Sr. No	Description	Total Price
1	Crawler mounted portable drilling rig	-
2	Set of spares for Drilling Unit for 03 years	-
3	Set of spares for Mud Pump	-
4	Rig Accessories	-
5	Tool Kit	-
6	Ex-works price (1+2+3+4+5)	-
7	FOB Charges	-
8	Sea Freight Charges (firm & fixed)	-
9	Total C&F Karachi Value (6+7+8)	-
10	Pre-shipment inspection and training	-
11	Commissioning charges	-
12	Annual regular checkup charges (3 years)	-
	Grand Total (9+10+11+12)	-

Quantity = 01 No

TECHNICAL SPECIFICATIONS

TRACK CRAWLER MOUNTED DIAMOND CORE DRILLING RIG

Model: CORETECH CSD 1300G **OR Equivalent Chinese Model according to following specifications**

Make: CORETECH Drilling Equipment China **OR Equivalent Chinese Make/Brand**

Description

Track Crawler Mounted Diamond core drill with direct mud circulation system designed for extensive drilling having a wide speed range with sufficient torque and ruggedness for drilling in hard formation specially in granites/pegmatites is required approaching the following specifications.

1. APPLICATION:

The rig has to work in remote and hilly area therefore, it should be track crawler mounted so that it can easily be shifted from one bore hole location to next one.

2. CAPACITY:

The rig should be complete in all respect for drilling with BQWL, NQWL, HQWL, PQWL and driving casing of BW, NW, HW sizes and approaching the following capacity.

BQWL Rod	:	1,300 Meter
NQWL Rod	:	1,000 Meter
HQWL Rod	:	700 Meter
PQWL Rod	:	400 Meter
Drilling Angle	:	45° to 90° from vertical to horizontal along rig axis

3. MOUNTING:

The complete unit should be Mounted on a track crawler for efficient transportation in difficult and hilly field conditions.

4. ROTATION UNIT:

Hollow Spindle having 117mm inside diameter, powered by variable speed / reversible hydraulic motor to accommodate BQWL, NQWL, HQWL & PQWL drill rods and BW, NW & HW casing.
2-speed (hi-low range) reversible rotation system for rod make in and break out hydraulically.
Hydraulic chuck assembly of suitable capacity to suit specified drilling operations with replaceable jaws of BQWL, NQWL, HQWL, PQWL drill rods and Jaws for HW, NW, BW casing be provided.
Two spare sets of jaws for each size should also be provided with the rig.

5. TORQUE AND RPM RATINGS:

The machine should have following range of torque and RPM to suit diamond core Wireline drilling.

Torque Range	:	0 ~ 4,257 NM
Speed Range	:	50 ~ 1200 RPM

Torque and Speed of rotary should be in different ranges for selection to suite different wireline core drilling systems.

6. POWER UNIT:

A suitable four stroke turbo-charged, water cooled diesel engine (Cummins BTA 5.9-C180 model,

of 132 KW power) be provided to drive all components of the rig.

7. MAST ASSEMBLY:

Mast assembly should be capable for absorbing all forces resulting from thrust, pull, hook load and torsion of suitable capacity and height, hydraulically lowered / raised by hydraulic cylinders. The mast should be foldable type to facilitate transportation. It should be capable feet/6 meter drill rod for tripping during drilling operations and having mast dump meter for angle drilling.

8. FEED SYSTEM:

Feed system with following general specifications:

Feed Stroke = 3.50 meter)

Feed speeds with variable control in fast and slow versions be provided with following Pull down/pull up ranges.

Maximum pull down	=	50 KN
Maximum pull up	=	120 KN
Rod handling	=	6 Meter or 20 ft.

9. MAIN HOIST:

Hydraulically driven Main Hoist single line pull capacity of 68 KN equipped with fail safe brake system, 16mm (5/8") dia hoisting cable with suitable length and low pulling speed of 28m/min to high pulling speed of 67m/min.

10. WIRELINE HOIST:

Hydraulically driven with fail safe brake system spooling capacity 1200 m, 6mm Ø steel wire rope suitable for work load of NQWL overshot assembly upto 1000 meter depth with bare drum pulling speed 120 meter per minute.

11. MUD PUMP (TRIPLEX):

Deck mounted hydraulically powered from the Drill system (power pack), triplex mud pump having max delivery of 160 LPM and max discharge pressure of 100 bars. The pump assembly should consist of discharge assembly with delivery hose connected to the rig, suction intake assembly with foot valve, suitable size pressure gauge (oil filled) 0 ~ 1000 psi, pressure relief valve, mud mixer equipment, strainer and driven group etc.

12. HYDRAULIC SYSTEM:

Suitable to work in dusty and tropical desert conditions -5°C to 55°C. Hydraulic Oil and filtration should be equipped with pressure, return line filters and dirt alarm indicators.

13. STANDARD EQUIPMENT:

The drill should be complete in all respect including following:

iv. Hydraulically operated drill rods Clamp Slip Group.

v. Rod Clamp Slip Set to suit specified sizes of rods and casings.

vi. Tool Kit suitable for repair/maintenance of Rig unit.

14. CONTROL PANEL:

All control and supervision elements required for operation of the rig, emergency stop, special gauges to monitor & control, bit weight, pressure, torque, RPM, Hydraulic, pressure, Mud pump pressure, temperature of hydraulic system, secured against wrong operation, as far as possible. The individual control and supervision elements marked on plates in **English Language**. Gauges, hour meter, RPM etc. of Prime mover should also be installed on control panel at Driller's platform to monitor its performance.

15. RIG ACCESSORIES:

(a) 02 Nos. Water swivel assemblies of 80 KN capacity with Saver sub pin connections for BQWL, NQWL, HQWL, PQWL and NW drill rods and BW, NW and HW casing must be provided along with 03 sets of spare Saver subs for each size. At least 50

sets of water swivel packing and 10 Nos. repair kits be provided.
All the above accessories be quoted as a part of the rig unit and its prices may be given separately.

16. **SPARES FOR DRILL UNIT:**

Complete set of spares and fast consuming parts of the drill unit for **3**-years normal operation i.e. spares for control panel, gauges, hydraulic seal kits for hydraulic rams, spares for hydraulic pump, feed control valves, spares for winches, spindle bearings, seals, automatic chuck spares etc., must be quoted with prices. The cost of the spares should be about 25% of the total value of the drill unit. *The brake up of the spares being offered shall be provided separate* Page: *of each part.*

17. **SPARES FOR MUD PUMP:**

Complete set of spares and fast consuming parts i.e. plunger cups, sleeves, ball valves etc. for **3** years normal operation of the mud pump shall be quoted with unit prices separately.

18. **OTHER TERMS AND CONDITIONS:**

a. Pre-shipment inspection and training on repair/maintenance and operations of the rig at manufacturer's premises will be arranged by supplier for two persons for two weeks. Expenses of the visit for travelling, boarding/lodging shall be quoted.
b. Commissioning will be carried out by one specialist of manufacturer in Pakistan. The specialist will have to stay for 4-weeks at end user site for drilling holes up to specified depth with demonstration to field staff of user for the purpose of their training in operation and maintenance of rig. Charges for commissioning shall be quoted.
c. The supplier will send once a year (for first 3 years) a specialist for regular checkup of the rig and refresh the staff in maintenance & repair. Charges per year per visit shall be quoted.
d. International population of the Rig, if any, shall be provided along with its respective working location. Brochure/literature of the quoted rig shall be provided along with quotation.
e. Three set of Operation & Maintenance Manuals, Workshop Manuals and Spares Parts Manuals in English Language of Rig, prime mover, mud pump and rest of components be provided
f. Work Test Run will be carried out at manufacturer premises.
g. Rig should be assembled at Manufacturer's facility.
h. Standard and proven model rig approaching to the specifications should be quoted.
i. The rig and equipment should be covered under a **warranty period** of one year / 2000 operational hours after successful commissioning of the rig.
j. Any part/component of rig should not be fabricated/assembled in India & Israel.