## OIL & GAS DEVELOPMENT COMPANY LIMITED PROCUREMENT DEPARTMENT, ISLAMABAD FOREIGN SECTION B

(To be completed, filled in, signed and stamped by the principal)

ANNEXURE 'A'

Material

Solid Block Dual Completion X-Mass Trees 3-1/8" x 2-9/16".

**Tender Enquiry No** 

PROC-FB/LCB/PROD-4740/2020

**Due Date** 

**FULL Evaluation Criteria** 

SCHEDULE OF REQUIREMENT

Sr No Description	
Solid Block Dual Completion X Mass Tree 3-1/8" x 2-9/16" 5000 psi along with Number 2	
necessary accessories and Services. For details see attached technical data sheets	

DELIVERY PERIOD FOR THESE ITEMS IS SIX(06) MONTHS ON C&F BY SEA KARACHI FROM THE DATE OF L/C IS ESTABLISHED.

Page 1

TE#PROC-FB/LCB/PROD-4740/2020

Annexure-A

NOTE:

01: PURSUANT TO TENDER CLAUSE # 2.2, 11.4, 13 & 35.3.2, A BID BOND AMOUNTING TO US\$ 7,500/-

MUST BE SUBMITTED WITH THE TECHNICAL BID AND IT MUST BE VALID FOR 150 DAYS FROM THE DATE OF OPENING OF THE BID.

**02.** BID BOND, PERFORMANCE BOND ETC. IN SHAPE OF PAY ORDERS (PO) / CASH DEPOSIT RECEIPTS (CDR) / DEMAND DRAFTS (DD) ISSUED BY A PAKISTANI SCHEDULED BANK OR A BRANCH OF A FOREIGN BANK OPERATING IN PAKISTAN (LISTED OR NOT LISTED AT PAKISTAN STOCK EXCHANGE) IRRESPECTIVE OF ITS MARKET PRICE PER SHARE AT PAKISTAN STOCK EXCHANGE SHALL BE ACCEPTED.

HOWEVER, BID BOND AND PERFORMANCE BOND ETC. IN SHAPE OF BANK GUARANTEE SHALL NOT BE ACCEPTABLE WITH THE BANKS WHOSE MARKET PRICE PER SHARE IS QUOTED BELOW THE PAR VALUE AT THE PAKISTAN STOCK EXCHANGE.

JE (PED) Ext: 2807

## Technical Data Sheets of Solid Block Dual Completion X-Mass Trees 3-1/8" x 2-9/16" 5000 Psi along with necessary accessories and Services

Solid Block Dual Completion X-mass Trees Assemblies Size 3-1/8" x 2-9/16" 5K Psi W.P. All Material to be as per API 6A Latest Edition, PSL-3, PR-2, Temperature Class 'X' Material Class 'EE'

Sr. No	DESCRIPTION	UOM	QTY	Cost in US	REMARKS
1	Solid Block Dual X-mass Trees 3-1/8" x 2-9/16" vertical bores along with one 3-1/8" studded side outlet and one 2- 9/16" studded side outlet 5000 psi. 5.046 Center to center distance (Sr. No. 1.1 to 1.14).	Sets	2	Lump sum cost of Dual X- Mass Tree item 1.1 to 1.14	
1.1	Solid Block with 11" 5000 psi WP Top connection studded for 2-9/16" x 3-1/8" segmented flanges x 11" studded Bottom flange having seal preparations for dual tubing hanger neck seals for 2-9/16" x 3-1/8" bores on 5.046 centers. i. one (1) 3-1/8" 5K studded outlet ii. one (1) 2-9/16" 5K studded outlet iii. Two (2) nos seal test port on bottom iv. Two (2) nos cavity test port on bottom v. Two (2) nos 1/4" control line exit blocks/needle valves for surface controlled subsurface safety valve. Exit block must have 1/2" NPT connection for control panel, along with all necessary SS fittings for continuous control panel having the following fitted items				
1.2	Two (2) 3-1/8" x 2-9/16" 5000 Psi W.P Solid gate valves C/w hand wheels fitted as Lower master valves (LMV) each run on 5.046 center. (02 Nos. /X-Mass Tree Assy)				
1.3	Two (2) 3-1/8" x 2-9/16" 5000 Psi W.P. hydraulically actuated solid gate valve C/w hand wheels fitted as upper master valve (UMV) each run on 5.046" center to center distance. Each with hydraulic override and fusible hold open device. (02 Nos. /X-Mass Tree Assy)				
1.4	Two (2) 3-1/8" x 2-9/16"" 5000 Psi W.P solid gate vale C/w hand wheel fitted as a swab valve each run on 5.046 center to center distance				
1.5	Dual Tree Cap segmented flange bottom 3-1/8" 5K psi and 2-9/16" 5K psi long and short style neck with quick union (ACME threads/seals 10000 PSI W.P STD/H2S service) C/w with two (02) 1/2" ports with two (02) blanking plugs one on each side for pressure gauge installation. Inside of top flanges should have 3-1/2" 10.3 Lbs/ft CS -1ydril & 2-7/8" 6.5 ppf CS Hydril or equivalent premium female pick up/lifting threads, one on each side				
1.6	Two (2) 3-1/8" 5000 Psi W.P flanged end gate valves C/w hand wheels fitted as wing valves on 3-1/8" side studded outlet.  02 Nos. /X-Mass Tree Assy)				

Instrument flanges (forged material), with 3/4"				
3-1/8" 5000 PSI WP, (R-35) Inlet and Outlet Flanged connections on 3-1/8" studded outlet 2" maximum orifice.				
Two (2) 2-9/16" 5000 Psi W.P flanged end gate valves C/w hand wheels fitted as wing valves on 2-9/16" side studded outlet.  (02 Nos. /X-Mass Tree Assy)				
One (1) 2-9/16" 5000 PSI W.P. Double Studded Instrument flanges (forged material), with 3/4" & 1/2" NPT taps (plugged), on each instrument flange, (02 No. /X-Mass Tree Assy).				
One (1) Adjustable choke assembly angle type 2-9/16" 5000 PSI WP, (R-27) Inlet and Outlet Flanged connections on 2-9/16" studded outlet 2" maximum orifice.  Hand wheel operated and complete with Choke Spanner, (01 No Spanner/Choke Valve).				
One (1) 2-9/16" 5000 PSI WP companion flanges (forged material) with 2" Sch 120 Weld Necks,(01 Nos/X-Mass Tree Assy).				
One (1) complete set of studs, nuts and ring gaskets required to assemble the above components, (01 Set/X-Mass Tree Assy).				
ories for the Solid Block Christmas Trees as	semblies	(Sr.No.2 to	29) to be su	upplied loose
Dual String Tubing Hanger for Long String 3-1/2"10.3 ppf Hyd CS Threads and Short String 2-7/8" 6.5 ppf Hyd CS Threads  Two halves (split type) Tubing Hanger 11" Nom 5000 psi W.P with 3-1/2" 10.3 ppf Hydril CS x 2-7/8" 6.5 ppf Hydril CS or equivalent premium threads (Box) top & bottom arrangement to install 2-1/2" and 3" Nom Cameron type 'H' BPV complete with seals 2-9/16 and 3-1/8" vertical bores on the bottom flange of solid bock X-mass tree at serial no 1. 5.046 centers .  ii. Each half complete with one (1) 1/4" continuous control line provision along with necessary fittings Quantity two halves = 01 set	Nos	2		
Pack off Seals for 2-9/16 vertical bore and tubing hanger extended neck	Sets	6		
Pack off seals for 3-1/8" vertical bore and tubing hanger extended neck	Sets	6		,
1/2" NPT, 5000 psi WP Needle valves (Male x Female), Super Trim, 316 ST/STL.	Nos	6		
	Instrument flanges (forged material), with 3/4" & 1/2" NPT taps (plugged), on each instrument flange, (02 No. /X-Mass Tree Assy).  One (1) Adjustable choke assembly angle type 3-1/8" 5000 PSI WP, (R-35) Inlet and Outlet Flanged connections on 3-1/8" studded outlet 2" maximum orifice.  Hand wheel operated and complete with Choke Spanner, (01 No Spanner/Choke Valve).  One (1) 3-1/8" 5000 PSI WP companion flanges (forged material) with 3" Sch 120 Weld Necks, (01 Nos/X-Mass Tree Assy).  Two (2) 2-9/16" 5000 PSI W.P flanged end gate valves C/w hand wheels fitted as wing valves on 2-9/16" side studded outlet. (02 Nos. /X-Mass Tree Assy)  One (1) 2-9/16" 5000 PSI W.P. Double Studded Instrument flanges (forged material), with 3/4" & 1/2" NPT taps (plugged), on each instrument flange, (02 No. /X-Mass Tree Assy).  One (1) Adjustable choke assembly angle type 2-9/16" 5000 PSI WP, (R-27) Inlet and Outlet Planged connections on 2-9/16" studded outlet 2" maximum orifice.  Hand wheel operated and complete with Choke Spanner, (01 No Spanner/Choke Valve).  One (1) 2-9/16" 5000 PSI WP companion flanges (forged material) with 2" Sch 120 Weld Necks, (01 Nos/X-Mass Tree Assy).  One (1) complete set of studs, nuts and ring gaskets required to assemble the above components, (01 Set/X-Mass Tree Assy).  ories for the Solid Block Christmas Trees as  Dual String Tubing Hanger for Long String 3-1/2"10.3 ppf Hyd CS Threads  Two halves (split type) Tubing Hanger 11" Nom 5000 psi W.P with 3-1/2" 10.3 ppf Hydril CS x 2-7/8" 6.5 ppf Hydril CS or equivalent premium threads (Box) top & bottom arrangement to install 2-1/2" and 3" Nom Cameron type 'H' BPV complete with seals 2-9/16 and 3-1/8" vertical bores on the bottom flange of solid bock X-mass tree at serial no 1. 5.046 centers .  ii. Each half complete with one (1) 1/4" continuous control line provision along with necessary fittings Quantity two halves = 01 set  Pack off Seals for 2-9/16 vertical bore and tubing hanger extended neck  Pack off Seals for 3-4/8" vertical bore and tubing hanger	One (1) Adjustable choke assembly angle type 3-1/8" 5000 PSI WP, (R-35) Inlet and Outlet Flanged connections on 3-1/8" studded outlet 2" maximum orifice. Hand wheel operated and complete with Choke Spanner, (01 No Spanner/Choke Valve).  One (1) 3-1/8" 5000 PSI WP companion flanges (forged material) with 3" Sch 120 Weld Necks, (01 Nos/X-Mass Tree Assy).  Two (2) 2-9/16" 5000 PSI W.P. flanged end gate valves C/w hand wheels fitted as wing valves on 2-9/16" side studded outlet. (02 Nos. /X-Mass Tree Assy)  One (1) 2-9/16" 5000 PSI W.P. Double Studded Instrument flanges (forged material), with 3/4" & 1/2" NPT taps (plugged), on each instrument flanges, (02 No. /X-Mass Tree Assy).  One (1) Adjustable choke assembly angle type 2-9/16" 5000 PSI WP, (R-27) Inlet and Outlet Flanged connections on 2-9/16" studded outlet 2" maximum orifice. Hand wheel operated and complete with Choke Spanner, (01 No Spanner/Choke Valve).  One (1) 2-9/16" 5000 PSI WP companion flanges (forged material) with 2" Sch 120 Weld Necks, (01 Nos/X-Mass Tree Assy).  One (1) complete set of studs, nuts and ring gaskets required to assemble the above components, (01 Set/X-Mass Tree Assy).  Ories for the Solid Block Christmas Trees assemblies  Dual String Tubing Hanger for Long String 3-1/2"10.3 ppf Hyd CS Threads Two halves (split type) Tubing Hanger 11" Nom 5000 psi W.P with 3-1/2" 10.3 ppf Hydril CS x 2-7/8" 6.5 ppf Hyd CS Threads Two halves (split type) Tubing Hanger 11" Nom 5000 psi W.P with 3-1/2" 10.3 ppf Hydril CS x 2-7/8" 6.5 ppf Hyd CS Threads  Two halves (split type) Tubing Hanger 11" Nom 5000 psi W.P with 3-1/2" 10.3 ppf Hydril CS x 2-7/8" 6.5 ppf Hyd CS Threads  Two halves (split type) Tubing Hanger 11" Nom 5000 psi W.P with 3-1/2" 10.3 ppf Hydril CS x 2-7/8" 6.5 ppf Hyd CS Threads and Short String 2-7/8" 6.5 ppf Hyd CS Threads and Short String 2-7/8" 6.5 ppf Hyd CS Threads and Short String 2-7/8" 6.5 ppf Hyd CS Threads and Short String 2-7/8" 6.5 ppf Hyd CS Threads and Short String 2-7/8" 6.5 ppf Hydril CS x 2-7/8" 6.5 ppf Hydril CS x 2-	Instrument flanges (forged material), with 3/4" & 1/2" NPT taps (plugged), on each instrument flange,(02 No. /X-Mass Tree Assy).  One (1) Adjustable choke assembly angle type 3-1/8" 5000 PSI WP, (R-35) Inlet and Outlet Flanged connections on 3-1/8" studded outlet 2" maximum orifice.  Hand wheel operated and complete with Choke Spanner, (01 No Spanner/Choke Valve).  One (1) 3-1/8" 5000 PSI WP companion flanges (forged material) with 3" Sch 120 Weld Necks, (01 Nos/X-Mass Tree Assy).  Two (2) 2-9/16" 5000 PSI WP flanged end gate valves C/w hand wheels fitted as wing valves on 2-9/16" side studded outlet. (02 Nos. /X-Mass Tree Assy).  One (1) 2-9/16" 5000 PSI WP. Double Studded Instrument flanges (forged material), with 3/4" & 1/2" NPT taps (plugged), on each instrument flange, (02 No. /X-Mass Tree Assy).  One (1) Adjustable choke assembly angle type 2-9/16" 5000 PSI WP, (R-27) Inlet and Outlet Flanged connections on 2-9/16" studded outlet 2" maximum orifice.  Hand wheel operated and complete with Choke Spanner, (01 No Spanner/Choke Valve).  One (1) 2-9/16" 5000 PSI WP companion flanges (forged material) with 2" Sch 120 Weld Necks, (01 Nos/X-Mass Tree Assy).  One (1) 2-9/16" 5000 PSI WP companion flanges (forged material) with 2" Sch 120 Weld Necks, (01 Nos/X-Mass Tree Assy).  One (1) 2-9/16" 5000 PSI WP companion flanges (forged material) with 2" Sch 120 Weld Necks, (01 Nos/X-Mass Tree Assy).  One (1) 2-9/16" 5000 PSI WP companion flanges (forged material) with 2" Sch 120 Weld Necks, (01 Nos/X-Mass Tree Assy).  One (1) 2-9/16" 5000 PSI WP companion flanges (forged material) with 2" Sch 120 Weld Necks, (01 Nos/X-Mass Tree Assy).  One (1) 2-9/16" 5000 PSI WP companion flanges (forged material) with 2" Sch 120 Weld Necks, (01 Nos/X-Mass Tree Assy).  One (1) 2-9/16" 5000 PSI WP Companion flanges (forged material) with 2" Sch 120 Weld Necks, (01 Nos/X-Mass Tree Assy).  One (1) 2-9/16" 5000 PSI WP Necks (10 Nos 2	Instrument flanges (forged material), with 3/4" & 1/2" NPT taps (plugged), on each instrument flange, (02 No. /X-Mass Tree Assy).  One (1) Adjustable choke assembly angle type 3-1/8" 5000 PSI WP, (R-35) Inlet and Outlet Flanged connections on 3-1/8" studded outlet 2" maximum orifice. Hand wheel operated and complete with Choke Spanner, (01 No Spanner/Choke Valve). One (1) 3-1/8" 5000 PSI WP companion flanges (forged material) with 3" Sch 120 Weld Necks, (01 Nos/X-Mass Tree Assy).  Two (2) 2-9/16" 5000 PSI WP flanged end gate valves C/w hand wheels fitted as wing valves on 2-9/16" side studded outlet. (02 Nos. /X-Mass Tree Assy). One (1) 2-9/16" 5000 PSI W.P. Double Studded Instrument flanges (forged material), with 3/4" & 1/2" NPT taps (plugged), on each instrument flanges, (02 No. /X-Mass Tree Assy). One (1) Adjustable choke assembly angle type 2-9/16" 5000 PSI WP, (R-27) Inlet and Outlet Flanged connections on 2-9/16" studded outlet 2" maximum orifice. Hand wheel operated and complete with Choke Spanner, (01 No Spanner/Choke Valve). One (1) 2-9/16" 5000 PSI WP companion flanges (forged material) with 2" Sch 120 Weld Necks, (01 Nos/X-Mass Tree Assy). One (1) 2-9/16" 5000 PSI WP companion flanges (forged material) with 2" Sch 120 Weld Necks, (01 Nos/X-Mass Tree Assy). One (1) complete set of studs, nuts and ring gaskets required to assemble the above components, (01 Set/X-Mass Tree Assy).  ories for the Solid Block Christmas Trees assemblies (Sr.No.2 to 29) to be stone string 2-1/2" 0.3 ppf Hyd CS Threads and Short String 2-7/8" 6.5 ppf Hydril CS or equivalent premium threads (Box) top & bottom arrangement to install 2-1/2" and 3" Nom Cameron type "H BPV complete with seals 2-9/16 and 3-1/8" vertical bores on the bottom flange of solid bock X-mass tree at serial no 1. 5.046 centers ii. Each half complete with one (1) 1/4" continuous control line provision along with necessary fittings Quantity two halves = 01 set Pack off Seals for 2-9/16 vertical bore and tubing hanger extended neck 1/2" NPT, 5000 psi WP Needl

Thermowell (Compatible with 3-1/8", St.	r						
7   350" F, (Compatible with thermo well at Sr #   0, 316 ST/STL.  Pressure Gauges 0 - 5,000 Psi DIAL, SIZE 3- 172" 4" with 172" MPT Thread bottom SS case and wetted parts  Fixed/Positive Choke, 3-118"-SK Flanged ends inter and outlet, Choke bean 2" Max Orifice  Fixed/Positive Choke, 2-9116"-SK Flanged ends inter and outlet, Choke bean 2" Max Orifice  Fixed/Positive Choke, 2-9116"-SK Flanged ends inter and outlet, Choke bean 2" Max Orifice  Set of Beans for 3-1/8" and 2-9116" Fixed / Positive Choke, 2-9116" Fixed / Positive Choke assemblies at serial no 9 & 10 tilly lines with Trungsten Carbide in sizes 16/64, 20/64, 24/64, 28/64, 36/64, 64/64 and 128/64 inch  The choke beans must be compatible to install in fixed/positive choke assemblies at serial 9 & 10.  12 Bean Wrench, 3" Nom Positive Choke. Nos 2  Valve, Back Pressure, 3" Nom. Type 1", 3-13/2" OD, 4 T.P.I. L.H. Thread 3-1/2" OD Tubing, (For Dual Tubing Hanger at Serial no 2.).  3" Two way check valve Type "H" Threads (For Dual Tubing Hanger at Serial no 2.).  15 Insertion Tool for BPV and two way check Valve at Serial no 13 & 14  Removal Tool for BPV and two way check Valve at Serial no 13 & 14  Removal Tool for BPV and two way check Valve Serial no 13 & 14  Adaptor Flange, 3-1/8" 5000 psi W, P. W 2"  Fig 1502 Connection Hammer Union with Nut Lubricator Assembly (forged material) 10,000 psi W, PS TDH/2S service) compatible with tree top connection quick union (ACME threads or 100% equivalent premium threads e e.g. Grant Pridece RT-8. PF S Technitube "TS BP S revice) at serial no 1.5 to install 3" type 1" BPV a serial no 24 serial no 1.5 to install 3" type 1" BPV a serial no 24 serial no 1.5 to install 3" type 1" BPV a serial no 24 serial no 1.5 to install 3" type 1" BPV a serial no 24 serial no 1.5 to install 3" type 1" BPV a serial no 24 serial no 1.5 to install 3" type 1" BPV a serial no 24 serial no 1.5 to install 3" type 1" BPV a serial no 24 serial no 1.5 to install 3" type 1" BPV a serial no 24 serial no 1.5 to install 3" type 1" BPV a serial no 24		6	316 ST/STL. Outer threads of Thermowells should be 3/4" whereas the inner threads should be 1/2" NPT Threads.	1	2		
8 1/2"-4" with 1/2" NPT Thread bottom SS case and wetted parts 9 Fixed/Positive Choke, 3-1/8"-5K Flanged ends Inlet and outlet, Choke bean 2" Max Orifice 10 Fixed/Positive Choke, 2-9/16"-5K Flanged ends Inlet and outlet, Choke bean 2" Max Orifice Set of Beans for 3-1/8" and 2-9/16" Fixed / Positive Choke assemblies at serial no 9 & 10 fully lines with Tungsten Carbide in sizes 16/64, 20/64, 24/64, 28/64, 25/64, 36/64, and 128/64 inch The choke beans must be compatible to install in fixed/positive choke assemblies at serial 9 & 10 12 Bean Wrench, 3" Nom Positive Choke. Nos 2 12 Bean Wrench, 3" Nom Positive Choke. Nos 2 10 Bean Wrench, 3" Nom Positive Choke. Nos 2 10 Tubling, (For Dual Tubling Hanger at Serial no 12). 13 Two way check valve Type HT Threads (For Dual Tubling Hanger at Serial no 2). 15 Insertion Tool for BPV and two way check Valve at Serial no 13 & 14 16 Removal Tool for BPV and two way check valve Serial no 13 & 14 17 Adaptor Flange, 2-1/1/6" 5000 psi W. P. W. 2" Fig 1502 Connection Hammer Union with Nut Lubricator Assembly (forged material) 10,000 psi W. P. STD/H2S service) compatible with tree top connection hammer Union with Nut Lubricator Assembly (forged material) 10,000 psi W. P. STD/H2S service) compatible with tree top connection hammer Union with Nut Serial no 1.5 to install 3" type HT BPV at serial no 1.5 to install 3" type HT BPV at serial no 1.5 to install 3" type HT BPV at serial no 1.5 to install 3" type HT BPV at serial no 1.5 to install 3" type HT BPV at serial no 1.5 to install 3" type HT BPV at serial no 1.5 to install 3" type HT BPV at serial no 1.5 to install 3" type HT BPV at serial no 1.5 to install 3" type HT BPV at serial no 1.5 to install 3" type HT BPV at serial no 1.5 to install 3" type HT BPV at serial no 1.5 to install 3" type HT BPV at serial no 1.5 to install 3" type HT BPV at serial no 1.5 to install 3" type HT BPV at serial no 1.5 to install 3" type HT BPV at serial no 1.5 to install 3" type HT BPV at serial no 1.5 to install 3" type HT BPV at serial no 1.5 to ins		7	350° F, (Compatible with thermo well at Sr # 6), 316 ST/STL.	Nos	2		
Inleit and outlet, Choke bean 2" Max Orifice  Fixed/Positive Choke, 2-9/16" -5K Flanged ends Inleit and outlet, Choke bean 2" Max Orifice  Set of Beans for 3-1/8" and 2-9/16" -Fixed / Positive Choke assemblies at serial no 9 & 10 fully lines with Tungsten Carbide in sizes 16/64, 20/64, 24/64, 28/64, 28/64, 36/64, 40/64, 44/64, 26/64, 28/64, 28/64, 36/64, 40/64, 44/64, 48/64, 28/64, 32/64, 36/64, 40/64, 44/64, 48/64, 52/64, 56/64, 64/64 and 128/64 inch The choke beans must be compatible to install in fixed/positive choke assemblies at serial 9 & 10  12 Bean Wrench, 3" Nom Positive Choke. Nos 2  Valve, Back Pressure, 3" Nom. Type 'H', 3-1/32" OD, 4 T.P.I. L.H. Thread 3-1/2" OD Tubing, (For Dual Tubing Hanger at Serial no 2).  13' Two way check valve Type 'H' Threads (For Dual Tubing Hanger at Serial no 2).  15' Insertion Tool for BPV and two way check Valve at Serial no 13 & 14  Removal Tool for BPV and two way check valve Serial no 13 & 14  Adaptor Flange, 2-1/16" 5000 psi W. P w/ 2" Fig 1502 Connection Hammer Union with Nut Lubricator Assembly (forged material) 10,000 psi W. P. STD/H2S service) compatible with tree top connection quick union (ACME threads/seais 10000 Psi W. P STD/H2S service) at serial no 13 and 2-1/2" Type 'H' BPV at serial no 13 and 2-1/2" Type 'H' BPV at serial no 13 and 2-1/2" Type 'H' BPV at serial no 13 and 2-1/2" Type 'H' BPV at serial no 13 and 2-1/2" Type 'H' BPV at serial no 13 and 2-1/2" Type 'H' BPV at serial no 13 and 2-1/2" Type 'H' BPV at serial no 13 and 2-1/2" Type 'H' BPV at serial no 13 and 2-1/2" Type 'H' BPV at serial no 13 and 2-1/2" Type 'H' BPV at serial no 13 and 2-1/2" Type 'H' BPV at serial no 13 and 2-1/2" Type 'H' BPV at serial no 13 and 2-1/2" Type 'H' BPV at serial no 14 and 15 to install 3" type H' BPV at serial no 15 and install 3" type H' BPV at serial no 15 and install 3" type H' BPV at serial no 15 and install 3" type H' BPV at serial no 15 and 2-1/2" Type 'H' BPV at serial no 15 and 2-1/2" Type 'H' BPV at serial no 15 and 2-1/2" Type 'H' BPV at serial no 15		8	1/2"-4" with 1/2" NPT Thread bottom SS case	Nos	6		
Inlet and outlet, Choke bean 2" Max Önfice   Set of Beans for 3-1/8" and 2-9/16" Fixed / Positive Choke assemblies at serial no 9 & 10 fully lines with Tungsten Carbide in sizes 16/64, 20/64, 24/64, 28/64, 36/64, 36/64, 40/64, 24/64, 26/64, 26/64, 36/64, 40/64, 20/64, 24/64, 28/64, 36/64, 36/64, 40/64, 20/64, 24/64, 28/64, 36/64, 36/64, 40/64, 20/64, 24/64, 28/64, 36/64, 36/64, 40/64, 44/64, 48/64, 56/64, 64/64 and 128/64 inch   The choke beans must be compatible to install in fixed/positive choke assemblies at serial 9 & 10		9		Nos	2		
Positive Choke assemblies at serial no 9 & 10 fully lines with Tungsten Carbide in sizes 16/64, 20/64, 24/64, 28/64, 32/64, 36/64, 40/64, 44/64, 48/64, 52/64, 56/64, 64/64 and 128/64 inch The choke beans must be compatible to install in fixed/positive choke assemblies at serial 9 & 10  12 Bean Wrench, 3" Nom Positive Choke.     Valve, Back Pressure, 3" Nom. Type 'H', 3-1/32" OD, 4 T.P.I. L.H. Thread 3-1/2" OD Tubing, (For Dual Tubing Hanger at Serial no 2).  3" Two way check valve Type 'H' Threads (For Dual Tubing Hanger at Serial no 2).  15 Insertion Tool for BPV and two way check Valve at Serial no 13 & 14  Removal Tool for BPV and two way check Valve Serial no 13 & 14  16 Removal Tool for BPV and two way check Valve Serial no 13 & 14  17 Fig 1502 Connection Hammer Union with Nut Nut Lubricator Assembly (forged material) 10,000 psi W.P.STD/H2S service) at serial mo 1.5 to install 3" type 'H' BPV at serial no 13 and 2-1/2" Type 'H' BPV at serial no 1.5 to install 3" type 'H'		10	Fixed/Positive Choke, 2-9/16"-5K Flanged ends Inlet and outlet, Choke bean 2" Max Orifice	Nos	2		
12   Bean Wrench, 3" Nom Positive Choke.   Nos   2	,	11	Positive Choke assemblies at serial no 9 & 10 fully lines with Tungsten Carbide in sizes 16/64, 20/64, 24/64, 28/64, 32/64, 36/64, 40/64, 44/64, 48/64, 52/64, 56/64, 64/64 and 128/64 inch The choke beans must be compatible to install in fixed/positive choke assemblies at serial 9 &	Nos	2		
Valve, Back Pressure, 3" Nom. Type 'H', 3-1/32" OD, 4 T.P.I. L.H. Thread 3-1/2" OD Tubing, (For Dual Tubing Hanger at Serial no 2).  3" Two way check valve Type 'H' Threads (For Dual Tubing Hanger at Serial no 2).  15 Insertion Tool for BPV and two way check Valve at Serial no 13 & 14  16 Removal Tool for BPV and two way check Valve at Serial no 13 & 14  17 Removal Tool for BPV and two way check Valve at Serial no 13 & 14  18 Adaptor Flange, 2-1/16" 5000 psi W. P W/ 2" Fig 1502 Connection Hammer Union with Nut Lubricator Assembly (forged material) 10,000 psi W.P.STD/H2S service) compatible with tree top connection quick union (ACME threads/seals 10000 PSi W.P STD/H2S service) at serial no 1.5 to install 3" type 'H' BPV at serial no 13 and 2-1/2" Type 'H' BPV at serial no 13 and 2-1/2" Type 'H' BPV at serial no 14 Substitute/Xover 3-1/2" X 10.3 ppf Hydril 'CS' threads or 100% equivalent premium threads e.g. Grant Prideco RTS-8, TPS Technitube "TS-8", Hunting TS-HP, Benoit "BTS-8" etc Pin X Pin L-80 (type 1). 2 feet length  Thermo well ( Compatible with 2-9/16", 5K, Double Studded Instrument Flange at Serial no 11, 316 ST/STL. Outer threads of Thermowells should be 3/4" whereas the inner threads should be 1/2" NPT Threads.  Temperature Gauge, 4" Dial, Range 0" F to 350" F, (Compatible with thermowell at Serial no 21), 316 ST/STL.	1	12		Nos	2		
14 Dual Tubing Hanger at Serial no 2)  15 Insertion Tool for BPV and two way check Valve at Serial no 13 & 14  16 Removal Tool for BPV and two way check valve Serial no 13 & 14  17 Adaptor Flange , 2-1/16" 5000 psi W. P w/ 2" Fig 1502 Connection Hammer Union with Nut  18 Adaptor Flange , 3-1/8" 5000 psi W. P w/ 2" Fig 1502 Connection Hammer Union with Nut  Lubricator Assembly (forged material) 10,000 psi W. P STD/H2S service) compatible with tree top connection quick union (ACME  19 threads/seals 10000 PSI W. P STD/H2S service) at serial no 1.5 to install 3" type 'H'  BPV at serial no 1.5 to install		13	1/32" OD,4 T.P.I. L.H. Thread 3-1/2" OD Tubing, (For Dual Tubing Hanger at Serial no				
Valve at Serial no 13 & 14   Sets   2		14	Dual Tubing Hanger at Serial no 2)	Nos	1		
Adaptor Flange , 2-1/16" 5000 psi W. P w/ 2" Fig 1502 Connection Hammer Union with Nut  Adaptor Flange , 3-1/8" 5000 psi W. P w/ 2" Fig 1502 Connection Hammer Union with Nut  Lubricator Assembly (forged material) 10,000 psi W.P.STD/H2S service) compatible with tree top connection quick union (ACME threads/seals 10000 PSi W.P STD/H2S service) at serial no 1.5 to install 3" type 'H' BPV at serial no 1.5 to install 3" type 'H' BPV at serial no 1.3 and 2-1/2" Type 'H' BPV at serial no 24 Substitute/Xover 3-1/2" X 10.3 ppf Hydril 'CS' threads or 100% equivalent premium threads e.g. Grant Prideco RTS-8, TPS Technitube "TS-8", Hunting TS-HP, Benoit "BTS-8" etc Pin X Pin L-80 (type 1). 2 feet length  Thermo well ( Compatible with 2-9/16", 5K, Double Studded Instrument Flange at Serial no 1.11), 316 ST/STL. Outer threads of Thermowells should be 3/4" whereas the inner threads should be 1/2" NPT Threads.  Temperature Gauge, 4" Dial , Range 0° F to 350° F, (Compatible with thermo well at Serial no 21), 316 ST/STL.		15	Valve at Serial no 13 & 14	Sets	2		
17 Fig 1502 Connection Hammer Union with Nut  18 Adaptor Flange , 3-1/8" 5000 psi W. P w/ 2" Fig 1502 Connection Hammer Union with Nut  Lubricator Assembly (forged material) 10,000 psi W.P.STD/H2S service) compatible with tree top connection quick union (ACME threads/seals 10000 PSI W.P. STD/H2S service) at serial no 1.5 to install 3" type 'H' BPV at serial no 13 and 2-1/2" Type 'H' BPV at serial no 24 Substitute/Xover 3-1/2" X 10.3 ppf Hydril 'CS' threads or 100% equivalent premium threads 20 e.g. Grant Prideco RTS-8, TPS Technitube "TS-8", Hunting TS-HP, Benoit "BTS-8" etc Pin X Pin L-80 (type 1). 2 feet length  Thermo well ( Compatible with 2-9/16", 5K, Double Studded Instrument Flange at Serial no 21 1.11), 316 ST/STL. Outer threads of Thermowells should be 3/4" whereas the inner threads should be 1/2" NPT Threads.  Temperature Gauge, 4" Dial , Range 0° F to 350° F, (Compatible with thermo well at Serial no 21), 316 ST/STL.		16	valve Serial no 13 & 14	Sets	2		
Fig 1502 Connection Hammer Union with Nut  Lubricator Assembly (forged material) 10,000 psi W.P.STD/H2S service) compatible with tree top connection quick union (ACME  19 threads/seals 10000 PSI W.P.STD/H2S service) at serial no 1.5 to install 3" type 'H' BPV at serial no 13 and 2-1/2" Type 'H' BPV at serial no 24  Substitute/Xover 3-1/2" X 10.3 ppf Hydril 'CS' threads or 100% equivalent premium threads 20 e.g. Grant Prideco RTS-8, TPS Technitube "TS- 8", Hunting TS-HP, Benoit "BTS-8" etc Pin X Pin L-80 (type 1). 2 feet length  Thermo well ( Compatible with 2-9/16", 5K, Double Studded Instrument Flange at Serial no 21 1.11), 316 ST/STL. Outer threads of Thermowells should be 3/4" whereas the inner threads should be 1/2" NPT Threads.  Temperature Gauge, 4" Dial , Range 0° F to 22 350° F, (Compatible with thermo well at Serial no 21), 316 ST/STL.		17	Fig 1502 Connection Hammer Union with Nut	Nos	2		
psi W.P.STD/H2S service) compatible with tree top connection quick union (ACME threads/seals 10000 PSI W.P STD/H2S Nos service) at serial no 1.5 to install 3" type 'H' BPV at serial no 13 and 2-1/2" Type 'H' BPV at serial no 24  Substitute/Xover 3-1/2" X 10.3 ppf Hydril 'CS' threads or 100% equivalent premium threads e.g. Grant Prideco RTS-8, TPS Technitube "TS-8", Hunting TS-HP, Benoit "BTS-8" etc Pin X Pin L-80 (type 1). 2 feet length  Thermo well ( Compatible with 2-9/16", 5K, Double Studded Instrument Flange at Serial no 1.11), 316 ST/STL. Outer threads of Thermowells should be 3/4" whereas the inner threads should be 1/2" NPT Threads.  Temperature Gauge, 4" Dial , Range 0° F to 350° F, (Compatible with thermo well at Serial no 21), 316 ST/STL.		18	Fig 1502 Connection Hammer Union with Nut	Nos	2		
Substitute/Xover 3-1/2" X 10.3 ppf Hydril 'CS' threads or 100% equivalent premium threads e.g. Grant Prideco RTS-8, TPS Technitube "TS-8", Hunting TS-HP, Benoit "BTS-8" etc Pin X Pin L-80 (type 1). 2 feet length  Thermo well ( Compatible with 2-9/16", 5K, Double Studded Instrument Flange at Serial no 1.11), 316 ST/STL. Outer threads of Thermowells should be 3/4" whereas the inner threads should be 1/2" NPT Threads.  Temperature Gauge, 4" Dial , Range 0° F to 350° F, (Compatible with thermo well at Serial no 21), 316 ST/STL.		19	psi W.P.STD/H2S service) compatible with tree top connection quick union (ACME threads/seals 10000 PSI W.P STD/H2S service) at serial no 1.5 to install 3" type 'H' BPV at serial no 13 and 2-1/2" Type 'H' BPV at serial no 24	Nos	2		
Double Studded Instrument Flange at Serial no 1.11), 316 ST/STL. Outer threads of Thermowells should be 3/4" whereas the inner threads should be 1/2" NPT Threads.  Temperature Gauge, 4" Dial , Range 0° F to 350° F, (Compatible with thermo well at Serial no 21), 316 ST/STL.  Nos 2		20	Substitute/Xover 3-1/2" X 10.3 ppf Hydril 'CS' threads or 100% equivalent premium threads e.g. Grant Prideco RTS-8, TPS Technitube "TS-8", Hunting TS-HP, Benoit "BTS-8" etc Pin X Pin L-80 (type 1). 2 feet length	Nos	2		
22 350° F, (Compatible with thermo well at Serial no 21), 316 ST/STL.			Double Studded Instrument Flange at Serial no 1.11), 316 ST/STL. Outer threads of Thermowells should be 3/4" whereas the inner threads should be 1/2" NPT Threads.	Nos	2		
23 Bean Wrench, 2" Nom Positive Choke. Nos 2			350° F, (Compatible with thermo well at Serial no 21), 316 ST/STL.	Nos	2		
	L	23	Bean Wrench, 2" Nom Positive Choke.	Nos	2		



-	N/		<del></del>	T	
24	Valve, Back Pressure, 2-1/2" Nom. Type 'H', 2-1/2" OD, 4 T.P.I. L.H. Thread 2-7/8" OD Tubing, (For Dual Tubing Hanger at Serial no 2).	Nos	2		
25	2" Two way check valve Type 'H' Threads (For Dual Tubing Hanger at Serial no 2)	Nos	1		
26	Insertion Tools for BPV and two way check Valve at Serial no 24 & 25	Nos	2		
27	Removal Tool for BPV and two way check valve Serial no 24 & 25	Nos	2		
28	Substitute/Xover 2-7/8" 6.5 ppf Hydril 'CS' threads or 100% equivalent premium threads e.g. Grant Prideco RTS-8, TPS Technitube "TS-8", Hunting TS-HP, Benoit "BTS-8" etc Pin X Pin L-80 (type 1). 2 feet length	Nos	2		
29	Hydraulic Pump Hand Operated for testing the tree with connecting pressure manifold, API 10,000 PSI W.P.	Nos	2		
30	Tubing Head Spool Assembly to accommodate dual tubing Hanger each assembly should supplied in assembled form having following components (Sr. No. 30.1 to 30.6	Nos	2	Lump sum cost of Tubing head spool item 30.1 to 30.6	
30.1	Long Tubing Head spool (forged material) for solid block dual X-mass trees with bottom flange size 11" API 5000 PSI WP & top flange size 11" API 5000 PSI WP. The top of the spool to have tie down screws and bottom having necessary seals for 9-5/8" Casing and two 2-1/16" API 5000 PSI WP Studded Outlets having 1-1/2" VR Thread. All required accessories e.g. Allen Wrench, Spanner etc. should be supplied with each tubing spool and placed in the box along with the following fitted items.  Quoted Tubing Head Spool must be compatible with the Dual Tubing Hanger at serial no 2	Nos			
30.2	Two (2) 2-1/16" 5000 psi WP Double Flanged gate valves (forged material), Including Hand wheel, (02 Nos. / THS Assy).	Nos			
30.3	Two (2) 2-1/16" 5000 PSI W.P. Double Studded Instrument flanges (forged material), with 3/4" & 1/2" NPT taps (plugged), on each instrument flange, (02 Nos/THS Assy).	Nos			
30.4	Two (2) 2-1/16" 5000 psi WP Blind flanges (forged material) with 1/2" Tap (plugged),(02 Nos/THS Assy).	Nos			
30.5	Two (2) 1/2" NPT, 5000 psi WP Needle valves (Male x Female), Super Trim, 316 ST/STL. These valves are to be shipped loose inside the box containing every tubing spool assembly,(02 Nos/THS Assy).	Nos			
30.6	One complete set of studs, nuts and ring gaskets required to assemble the above components,(01 Set / THS Assy).	Nos			
Accessories for the THS assemblies to be supplied loose, one each in the same Box with every THS assembly					
31	11" Nom. Bore Wear Bushing for Tubing Head Spool at Serial 30.	Nos	2		
			-		

F					
32	Tool for Installation & Removal of Wear Bushing at Serial # 31 with 3-1/2" IF Threads Box ( Bottom & Top). The Tool may also be used for testing the BOP including the provision to test the Blind rams also.	Nos	2		
33	Sets of studs and nuts each set comprises of 12 Nos studs (each with 02 Nos Nuts), size 1-7/8" Dia x 14-1/2" length ", Zn/Cad/PTFE coated, Material A193 GR B7 (01 set/THS assembly)	Set	2		
34	Gasket, Self Sealing Ring ST/STL R-54	Nos	5		
Repair Financ	Kits (Complete description/part number of a ial bid).	II the iten	ns in each	repair kit mu	st be provided in the
35	Repair Kits for Tubing Head Spool, e.g. 9-5/8" seals, Retainer Wires/rings, O-rings, seals etc & any other part essentially required to service the spool	Sets.	4		
36	Repair kits for 2-1/16" 5K Gate valves, e.g. Pins, Bearings, Bonnet Seal, Seat Seal, Stem Packing, O-rings, etc and any other part essentially required to service the valve. However kit may not include major items e.g. gate	Sets.	2		
37	Repair kits for 2-9/16" 5K Gate valves, e.g. Pins, Bearings, Bonnet Seal, Seat Seal, Stem Packing, O-rings, etc and any other part essentially required to service the valve. However kit may not include major items e.g. gate	Sets.	2		
38	Repair kits for 3-1/8" 5K Gate valves e.g. Pins, Bearings, Bonnet Seals, Seat Seals, Stem Packing, O-rings, etc & any other part essentially required to service the valve. However kit may not include major items e.g. gate	Sets.	2		
39	Repair Kit for 3-1/8" 5K Hydraulic actuator, e.g. High Pressure Packing, Seals, Bearings, Disks, retainer rings, etc & any other part essentially required to service the hydraulic actuator	Sets.	2		
40	Repair Kit for 2-9/16" 5K Hydraulic actuator, e.g. High Pressure Packing, Seals, Bearings, Disks, retainer rings, etc & any other part essentially required to service the hydraulic actuator	Sets.	2		
41	Repair kits for 3" Nom BPV, e.g. O-Rings, etc and any other part essentially required to service the BPV	Sets.	4		
42	Repair kits for 2-1/2" Nom BPV, e.g. O-Rings, etc and any other part essentially required to service the BPV	Sets.	4		
43	Repair Kits for Tubing hanger, e.g. Metallic and soft seals for hanger body and neck, O-rings, ferrule Joint, Locking nuts etc and any other part essentially required to service the tubing hanger	Sets.	4		
44	Repair kits for 3-1/8" 5K Positive choke e.g. Seals/O-Rings, etc and any other part essentially required to service the positive choke.	Sets.	2		

59	Total Cost for Sale Items + Total cost for asso	ociated S	ervices.		xxxxxxx	Financial Evaluation and Order Placement will be on Total Sale Items + Total Services Cost
58	Total Cost for Associated Services plus 20% Provincial Sales Tax )	continge	ncy (Exclus	sive	xxxxxxx	
57	20% contingency of the total services cost				xxxxxx	
56	Total Services Cost (Exclusive Provincial Sales Tax)				xxxxxx	
55	Lump sum Mob/Demob charges of Service Engineer	Per Mob/De- Mob	5 Visits	N/A	axb	Evaluation will be carried out for 5 Jobs/Visits.
54	Service Engineer Per Day Rate	Day Rate	5	07 DAYS	axbxc	The rate will be calculated /Evaluated for a 07 Days Job. Total Number of Jobs/Visits will be 5
53	ASSOCIATED COMPLETION SERVICES	Rates in US \$ (a)	Est. Number of Jobs (b)	Est. Job Duration of each job (c)	TOTAL COST	
52	TOTAL COST FOR SALE ITEMS				XXXXXXX	
51	Repair Kits for 2-/16" 5K X-Mass Tree cap, e.g. Metallic seals/ O-rings, etc and any other part essentially required to service the Tree Cap	Sets	5	119 44-400		
50	Repair Kits for 3-1/8" 5K X-Mass Tree cap, e.g. Metallic seals/ O-rings, etc and any other part essentially required to service the Tree Cap	Sets	5			
49	Repair kit for Test Plug/ Running and retrieving tool for Wear bushing e.g. seals,O-rings etc and any other part essentially required to service the test plug	Sets.	6			
48	Repair Kits for Lubricator Assembly, e.g. Gland Packing, O-Rings, seals, etc and any other part essentially required to service the Lubricator Assembly	Sets.	2			
47	Repair Kits for 2-9/16" 5K Adjustable choke, e.g. Stem and Seat, Locking pins, union nuts, retainer ring, Back up ring, Bonnet seal, Seat seal, Stem packing, O-rings, etc and any other part essentially required to service the Adjustable Choke	Sets.	2			
46	Repair Kits for 3-1/8" 5000 Psi Adjustable choke, e.g. Stem and Seat, Locking pins, union nuts, retainer ring, Back up ring, Bonnet seal, Seat seal, Stem packing, O-rings, etc and any other part essentially required to service the Adjustable Choke	Sets.	2			
45	Repair kits for 2-9/16" 5K Positive choke e.g. Seals/O-Rings, etc and any other part essentially required to service the positive choke.	Sets.	2			

Te	rms	and Conditions:	Bidder to confirm
	1	Evaluation Criteria	Didder to commi
1		The financial evaluation will be carried out on complete package, bidder to	
		provide acceptance. Failure to quote any of the line items will result in the	
		financial rejection of the bidders. Bidders are strongly advised to quote all the line	
		items as per SOR without fail. Bidder are required to submit combined technical &	
		financial bids in a single envelope.	
$\vdash$	2	Manufacturing Plant API 6ACertificates	
	_	Bidders are required to submit their manufacturing wheat (a) ADLOA II	
		Bidders are required to submit their manufacturing plant (s) API-6A license valid at the time of bid submission.	
-			
	3	Manufacturing Plant API 6A Letter (If Required)	
		In case the API 6A license is suspended then documentary evidence from API is	
		required clearly mentioning the reason of suspension.	
	4	Sub Vendors API 6A Certificates	
1		Bidders are required to submit their sub vendors valid API certificates to provide	
l		any critical items required in the indent e.g. Surface safety valves, Actuators,	
ĺ		Choke valves, BPV etc must be same as mentioned in the prequalification	
		notification issued vide December 17, 2018.	
	5	Delivery Requirements	
		i. The desired delivery period is 06 months C&F Karachi from the day of LC	
		establishment. Bids received with more than 06 months delivery period may not	
Ţ		be considered for evaluation.	
		ii. In case of local Manufacturer bidder needs to confirm delivery at OGDCL I-9	
		Store Islamabad or KBS Karachi	
-	6		
	0	Material Specifications  The hidden is a series of the ser	
Ì		The bidder is required to quote only AISI 4130 Alloy steel forged material, as per	
<u> </u>		API 6A Latest Edition, PSL-3, PR-2, Temperature Class 'X' Material Class 'EE'	
	7	Threading Facility of Tubing Hangers, X-overs and X-Mass Tree Top Flange	
		Threads	
		Bidders needs to submit their threading facility valid API 5CT license from where	
		the Hydril CS or equivalent premium threads of tubing hangers (Sr # 20 & 22),	
		X-overs (Sr # 31) and tree cap female pickup threads (Sr # 1.5) will be	
		certified. Copies of the relevant licenses of threader to cut the Hydril CS or	
1		equivalent premium threads must be provided with the financial bid .	
1		Please note that only Hydril 'CS' or 100% equivalent premium threads will be	
		acceptable e.g. Grant Prideco RTS-8, TPS Technitube "TS-8", Hunting TS-HP,	
		Benoit "BTS-8" etc. Bidder is required to specify the quoted thread name.	
	8	Surface Treatment of Tubing Hangers, X-overs and X-Mass Tree Top Flange	
		Threads	
		Bidder is required to confirm that they will conduct the proper surface treatment	
		on the tubing hanger, X-overs and tree cap top flange threads wherever	
]		applicable as per material class 'EE' e.g. phoshpahting etc to avoid galling or any	
Τ,		other threads problem.	
	9	THIRD PARTY INSPECTION (TPI)	
1	_	OGDCL will arrange Third Party Inspection however the scope of inspection will	
1		be provided prior to the commencement of job. Bidder is required to confirm that	
ľ		they will timely inform the relevant TPI company and provide the necessary	
1		assistance during the inspection.	
		activities saving the mopeodori.	