

# DISCOVERY

*Energy Services*

## COMPLETIONS AND WORKOVER RIG RIG DISCOVERY 1 SPECIFICATIONS BROCHURE



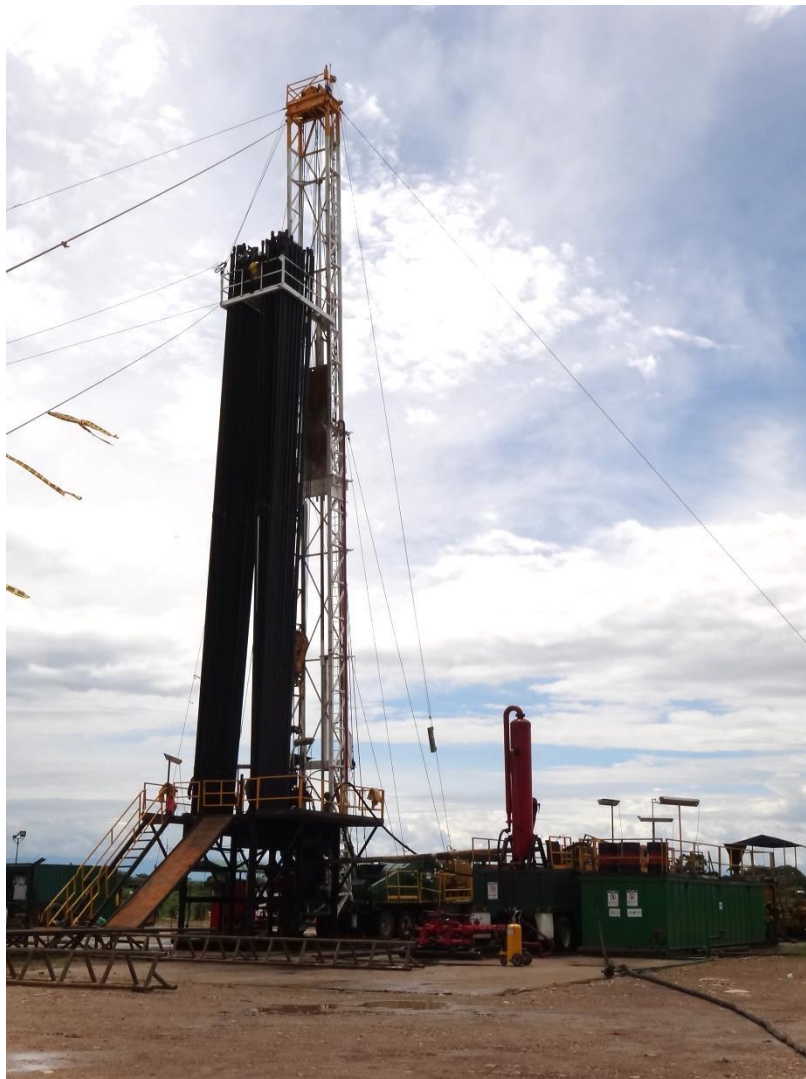
ISO 9001: 2008  
ISO 14001: 2004  
OHSAS 18001: 2007  
BUREAU VERITAS  
Certification



N° C0223270 / N° C0223271 / N° C0223272

# HIGHLIGHTS

<b>Name:</b>	<b>Discovery 1</b>
<b>Brand</b>	Cardwell
<b>Power:</b>	350 HP
<b>Double Drum:</b>	Drawworks and Sandline Drum
<b>Type:</b>	Back-In Winchmobile
<b>Static Hook Load:</b>	160.000 Libras
<b>Service:</b>	8.000 FT TUBING 3-1/2"



## CARRIER

Specifications	Data
Manufacturer	Cardwell
Model	K-210B - 350
Brakes	Air brakes in all wheels
Steering	Mechanical powered
Front axles	2
Rear axles	2
Headlights	Stop and taillights
Reflectors	Air horn
Cab	One man, washer and wiper
Mirrors	Two rear view mirrors



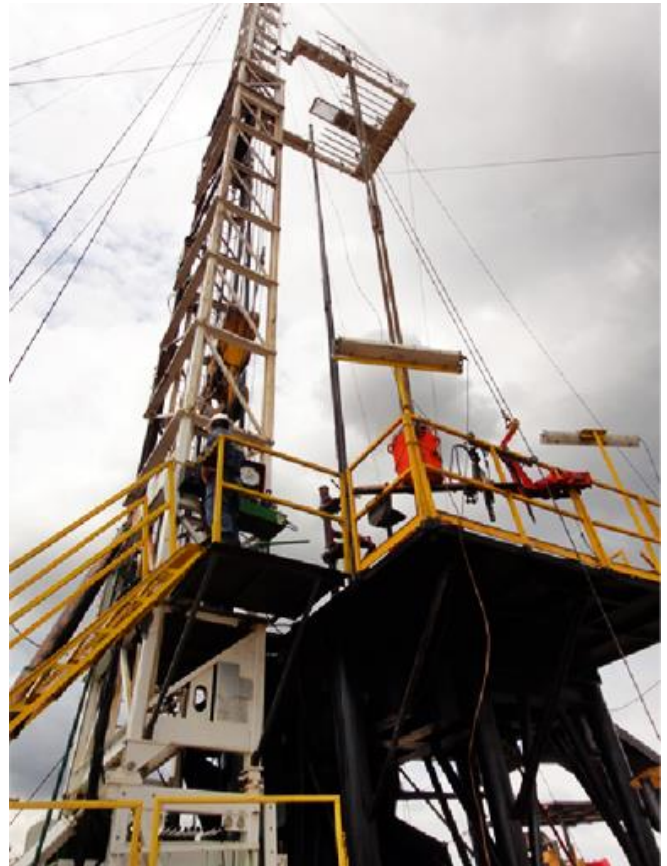




# MAST AND SUBSTRUCTURE

## MAST

Specifications	Data
Manufacturer	Service King Mfg - Usa
Model	250/96
Type	Telescoping double
Clear Height	96ft
Static Hook Load	250.000 Lbs (6 lines)
Drilling line size	1" 6X29 EIPS/IWRC



## MAST SUBSTRUCTURE

Specifications	Data
Manufacturer	Frank Equipment
Year	2010
Type	Telescopic
Height	14ft
Capacity	250.000 Lbs
Weight	10.000 Kg
Rotary Table:	IDECO 175 F

# HOISTING EQUIPMENT

## DRAWWORKS

Specifications	Data
Manufacturer	Cardwell
Year	1986
Model	K 210 B
Single line pull	30.000 Lbs
Shaft Diameter	6"
Horse power rating	350 HP
Drum Capacity	3260 ft, 1" Wire rope



## AUXILIARY BRAKE

Specifications	Data
Manufacturer	Parmac
Reference	D. 122

# HOISTING EQUIPMENT

## SANDLINE DRUM

Specifications	Data
Manufacturer	Cardwell
Model	K 210-B
Drum Capacity	10.000 ft of 9/16" Wire Rope

## TRANSMISSION

Specifications	Data
Manufacturer	Allison
Model	CBT - 5860
Type	Tormatic
Power shift	From cab and rear control



## ENGINE

Specifications	Data
Manufacturer	Caterpillar
Model	3406
Rating	500 HP @ 2100 rpm
Exhaust	With spark arrestor
Air compressor	Driven from engine
Emergency stop	High water temp, low oil pressure and overspeed emergency shutdown



# HOISTING EQUIPMENT

## HYDRAULIC SYSTEM

Specifications	Data
Hydraulic pump	C.MODEL 37X - 45 GPM
Oil Tank	195 Gal
Max. Pressure	2500 PSI @ 2100 rpm
System rating pressure	3000 PSI
Raising Cylinder	Two (2) Hydraulic C Ylinders 107" X 2-7/8"
Jackscrews	4 hydraulic leveling jacks

## HANDLING WINCH

Specifications	Data
Type	Hydraulic powered
Capacity	4000 Lbs
Rated line pull	100 fpm and 2.000 PSI
Line	325 ft of 1/2"
Fail-safe brake	Included

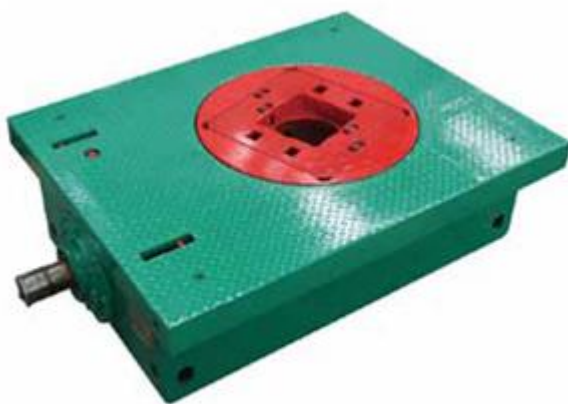
## TRAVELING BLOCK

Specifications	Data
Manufacturer	McKISSICK
Type	Tubing Block
Reference	86 A
Load capacity	100 TON
Sheaves	3 sheaves of 1"
Fail-safe brake	Included
Link elevators	100 TON, 5 ft

# ROTARY SYSTEM

## ROTARY TABLE

Specifications	Data
Manufacturer	IDECO 175 F
Load capacity	250 Ton
Reference	SI-RT-175 X 44
Load capacity	150 TON
Size	17-1/2"
Max. Working torque	10.132 ft.Lbs
Max speed	300 rpm



## KELLY SYSTEM

Specifications	Data
Kelly type	Square 3-1/2" X 40ft
Bottom conexión	3-1/2 IF pin
Top conexión	6-5/8 Reg LH box
Kelly drive bushing	Square drive 17-1/2"
Kelly master Bushing	Included
Load capacity	85 TON
Size	17-1/2"
Max. Working torque	10.132 ft.Lbs
Max speed	300 rpm



# CIRCULATING SYSTEM

## MUD PUMP

Specifications	Data
Manufacturer	Dowell Schlumberger
Reference	Dowell PG-03
Liners	4-1/2"
Stroke lenght	5"
Engine	Detroit 8V-71 turbo
Horse power rating	350 HP
Year	2007
Transmission	Automatic Allison 4460





# CIRCULATING SYSTEM

## MUD TANKS

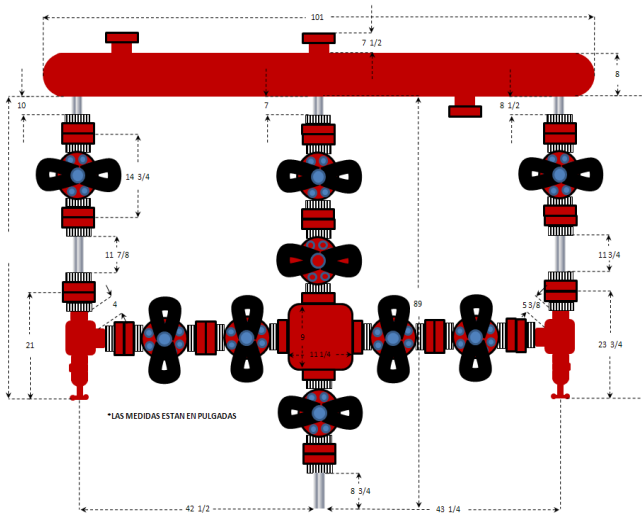
Specifications	Data
Qty	2
Capacity	250 BBL (TOTAL: 500 BBL)
Agitators	3
Cetrifuge	4X4 (Electric engine of 40HP)
Type	Fast move (Low boy)
Fixed poor boy	Included
Electric instalation	Explosion proof (6 lamps)
Mud mixing Hopper	Included



# WELL CONTROL SYSTEM\*

## ANULAR BOP

Specifications	Data
Manufacturer	Hydril
Size	7-1/16 X 5M
Top conexión	Studded
Bottom conexión	Flanged
Max. Working pressure	5000 PSI



## RAM BOP

Specifications	Data
Manufacturer	Hydril
Size	7-1/16 X 5M
Top conexión	Studded
Bottom conexión	Flanged
Max. Working pressure	5000 PSI
Rams	Blind Rams and Pipe rams
Pipe rams	3-1/2 and 2-7/8

## CHOKE MANIFOLD

Specifications	Data
Reference	2-1/16 X 5M
Valves	9 gate flanged valve 2-1/16 X 5M
Conexiones	2" Fig. 1502
Chokes	2 graduable chokes

\*all well control equipment is as per API RP 53



# WELL CONTROL SYSTEM\*

## ACCUMULATOR UNIT

Specifications	Data
Bottles	6 fo 10 Gal
Working pressure	3000 PSI
Pre-charge pressure	1000 PSI
Hydraulic pump	Triplex
Pneumatic pump	Included
Four way rotary valve	4
Pressure regulator	2
Electric system	Explosion proof







# WELL CONTROL SYSTEM\*

## POOR BOY

Specifications	Data
Size	24"
Type	Fixed at mud tank
Liquid outlet	6"
Gas outlet	3"





# POWER SYSTEM

## GENERATORS

Specifications	Data
Manufacturer	General power
Quantity	2
Capacity	131 KVA
Cabin	Isolated cabin
Model	GP131S
Conexions	Explosion proof (Appleton)



## MANUAL TOOLS

Specifications	Data
Pipe wrenches	2 of each size (24, 36, 48 y 60)
Chain wrenches	24 and 36"

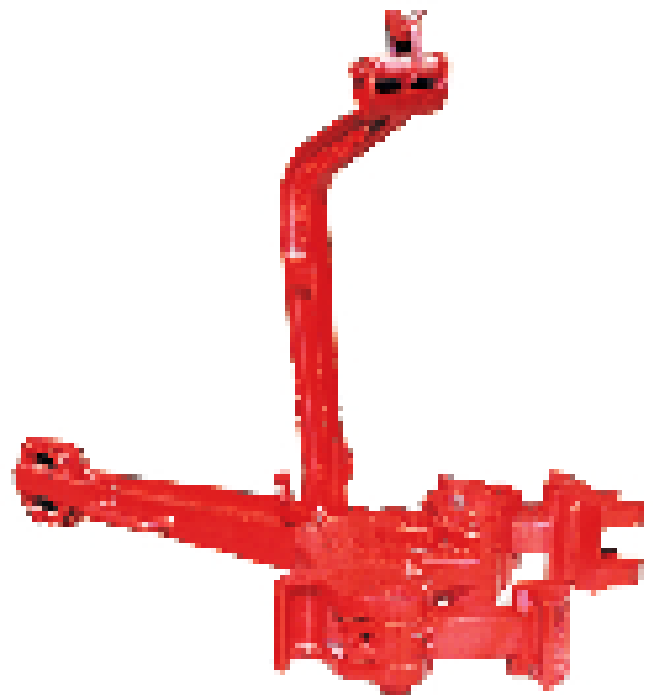
## HYDRAULIC TONG

Specifications	Data
Manufacturer	Foster
Tubing sizes	2-3/8, 2-7/8, 3-1/2
Reference	58-93R
Type	Hydraulic powered



## MANUAL TONGS

Specifications	Data
Manufacturer	BJ
Type	C
Range	3-1/2 to 5-1/2" and 7 to 8-1/2"
Torque rating	Up to 35.000 Lbs



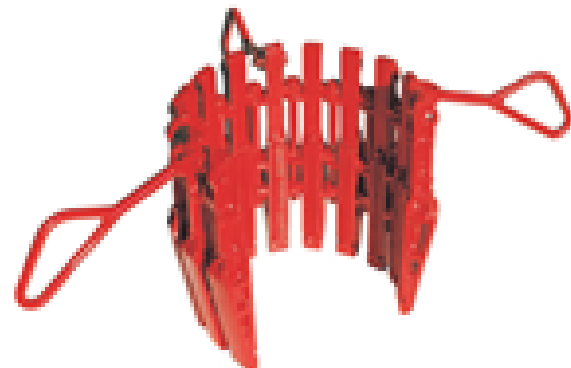
## ELEVATORS

Specifications	Data
<b>Tubing elevators</b>	90° for 2-3/8, 2-7/8 and 3-1/2
<b>Drill pipe elevator</b>	18° for 3-1/2
<b>Torque rating</b>	Up to 35.000 Lbs
<b>Type</b>	Latch



## SLIPS

Specifications	Data
<b>Pneumatic slips</b>	Cavins for 100 tons (2-3/8 to 3-1/2)
<b>Rotary slips</b>	Varco - BJ (2-7/8 to 3-1/2) 150 tons
<b>Drill Collar slips</b>	4-3/4 Drill Collar slips
<b>Safety clamp</b>	4-3/4 Drill Collars







## MIN CAMP

Specifications	Data
Units	3
Beds	2 or 4 for every room
Bathroom	1 for each room
Year	2010
Skidd	Yes
Refrigerator	For Coman and assistant
Red fox unit	60 people capacity
Dining room	included





# INSTRUMENTATION

## WEIGHT INDICATOR

Specifications	Data
Manufacturer	Martin Decker
Type	Clipper
Lines	8 lines of 1"
Range	0-280.000 Lbs

## JOINT TORQUE

Specifications	Data
Manufacturer	Martin Decker
Range	0-10.000 ft.Lbs
Type	Pressure Cell

## ROTARY TORQUE

Specifications	Data
Manufacturer	Forum
Range	0-500

## STROKE COUNTER

Specifications	Data
Model	5700
Totalizer	Included
Mud pumps	2



# MISCELLANEOUS

## SWABBING EQUIPMENT

Specifications	Data
Oil saver	Guiberson HD
Swivel rope socket	Guiberson for 9/16
Sinker bars	2 of 10ft
Swab mandrel	Knuckle joint type (2)
Hydraulic pump	Including a hose of 50ft
Dephtometer	Cavins
Lubricator	4"
Swabbing tree	4" with 3 gate valves (4"X5M)

## SAFETY EQUIPMENT

Specifications	Data
Fall Protection	Full body harnesses, Body belts, Lanyards , SRL'S.
Low speed descender	Included
Climbing assist system	Included
Gas detector	Portable
Breathalyzer	Portable

