

Petroleum Exploration (Pvt.) Limited

DOWNHOLE COMPLETION EQUIPMENT AYUB-I

| S. No | Description | Unit | Quantity Required |
|-------|---|------|-------------------|
| I | Completion Assembly (Bottom Packer) | | |
| 1 | Half Mule shoe/Wireline Re-entry Guide: Wireline re-entry guide with half mule shoe. 3½" 9.3ppf Gas Tight Premium connection Box Up . Material: L-80 or equivalent | No | 1 |
| 2 | Spacer Tube: 10 ft long, 3½" 9.3ppf Gas Tight Premium connection Box Up x Pin Down. Material: L-80 or equivalent | No | 2 |
| 3 | Bottom No-Go Landing nipple: Size 2.562" Profile OTIS Type "XN" or Baker Type "R", 3½" 9.3ppf gas Tight Premium connection Box Up x Pin Down (w/No-Go ID 2.697"). Material: Flow wetted 9Cr-1 Mo L-80 or equivalent | No | 1 |
| 4 | Perforated Pup joint: 10 ft long, 3½" 9.3ppf Premium connection Box Up x Pin Down. Material: L-80 or equivalent | No | 1 |
| 5 | Top No-Go Landing nipple: Size 2.562" Profile OTIS Type "X" or Baker Type "F", 3½" 9.3ppf Gas Tight Premium connection Box Up x Pin Down. Material: Flow wetted 9Cr-1 Mo L-80 or equivalent | No | 1 |
| 6 | Spacer Tube: 10 ft long, 3½" 9.3ppf Gas Tight Premium connection Box Up x Pin Down. Material: L-80 or equivalent | No | 1 |
| 7 | Casing Sub/X-over: To connect Mill out Extension with spacer tube. Material: L-80 or equivalent | No | 1 |
| 8 | Mill Out Extension: Larger ID required for retrieving the packer by milling. Connections compatible with Connection sub/SBE and Casing sub. Length ± 6 Ft , Material: L-80 or equivalent | No | 1 |
| 9 | Connecting Sub: If any required between Seal bore Ext & Mill out ext. . Material: L-80 or equivalent | No | 1 |
| 10 | Seal Bore Extension: 10 FT long with appropriate Gas Tight Premier Connection. Material: L-80 or equivalent | No | 1 |
| 11 | Production Packer: Seal bore Permanent Production Packer, Setting mechanism :Wireline/hydraulic, (Permanent to be Set in 7"Casing 23-32 ppf casing), Packer Seal bore ID 4", Rubber Elements compatible with 2~5% CO2 , H2S = 0 ppm, Pressure Rating 10000 psi & Temperature ±300 °F . Material: L-80 or equivalent | Set | 1 |
| 12 | Locator Seal Assembly: Locator Seal Assembly for the Seal bore paker, Length 10ft, Configuration: Locator Mandrel, 1 set seal unit, spacer tube, 3 sets of seal units, wireline re-entry guide (Total 4 seal units). Seal element compatible with 2~5% CO2 , H2S = 0 ppm, Pressure Rating 10000 psi &Temperature ±300 °F. Min ID through LSA 2.992". Top Connection: 3½" 9.2 lbs/ft Gas tight premium connection Box up . Material: L-80 or equivalent | Set | 1 |
| 13 | Redress Kit: For Locator Seal Assembly | Set | 1 |

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| 2 | Completion Assembly (Top Packer) | | |
| 1 | Half Mule shoe/Wireline Re-entry Guide: Wireline re-entry guide with half mule shoe. 3½” 9.3ppf gas tight Premium connection Box Up . Material: L-80 or equivalent | No | 1 |
| 2 | Spacer Tube: 10 ft long, 3½” 9.3ppf Premium connection Box Up x Pin Down. Material: L-80 or equivalent | No | 2 |
| 3 | Bottom No-Go Landing nipple: Size 2.750" Profile OTIS Type “XN” or Baker Type "R", 3½” 9.3ppf Gas Tight Premium connection Box Up x Pin Down (w/No-Go ID 2.697"). Material: Flow wetted 9Cr-1 Mo L-80 or equivalent | No | 1 |
| 4 | Perforated Pup joint: 10 ft long, 3½” 9.3ppf Gas Tight Premium connection Box Up x Pin Down. Material: L-80 or equivalent | No | 1 |
| 5 | Top No-Go Landing nipple: Size 2.750" Profile OTIS Type “X” or Baker Type "F", 3½” 9.3ppf Gas Tight Premium connection Box Up x Pin Down. Material: Flow wetted 9Cr-1 Mo L-80 or equivalent | No | 1 |
| 6 | Spacer Tube: 10 ft long, 3½” 9.3ppf Gas Tight Premium connection Box Up x Pin Down. Material: L-80 or equivalent | No | 1 |
| 7 | Casing Sub/X-over: To connect Mill out Extension with spacer tube. Material: L-80 or equivalent | No | 1 |
| 8 | Mill Out Extension: Larger ID required for retrieving the packer by milling. Connections compatible with Connection sub/SBE and Casing sub. Length ± 6 Ft , Material: L-80 or equivalent | No | 1 |
| 9 | Connecting Sub: If any required between Seal bore Ext & Mill out ext. . Material: L-80 or equivalent | No | 1 |
| 10 | Seal Bore Extension: 10 FT long with appropriate Gas Tight Premium Connection. Material: L-80 or equivalent | No | 1 |
| 11 | Production Packer: Seal bore Permanent Production Packer, Setting mechanism :Wireline/hydraulic, (Permanent to be Set in 7”Casing 23-32 ppf casing), Packer Seal bore ID 4”, Rubber Elements compatible with 2~5% CO2 , H2S = 0 ppm, Pressure Rating 10000 psi & Temperature ±300 °F . Material: L-80 or equivalent | Set | 2 |
| 12 | Locator Seal Assembly: Locator Seal Assembly for the Seal bore paker, Length 10ft, Configuration: Locator Mandrel, 1 set seal unit, spacer tube, 3 sets of seal units, wireline re-entry guide (Total 4 seal units). Seal element compatible with 2~5% CO2 , H2S = 0 ppm, Pressure Rating 10000 psi &Temperature ±300 °F. Min ID through LSA 2.992". Top Connection: 3½" 9.2 lbs/ft Gas tight premium connection Box up . Material: L-80 or equivalent | Set | 1 |

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| 13 | Redress Kit: For Locator Seal Assembly | Set | 1 |
| 3 | <i>Subsurface Flow Control Equipment</i> | | |
| 1 | Sliding Sleeve Door: Profile: OTIS 'X' or Baker "F" Equivalent ; ID 2.813", Elastomers: Non-Elastomeric Seals, Connections: 3½" 9.2 lbs/ft Gas tight Premium connection Box up X 3½" 9.2 lbs/ft Gas tight Premium connection Pin down. Material: L-80 or equivalent | No | 1 |
| 2 | Sliding Sleeve Door: Profile: OTIS 'X' or Baker "F" Equivalent ; ID 2.750", Elastomers: Non-Elastomeric Seals, Connections: 3½" 9.2 lbs/ft Gas tight Premium connection Box up X 3½" 9.2 lbs/ft Gas tight Premium connection Pin down. Material: L-80 or equivalent | No | 1 |
| 3 | Shifting Tool: For Sliding Sleeve door of 2.812" | No | 1 |
| 4 | Separation Sleeve: Separation Sleeve for Sliding Sleeve Door of 2.812 profile: w/equilizing feature for retrieval) Rubber Elements compatible with 2~5% CO2 , H2S = 0 ppm, Pressure Rating 10000 psi & Temperature ±300 °F, Mention ID through separation sleeve. | No | 1 |
| 5 | Redress Kit: for Separation Sleeve of 2.812, Rubber Elements compatible with 2~5% CO2 , H2S = 0 ppm, Pressure Rating 10000 psi & Temperature ±300 °F | Set | 1 |
| 6 | Running Tool Assembly: for separation sleeve of 2.812" | Set | 1 |
| 7 | Pulling Tool Assembly: for separation sleeve of 2.812" | Set | 1 |
| 8 | Flow Coupling: (To be installed above & below TRSCSSSV), 3½" 9.2 lbs/ft Gas Tight Premium connection Box up X 3½" 9.2 lbs/ft gas tight premium connection Pin down. Material: L-80 or equivalent | No | 2 |

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| 9 | Tubing Retrievable Surface Controlled Sub Surface Safety Valve: With Self Equalizing Feature C/W Nipple Adapter Lock profile & Bottom Sub, Max OD should be less than 6", Size: 3-1/2", Metallurgy compatible to 2~5% CO ₂ , H ₂ S = 0 ppm, Working Pressure: 10,000 psi, Connection: 3-1/2" 9.2 lbs/ft Gas Tight Premium connection Pin x 3-1/2" 9.2 lbs/ft Gas Tight Premium connection Box; Profile: OTIS 'X' or Equivalent ; ID: 2.813" , Temperature rating: 20-250°F; Type: Flapper. Flow wettted material: 13Cr-L-80 or equivalent (Including 2 sets of: Jam Nut, Front & Rear ferrule fittings for 1/4" hydraulic control line) | No | 1 |
| 10 | Control Line for TRSCSSSV: Bare Seamless Control Line for TRSCSSSV, Size: 1/4" X 400 ft long, Material: 316 stainless steel | Roll | 1 |
| 11 | Band-IT Buckles: size 3/4" | No | 100 |
| 12 | Banding straps | Ft | 100 |
| 13 | Control Line Tube Cutter | No | 1 |
| 14 | Band It-Tool | No | 1 |
| 15 | Hold Open Sleeve (for TRSCSSSV 2.812") | No | 1 |
| 16 | Running Tool Assembly: for Hold open Sleeve of 2.812" TRSCSSSV | Set | 1 |
| 17 | Pulling Tool Assembly: for Hold open Sleeve of 2.812" TRSCSSSV | Set | 1 |
| 18 | Blanking Plug Assembly: For Top No-Go Landing Nipple, OTIS "X" or Baker "F", size 2.750". Rubber Elements compatible with 2~5% CO ₂ , H ₂ S = 0 ppm, Pressure Rating 10000 psi & Temperature ±300 °F | Set | 1 |
| 19 | Redress Kit: For Blanking Plug assembly size 2.750", Top No-Go Landing Nipple, Rubber Elements compatible with 2~5% CO ₂ , H ₂ S = 0 ppm, Pressure Rating 10000 psi & Temperature ±300 °F | Set | 1 |
| 20 | Running Tool Assembly: for Blanking Plug of Top No-Go Nipple 2.750" | Set | 1 |
| 21 | Pulling Tool Assembly: for Blanking Plug of Top No-Go Nipple 2.750" | Set | 1 |
| 22 | Instrument Gauge Hanger: To be set in bottom No-Go profile size 2.750", OTIS "XN" Nipple or Baker Type "R", Vendor is requested to mention the flow area through hanger. | Set | 1 |
| 23 | Instrument Gauge Hanger: To be set in bottom No-Go profile size 2.562", OTIS "XN" Nipple or Baker Type "R", Vendor is requested to mention the flow area through hanger. | Set | 1 |
| 24 | Running Tool Assembly: for Gauge Hanger of 2.750" profile | Set | 1 |
| 25 | Running Tool Assembly: for Gauge Hanger of 2.562" profile | Set | 1 |
| 26 | Pulling Tool Assembly: for Gauge Hanger of 2.750" profile | Set | 1 |
| 27 | Pulling Tool Assembly: for Gauge Hanger of 2.562" profile | Set | 1 |