity (useable)	bbl	: 3,972
Useable capacity No. 1	bbl	: 428.5
- Type (active/reserve)		: Reserve (SBM)
Height	m	: 4.6
Mud agitator	yes/no	: Yes
Mud guns	yes/no	: Yes (2)
Useable capacity No. 2	bbl	: 466.4
- Type (active/reserve)		: Active
Height	m	: 4.6
Mud agitator	yes/no	: Yes
Mud guns	yes/no	: Yes (2)
Useable capacity No. 3	bbl	: 289.3
- Type (active/reserve)		: Reserve (WBM)
Height	m	: 4.6
Mud agitator	yes/no	: Yes
Mud guns	yes/no	: Yes (2)
Useable capacity No. 4	bbl	: 470.3
- Type (active/reserve)		: Reserve (SBM)
Height	m	: 4.6
Mud agitator	yes/no	: Yes
Mud guns	yes/no	: Yes (2)
Useable capacity No. 5	bbl	: 469.5
- Type (active/reserve)		: Active
Height	ft	: 4.6
Mud agitator	yes/no	: Yes
Mud guns	yes/no	: Yes (2)
Useable capacity No. 6	bbl	: 345
- Type (active/reserve)		: Reserve (WBM)
Height	ft	: 4.6
Mud agitator	yes/no	: Yes
Mud guns	yes/no	: Yes (2)
Useable capacity No. 7	bbl	: 534.7
- Type (active/reserve)		: Reserve (SBM)



IADC EQUIPMENT LIST

Height	ft	: 4.6
Mud agitator	yes/no	: Yes
Mud guns	yes/no	: Yes (2)
Useable capacity No. 8	bbl	: 577.5
- Type (active/reserve)		: Active
Height	ft	: 4.6
Mud agitator	yes/no	: Yes
Mud guns	yes/no	: Yes (2)
Useable capacity No. 9	bbl	: 390.8
- Type (active/reserve)		: Reserve (WBM)
Height	ft	: 4.6
Mud agitator	yes/no	: Yes
Mud guns	yes/no	: Yes (2)
F.2.3 Pill/Slug Tank		
Capacity (useable)	bbl	: 78
Mud agitator	yes/no	: Yes (1)
Mud guns	yes/no	: Yes (2)
F.2.4 Trip Tanks/Stripping Tanks		
Capacity (useable)	bbl	: 50 (Trip Tank)
Capacity/foot	bbl/ft	: 3
Level indicator	yes/no	: Yes
Electric pump make		: Mission Magnum
- Model/type		: Centrifugal 3x2x13
- Rated capacity	gpm	: 300
Facility for casing fill-up Alarm	yes/no	: Yes
Alarm and strip chart recorder	yes/no	: Yes
Capacity (useable)	bbl	: 22 (Stripping Tank)
Capacity/foot	bbl/ft	: 1
Level indicator	yes/no	: Yes
Electric pump make		: Mission Magnum
- Model/type		: 3x2x13
- Rated capacity	gpm	: 300
Facility for casing fill-up Alarm	yes/no	: No
Alarm and strip chart recorder	yes/no	: No
F.2.5 Chemical Mixing Tank		
Capacity (useable)	bbl	: 94



IADC EQUIPMENT LIST

Chemical mixer type : From sack store hoppers

F.2.6 Shale Shakers

Shaker:

- Quantity no. : 5
 - Make/model : NOV
 - Type : VSM 300
 - Nominal flow rate (total) bbl/min : 69.8 (US)

Cascading:

- Quantity no. : N/A
 - Make/model : N/A
 - Type : N/A
 - Nominal flow rate (total) gpm : N/A

Dual Box Scalper:

- Quantity no. : 1
 - Make/model : Brandt
 - Type : Dual Gumbo Scalper
 - Nominal flow rate (total) gpm : 120.6 (US) / 144.9 (UK)

Flow Divider:

- Quantity no. : 1
 - Make/model : Brandt
 - Type : N/A
 - Nominal flow rate (total) gpm : N/A

F.2.7 Desander

Quantity no. : 1
 Make/model : Brandt
 Type : King Cobra 24/3 Mud cleaner
 Max. flow rate bbl/min : 24
 Number of cones no. : 3
 - Size in. : 12
 Feed pump make/model : Mission Magnum
 - Type/size : 6" x 5" x 14"
 - Impeller size in. : 10.5
 - Capacity gpm : 1000 gpm@30m
 - Drive motor hp : 100
 Is pump dedicated to desander yes/no : Yes

F.2.8 Desilter

Desilter



IADC EQUIPMENT LIST

Quantity	no.	: 1
Make/model		: Brandt
Type		: King Cobra 24/3 Mud cleaner
Nominal flow rate	bbl/min	: 24
Number of cones	no.	: 24
- Size	in.	: 4
Feed pump make/model		: Mission Magnum
- Type/size		: 6" x 5" x 14"
- Impeller size	in	: 10.50
- Capacity	gpm	: 1000gpm@30m
- Drive motor hp	hp	: 100
Is pump dedicated to desilter	yes/no	: Yes

F.2.9 Mud Cleaner

Quantity	no.	: N/A
Make/model		: N/A
Type		: N/A
Nominal flow rate	gpm	: N/A
Number of cones	no.	: N/A
- Size	in.	: N/A
Feed pump make/model		: N/A
- Type/Size		: N/A
- Capacity	gpm	: N/A
- Drive motor hp	hp	: N/A
Is pump dedicated to mud cleaner	yes/no	: N/A

F.2.10 Mud/Gas Separator (Poor Boy)

Make/type		: RB Pipetech
Dimensions (height x OD)	ft x in.	: 10 x 48
Gas discharge line OD	in.	: 10
Gas discharge location, primary		: Top of derrick
Can discharge be tied into burner system	yes/no	: No
Vacuum breaker	yes/no	: Yes
Mud seal height	ft	: 25
Pressure gauge	yes/no	: Yes
Calculated gas throughput	mmscf	: TBD

F.2.11 Degasser

Quantity		: 1
Make/type		: Vacu-Flo 1200
Nominal flow rate	bbl/min	: 38.1 (US) / 45.8 (UK)
Feed pump make/model		: Mission Magnum I



IADC EQUIPMENT LIST

- Type/size		: 6x5x14
- Impeller size	in.	: 10.5
- Capacity	gpm	: 1000 gpm @ 30m
- Drive motor hp	hp	: 100
- Is pump dedicated to degasser	yes/no	: Yes
Vacuum pump make type		: Model D255 Ingersoll-Rand

F.2.12 Mud Agitators

Quantity	no.	: 9
Make/model		: Brandt MA-25 RG
Driven by motor of power	hp	: 25
Located in tanks		: 1-9
(see F.2.1 & F.2.2 for tank designations)		

Quantity	no.	: 1
Make/model		: Brandt MA-10 RG
Driven by motor of power	hp	: 10
Located in tanks		: Slug pit
(see F.2.1 & F.2.2 for tank designations)		

F.2.13 Mud Centrifuge

Quantity	no.	: 2
Make/model		: MI-Swaco CD 518 E. HV
Feed pump make/model		: MI Swaco
- Type/size		: MN 120-1
- Capacity	bbl/min	: 141
- Drive motor RPM	RPM	: 400
Is feed pump dedicated to centrifuge(s)	yes/no	: Yes

F.2.14 Mud Laboratory and Facilities

Separate room	yes/no	: Yes
Equipped with:		
- Mud balance	yes/no	: 3rd Party
- Marsh funnel	yes/no	: 3rd Party
- Filtration kit	yes/no	: 3rd Party
- Sand content kit	yes/no	: 3rd Party
Air conditioning	yes/no	: Yes
Positive pressure	yes/no	: Yes

BULK SYSTEM

F.3.1 Barite/Bentonite Silos

Quantity	no.	: 4
----------	-----	-----



IADC EQUIPMENT LIST

Capacity of each silo	ft ³	: 2118.88
Locations		: PS P-tank room
Type weight loadcell		: V3500
- Manufacturer		: NOV
Pressure rating	psi	: 66
Relief valve (s) installed	yes/no	: 4

F.3.2 Cement Silos

Quantity	no.	: 4
Capacity of each silo	ft ³	: 2118.88
Locations		: SB P-tank room
Type weight loadcell		: V3500
- Manufacturer		: TBD
Pressure rating	psi	: 60
Relief valve(s) installed	yes/no	: 4
Separate mud/cement loading facilities	yes/no	: Yes
Cement discharge independent from barite/bentonite	yes/no	: Yes

F.3.3 Surge Tank for Barite/Bentonite

Quantity	no.	: 2
Capacity of each tank	ft ³	: 105.9
Type weight loadcell		: V3500
- Manufacturer		: NOV
Pressure rating	psi	: 69 psi @ 122 deg F
Relief valve(s) installed	yes/no	: Yes

F.3.4 Mud Hopper

Quantity	no.	: 2
Make/model		: NOV
Feed pump make/model		: TBD
- Type/size		: NOV
- Capacity	bbl/min	: 2.8
- Drive motor hp	hp	: 75
Is feed pump dedicated to mud hopper(s)	yes/no	: Yes

F.3.5 Shear Jet

Quantity	no.	: 1
Make/model		: Scomi GM MSB II 150
Feed pump make/model		: PUMP TECH / 3.1 / 16" Rdrspoler
Type/size		: MSB II 150 HP Shear Units
Capacity	bbl/min	: 10.5



IADC EQUIPMENT LIST

F.3.6 Surge Tank for Cement

Quantity	no.	: N/A
Capacity of each tank	ft ³	: N/A
Type weight loadcell		: N/A
- Manufacturer		: N/A
Pressure rating	psi	: N/A
Relief valve(s) installed	yes/no	: N/A

F.3.7 Bulk Transfer System (See also C.1.7 - 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	: Yes
Air reduced from main air supply through pressure regulators	yes/no	: Yes
Separate volume tank and drier	yes/no	: Yes

F.3.8 Super sack hopper

Quantity	no.	: N/A
Make/model		: N/A
Feed pump make/model		: N/A
- Type/size		: N/A
- Capacity	bbl/min	: N/A
- Drive motor hp	hp	: N/A
Is feed pump dedicated to mud hopper(s)	yes/no	: N/A

F.3.9 Dust collector

Quantity	no.	: N/A
Make/model		: N/A

G. CASING / CEMENT EQUIPMENT

G.1 CASING EQUIPMENT

G.1.1 Drive Hammer

Make/type	
Max casing/conductor OD	in.

G.1.2 API Casing Drifts

For casing OD, weight, quantity	in./lbs/ft/no.
For casing OD, weight, quantity	in./lbs/ft/no.

G.1.3 Clamp-On Casing Thread Protectors

For casing OD, quantity	in./no.
-------------------------	---------



IADC EQUIPMENT LIST

G.2 CEMENTING EQUIPMENT

G.2.1 Cement Unit

Location		: Provision at cantilever
Utility supplies		1. Sea water
		2. Potable water
		3. Fuel oil
		4. Mud
		5. Electricity
		6. Compressed air
		7. EEx rated telephone installed
		8. 2 ea 3"ID 15K discharge to cement manifold rig floor
Owner		: N/A
Free placement basis	yes/no	: N/A
Make/type		: N/A
No. of triplex pumps	no.	: N/A
Maximum working pressure	psi	: N/A
Maximum flowrate (total)	bbl/min	: N/A
Unit powered by (electric/diesel)		: N/A
Recirculating mixing system	yes/no	: N/A
- Capacity	bbl	: N/A
- Motor power	hp	: N/A
Liquid additive system	yes/no	: N/A
Pre-mix/batch tank	USgpm	: N/A
- Quantity	no.	: N/A
- Capacity (total)	bbl	: N/A



IADC EQUIPMENT LIST

Pressure recorder	yes/no	: N/A
Densitometer recording device	yes/no	: N/A

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
Manifold safety pressure relief valve	yes/no	: No

G.2.3 Cementing Standpipe

Quantity	no.	: 1
Working Pressure	psi	: 15,000
ID	in.	: 3
Connection to choke manifold	yes/no	: Yes
Connection to standpipe manifold	yes/no	: Yes

G.2.4 Cementing Kelly

Quantity	no.	
Nominal size OD	in.	
Total length	ft	
Working length	ft	
Connection type		
Cement head	yes/no	

G.2.5 Cementing Tubing

Size	in.	:
Length (total)	ft	:

G.2.6 Filtration unit

Location
Utility supplies

H. Ftemp rating

/COMMUNICATION

H.1 DRILLING INSTRUMENTATION AT DRILLER'S POSITION

Rig is equipped with National Oilwell Varco's Amphion which has a full drilling instrumentation package and data acquisition system.

H.1.1 Weight Indicator

Make/type		: Cyberbase
Sensor type		: NOV

H.1.2 Standpipe Pressure Gauges



IADC EQUIPMENT LIST

Quantity	no.	: 2
Make/type		: Dewit
Max. pressure reading	psi	: 700 Bar, 10000 psi

H.1.3 Choke Manifold Pressure Gauges

Quantity	no.	: 2
Make/type		: Dewit
Max. pressure reading	psi	: 1000 Bar, 15000 psi

H.1.4 Rotary Instrumentation

H.1.4.1 Tachometer

Make/type		: NOV
Maximum RPM	rpm	: 300

H.1.4.2 Torque Indicator

Make/type		: NOV
Maximum torque	ft/lbs	: 3,560

H.1.5 Top Drive Instrumentation

H.1.5.1 Tachometer

Make/type		: NOV/Cyberbase
Maximum RPM	rpm	: 270

H.1.5.2 Torque Indicator

Make/type		: NOV/Cyberbase
Maximum torque	ft/lbs	: 62,500

H.1.6 Pump Stroke Counters

Quantity	no.	: 9
Make/type		: NOV/Cyberbase
Stroke indicator and cumulative	yes/no	: Yes
stroke counter for each pump	yes/no	: Yes

H.1.7 Tong Torque Indicator

Make/type		: NOV/Cyberbase
Maximum torque	ft/lbs	: 0 – 100,000

H.1.8 Pit Volume Totalizer

Make/model:		: NOV/Cyberbase
Floats in active mud tanks	yes/no	: Yes
- Quantity per tank:	no.	: 1
Floats in reserve mud tanks	yes/no	: Yes



IADC EQUIPMENT LIST

- Quantity per tank	no.	: 1
Floats in mud processing tank	yes/no	: No
- Quantity per tank:	no.	: N/A
Loss/gain indicator	yes/no	: Yes
- Audio Alarm	yes/no	: Yes
- Visual Alarm	yes/no	: Yes

H.1.9 Mud Flow Indicator

Make/model		: NOV/Cyberbase
High/low Alarm:		: Yes
- Audio Alarm	yes/no	: Yes
- Visual Alarm	yes/no	: Yes
Sensor location:		: Flow line

H.1.10 Trip Tank Indicator

Make/model		: NOV/Cyberbase
Chart recorder	yes/no	: TBD
Alarm	yes/no	: Yes

H.1.11 Automatic Driller (see B.2.1)

H.1.12 Remote Choke Control Unit (see E.6.1)

H.1.13 Crown Clearance Indicator

Make/type		: NOV/Cyberbase
-----------	--	-----------------

H.1.14 Drilling Control Data Acquisition (DCDA)

Make/type		: NOV/Cyberbase
Quantity	no.	: 1
Control Console	yes/no	: Yes
Touch Screen	yes/no	: Yes
Weight Indicator System	yes/no	: Yes
Discreet Control Devices	yes/no	: Yes
Joystick activated Drawworks	yes/no	: Yes
Joystick activated Cathead	yes/no	: Yes
Emergency Stop/Park Brake	yes/no	: Yes
Block Control Range Override	yes/no	: Yes
Hole Fill Pump Start/Stop	yes/no	: Yes
Trip Tank Pump Start/Stop	yes/no	: Yes
Drill Floor Emergency Shutdown		
UPS (None/Single/Dual)		: Single
Multi Tool Control (MTC) Cabinet Screens	yes/no	: Yes



IADC EQUIPMENT LIST

Drilling Signal distribution System:

Make/type		: NOV/Cyberbase
Electronic gauges for primary drilling instrumentation	yes/no	: Yes
Pit Volume Totaliser	yes/no	: Yes
Electronic Drilling Recorder	yes/no	: Yes
WITS interface	yes/no	: Yes
Software Licences	yes/no	: Yes

FOR DATA ACQUISITION NETWORK PLEASE REF TO:

N.1.3 ACQUISITION NETWORK

Drilling Information management system:

Make/type		: NOV/Cyberbase
Realtime	yes/no	: Yes
Printed Report Types	yes/no	: No:

H.2 DRILLING PARAMETER RECORDER

Quantity	no.	: 1
Make/type		: NOV/Cyberbase
Location - 1		: Rig Floor
- Type (display/recorder/both)		: Both
Location - 2		: OIM Office
- Type (display/recorder/both)		: Display
Location - 3		: Electrical/Mechanical Office
- Type (display/recorder/both)		: Display
Number of parameters recorded	no.	: 71
Parameter recorded		: Act Gainloss, Active Strokes, Active SPM, Active Vol, Aux 1 Strokes, Aux 2 Strokes, Bit Depth, Bit Depth Status Drilltronix, Bit Estimated Speed, Bit O.B. Time, Bit RPM, Bit T. Btm, Bit T. Rev, Bit T. Time, Choke Man A & B, Effective Outer Diameter, Elevator Pos, Flow In, Hook Load, Hook Speed, Mon. Gainloss, Monitoring Vol, MP1, MP1 STK, MP2, MP2 STK, MP3, MP3 STK, Mud Pit 1-9, Mud Ret. CH, Mud Return, Prevention Factor, Reserve Vol, Rop Avrg, Rop Inst, Rop Setpoint, Slug Pit, Stand Counter, Stick Slip Periode From PLC Analyzer, Stick Slip Periode In Use, STP 1 & 2, Strip Tank, TD Speed, TD speed Setpoint, TD Torque, TD Torque Setpoint, Tonne Mile, Top Drive Measured Speed, Top Drive Measured Torque, Top Drive Speed Setpoint, Top Drive Torque Limit, Tot Pumped, Tot Tonne Mile, Total Depth, Total String Length, Total Vol, Trip Tank, TT Acc, TT Diff, WOB, WOB Setpoint.



IADC EQUIPMENT LIST

H.3 INSTRUMENTATION AT CHOKE MANIFOLD

H.3.1 Standpipe Manifold Pressure Gauge (Drill Pipe Pressure Gauge)

Quantity	no.	: 2
Make/type		: NOV MD TOTCO
Pressure range (max.)	psi	: 15,000
Visible from choke operation position	yes/no	: Yes

H.3.2 Choke Manifold Pressure Gauge (Casing Pressure Gauge)

Quantity	no.	: 2
Make/type		: RB Pipetech Gauge Dev/ Bourdon Tube
Pressure range	psi/psi	: 0 - 15000 PSI

H.4 INSTRUMENTATION AT STANDPIPE

H.4.1 Standpipe Pressure Gauge

Quantity	no.	: 2
Make/type		: RB Pipetech Gauge Dev/ Bourdon Tube
Pressure range	psi/psi	: 0-10000
Visible from driller's position	yes/no	: Yes
Visible from choke operating position	yes/no	: Yes

H.5 DEVIATION EQUIPMENT

H.5.1 Deviation Recorder

Quantity	no.	: 1
Make/type		: MD Totco
Deviation range	degree/degree	: 0 - 8
Sinker weights/ retrieval tool	yes/no	: TBD

H.5.2 Deviation Instrument

Make/type		: TBD
Recording/range		: TBD
Go-devil diameter		: TBD
Recovery equipment		: TBD

H.5.3 Slickline Unit (see B.2.4) : Matheson Surveyor

H.6 RIG COMMUNICATION SYSTEMS

H.6.1 Rig Telephone System

No. of stations	no.	: 80
Make/type		: Gaitronic Auteldac-4 ,Commander, Ericsson (Dialog 4106), Panasonic (KX-T2373), RCA (25001RE2)
Explosion proof		: Yes for Auteldac 4



IADC EQUIPMENT LIST

H.6.2 Public Address System

No. of stations	no.	: 2
Make/type		: PAGA
Explosion proof	yes/no	: Yes, where required

H.6.3 Drill Floor Talkback System

No. of stations	no.	: 3
Location		: Drillers cabin, Derrick Man cabin, Drill floor
Make/type		: Echo-8 to Echo 48
Explosion proof	yes/no	: Yes

H.6.4 Hand-held VHF Radios

Quantity	no.	: 10
Location		: N/A
Make/Model		: N/A
Quantity intrinsically safe	no.	: N/A

H.6.5 Crane Communication System

CCTV		
Quantity	no.	: 3
Make/type		: Motorola GM338
Explosion proof	yes/no	: Yes

H.6.6 Computer Network LAN

Make/type		: Schlumberger Server
Fiber optics	Yes/no	: Yes
Outlet locations		: Office & Radio (2 nd) Room, OIM Office, Company Man Office, Meeting Room, Radio/Com. Room, Barge Control Room, Catering Crew, Hospital, Store Keeper Office, Switchboard Room, Mechanic & Electrician Office.

H.7 ENVIRONMENTAL INSTRUMENTATION

H.7.1 Temperature Indicators

Air temperature (make/model)		: OBSERMET
Seawater temperature (make/model)		: No

H.7.2 Barometric Pressure Indicator

Make/model		: Springer
------------	--	------------

H.7.3 Humidity Sensing Indicator

Make/model		: Springer
------------	--	------------



IADC EQUIPMENT LIST

H.7.4 Wind Speed/Direction Meter

Make/model : OBSERMET

H.7.5 Ceilometer Sensor

Make/model : TBD

H.7.6 Visibility Sensor

Make/model : TBD

H.7.7 Weather Facsimile

Make/model : ICS Nav 5 plus

Located at : Radio room

H.8 NAVIGATION INSTRUMENTATION

H.8.1 Gyro Compass

Make/model : Simrad RGC50

Located at : Barge Office

H.8.2 Depth Sounder

Make/model : N/A

Located at : N/A

Recorder yes/no : N/A

H.9 EXTERNAL COMMUNICATIONS EQUIPMENT

H.9.1 Marine VHF Radio

Quantity no. : 3

Make/model : Sailor RT5022

Power watts : 25

Channels : 30

Location : Radio room

H.9.2 SSB Transceiver

Location(s) : Office and Radio/Com. (2nd) room

Quantity no. : 2

Make/model : Sailor

Power watts : 250

Facsimile capable (see also H.9.9) yes/no : No

Telex capable (see also H.9.10) yes/no : Yes

H.9.3 EPIRB

Quantity no. : 1

Make/model : Jotron Tron 40S



IADC EQUIPMENT LIST

Location(s) : Radio room

H.9.4 Aircraft Radio Beacon Transmitter

Quantity no. : 1
 Make/model : Nautel ND500IIS
 Power watts : 125W maximum – NON/A2A

H.9.5 Aeronautical VHF Transceiver

Quantity no. : 2
 Make/model : Jotron TR-710
 Power: watts : 10
 Frequency range (low/high):
 (Synthesized/crystal): mhz/mhz : 118-137 MHz

Location(s): : Radio Room

H.9.6 Watch Receiver

Quantity: no. : N/A
 Make/model: : N/A
 Frequency: khz : N/A

H.9.7 Satellite Communication System

Make/model : Sailor F-77
 Type : F-A3359
 Facsimile capable (see also H.9.9) yes/no : Yes
 Telex capable (see also H.9.10) yes/no : Yes
 Location(s) : Radio Room

H.9.8 Inmarsat

Number of phone lines no. : 2

I. PRODUCTION TEST EQUIPMENT

I.1 BURNERBOOMTOWERS

Make/type

I.2 BURNER BOOMS

Make/type

Quantity no.
 Length ft
 Horizontal yes/no
 Maximum wind speed knots



IADC EQUIPMENT LIST

Walkway and handrails yes/no
Burner platform size yes/no

I.3 PIPING ON BURNER BOOMS

I.3.1 Oil Line

ID in.
Working pressure psi
Connection type at burner end
H2S yes/no
Pressure gauge connection at barge end in.

I.3.2 Gas Line

ID in.
Working pressure psi
Extended beyond burner by ft
Connection type at burner end
H2S yes/no
Pressure gauge connection at barge end in.

I.3.3 Water Line

ID in.
Working pressure psi
Connection type at burner end
Pressure gauge connection at barge end in.

I.3.4 Air Line

ID in.
Working pressure psi
Connection type at burner end
Pressure gauge connection at barge end

I.3.5 Pilot Gas Line

ID in.
Working pressure psi
Connection type at burner end
Pressure gauge connection at rig end

I.4 SPRINKLER SYSTEM

System in place yes/no
Pump source



IADC EQUIPMENT LIST

I.5 FIXED PIPING FOR WELL TESTING

I.5.1 Drill Floor to Separator Area

Type (threaded, welded, both)

Quantity	no.
Size ID	in.
Working pressure	psi
Connection type on drill floor	type
Connection type at separator	type
Number of valves/lines	no.
- Size of valves	in.
H2S	yes/no

I.5.2 Separator Area to Burner Booms

Service (oil/gas)

Type (threaded, welded, both)

Quantity	no.
Size ID	in.
Working pressure	psi
Connection at separator	type
Connection at boom	type
Number of valves/lines	no.
- Size of valves	in.
H2S	yes/no
Valves installed near separator area for switching gas to either burner	yes/no

Service (oil/gas)

Type (threaded, welded, both)

Quantity	no.
Size ID	in.
Working pressure	psi
Connection at separator	type
Connection at boom	type
Number of valves/lines	no.
- Size of valves	in.
H2S	yes/no
Valves installed near separator area for switching gas to either burner	yes/no

I.5.3 Water Lines to Burner Booms

Type (threaded/welded/both)

Quantity	no.
----------	-----



IADC EQUIPMENT LIST

Size ID	in.
Working pressure	psi
Number of valves required	no.
- Size of valves	in.
Pump source	
Rated line capacity at 300 psi	bbl/hr

I.5.4 Air System To Burner Booms

Type (threaded/welded/both)	
Quantity	no.
Size ID	in.
Working pressure	psi
Non-return valves fitted	yes/no
Air Source	

I.5.5 Oil Storage Tank To Offload

Type (threaded/welded/both)	
Quantity	no.
Size ID	in.
Working pressure	psi
Connection at separator area	type

I.5.6 Separator To Vent Stack Of Rig

Type (threaded/welded/both)	
Quantity	no.
Size ID	in.
Working pressure	psi
Connection at separator area	type

I.6 AUXILIARY POWER AVAILABILITY

I.6.1 For Field Laboratory

Quantity	no.
Volts	volts
Frequency	hz
Breaker	amp

I.6.2 For Crude Transfer Pump

Quantity	no.
Volts	volt
Frequency	hz
Breaker	amp



IADC EQUIPMENT LIST

I.6.3 For Electric Heaters

Quantity	no.
Volts	volts
Frequency	hz
Breaker	amp

J. WORKOVER TOOLS

K. ACCOMMODATION

K.1 OFFICES

K.1.1 Company Representative's Office

Quantity	no.	: 1
- No. of combination office/staterooms in above	no.	:-
Complete with desk, filing cabinets and other necessary furniture	yes/no	: Yes
Quantity with unrestricted view to drill floor	no.	: CCTV

K.1.2 Contractor Representative's Offices

Quantity	no.	: 1
Quantity with unrestricted view to drill floor	no.	: CCTV

K.1.3 Control Room

Quantity	no.	: 1
----------	-----	-----

K.1.4 Radio Room

Quantity	no.	: 1
----------	-----	-----

K.1.5 Helicopter Ready Room

Quantity	no.	: 1
----------	-----	-----

K.1.6 Hospital Room

Number of beds/bunks	no.	: 3
Dangerous drugs locker	yes/no	: Yes

K.2 LIVING QUARTERS

K.2.1 Accommodations

Total beds:	no.	: 120
- No. of beds per room type (1, 2, 3, etc.)	no.	: 1
- Number of rooms	no.	: 6
- Toilets (private/shared/communal)	no.	: private
- Showers (private/shared/communal)	no.	: private



IADC EQUIPMENT LIST

- No. of beds per room type (1, 2, 3, etc.)	no.	: 2
- Number of rooms	no.	: 37
- Toilets (private/shared/communal)		: Shared
- Showers (private/shared/communal)		: Shared

- No. of beds per room type (1, 2, 3, etc.)	no.	: 4
- Number of rooms	no.	: 10
- Toilets (private/shared/communal)		: Shared
- Showers (private/shared/communal)		: Shared

K.2.2 Galley

Quantity	no.	: 1
----------	-----	-----

K.2.3 Mess Seating Capacity

Main mess	no.	: 45
Aux. mess	no.	: -

K.2.4 Meeting Rooms

Quantity	no.	: 1
----------	-----	-----

K.2.5 Recreation Rooms

Quantity:	no.	: 1
Recreation facilities:		
- TV	yes/no	: Yes, LCD screen 42"
- VCR	yes/no	: -
- Pool Table	yes/no	: 1
- Ping Pong Table	yes/no	: -
- Computer	yes/no	: -
- Workout/Weight Room	yes/no	: -
- Other	yes/no	: X-Box, PS3, WIFI

K.2.6 Other Rooms

Change Rooms	yes/no	: Yes (Male / Female)
Prayer Rooms	yes/no	: Yes, 1
Cinema	yes/no	: Yes, 1
Other (offices)	yes/no	: Gymnasium

L. SAFETY EQUIPMENT

L.1 GENERAL SAFETY EQUIPMENT

L.1.1 General Personnel Protective Gear

Safety Glasses



IADC EQUIPMENT LIST

- (Contractor/everyone/not supplied)		: Contractor
Safety Hats		
- (Contractor/everyone/not supplied)		: Contractor
Safety boots		
- (Contractor/everyone/not supplied)		: Contractor
Safety clothing		
- (Contractor/everyone/not supplied)		: Contractor
Ear protection		
- (Contractor/everyone/not supplied)		: Contractor
Rubber gloves		
- (Contractor/everyone/not supplied)		: Contractor
Rubber aprons		
- (Contractor/everyone/not supplied)		: Contractor
Rubber gloves - elbow length		
- (Contractor/everyone/not supplied)		: Contractor
Fullface visors		
- (Contractor/everyone/not supplied)		: Contractor
Eye shields (for grinders)		
- (Contractor/everyone/not supplied)		: Contractor
Dust masks		
- (Contractor/everyone/not supplied)		: Contractor
Explosion proof hand torches		
- (Contractor/everyone/not supplied)		: Contractor
Safety belts c/w lines		
- (Contractor/everyone/not supplied)		: Contractor

L.1.2 Decontamination Stations

L.1.2.1 EyeWash Stations

Quantity - fixed	no.	: 3
Make/model		: Enware EE120
Location(s)		: Drill Floor, Sack Room & Mud Treatment Room,

L.1.2.2 Safety Showers

Quantity	no.	: 4
Make/model		: HAWs 8300
Location(s)		: Rig Floor, Shakers, Cement Unit, Sack Room

L.1.3 Derrick Safety Equipment

Derrick escape chute (rem chute)	no.	: 1
- Make/type		: Bimatec II Class C
Geronimo line:	yes/no	: Yes, Vertical Line
Derrick Safety Belts	no.	: 3



IADC EQUIPMENT LIST

- Make/type : Lewis

L.1.4 Derrick Climbing Assistant

Make/type : SALA/Self-Retracting Lifeline

L.1.5 Fresh Air Blowers (Bug Blowers)

Quantity no. : 2

Make/type : OGM/Venturi

Located at : Potable

L.2 GAS/FIRE/SMOKE DETECTION

L.2.1 H2S Monitoring System

Make/type : Autronoca/Autrosafe (CSE)

Sampling points at:

- Bellnipple yes/no : Yes

- Drill floor yes/no : Yes

- Shale shaker yes/no : Yes

- Mud Pit yes/no : Yes

- Ventilation system into living quarters yes/no : Yes

- Other : Cementing unit, Wellresting, Mud pump room, Treatment Area

Alarms at: : Central System

- Drillers console (audible/visual/both) : Both

- Engine Room (audible/visual/both) : Both

- Mud pump room (audible/visual/both) : Both

- Living quarters each level (audible/visual/both) : Audible

- Central area each structural level (audible/visual/both) : Audible

- Other : Audible

- Tied to general alarm yes/no : Yes

Central control panel yes/no : Yes

- Located at : OIM office /drillers cabin

Local alarm (audible/visual/both) : Both

L.2.2 Combustible Gas Monitoring System

Make/type : Autronoca/Autrosafe (CSE)

Sampling points at:

- Bell nipple yes/no : Yes

- Drill floor yes/no : Yes

- Shale shakers yes/no : Yes

- Mud Pit yes/no : Yes

- Ventilation system into living quarters yes/no : Yes

- Other :-



IADC EQUIPMENT LIST

Alarms at:

- Drillers console (audible/visual/both)		: Both
- Engine room (audible/visual/both)		: Both
- Mud room (audible/visual/both)		: Both
- Living quarters each level (audible/visual/both)		: Audible
- Central area each structural level (audible/visual/both)		: Audible
- Other		: All areas
- Tied to general alarm	yes/no	: Yes
Central Control Panel	yes/no	: Yes
- Located at		: Barge Control Room
Local Alarm (audible/visual/both)		: Both

L.2.3 Multi Gas Detectors (Portable)

Quantity	no.	: 2
Make/type		: BW Technologies

L.2.4 Fire/Smoke Detectors in Accommodation

Make/type		: Autrosafe (CSE)
Fire detection	yes/no	: Yes. 8 + 2
Heat detection	yes/no	: No
Flame detection	yes/no	: No
Central control panel	yes/no	: Yes
- Location		: OIM office
Alarms:	no.	: PAGA system
Pull boxes	no.	: 91
Mud room (audible/visual/both):		: Both
Living quarters each level (audible/visual/both)		: Audible
Central area structural level: (audible/visual/both):		: Audible
Other:		
Tied to general alarm:	yes/no	: Yes
Central control panel:		
Located at:		: Radio Room
Local alarm (audible/visual/both):		: Both
Flame detection	yes/no	: N/A

L.3 FIRE FIGHTING EQUIPMENT

L.3.1 Fire Pumps

Quantity	no.	: 3
Make/model		: DESMI
Type		: S70-50-275 /D 09-2



IADC EQUIPMENT LIST

Output (each)	gpm	: 44.03 (US) 36.7 (IMP)
Location		: Aux.machinery room
All offtake points supplied by all pumps	yes/no	: Yes

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.	: 46
Hose connections/hydrant	no.	: 12
Hose max diameter	in.	: 2 1/2" & 1-1/2"
Length	ft	: 10 m

L.3.3 Portable Fire Extinguishers

Quantity (total)	no.	: 29
Type 1 - CO2	no./kg	: 27/6.8
	no./kg	: 2/10
Type 2 - Dry chemical	no.	: N/A
	no./kg	: N/A
	no./kg	: N/A
	no./kg	: N/A
Type 3 – Dry powder	no.	: 27
	no./kg	: 2/25
	no./kg	: 1/12
	no./kg	: 15/9
	no./kg	: 1/6
	no./kg	: 8/2.15
Type 4 - Foam	no.	: 8
	no./kg	: 7/9.5
	no./kg	: 1/45

L.3.4 Fire Blankets

Quantity	no.	: 2
Location(s)		: Galley

L.3.5 Fixed Foam System

Make/type		: Wilhelmsen
Quantity of foam concentrated stored	gal	: 105.67 (US) / 88 (UK)



IADC EQUIPMENT LIST

Foam type		: AFFF
Application rate	USgpm	: 3%
Foam nozzles	no.	: 4
- Located at		: Heli fuel tanks, Koomey unit
Automatically injected into fixed fire water system	yes/no	: Yes

L.3.6 Helideck Foam System

Make/type		: Unitor
Quantity of monitors	no.	: 2
Quantity of foam concentrate stored	gal	: 105/67
Foam type		: AFFF
Application rate	USgpm	: 3%

L.3.7 Fixed Fire Extinguishing System

Protected spaces:

Engine room, type (Halon/CO ₂ /other)		: Water mist
- Remote manual release located at		
Paint locker, type (Halon/CO ₂ /other)		: CO ₂
- Remote manual release located at		: Local
Emergency generator (Halon/CO ₂ /other)		: Water mist
- Remote manual release located at		: -
Electrical room, type (Halon/CO ₂ /other)		: CO ₂
- Remote manual release located at		: -
Other (specify location and type)		: -
- Remote manual release located at		: -
Alarms (audio, visual, both)		: TBD
Automatic shutdown of ventilation fans in protected spaces	yes/no	: Yes

L.3.8 Manual Water Deluge System

Protected spaces		: Drill floor, BOP handling area, Well testing area, Life raft areas, Rescue boat area, Life boat areas
Water supplied from fire main line	yes/no	: No – from separate foam/deluge system

L.3.9 Water Sprinkler System in Accommodation

Automatic activation	yes/no	: Yes
Working pressure	psi	: Min 7.25 bar
Tank capacity	gal	: 739.7
Salt water backup	yes/no	: Yes
Type (wet pipe/dry pipe)		: Wet

L.4 BREATHING APPARATUS



IADC EQUIPMENT LIST

L.4.1 General Sets

Quantity	no.	: 23
Make		: Draeger
Type (demand/positive pressure)		: Positive pressure
Cascade system quick connects	yes/no	: Yes
Cylinder duration	min	: 30
Located at	qty/loc	: 6 (Rig floor, shale shaker), 17 (Main deck, Pump room, Mud pit, Engine room, Electrical switch board room, Fire Locker, Helideck Crash Box, Breathing Air Compressor)

L.4.2 Escape Sets

Quantity	no.	: 150
Make		: Interspiro
Type (demand/positive pressure)		: Positive pressure
Cascade system quick connect	yes/no	: Yes
Cylinder duration	min	: 15
Located at	qty/loc	: 120 / Cabins, 50 / Breathing Air Compressor room

L.4.3 Cascade Stations

Quantity	no.	: 100
Make/type		: USA / Gentec
Manifold location/outlets at location		: Dwg. P0-000-S218-01

L.4.4 Breathing Air Recharge Compressor

Quantity	no.	: 2
Make/type		: Bauer/ Verticus 5- PN 300
Compressed air storage capacity	ft ³	: 100L X 12 bottles
- Working pressure	psi	: 4,350
Located at		: Top deck PS/SB

L.4.5 Compressed Air Breathing Apparatus Trolley Unit

Make		: N/A
Type (demand/positive pressure)		: N/A
Air line length	ft	: N/A
Compressed air storage capacity	ft ³	: N/A
- Working pressure	psi	: N/A
Including:		
- Face mask	yes/no	: N/A
- Demand valve	yes/no	: N/A
- Microphone	yes/no	: N/A
- Safety harness	yes/no	: N/A
- Safety line (inc. telephone line)	yes/no	: N/A



IADC EQUIPMENT LIST

L.4.6 Breathing Air Purity Test Equipment

Quantity	no.	: N/A
Make/type		: N/A

L.5 EMERGENCY FIRST AID EQUIPMENT

L.5.1 First Aid Kits

Quantity	no.	: 5
----------	-----	-----

L.5.2 Burn Kits

Quantity	no.	: 3
----------	-----	-----

L.5.3 Resuscitators

Quantity	no.	: 2
Charged (spare) oxygen cylinders	no.	: 8
Defibrillator Automatic	no.	: -

L.5.4 Stretchers

Quantity	no.	: 4
Type		: Paraguard Stretcher, Psc Basket, Non-Floding Scoop
Located at		: Hosiptal (2) Near Helideck (1) Outside Hospital (1)

L.6 HELIDECK RESCUE EQUIPMENT

Aircraft axe	no	: 2
Large firemans rescue axe	no	: 2
Crowbar	no	: 1
Heavy duty hacksaw	no	: 1
- Spare blades	no	: 6
Grapnel hook	no	: 1
- Length of wire rope attached	ft	: 49.21
Quick release knife	no	: 1 per helideck crew
Bolt croppers	no	: 1
Fireman's outfit	no	: 1 per helideck crew
CO2 lance	no	: TBD
Other	no	: TBD

L.7 EMERGENCY WARNING ALARMS

Approved system to give warning of different emergencies	yes/no	: Yes
Activated from drill floor	yes/no	: Yes

L.8 SURVIVAL EQUIPMENT



IADC EQUIPMENT LIST

L.8.1 Lifeboats

Make/type		: Beihai BH-8 & BH-9XL
Quantity	no.	: 4
Capacity	person/craft	: 50+75 (275 in Total)
Locations (fwd/aft/port/stbd)		: 2FWD , 2SB , 1 PB
Fire protection		: Water spray
Radio/SART Water		: -
spray Compressed air		: -
system Food rations		: -
Pyrotechnics		: -

L.8.2 Liferafts

Make/type		: Viking 25DK
Quantity	no.	: 6
Capacity	persons/craft	: 25 (150 in total)
Davit launched	yes/no	: Yes
Locations (fwd/aft/port/stbd)		: Port/stb (Midship)

L.8.3 Fast Rescue Boat

Make/type		: Beihai BH-HR6
Engine power	hp	: 144 HP 106 kW

L.8.4 Personal Floatation Devices

Make/type		: Viking + Lalizas
Quantity	no.	: 280

L.8.5 Survival Suits

Make/type		: Viking PS5006
Quantity	no.	: 150

L.8.6 Life Ring Buoys

Make/type		: Viking Eval 558
Quantity total	no.	: 12
- With lights	no.	: 6
- With smoke	no.	: 4 + 2 with lifeline
- with EPIRB	no.	: -

L.8.7 Work Vests

Quantity	no.	: 10
----------	-----	------

L.8.8 Escape Ladder / Nets

Make/type		: Safety Innovator/Embarkation Ladder
Quantity	no.	: 4



IADC EQUIPMENT LIST

M. POLLUTION PREVENTION EQUIPMENT

M.1 SEWAGE TREATMENT

Make/model : Hamworthy
 System type : ST8
 73/78 Annex IV
 Grease trap yes/no :-
 Make/model :-

M.2 GARBAGE COMPACTION

Make/model : AROX / DT500MKII & DT-1500MKII
 System type : Electric
 Capacity :-

M.3 GARBAGE DISPOSAL/GRINDER

Make/model : "Disperator"
 System type : TBD

M.4 INCINERATOR

Make/model : N/A
 System/type : N/A

M.5 OILY WATER SEPARATOR

Quantity no. : 1
 Make/model : Jowa
 System type : 3SEP
 MEPC.107(49) & MARPOL 73/78
 Nominal throughput gpm : 22 (US) 18.3 (IMP)

M.6 Drill Floor Drainage

: Drainage from the drill floor is collected in 8" drain lines which are routed to the Cantilever and onwards to the skimmer tank. The contents of the tank can be pumped into the mud ditch or a portable tank to comply the zero discharge of rig design.

ADDITIONAL EQUIPMENT

DISTRIBUTION CONTROL SYSTEM :

a distribution control system w/ redundant communication and control. It has operating, monitoring, alarm and emergency shutdown function. Operation/engineer stations in different locations let the operator monitor almost all rig systems. System is powered by rig UPS to withstand full load for 30 minutes



IADC EQUIPMENT LIST

RAW WATER ANTI-FOULING SYSTEM :

Controls the marine growth in sea water system.
Comprised of 4
230VAC Control Panels, Copper and Aluminum
Anodes.

UPS SYSTEM :

50kVa, 230V, 60Hz. UPS is powering all
emergency equipment.

Capable to hold the full load for 30 minutes.
Maintenance free acid
batteries has no time delay in switching cycle.

M. POLLUTION PREVENTION EQUIPMENT

M.1. SEWAGE TREATMENT

Make/model : Hamworthy
System type : ST8

M.2 GARBAGE COMPACTION

Make/model : AROX / DT500MKII & DT-1500MKII
System type : Electric

M.3 GARBAGE DISPOSAL/GRINDER

Make/model : "Disperator"
System type : N/A

M.4 INCINERATOR

Make/model : N/A
System type : N/A

M.5 OILY WATER SEPARATOR

Quantity no. : 1
Make/model : Jowa
System type : 3-Sep
Nominal throughput gpm : 22 (US) 18.3 (IMP)

N. DRILLING DATA EQUIPMENT

N.1. COMPUTERS (HARDWARE & SOFTWARE)

N.1.1 Server System

Make / System : NOV Server A & B / Cyberbase System



IADC EQUIPMENT LIST

CPU		: Intel (R) Xeon (TM) CPU 3 GHz, 2 Gb Ram
Monitor		: N/A
Harddrive		: 4 unit (3 active & 1 backup) (3 x 160 GB 3,5" HDD SATA + 1 x 160GB Spare)
Optical Storage		: DVD RW Drive, 1,44MB floppy drive
Backup Facility		: RAID SYSTEM
Operating System		: Microsoft Windows Server 2003 Standard Edition SP1
Software System		: Fix SCADA, Microsoft SQL Server 2000
Misc.		
N.1.2 Peripherals		
Ethernet link		
(ii) Fix SCADA, Microsoft SQL Server 2000)	E-Hawk Server (1 unit)	: E-Hawk Online Support System, NOV
CPU	Yes	: Intel (R) Xeon (TM) CPU 3 GHz, 2 Gb Ram
Monitor	Yes	: 17 inch monitor Rextron Integra Pro
Harddrive	Yes	: Western Digital
Optical Storage	Yes	: DVD RW Drive
Backup Facility	N/A	: N/A
Operating System	Yes	: Microsoft Windows Server 2003 Standard Edition SP1
Software System	Yes	: Fix SCADA, NetOp Remote Control, SIEMENS Step 7
Misc.		
(iii) Make / System	Log Server (1 unit)	: For Log
CPU	Yes	: Intel (R) Xeon (TM) CPU 3 GHz, 2 Gb Ram
Monitor	No	: N/A
Harddrive	Yes	: 4 unit (3 active & 1 backup)
Optical Storage	Yes	: DVD RW
Backup Facility	N/A	: N/A
Operating System	Yes	: Microsoft Windows XP
Software System	Yes	: Fix SCADA
N.1.2 Workstations		
Make / System		: OIM, Company Man, Electrical & Mechanical. only 3 units for drilling system)
Monitor		: Samsung
Software System		: NetOp Remote Control, iFix Client Application
N.1.3 ACQUISITION NETWORK		
Drill flow acquisition panel with firmware		: Cyberbase
1 – TBA interface		: Unknown Detail
2 – RDA interfaces		: Unknown Detail
Mud area acquisition panel with firmware:		: Cyberbase



IADC EQUIPMENT LIST

2 – RDA interfaces	: Unknown Detail
Mud logging unit acquisition box;	: N/A
1 – RDA for 8 analog channels	: N/A

SENSORS:

1 - crown block encoder sensor	: NOV supply
1 - motion compensator encoder sensor	: NOV supply
1 - slip joint encoder sensor	: NOV supply
1 - kelly in/out detector	: NOV supply
1 - hook load	: NOV supply
1 - rotary in/out	: NOV supply
1 - rotary gear box h/l	: NOV supply
1 - rotary RPM.	: NOV supply
1 - top drive RPM	: NOV supply
1 - rotary torque	: NOV supply
1 - top drive torque	: NOV supply
1 - stand pipe pressure	: NOV supply
1 - choke line pressure	: NOV supply
1 - cementing line pressure	: NOV supply
1 - cementing line pump strokes counter	: NOV supply
1 - mud pump 1-SPM	: NOV supply
1 - mud pump 2-SPM	: NOV supply
1 - trip tank level	: NOV supply
1 - active mud tank level	: NOV supply
1 - active reserve mud tank level	: NOV supply
1 - reserve mud tank level	: NOV supply
1 - treatment mud tank level	: NOV supply
1 - desilter tank level	: NOV supply
1 - desander tank level	: NOV supply
1 - slug tank level	: NOV supply
1 - prehydrate tank level	: N/A
1 - sand tank status	: N/A
1 - sand tank No. 2 level	: N/A
1 - deck tank No. 1 level	: N/A
1 - deck tank No. 2 level	: N/A
1 - transfer mix-pump No. 1 On/Off.	: NOV supply
1 - transfer mix-pump No. 2 On/Off.	: NOV supply

SYSTEM DESCRIPTION

Real time data monitoring and display
 5.1. Real time data display for the driller, OIM and COMPANY supervisor in color log format by time or depth.

: Can be monitored and display from Cyberbase System (Trending).



IADC EQUIPMENT LIST

5.2. Data monitoring at all times with separate driller screens for 9 distinct activities : drilling, POOH, RIH, circulate, running casing, etc.

5.3. Exact position of the bit at all times while drilling & tripping plus the exact depth of the casing shoe while running casing.

: Can be monitored and display from Cyberbase System (Trending).

: Can be monitored and display from Cyberbase System (Trending).

