ऑयल इंडिया लिमिटेड
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E-mail: panchali@oilindia.in

**AMENDMENT NO. 4 DATED 28-09-2026 TO EXPRESSION OF INTEREST (EOI) NO.:EOI/WLG/CHLU/01/2026-2027 DATED 08.07.2026 SHORTLISTING OF VENDORS FOR PROCUREMENT OF CASED HOLE LOGGING UNIT ALONG WITH LOGGING TOOLS AND ACCESSORIES.**

This amendment is issued for the following:

(i) Re-scheduling the submission date of EOI to **14-10-2026** instead of existing:
(ii) Please find amendment to PQC and technical specification attached along with revised checklist below.

All other terms and conditions of the EOI remain unchanged.

Sd/-

(Panchali Thakuria)
DGM-FP 06
For CGM Materials HoD
For Resident Chief Executive

<table>
<tr><th colspan="2">Original PQC Clause in EOI</th><th colspan="2">Revised PQC Clause</th></tr>
<tr><th>Clause No</th><th>Clause Description</th><th>Clause No</th><th>New Clause Description</th></tr>
<tr><td>Clause 1.1(a)</td><td>
<u>Manufacturing Experience:</u><br><br>
[i] The Bidder should have minimum 10 (ten) years of Experience in Manufacturing of at least four (4) prescribed set of logging tools (Table A) with own Surface data acquisition system and data acquisition software to run the below-mentioned tools (Table A).<br><br>
<u>Table - A</u><br>
<table>
<tr><th>Sl. No.</th><th>Tools & Surface data acquisition system and its acquisition software.</th><th>No. of tools / system / software supplied in the past</th></tr>
<tr><td>1</td><td>PCE (Pressure Control Equipment)</td><td>1</td></tr>
<tr><td>2</td><td>GR/CCL (Gamma Ray/Casing Collar Locator) Combination tool</td><td>2</td></tr>
<tr><td>3</td><td>Multifinger Imaging Tool (MIT) or equivalent (24 or 40 or 60 Finger).</td><td>1</td></tr>
<tr><td>4</td><td>BST-Size 10, Model E-4 or Equivalent Setting Tool Or<br>BST-Size 20, Model E-4 or Equivalent Setting Tool</td><td>1</td></tr>
<tr><td>5</td><td>Free Point Indicator Tool</td><td>2</td></tr>
<tr><td>6</td><td>Casing Collar Locator</td><td>18</td></tr>
</table>
<br>
(ii) The bidder (OEM) must have 10 (ten) years of Experience in Manufacturing /Assembling of Cased Hole wireline logging unit.<br><br>
Or,<br><br>
If the bidder obtained the Cased Hole Wireline unit from a third party, that party must have 10 (ten) years of
</td><td>Clause 1.1(a)</td><td>
Manufacturing Experience:<br><br>
i. The Bidder should have minimum 5 (Five) years of Experience in manufacturing of at least 3 (Three) out of the 6 (Six) prescribed logging tools listed in Table A.<br><br>
<u>Table - A</u><br>
<table>
<tr><th>Sl. No.</th><th>Description Of Tools</th><th>No. of tools</th></tr>
<tr><td>1</td><td>PCE (Pressure Control Equipment)</td><td>1</td></tr>
<tr><td>2</td><td>GR/CCL (Gamma Ray/Casing Collar Locator) Combination tool</td><td>2</td></tr>
<tr><td>3</td><td>Multifinger Imaging Tool (MIT) or equivalent (24 or 40 or 60 Finger).</td><td>1</td></tr>
<tr><td>4</td><td>BST-Size 10, Model E-4 or Equivalent Setting Tool<br>Or<br>BST-Size 20, Model E-4 or Equivalent Setting Tool</td><td>1</td></tr>
<tr><td>5</td><td>Free Point Indicator Tool</td><td>2</td></tr>
<tr><td>6</td><td>Casing Collar Locator</td><td>5</td></tr>
</table>
<br>
ii. The bidder (OEM) must have 10 (Ten) years of Experience in Manufacturing /Assembling of Wireline Logging Unit.<br>
Or,<br>
If the bidder obtained the Wireline Logging Unit from a third party, that party must have 10 (Ten) years of
</td></tr>
</table>

| | | | |
|---|---|---|---|
| | Experience in Manufacturing /Assembling of Cased hole wireline logging unit.<br><br>(iii) Documentary evidence for the above should be provided for sale of 01 (One) quantity each of Wireline logging unit, Listed Logging Tools and surface system with data acquisition software (Table - A).<br><br>(iv) If the Manufacturer/Assembler of the Cased hole Wireline Logging Unit is from a third party, then the Bidder must provide a back-up authority letter authorizing the Bidder to submit the bid.<br><br>NOTE 1: For above, copy of purchase order for sale of Wireline logging unit, Listed Logging Tools and Surface system with data acquisition software (Table - A) provided should not be less than 10 (ten) years from original bid closing date of this tender. | | Experience in Manufacturing / Assembling of Wireline Logging Unit.<br><br>iii. If the Manufacturer/Assembler of the Wireline Logging Unit is from a third party, then the Bidder must provide a back-up authority letter authorizing the Bidder to submit the bid.<br><br>**NOTE:**<br><br>a. For above, copy of purchase order for sale of Listed Logging Tools the date of purchase order should not be less than 5 (Five) years and that for Wireline logging unit should not be less than 10 (Ten) years from original bid closing date of this tender.<br>b. Wireline Logging Unit includes both Cased Hole and Open Hole wireline logging unit. |
| Clause 1.1(b) | **Supply Experience:**<br><br>(i) Bidder must have sold the prescribed set of Tools, system, software mentioned in Table - A to companies other than its own parent/subsidiary/co-subsidiary/sister subsidiary companies which are in the business of 'exploration & production of hydrocarbons' and/or 'Oil Field Service Providers' during the last 10 (ten) years.<br><br>(ii) The Bidder itself or the third-party Manufacturer / Assembler of Cased hole wireline logging unit must have sold 01 (One) number of Cased-Hole Wire line Logging Unit or Open Hole Logging Unit to companies other than its own parent/subsidiary/co-subsidiary/sister subsidiary companies which are in the business of 'exploration & production of hydrocarbons' and/or 'Oil Field Service Providers' during the last 10 (ten) years.<br><br>**NOTE 2:** The Purchase Orders/contracts date need not be within 10 (ten) years preceding original bid closing date of this tender. However, the execution of supply must be within 10 (ten) years preceding the original bid closing date of this tender. In the event of any extension to the bid closing date of the tender, the original scheduled bid closing date shall be considered for evaluation of BEC clauses. | Clause 1.1(b) | **Supply Experience:**<br><br>i) Bidder must have sold **at least 3 (Three) out of the 6 (Six)** prescribed set of Tools with respective quantity mentioned in Table - A to companies other than its own parent/subsidiary/co-subsidiary/sister subsidiary companies which are in the business of 'exploration & production of hydrocarbons' and/or 'Oil Field Service Providers' during the last 15 (Fifteen) years.<br><br>ii) The Bidder itself or the third-party Manufacturer / Assembler of Wireline Logging Unit must have sold 01 (One) number of Wireline Logging Unit to companies other than its own parent/subsidiary/co-subsidiary/sister subsidiary companies which are in the business of 'exploration & production of hydrocarbons' and/or 'Oil Field Service Providers' during the last 15 (Fifteen) years. |

| | | | |
|---|---|---|---|
| Clause 1.1(c) | The Purchase Orders mentioned above must have been affected to a country other than the OEM's country of origin.<br><br>Note : For clauses 1.1(a), 1.1 (b) & 1.1 (c) above, the reckoned period shall be the period prior to the date of original closing of the techno-commercial bid of this tender. | | The Purchase Orders mentioned above must have been affected to a country other than the OEM's country of origin. |
| Clause 1.1(d) | **Documentary Evidence:**<br><br>Documentary evidence in respect of the above should be submitted with the bid in the form of copies of relevant Purchase Orders along with the following documents: -<br>(i) Dispatch documents (Invoice, Bill of Lading/Consignment, etc.) and<br>(ii) Successful Commissioning Report | | **Documentary Evidence:**<br><br>Following documentary evidence should be submitted for fulfilling the clauses 1.1 (a) and 1.1 (b): -<br><br>i. Copy of purchase order and<br>ii. Dispatch documents (Invoice, Bill of Lading/Consignment, etc.)<br>iii. Successful Commissioning Report **OR** Successful supply completion report **OR** Proof of release of payment.<br><br>**NOTE:**<br>The Purchase Orders date need not be within prescribed years mentioned in the respective clauses (clause 1.1 (a) and 1.1 (b) above) preceding original bid closing date of this tender. However, the execution of supply must be within the prescribed years mentioned in the respective clauses preceding the original bid closing date of this tender. In the event of any extension to the bid closing date of the tender, the original scheduled bid closing date shall be considered for evaluation of BEC clauses. |

# TECHNICAL MODIFICATIONS

## EOI NO.: EOI/WLG/CHLU/01/2026-2027 DATED 08.07.2026 (EOI FOR SHORTLISTING OF VENDORS FOR PROCUREMENT OF CASED HOLE LOGGING UNIT ALONG WITH LOGGING TOOLS AND ACCESSORIES)

| Sl. No. | Clause No. | Original Clause | Amended Clause |
|---|---|---|---|
| | | **Section B: Logging Section** | |
| 1. | **2.0**<br>**LOGGING CABIN / OPERATOR'S COMPARTMENT**<br><br>**Sub-Clause: xxiii.** | Gas detection with warning system (preferably buzzer) capable of detecting at least Methane, H2S and CO shall be provided inside the logging engineer's cabin/operators compartment. Suitable adapters/fixtures for calibration of the gas detector must be provided. | Gas detection with warning system (preferably buzzer) capable of detecting at least Methane, H2S and CO shall be provided inside the logging engineer's cabin/operators compartment. Suitable adapters/fixtures for calibration of the gas detector must be provided.<br><br>Note: Hose pipe information for gas detector calibration present at OIL is<br>Make : Honeywell<br>Model: HOSE1-65<br>Dimensions: 1/8 inch inner diameter (I.D.), 1/4 inch outer diameter (O.D.)<br>Accordingly suitable adaptor or fixture needs to be provided. |
| 2. | **3.0**<br><br>**Sub-Clause: i.** | The unit should be equipped with Split Drums (with antirust / non- corrosive coating) to accommodate 5.55625 mm (7/32") OD and of 7.9375 mm (5/16") OD single conductor wireline non-spliced cables having at least 7000 meters in length. | The unit should be equipped with Split Drums (with antirust / non- corrosive coating) to accommodate 5.55625 mm (7/32") OD and of 7.9375 mm (5/16") OD single conductor wireline non-spliced cables having at least 7000 meters in length each. |
| 3. | **5.0 Sub-Clause: iii** | Metric depth measuring system (Make: Benchmark, Model: AM5K) with depth and tension measuring panel needs to be provided for depth measurement/recording having dual | Metric depth measuring system (**Make: AM5K Benchmark /Bidders Own Make/Logging Unit Manufacturers Make**) with depth and tension measuring panel needs to be provided for depth measurement/recording having dual electronic |

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**EOI NO.: EOI/WLG/CHLU/01/2026-2027 DATED 08.07.2026 (EOI FOR SHORTLISTING OF VENDORS FOR PROCUREMENT OF CASED HOLE LOGGING UNIT ALONG WITH LOGGING TOOLS AND ACCESSORIES)**

| Sl. No. | Clause No. | Original Clause | Amended Clause |
|---|---|---|---|
| | | electronic encoders, a tension device (Load Pin) and independent mechanical/electronic backup encoder. If separate accessories are required for using both the cables, that also needs to be provided. The backup depth display from the mechanical/electronic encoder is to be made available near the winch operator panel. | encoders, a tension device (Load Pin) and independent mechanical/electronic backup encoder. If separate accessories are required for using both the cables, that also needs to be provided. The backup depth display from the mechanical/electronic encoder is to be made available near the winch operator panel. |
| 4. | **6.0 Sub-Clause: iv** | A complete two-way, license-free wireless communication system (Range: 1 Km, Frequency Band: 2.4 GHz ISM band or 865–867 MHz SRD band), compliant with applicable Wireless Planning and Coordination (WPC), Department of Telecommunications (DoT), Government of India regulations, shall be provided for reliable communication between the engineer's cabin and the derrick floor. | **DELETED**. |
| 5. | **9.0** | **LOGGING SYSTEM COMPUTER HARDWARE**<br><br>Both the logging units should have state-of-the-art PC based logging system. In addition to other standard fittings / accessories which are mounted in the logging cabin, the system should include at least | **LOGGING SYSTEM COMPUTER HARDWARE**<br><br>The logging unit should have state-of-the-art PC based logging system. In addition to other standard fittings / accessories which are mounted in the logging cabin, the system should include at least the following features: |

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<table>
<tr><th>Sl. No.</th><th>Clause No.</th><th>Original Clause</th><th>Amended Clause</th></tr>
<tr>
<td></td>
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<td>the following features:
<table>
<tr><td>i</td><td>RAM</td><td>32 GB (minimum) or above</td></tr>
<tr><td>ii</td><td>Hard Disk</td><td>1 TB PCI SSD (minimum)</td></tr>
<tr><td>iii</td><td>Dual display color monitor</td><td>Size minimum 23”, TFT type 02 Nos.</td></tr>
<tr><td>iv</td><td>High Resolution Thermal Graphic Recorder. (Capable of taking Log prints both on paper and film for both roll & fan fold type paper).</td><td>1 Numbers</td></tr>
</table>
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<tr><td>ii</td><td>Hard Disk</td><td>1 TB PCI SSD (minimum)</td></tr>
<tr><td>iii</td><td>Dual display color monitor</td><td>Size minimum 23”, LED type 02 Nos.</td></tr>
<tr><td>iv</td><td>Thermal Plotter for generation of hard copies of log. (for both roll & fan fold type paper).</td><td>1 Numbers</td></tr>
<tr><td>v</td><td>Continuous 8.5” color printer to print colored logs</td><td>1 Number (quantity)</td></tr>
<tr><td>vi</td><td>CD/DVD writer.</td><td>1 Number (quantity)</td></tr>
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<tr><td>vii</td><td>USB port to transfer data</td><td>4 (minimum) at the front side of CPU</td></tr>
<tr><td>viii</td><td>External Portable USB Hard Drive SSD (min 2 TB)</td><td>2 Nos</td></tr>
<tr><td>ix</td><td>Wireless Keyboard and Mouse</td><td>2 Nos Each</td></tr>
</table>
</td>
<td>
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<tr><td>viii</td><td>External Portable USB Hard Drive SSD (min 2 TB)</td><td>2 Nos</td></tr>
<tr><td>ix</td><td>Wireless Keyboard and Mouse</td><td>2 Nos Each</td></tr>
<tr><td>x</td><td>System must be having high speed latest CPU and should be supporting Dual display</td><td>1 No.</td></tr>
<tr><td>xi</td><td>UPS as power back up for system CPU, dual monitor and printer.</td><td>1 No.</td></tr>
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</table>

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| Sl. No. | Clause No. | Original Clause | Amended Clause |
|---|---|---|---|
| | | x: System must be having high speed latest CPU and should be supporting Dual display — 1 No.<br>xi: UPS as power back up for system CPU, dual monitor and printer. — 1 No. | |
| 6. | **10.0**<br>**Sub-Clause: iv.** | The Software must be capable of performing well completion and cased hole logging operations. | The Software must be capable of performing cased hole logging operations. |
| 7. | **10.0**<br>**Sub-Clause: xi.** | Virus protection Software must be provided in the system with a license validity of at least 15 years with backup in CD/DVD/Portable Drive. | Virus protection Software must be provided in the system with a license validity of at least 1 year with backup in CD/DVD/Portable Drive. |
| 8. | **10.0**<br>**Sub-Clause: xii.** | Complete image of the system must be provided in CD/DVD/Portable Drive. | Complete image of the system must be provided in CD/DVD/Portable Drive/USB. |
| 9. | **10.0** | The bidder should give an undertaking to | The bidder should give an undertaking to update |

# TECHNICAL MODIFICATIONS

**EOI NO.: EOI/WLG/CHLU/01/2026-2027 DATED 08.07.2026 (EOI FOR SHORTLISTING OF VENDORS FOR PROCUREMENT OF CASED HOLE LOGGING UNIT ALONG WITH LOGGING TOOLS AND ACCESSORIES)**

| Sl. No. | Clause No. | Original Clause | Amended Clause |
|---|---|---|---|
| | **Sub-Clause: xiii.** | update the software as and when updates are available for a period of 15 years from the date of commissioning of the unit at no cost to OIL. | the data acquisition and data processing software as and when updates are available for a period of 15 years from the date of commissioning of the unit at no cost to OIL. |
| 10. | **11.0 Sub-Clause: xxxiv** | Vacuum cleaner for cleaning of logging unit cabin. | Vacuum cleaner for cleaning of logging unit.<br>Suction power: 40-50 kpa<br>Air flow: 200 cfm or more<br>Tank size: 50 L or more<br>Suction hose length: extendable upto 12 feet |
| 11. | **11.0 Sub-Clause: xxxvii i** | a) Wire cable connector (scotch lock) to be used in perforation operation rated for 350 degF and 15K psi. — a) 2000 nos.<br>b) Crimper — b) 4 nos. | a) Wire cable connector (scotch lock) to be used in perforation operation rated for 350 degF and 15K psi. — a) 2000 nos.<br>b) Scotch lock plier — b) 4 nos. |
| 12. | **12.1 Sub- clause: ii** | Block Diagram of the surface Logging System containing all panels. | Block Diagram of the surface Logging System containing all panels including winchman panel. |
| 13. | **13.0** | **13.0 LOGGING TOOLS AND ACCESSORIES**<br><br>All the down-hole logging tools as mentioned below should be rated for minimum 104 MPA (15,000 PSI) pressure and 176.6 Deg. C (350 Deg. F) temperature. Temperature rating should be for a | **13.0 LOGGING TOOLS AND ACCESSORIES**<br><br>All the down-hole logging tools as mentioned below should be rated for minimum 104 MPA (15,000 PSI) pressure and 176.6 Deg. C (350 Deg. F) temperature. Temperature rating should be for a minimum of one-hour continuous exposure in the well bore. The tools and cable |

# TECHNICAL MODIFICATIONS

**EOI NO.: EOI/WLG/CHLU/01/2026-2027 DATED 08.07.2026 (EOI FOR SHORTLISTING OF VENDORS FOR PROCUREMENT OF CASED HOLE LOGGING UNIT ALONG WITH LOGGING TOOLS AND ACCESSORIES)**

<table>
<tr><th>Sl. No.</th><th>Clause No.</th><th>Original Clause</th><th>Amended Clause</th></tr>
<tr><td></td><td></td><td>minimum of one-hour continuous exposure in the well bore. The tools and cable head should have thread size 1 3/16” - 12 N – 2 (“GO” connection). All supplied tools and accessories must be corrosion resistant.<br>All the tools, centralizers/de-centralizers quoted must be of metallic body.<br>Note: Bidder must provide equivalent 20 nos. crossovers and 20 nos. servicing kit in case thread types used in tools are different from the type listed above (1-3/16”-12N–2 “GO” connection).</td><td>head should have thread size 1 3/16” - 12 N – 2 (“GO” connection). All supplied tools and accessories must be corrosion resistant.<br>All the tools, centralizers/de-centralizers quoted must be of metallic body.<br>Note 1: Bidder must provide equivalent 20 nos. crossovers and 20 nos. servicing kit in case thread types used in tools are different from the type listed above (1-3/16”-12N–2 “GO” connection).<br><br>Note 2: For the purpose of this tender, the following table is to be referred for the sizes of tubulars:<br><br>
<table>
<tr><th>Tubular Description</th><th>Size(in inches)</th><th>PPF</th></tr>
<tr><td>Drill Pipe</td><td>3.5</td><td>15.5</td></tr>
<tr><td>Drill Pipe</td><td>5</td><td>19.5</td></tr>
<tr><td>N80 tubing</td><td>2.7/8</td><td>6.5</td></tr>
<tr><td>P110 tubing</td><td>2.7/8</td><td>7.9</td></tr>
<tr><td>ABTC tubing</td><td>3.5</td><td>17.2</td></tr>
<tr><td>Casing</td><td>5</td><td>15</td></tr>
<tr><td>Casing</td><td>5.5</td><td>20</td></tr>
<tr><td>Casing</td><td>7</td><td>29</td></tr>
<tr><td>Casing</td><td>9 5/8</td><td>47</td></tr>
<tr><td>Casing</td><td>13 3/8</td><td>68</td></tr>
</table>
</td></tr>
<tr><td>14.</td><td>13.1</td><td><u>Casing Collar Locator (CCL)</u></td><td><u>Casing Collar Locator (CCL)</u></td></tr>
</table>

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<tr><th>Sl. No.</th><th>Clause No.</th><th>Original Clause</th><th>Amended Clause</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Sl. No</th><th>Item</th><th>Quantity</th></tr>
<tr><td>01</td><td>Shooting CCL of size 1 11/16” OD</td><td>10 Nos</td></tr>
<tr><td>02</td><td>Shooting CCL of size 2” OD</td><td>15 Nos</td></tr>
<tr><td>03</td><td>Shooting CCL of size 3 1/8” to 3 5/8” OD with Quick change (Cross over).<br>(Item should be able to connect and run with offered junk basket/BST)</td><td>10 Nos</td></tr>
<tr><td>04</td><td>Service Kits (including O-Rings) for item in Sl. No. 01</td><td>20 Sets</td></tr>
<tr><td>05</td><td>Service Kits (including O-Rings) for item in Sl. No. 02</td><td>20 Sets</td></tr>
<tr><td>06</td><td>Service Kits (including O-Rings) for item in Sl. No. 03</td><td>20 Sets</td></tr>
<tr><td>07</td><td>Service Kits (including O-Rings)</td><td>20 Sets</td></tr>
</table>
</td><td>
<table>
<tr><th>Sl. No</th><th>Item</th><th>Quantity</th></tr>
<tr><td>01</td><td>Shooting CCL of size 1 11/16” OD</td><td>10 Nos</td></tr>
<tr><td>02</td><td>Shooting CCL of size 2 1/8” OD</td><td>15 Nos</td></tr>
<tr><td>03</td><td>Shooting CCL of size 3 1/8” to 3 5/8” OD with Quick change (Cross over).<br>(Item should be able to connect and run with offered junk basket/BST)</td><td>10 Nos</td></tr>
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<tr><td>06</td><td>Service Kits (including O-Rings) for item in Sl. No. 03</td><td>20 Sets</td></tr>
<tr><td>07</td><td>DELETED</td><td></td></tr>
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<table>
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<tr><td></td><td></td><td>
<table>
<tr><td></td><td>for item in Sl. No. 04</td><td></td></tr>
</table>
<br>Note: If Double-diodes have same part number for Sl. No. 01 to 04, then, bidder may provide only 20 number of Double-diodes for each part number.
</td><td>Note: If Double-diodes have same part number for Sl. No. 01 to 03, then, bidder may provide only 20 number of Double-diodes for each part number.</td></tr>
<tr><td>15.</td><td>13.2</td><td>
<u>Shooting GR/CCL</u><br><br>
<table>
<tr><th>Sl. No</th><th>Item</th><th>Quantity</th></tr>
<tr><td>01</td><td>1 11/16 inch OD Shooting GR/CCL (Hunting /Titan/Bidder’s own make)</td><td>02 Nos</td></tr>
<tr><td>02</td><td>Shooting GR/CCL (OD: 3 1/4 to 3 5/8 inch) with quick change assembly to run with junk basket/BST</td><td>02 Nos</td></tr>
<tr><td>03</td><td>Gamma Ray Calibration Jig required to calibrate item mentioned in sl. no. 1 and sl. no. 2 of clause 13.2</td><td>01 each</td></tr>
</table>
</td><td>
<u>Shooting GR/CCL</u><br><br>
<table>
<tr><th>Sl. No</th><th>Item</th><th>Quantity</th></tr>
<tr><td>01</td><td>1 11/16 inch OD Shooting GR/CCL (Hunting /Titan/Bidder’s own make)</td><td>02 Nos</td></tr>
<tr><td>02</td><td>Shooting GR/CCL (OD: 3 1/8 to 3 5/8 inch) with quick change assembly to run with junk basket/BST</td><td>02 Nos</td></tr>
<tr><td>03</td><td>DELETED</td><td></td></tr>
</table>
</td></tr>
<tr><td>16.</td><td>13.3<br><br>Sl. No. 02</td><td>Quick change (Cross over) compatible with tool mentioned in sl. no. 4 of clause 13.1 (Compatible with BAKER Model E4 Size # 20 setting tool).</td><td>Quick change (Cross over) compatible with tool mentioned in Sl. No:3 of clause 13.1 (Compatible with BAKER Model E4 Size # 20 setting tool).</td></tr>
</table>

# TECHNICAL MODIFICATIONS

**EOI NO.: EOI/WLG/CHLU/01/2026-2027 DATED 08.07.2026 (EOI FOR SHORTLISTING OF VENDORS FOR PROCUREMENT OF CASED HOLE LOGGING UNIT ALONG WITH LOGGING TOOLS AND ACCESSORIES)**

| Sl. No. | Clause No. | Original Clause | Amended Clause |
|---|---|---|---|
| 17. | **13.5**<br><br>**Sub-clause viii.** | The bidder must offer 03 nos. each of Gamma Ray, Casing Collar Locator & Telemetry tool compatible to run with the offered multi- finger caliper tools. | The bidder shall offer 03 Sets of associated tools against each of the offered Multi-Finger Imaging Tools (MIT24, MIT40, and MIT60). Each set of associated tools shall comprise 01 No. Gamma Ray tool, 01 No. Casing Collar Locator tool, 01 No. Bull Nose, and 01 No. Telemetry tool. |
| 18. | **13.5**<br><br>**Sub-clause xiv. Sl. No. k.** | Post job servicing kit for tools to open/close fingers -- - 1 set | Post job servicing kit against each of the offered MIT tools to open/close fingers - - - 1 set |
| 19. | **13.7.3** | **13.7.3 WIRELINE GREASE INJECTION CONTROL HEAD & STUFFING BOX FOR 10K PSI WORKING PRESSURE, Quantity-01**<br>Grease injection control head is required to create a seal around a moving 7/32" OD and 5/16" OD wireline allowing intervention access to wells under pressure. Grease Injection control head must be housed inside the parent Pressure Control Equipment System mentioned in Clause 13.9.1. The equipment must come with following minimum features:<br>i. The grease injection control head must contain two major sub- assemblies, the stuffing box or pack-off and the flow | **13.7.3 WIRELINE GREASE INJECTION CONTROL HEAD & STUFFING BOX FOR 10K PSI WORKING PRESSURE, Quantity-01**<br>Grease injection control head is required to create a seal around a moving 7/32" OD and 5/16" OD wireline allowing intervention access to wells under pressure. Grease Injection control head must be housed inside the parent Pressure Control Equipment System mentioned in Clause 13.7.1. The equipment must come with following minimum features:<br>i. The grease injection control head must contain two major sub- assemblies, the stuffing box or pack-off and the flow tube section consisting of min 5 nos. of concentric flow tube assembly. |

# TECHNICAL MODIFICATIONS

## EOI NO.: EOI/WLG/CHLU/01/2026-2027 DATED 08.07.2026 (EOI FOR SHORTLISTING OF VENDORS FOR PROCUREMENT OF CASED HOLE LOGGING UNIT ALONG WITH LOGGING TOOLS AND ACCESSORIES)

| Sl. No. | Clause No. | Original Clause | Amended Clause |
|---|---|---|---|
| | | tube section consisting of min 5 nos. of concentric flow tube assembly.<br>ii. The bidder must offer concentric flow tubes assembly having flow tubes sized to operate with 7/32" OD mono-conductor cable fitted with the Logging Unit. The Grease control head unit must also be capable to accommodate flow tubes for 5/16" OD mono-conductor cable fitted with the Logging Unit.<br>iii. The control head must also incorporate an integral line wiper required to clean the cable while coming out of well.<br>iv. The grease injection control head must have a grease delivery line with check valve/non-return valve and a grease return line.<br>v. The bidder must provide extra 01 set of Hose assembly, each of min 120 ft length, with quick coupling for wireline grease injection control head and stuffing box operation in addition to the one available with the parent PCE module. | ii. It should also contain tool catcher to catch the offered mono cable head system and a cable cutter.<br>iii. The bidder must offer concentric flow tubes assembly having flow tubes sized to operate with 7/32" OD mono-conductor cable fitted with the Logging Unit. The Grease control head unit must also be capable to accommodate flow tubes for 5/16" OD mono-conductor cable fitted with the Logging Unit.<br>iv. The control head must also incorporate an integral line wiper required to clean the cable while coming out of well.<br>v. The grease injection control head must have a grease delivery line with check valve/non-return valve and a grease return line.<br>vi. The bidder must provide extra 01 set of Hose assembly, each of min 120 ft length, with quick coupling for wireline grease injection control head and stuffing box operation in addition to the one available with the parent PCE module. |
| 20. | **13.7.5** | Bidder must provide 01 set Hand Pump assembly rated min 3K Working Pressure | Bidder must provide 01 set Hand Pump assembly rated min 3K Working Pressure and |

# TECHNICAL MODIFICATIONS

**EOI NO.: EOI/WLG/CHLU/01/2026-2027 DATED 08.07.2026 (EOI FOR SHORTLISTING OF VENDORS FOR PROCUREMENT OF CASED HOLE LOGGING UNIT ALONG WITH LOGGING TOOLS AND ACCESSORIES)**

| Sl. No. | Clause No. | Original Clause | Amended Clause |
|---|---|---|---|
| | **Sub-clause ii** | and fitted with Pressure gauge for Tool Trap device operation. This is in addition to the one available with the parent PCE module mentioned in clause 1.0. | fitted with Pressure gauge for Tool Trap device operation. This is in addition to the one available with the parent PCE module ~~mentioned in clause 1.0.~~ |
| 21. | **13.6**<br><br>**Sub- clause vii** | The FPI tool must be provided with a portable surface panel for carrying out tool operation. The portable panel must be housed inside suitable carryon box. | Each of the offered FPI tool must be provided with its own portable surface panel (one panel for each tool) for carrying out tool operation. The portable panel must be housed inside suitable carryon box. |
| 22. | **13.7.9**<br><br>**Sl. No: 20** | Additional Shackles as spare apart from those fitted with different modules mentioned in sub clauses of 13.9 which will be used for lifting operation. | Additional Shackles as spare apart from those fitted with different modules mentioned in sub clauses of 13.7 which will be used for lifting operation. |
| 23. | **13.7.9**<br><br>**Note** | NOTE: OIL at its discretion may increase or decrease any item(s) quantity under clause 13.9.9 | NOTE: OIL at its discretion may increase or decrease any item(s) quantity under Clause 13.7.9. |
| 24. | **14.0**<br>**Sub clause: vii** | Two (02) of spiral grapples (with spiral grapples control) for catching offered CCL in Sl. no. 04 of clause 13.1. | Two (02) of spiral grapples (with spiral grapples control) for catching offered CCL in Sl. No. 03 of clause 13.1. |
| 25. | **15.2**<br>**Sub clause: g** | Any other PCB/electronic module/controller required for winch and alternator operation (pre-programmed and ready for use) — 02 each | Any other PCB/electronic module/controller required for winch and alternator operation (pre-programmed and ready for use) — 02 each |

# TECHNICAL MODIFICATIONS

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| Sl. No. | Clause No. | Original Clause | Amended Clause |
|---|---|---|---|
| | | (firmware/program associated with above quoted PCB/electronic module/PLC must also be supplied in CD/DVD/USB along with any additional programming hardware kit/software necessary to program the electronic module/controller) | (firmware/program associated with above quoted PCB/electronic module/PLC must also be supplied in CD/DVD/USB along with any additional programming hardware kit/software necessary to program the electronic module/controller)<br><br>If programming kit and firmware are proprietary in nature and cannot be provided, then the supplier has to arrange for programming of the module in case of firmware corruption.<br><br>Bidder has to provide kit (if required) to program the PLCs remotely by bidder in case of any malfunctioning of PLC that needs firmware reprogramming. |
| 26. | **15.4**<br><br>**Sl no. k** | k. Any other panels (except depth measurement panel) fitted in 01 No | k. DELETED |

# TECHNICAL MODIFICATIONS

## EOI NO.: EOI/WLG/CHLU/01/2026-2027 DATED 08.07.2026 (EOI FOR SHORTLISTING OF VENDORS FOR PROCUREMENT OF CASED HOLE LOGGING UNIT ALONG WITH LOGGING TOOLS AND ACCESSORIES)

<table>
<tr><th>Sl. No.</th><th>Clause No.</th><th>Original Clause</th><th>Amended Clause</th></tr>
<tr><td></td><td></td><td><table><tr><td></td><td>the logging unit which is not covered above</td><td>Each</td></tr></table></td><td></td></tr>
<tr><td>27.</td><td>15.4<br><br>Sl. No. p.</td><td>All PCBs for CHIP, depth panel display and controller board need to be quoted.<br><br>If PCB/motherboard/hard disk etc. for winchman panel are not readily swappable for the provided Winchman panel, bidder has to provide 2 no’s of additional winchman panels against this clause.</td><td>All PCBs for CHIP, depth panel display and controller board need to be quoted.<br><br>If PCB/motherboard/hard disk etc. for winchman panel are not readily swappable for the provided Winchman panel, bidder has to provide 2 no’s of additional winchman panels against this clause along with any additional licenses required (if any) to run the 02 no.s of additional winchman panels.</td></tr>
<tr><td>28.</td><td>15.6.i<br><br>Sl no: c</td><td><table><tr><td>Spare Double diodes for 2” OD CCL</td><td>20 Nos</td></tr></table></td><td>Deleted.</td></tr>
<tr><td>29.</td><td>15.6.ii<br>Sl no: 01 and 02</td><td><table><tr><td>01</td><td>Complete Detector assemblies (for straightaway replacement) for item sl. no. 1, same as fitted in the tool. Optical coupling grease (if needed) to be provided.</td><td>02 Nos</td></tr><tr><td>02</td><td>Complete Detector assemblies (for straightaway replacement) for item sl. no. 2, same as fitted in the tool. Optical coupling grease (if needed) to be provided.</td><td>02 Nos</td></tr></table></td><td><table><tr><td>01</td><td>Complete Detector assemblies (for straightaway replacement) for item sl. no. 1 of Clause 13.2, same as fitted in the tool. Optical coupling grease (if needed) to be provided.</td><td>02 Nos</td></tr><tr><td>02</td><td>Complete Detector assemblies (for straightaway replacement) for item sl. no. 2 of Clause 13.2, same as fitted in the tool. Optical coupling grease (if needed) to be provided.</td><td>02 Nos</td></tr></table></td></tr>
</table>

# TECHNICAL MODIFICATIONS

## EOI NO.: EOI/WLG/CHLU/01/2026-2027 DATED 08.07.2026 (EOI FOR SHORTLISTING OF VENDORS FOR PROCUREMENT OF CASED HOLE LOGGING UNIT ALONG WITH LOGGING TOOLS AND ACCESSORIES)

<table>
<tr><th>Sl. No.</th><th>Clause No.</th><th>Original Clause</th><th>Amended Clause</th></tr>
<tr><td>30.</td><td>15.6.iii<br><br>Sl no: d</td><td>
<table>
<tr><td>All PCBs inside CCL, GR and telemetry tool</td><td>---</td><td>3 nos. each</td></tr>
</table>
</td><td>
<table>
<tr><td>All PCBs inside CCL, GR, Bull nose and telemetry tool</td><td>---</td><td>3 nos. each for each set of tools as mentioned in Clause 13.8.viii. If PCBs are same for the sets defined for each type of MIT, then bidder has to provide PCBs separately for each set.</td></tr>
</table>
</td></tr>
<tr><td>31.</td><td>15.6.iv<br><br>Sl no: c and d</td><td>
<table>
<tr><td>c</td><td>Display meters used in portable panel</td><td>1 set for each panel</td></tr>
<tr><td>d</td><td>All types of Control knobs fitted in the portable panel.</td><td>1 set for each panel</td></tr>
</table>
</td><td>
<table>
<tr><td>c</td><td>Display meters used in portable panel</td><td>2 sets for each panel</td></tr>
<tr><td>d</td><td>All types of Control knobs fitted in the portable panel.</td><td>2 sets for each panel</td></tr>
</table>
</td></tr>
<tr><td>32.</td><td>15.7<br><br>Sl no: k, l, m and n</td><td>
<table>
<tr><td>k.</td><td>Each type of O-rings used in each downhole tool(clause 13.1 to 13.9) of Section B</td><td>100 Nos. each</td></tr>
<tr><td>l.</td><td>O-ring used in each downhole tool (clause 13.1 to 13.9) of Section B which requires change during carrying out PM2/tool assembly and disassembly.</td><td>100 Nos. each</td></tr>
</table>
</td><td>
<table>
<tr><td>k.</td><td>Each type of O-rings used in PM1 for each downhole tool(clause 13.1 to Clause 13.7) of Section B</td><td>200 Nos. each</td></tr>
<tr><td>l.</td><td>O-ring used in each downhole tool (clause 13.1 to Clause 13.7) of Section B which requires change during carrying out PM2/tool assembly and disassembly.</td><td>100 Nos. each</td></tr>
<tr><td></td><td>Nuts, bolts, washers, roll-pin, lock-pin, connectors, different pins and boots, back-up rings etc. used in</td><td>2 times the qty used</td></tr>
</table>
</td></tr>
</table>

# TECHNICAL MODIFICATIONS

## EOI NO.: EOI/WLG/CHLU/01/2026-2027 DATED 08.07.2026 (EOI FOR SHORTLISTING OF VENDORS FOR PROCUREMENT OF CASED HOLE LOGGING UNIT ALONG WITH LOGGING TOOLS AND ACCESSORIES)

<table>
<tr><th>Sl. No.</th><th>Clause No.</th><th>Original Clause</th><th>Amended Clause</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>m.</td><td>Nuts, bolts, washers, roll-pin, lock-pin, connectors, different pins and boots, back-up rings etc. used in each downhole tool (clause 13.1 to 13.9) of Section B.</td><td>2 times the qty used</td></tr>
<tr><td>n.</td><td>Wear pads/strips or any other items (if any) used in the downhole tools (clause 13.1 to 13.9) of Section B.</td><td>05 Nos. each</td></tr>
</table>
</td><td>
<table>
<tr><td></td><td>each downhole tool (clause 13.1 to Clause 13.7) of Section B.</td><td></td></tr>
<tr><td></td><td>Wear pads/strips or any other items (if any) used in the downhole tools (clause 13.1 to Clause 13.7) of Section B.</td><td>05 Nos. each</td></tr>
</table>
</td></tr>
<tr><td>33.</td><td>Clause 16.0 STANDARD PRICE LIST Sub Clause i.</td><td>The Bidder must submit a written commitment that the spares and consumables will be supplied on chargeable basis to OIL (with price reasonability) for a period of 10 years from the date of successful commissioning of the equipment, and in the event, a part is not available due to a vendor going out of business or some other reason, the Bidder will determine and supply a suitable replacement part on chargeable basis to OIL.</td><td>The Bidder must submit a written commitment that the spares and consumables will be supplied on chargeable basis to for a period of 10 years from the date of successful commissioning of the equipment, and in the event, a part is not available due to a vendor going out of business or some other reason, the Bidder will determine and supply a suitable replacement part on chargeable basis to OIL.</td></tr>
</table>

# TECHNICAL MODIFICATIONS

**EOI NO.: EOI/WLG/CHLU/01/2026-2027 DATED 08.07.2026 (EOI FOR SHORTLISTING OF VENDORS FOR PROCUREMENT OF CASED HOLE LOGGING UNIT ALONG WITH LOGGING TOOLS AND ACCESSORIES)**

| Sl. No. | Clause No. | Original Clause | Amended Clause |
|---|---|---|---|
| 34. | **TRAINING & INSPECTION CUM ACCEPTANCE Clause 1.1** | Immediately after placement of the Purchase Order, the successful bidder should communicate the proposed training schedule to OIL for the Field Engineers, Maintenance Engineers and Interpretation Engineers, at least 04 (four) months in advance for each training program. OIL in turn will confirm acceptance of the schedule of training at least 02 (two) months in advance for each program.<br><br>**The engineer's training program must be completed within 9 months of the issuance of LOA .** | Immediately after placement of the Purchase Order, the successful bidder should communicate the proposed training schedule to OIL for the Field Engineers, Maintenance Engineers and Interpretation Engineers, at least 04 (four) months in advance for each training program. OIL in turn will confirm acceptance of the schedule of training at least 02 (two) months in advance for each program.<br><br>**The engineer's training program must be completed prior to the stipulated delivery.** |
| 35. | **TRAINING & INSPECTION CUM ACCEPTANCE LOGGING OPERATION ENGINEERS' TRAINING: Clause 1.3 (a)** | This should include detailed aspects of cased hole wireline logging, Data Acquisition Software, operation of tools procured, well completion system / different types of perforations, Special emphasis should be given on operation and maintenance/servicing of wireline Pressure Control Equipment, Hydraulic and Pneumatic systems for operation, Wireline spooling, winch operation and basic equipment troubleshooting at Base and at Fields in addition to the regular curriculum for Field Engineers' Training Course at the supplier's Training School. | This should include detailed aspects of cased hole wireline logging, Data Acquisition Software, operation of tools procured, well completion system / different types of perforations, Special emphasis should be given on operation and maintenance/servicing of wireline Pressure Control Equipment, Hydraulic and Pneumatic systems for operation, Wireline spooling, winch operation and basic equipment troubleshooting at Base and at Fields in addition to the curriculum covering operational aspects within scope of this tender for Field Engineers' Training Course at the supplier's Training School. Duration of the training period, locations of |

# TECHNICAL MODIFICATIONS

**EOI NO.: EOI/WLG/CHLU/01/2026-2027 DATED 08.07.2026 (EOI FOR SHORTLISTING OF VENDORS FOR PROCUREMENT OF CASED HOLE LOGGING UNIT ALONG WITH LOGGING TOOLS AND ACCESSORIES)**

| Sl. No. | Clause No. | Original Clause | Amended Clause |
|---|---|---|---|
| | | Duration of the training period, locations of training and prerequisite of the trainees, if any, should be clearly specified in the bid document.<br>The successful bidder will have to arrange for a training program for **04 (four) numbers** of logging operation engineers of OIL at the supplier's Training School for a minimum period of **02 (Two) weeks**.<br><br>Duration of the training period, location of training etc. should be clearly specified in the bid document. | training and prerequisite of the trainees, if any, should be clearly specified in the bid document.<br>The successful bidder will have to arrange for a training program for **04 (four) numbers** of logging operation engineers of OIL at the supplier's Training School for a minimum period of **02 (Two) weeks**.<br><br>Duration of the training period, location of training etc. should be clearly specified in the bid document. |
| 36. | **TRAINING & INSPECTION CUM ACCEPTANCE LOGGING OPERATION ENGINEERS' TRAINING: Clause 1.4 (a)** | This should include detailed theoretical and practical training on the logging system hardware & software, downhole tools (including sonde disassembly) supplied with the unit, Hydraulic and Pneumatic systems for operation, troubleshooting & repair of the operator's winch and power generating subsystems of the Logging unit in addition to the regular curriculum for Maintenance Engineers' Training Course at the supplier's Training School. Duration of the training period, locations of training and prerequisite of the | This should include detailed theoretical and practical training on the logging system hardware & software, downhole tools (including sonde disassembly) supplied with the unit, Hydraulic and Pneumatic systems for operation, troubleshooting & repair of the operator's winch and power generating subsystems of the Logging unit in addition to the curriculum covering maintenance aspects within offered scope of this Tender for Maintenance Engineers' Training Course at the supplier's Training School. Duration of the training period, locations of training and prerequisite of the trainees, if any, should be clearly specified in the bid document. |

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| Sl. No. | Clause No. | Original Clause | Amended Clause |
|---|---|---|---|
| | | trainees, if any, should be clearly specified in the bid document.<br>The successful bidder will have to arrange for a training program for **02 (two) numbers** of logging maintenance engineers of OIL at the supplier's Training School for a minimum period of **02 (Two) weeks**.<br><br>Duration of the training period, location of training etc. should be clearly specified in the bid document. | The successful bidder will have to arrange for a training program for **02 (two) numbers** of logging maintenance engineers of OIL at the supplier's Training School for a minimum period of **02 (Two) weeks**.<br><br>Duration of the training period, location of training etc. should be clearly specified in the bid document. |
| 37. | **Page 114 to120** | Section D, E and F | Sections D, E and F appearing on pages 114 to 120 stand DELETED, being duplicate clauses. The corresponding Sections D, E and F appearing on pages 107 to 113 shall remain valid and applicable, along with amendments thereto. |
| 38. | **SECTION – F WARRANTY and LIQUIDATED DAMAGE Clause 1.2** | Materials supplied as per the Purchase Order should be under warranty by the suppliers for a minimum period of 12 (twelve) months from the date of successful completion of installation and commissioning of the entire equipment at site or 18 (eighteen) months from the date of delivery, whichever is earlier. Any item / sub item failed during the above mentioned warranty period is to be | Materials supplied as per the Purchase Order should be under warranty by the suppliers for a minimum period of 12 (twelve) months from the date of successful completion of installation and commissioning of the entire equipment at site or 18 (eighteen) months from the date of delivery, whichever is earlier. Any item / sub item failed during the above mentioned warranty period is to be replaced / repaired within 04 (Four) months from the date of notification of such |

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| Sl. No. | Clause No. | Original Clause | Amended Clause |
|---|---|---|---|
| | | replaced / repaired within 03 (three) months from the date of notification of such failure. The warranty of the repaired / replaced items shall be correspondingly extended by a period equal to that from the date of failure to the date of commissioning of the replaced/repaired item. In order to keep the equipment fully operational, all spares and accessories required during the warranty period is to be arranged at site by the suppliers or their authorized representatives, within 03 (three) months, at their cost (including Customs Clearance etc.). In the event the Supplier fails to repair/replace the faulty item within three (3) months, penalty @ 0.5% of the material value of the affected unit/tools/equipment per week or on part thereof subject to a maximum of 5% of the value of affected item shall be levied and warranty for such items shall be extended accordingly. This penalty amount shall be recovered through deduction from subsequent payment invoices due to the supplier, by withholding payments otherwise due under the Purchase Order, from performance security amount submitted by the supplier or by set-off against | failure. The warranty of the repaired / replaced items shall be correspondingly extended by a period equal to that from the date of failure to the date of commissioning of the replaced/repaired item. In order to keep the equipment fully operational, all spares and accessories required during the warranty period is to be arranged at site by the suppliers or their authorized representatives, within 03 (three) months, at their cost (including Customs Clearance etc.). In the event the Supplier fails to repair/replace the faulty item within 04 (Four) months, penalty @ 0.5% of the material value of the affected unit/tools/equipment per week or on part thereof subject to a maximum of 5% of the value of affected item shall be levied and warranty for such items shall be extended accordingly. This penalty amount shall be recovered through deduction from subsequent payment invoices due to the supplier, by withholding payments otherwise due under the Purchase Order, from performance security amount submitted by the supplier or by set-off against amounts payable under other running contracts with the supplier. |

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| Sl. No. | Clause No. | Original Clause | Amended Clause |
|---|---|---|---|
| | | amounts payable under other running contracts with the supplier. | |
| 39. | **Section D (page 107) Clause 1** | Delivery required against this tender is within 12 (twelve) months from the date of firm placement of purchase order. The date of receipt of delivery of goods at Duliajan, Assam shall be considered as delivery date. The delivery of goods at Duliajan, Assam as mentioned in the scope is divided into following 3 packages<br><br>**Package 1** consists of **items with S/N 1,2,3 and 10 of Appendix 1** i.e. Logging Unit, Rig up accessories and Pressure control equipment. Any other spares and consumables required during I&C should also be considered in Package 1 by the bidder.<br><br>**Package 2** shall consists of **items with S/N 4,5,6,7,8,9,11 and 13 of Appendix 1**, i.e., logging tools and accessories, and technical manuals and documentation.<br><br>**Package 3** shall consist of **items with S/N 12 and 14 of Appendix 1**, i.e., spares and consumables and Automobile Unit spares under **Clause 9.0** of Section-A. | Delivery required against this tender is within 12 (twelve) months as follows:<br><br>In case of Indigenous bidders, the Delivery period shall be 12 (twelve) months from the date of firm placement of purchase order. The date of receipt of delivery of goods at Duliajan, Assam shall be considered as delivery date.<br><br>In case of Foreign bidders, the delivery period shall be 12 (twelve) months from the date of opening of LC. Date of clean Bill of Lading to OIL shall be considered as delivery date.<br><br>The delivery of goods as mentioned in the scope is divided into following 3 packages<br><br>**Package 1** consists of **items with S/N 1,2,3 and 10 of Appendix 1** i.e. Logging Unit, Rig up accessories and Pressure control equipment. Any other spares and consumables required during I&C should also be considered in Package 1 by the bidder.<br><br>**Package 2** shall consists of **items with S/N 4,5,6,7,8,9,11 and 13 of Appendix 1**, i.e., |

# TECHNICAL MODIFICATIONS

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| Sl. No. | Clause No. | Original Clause | Amended Clause |
|---|---|---|---|
| | | **NOTE:** For item(s) in package 2 and package 3, if any item found undelivered during the process of joint verification, OIL at its discretion can declare it either **'Short Shipped'** or **'Delayed Delivery'** and accordingly as per clause 2.0 under SECTION – F, LD will be applied. | logging tools and accessories, and technical manuals and documentation.<br><br>**Package 3** shall consist of **items with S/N 12 and 14 of Appendix 1**, i.e., spares and consumables and Automobile Unit spares under **Clause 9.0** of Section-A.<br><br>**NOTE:** For item(s) in package 2 and package 3, if any item found undelivered during the process of joint verification, OIL at its discretion can declare it either **'Short Shipped'** or **'Delayed Delivery'** and accordingly as per clause 2.0 under SECTION – F, LD will be applied. |
| 40. | **Clause 16** | **STANDARD PRICE LIST:**<br>Bidders are also required to submit a standard price list of the entire items used in the offered tools and surface systems. The price list must include all electronic, electrical, hydraulic items, mechanical items, accessories and consumables, Sub-assemblies, surface electronic system of the truck unit and downhole tool. The price list should contain description, part number and unit price of each item. | **STANDARD PRICE LIST:**<br>In stage-2 of the tender, Bidders are also required to submit a standard price list of the entire items used in the offered tools and surface systems. However, an unpriced version of the standard price list should be submitted in the Stage-1 of the bidding. The price list must include all electronic, electrical, hydraulic items, mechanical items, accessories and consumables, Sub-assemblies, surface electronic system of the truck unit and downhole tool. The price list should contain description, part number and unit price of each item. |

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| Sl. No. | Clause No. | Original Clause | Amended Clause |
|---|---|---|---|
| 41. | **Clause 20** | Bidder must submit an un-priced bid along with technical bid by omitting the price from the invoices for technical evaluation of the bid. | In stage-2 of the tender, Bidder must submit an un-priced bid along with technical bid by omitting the price from the invoices for technical evaluation of the bid. |

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# REVISED PRE-QUALIFYING CRITERIA (PQC) CHECKLIST

<table>
<tr><th><u>Clause no.</u></th><th>Tender No:<br><br>Bidder's Name:</th><th>Bidder's Response (complied/ not-complied)</th><th>Relevant Page no. of the Bid to support Bidder's response</th></tr>
<tr><td></td><td><u>PRE-QUALIFYING CRITERIA (PQC)</u></td><td></td><td></td></tr>
<tr><td>Clause A.1</td><td><u>PQC - TECHNICAL</u>:</td><td></td><td></td></tr>
<tr><td></td><td>The bids shall broadly conform to the specifications and terms and conditions given in this bid document. Bids shall be rejected in case the items offered do not conform to required parameters stipulated in the technical specifications and to the respective international/national standards wherever stipulated. Notwithstanding the general conformity of the bids to the stipulated specifications and terms and conditions, the following requirements will have to be particularly met by the Bidders without which the same will be considered as non-responsive and rejected.</td><td></td><td></td></tr>
<tr><td>Clause 1.1</td><td><u>If the bidder is the Original Equipment Manufacturer (OEM)</u> The Bidder should be original equipment manufacturer (OEM) of the Cased hole Logging tools with its own associated Surface data acquisition system and data acquisition software. The bidder should satisfy the following clauses and the relevant documentary evidence in support of the clauses should be enclosed along with the techno-commercial bid:</td><td></td><td></td></tr>
<tr><td>Clau1.1 (a)</td><td><u>Manufacturing Experience:</u><br><br>i. The Bidder should have minimum 5 (Five) years of Experience in Manufacturing of at least 3 (Three) out of the 6 (Six) prescribed logging tools listed in Table A.<br><br><u>Table - A</u><br><br>
<table>
<tr><th>Sl. No</th><th>Description of Tools</th><th>No. of tools</th></tr>
<tr><td>1</td><td>PCE (Pressure Control Equipment)</td><td>1</td></tr>
<tr><td>2</td><td>GR/CCL (Gamma Ray/Casing Collar Locator) Combination tool</td><td>2</td></tr>
</table>
</td><td></td><td></td></tr>
</table>

| | | | | | | |
|---|---|---|---|---|---|---|
| | | 3 | Multifinger Imaging Tool (MIT) or equivalent (24 or 40 or 60 Finger). | 1 | | |
| | | 4 | BST-Size 10, Model E-4 or Equivalent Setting Tool Or BST-Size 20, Model E-4 or Equivalent Setting Tool | 1 | | |
| | | 5 | Free Point Indicator Tool | 2 | | |
| | | 6 | Casing Collar Locator | 5 | | |

ii. The bidder (OEM) must have 10 (Ten) years of Experience in Manufacturing /Assembling of Wireline Logging Unit.

Or,

If the bidder obtained the Wireline Logging Unit from a third party, that party must have 10 (Ten) years of Experience in Manufacturing / Assembling of Wireline Logging Unit.

iii. If the Manufacturer/Assembler of the Wireline Logging Unit is from a third party, then the Bidder must provide a back-up authority letter authorizing the Bidder to submit the bid.

**NOTE:**

a. For above, copy of purchase order for sale of Listed Logging Tools the date of purchase order should not be less than 5 (Five) years and that for Wireline logging unit should not be less than 10 (Ten) years from original bid closing date of this tender.

b. Wireline Logging Unit includes both Cased Hole and Open Hole wireline logging unit.

| | | | |
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| Clause 1.1 (b) | **Supply Experience:**<br><br>i. Bidder must have sold **at least 3 (Three) out of the 6 (Six)** prescribed set of Tools with respective quantity mentioned in Table - A to companies other than its own parent/subsidiary/co-subsidiary/sister subsidiary companies which are in the business of 'exploration & production of hydrocarbons' and/or 'Oil Field Service Providers' during the last 15 | | |

| | | | |
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| | (Fifteen) years.<br><br>ii. The Bidder itself or the third-party Manufacturer / Assembler of Wireline Logging Unit must have sold 01 (One) number of Wireline Logging Unit to companies other than its own parent/ subsidiary/ co-subsidiary/ sister subsidiary companies which are in the business of 'exploration & production of hydrocarbons' and/or 'Oil Field Service Providers' during the last 15 (Fifteen) years. | | |
| Clause 1.1 (c) | The Purchase Orders mentioned above must have been affected to a country other than the OEM's country of origin. | | |
| Clause 1.1 (d) | **Documentary Evidence:**<br><br>Following documentary evidence should be submitted to fulfill the requirement against clauses 1.1 (a) and 1.1 (b): -<br><br>i. Copy of purchase order and<br>ii. Dispatch documents (Invoice, Bill of Lading/Consignment, etc.)<br>iii. Successful Commissioning Report **OR** Successful supply completion report **OR** Proof of release of payment.<br><br>**NOTE:**<br><br>The Purchase Orders date need not be within prescribed years mentioned in the respective clauses (clause 1.1 (a) and 1.1 (b) above) preceding original bid closing date of this tender. However, the execution of supply must be within the prescribed years mentioned in the respective clauses preceding the original bid closing date of this tender. In the event of any extension to the bid closing date of the tender, the original scheduled bid closing date shall be considered for evaluation of BEC clauses. | | |
| Clause 1.1 (e) | **Performance Certification:**<br>The bidder or Manufacturer / Assembler of Cased hole wireline logging unit must furnish certificates / documents (which are to be submitted along with the bid) from at least 01 (one) of their customers certifying the satisfactory functioning of the Cased hole Logging Tools and Logging Units sold to them by the bidder or Manufacturer / Assembler of Cased hole wireline logging unit. In case such documents are genuinely of confidential in nature or cannot be shared, then either the CEO or the Company Secretary of that bidder or | | |

Manufacturer / Assembler of Cased hole wireline logging must give an undertaking to the effect that their company has executed /completed such Orders and the Cased hole Logging Tools / Cased hole wireline logging units sold by their company are performing to the best of satisfaction of the customers/clients.

Experience against clauses 1.1 (a) & 1.1 (b) to be submitted in the following format separately

| **Description** | **Name of the Company with address, phone & Fax number to whom equipment were supplied** | **Purchase Order No. and date** | **Qty. Supplied & date of supply** | **Details of Documentary evidence** |
|---|---|---|---|---|
| Wireline Logging Unit | | | | |
| Logging tools | | | | |
| Surface acquisition system and software | | | | |

Clause 1.1 (f)

Bids of those bidders who themselves do not meet the experience
criteria stipulated in BEC Clause no. 1.1 (a) and 1.1 (b) above can also be quoted under the categories listed below:

(i) **Eligibility criteria in case bids are submitted on the basis of technical experience of the parent/subsidiary company:** Offers of those bidders who themselves do not meet the experience criteria as stipulated in clauses 1.1 (a) & 1.1 (b) above can also be considered provided the bidder is a subsidiary company of the parent company [supporting company, which holds more than fifty percent of the paid-up equity share capital of the bidder] who fulfils the experience criteria. Similarly, bid from parent company can also be considered on the strength of requisite experience of its

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| | subsidiary [supporting company, in which the bidder holds more than fifty percent of the paid-up equity share capital]. However, the parent/subsidiary company (as the case may be) of the bidder should on its own meet the experience as stipulated in the BEC and should not rely for meeting the experience criteria on its sister subsidiary/co-subsidiary company or through any other arrangement like Technical Collaboration agreement.<br><br>In case of bidder who is a subsidiary company dependent upon the experience of the parent company or vice-versa with a view to ensure commitment and involvement of the parent/subsidiary company (Supporting Company) for successful execution of the contract, the participating bidder should enclose a Parent/Subsidiary Agreement (**as per PROFORMA-N**) between the parent and the subsidiary company (Bidder) or vice-versa and Parent/Subsidiary Guarantee (**as per as PROFORMA-O**) from the parent/subsidiary company to OIL for fulfilling the obligation under the Agreement, along with the technical bid.<br><br>(ii) **Eligibility criteria in case bid is submitted on the basis of technical experience of sister-subsidiary/co-subsidiary company**: Offers of those bidders who themselves do not meet the technical experience criteria stipulated in (a) and (b) above can also be considered based on the experience of their Sister Subsidiary/Co-Subsidiary company within the ultimate parent/holding company provided that the sister subsidiary/co-subsidiary company and the bidding company are both wholly owned subsidiaries of an ultimate parent/holding company either directly or through intermediate wholly owned subsidiaries of the ultimate parent/holding company or through any other wholly owned subsidiary | | |

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| | company within the ultimate parent/holding company. Documentary evidence to this effect to be submitted by the ultimate parent/holding company along with the technical bid.<br><br>The bidding company can draw on the experience of their multiple subsidiary sister/Co-subsidiary company(ies) specializing in each sphere of activity, i.e. (a) manufacture/supply (b) installation and commissioning (c) servicing and maintenance to meet the technical experience criteria mentioned in clauses (a) and (b) above.<br>Provided that with a view to ensure commitment and involvement of the ultimate parent/holding company for successful execution of the order, the participating bidder must submit an agreement, as per format furnished vide **Proforma-Q**, between them & their ultimate parent/holding company, along with the technical bid.<br><br>(iii) In the situations mentioned in eligibility clauses (i) and (ii) above, following conditions are required to be fulfilled/documents to be submitted:<br><br>A certificate from the **statutory Auditor** of the bidding company to establish the relationship and equity percentage holding between the bidding company and the supporting company. The<br>certificate should be duly concurred/endorsed by the Company Secretary or one of the Directors of the company concerned.<br><br>Note: The above certificate should not be more than 30 days old as on the original bid closing date.<br><br>The supporting company shall not be allowed to submit their separate/independent bid against the tender. In such case, all such bids shall be rejected. Also, bids having technical support from the | | |

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| | same entity shall be rejected.<br><br>The Manufacturer of Tools, Surface data acquisition system and related acquisition software must authorize the Bidder to sell their products and services (viz. Installation & Commissioning services, Training services, etc.) mentioned in this tender document and the bidder must submit a back-up authority letter in this regard from the Manufacturer concerned in its techno-commercial bid. | | |
| Clause 1.1 (g) | 1.0 If the bidder or its OEM have successfully supplied logging units with tools and accessories to Oil India Limited in the past and whose past performance has been satisfactory would be considered as established source of supply and hence need not satisfy clause as stipulated in the Para 1.1 (a), (b), (c), (d), (e) and (f) above. However, the bidders/OEMs are required to submit a copy of the Purchase Order and Commissioning Report along with the Techno-commercial bid. Also, they shall quote logging unit with tools and accessories of the same OEM whose past performance was found satisfactory.<br><br>**NOTE**: The bidder must give an undertaking to provide immediate support / solutions to any issues related to Logging Units and Tools.<br><br>2.0 Wherever two or more sets of the same equipment/item are required, the bidders must quote all the sets of the same item that are identical in all respects i.e. the same category of equipment must be of same make, model and compatible in all respects. The bidder must quote accordingly as mentioned in this clause.<br><br>3.0 Bids with qualifying conditions like "the product is under development and would be supplied by the time ….. etc.," will be summarily rejected.<br>Surface Logging System: The offered surface logging system must be capable of performing the logging operations and services with the type of tools as described in the Clause 13.1 to 13.6 of **ANNEXURE-B** in this document. The bidder must confirm compliance on this point in its bid. | | |

**(A.2) PQC - FINANCIAL:**

| **Clause no.** | **PRE-QUALIFYING CRITERIA (PQC)** | **Bidder's Response (complied/ not-complied)** | **Relevant Page no. of the Bid to support Bidder's response** |
|---|---|---|---|
| Clause 1.0 | The bidder shall have an annual financial turnover from Operations of minimum **50% of Tender Value** during any of the preceding3 (Three) financial/ accounting years reckoned from the original bid closing date of the tender.<br><br>{Annual Financial Turnover of the bidder from operations shall mean - "Aggregate value of the realization of amount made from the sale, supply or distribution of goods or on account of services rendered, or both, by the company (bidder) during a financial year" as per the Companies Act, 2013 Section 2 (91 ). } | | |
| Clause 2.0 | "Net Worth" of the bidder must be positive for the financial/accounting year just preceding to the original Bid Closing Date of the Tender.<br><br>{ Net worth shall mean: "Share capital + Reserves created out of profits and securities Premium - Aggregate value of accumulated losses (excluding revaluation reserves) - deferred expenditure - Miscellaneous Expenditure to the extent not written off and carried forward Loss - Reserves created out of write back of depreciation and amalgamation".} | | |
| Clause 3.0 | Considering the time required for preparation of Financial Statements, if last date of preceding financial/accounting year falls within the preceding six months reckoned from the original bid closing date and the Financial Statements of the preceding financial/accounting year are not available with the bidder, then the financial turnover of the previous three financial/accounting years excluding the preceding financial/accounting year will be affidavit/ undertaking **(PROFORMA - 8)** certifying that 'the balance Statements for the financial year (as applicable) has actually not been audited so far'. | | |

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| | **Note:**<br>a. For proof of Annual Turnover & Net worth any one of the following documents must be submitted along with the technical bid:-<br><br>i. A certificate issued by a practicing Chartered/ Cost Accountant (with Membership Number and Firm Registration Number), certifying the Annual Turnover & Net worth as per format prescribed in (**PROFORMA –9** ).<br><br>OR<br><br>b. Financial Statements (Audited Balance Sheet & Profit & Loss account **along with all the schedules/notes forming part of the Balance sheet & Profit and Loss Account)** audited by the auditors appointed under the statute like Companies Act etc. wherever applicable. In cases where the bidding/ supporting company (as applicable) are not required to prepare Audited Financial Statements as per the Law of the Land of the country of the bidding/supporting company as applicable, the bidder shall provide documentary evidence for the same along with a certificate from a practicing Chartered Accountant or equivalent to this effect. The bidder must also submit the financial statement as per the accounting standards of the country of the bidding/supporting company as the case may be, duly certified by the practicing-chartered accountant or equivalent. In case the bidder is a Central Govt. Organization/ PSU/ State Govt. Organization/Semi- State Govt. Organization or any other Central/ State Govt. Undertaking, where the auditor is appointed only after the approval of Comptroller and Auditor General of India and the Central Government, their certificates may be accepted even though FRN is not available. However, bidder to provide documentary evidence for the same. | | |

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| Clause 4.0 | In case the Audited Balance Sheet and Profit & Loss Account submitted along with the bid are in currencies other than INR or US$, the bidder shall have to convert the figures in equivalent INR or US$ considering the prevailing conversion rate on the date on which the Audited Balance Sheet and Profit & Loss Account is signed. A CA certificate is to be submitted by the bidder regarding converted figures in equivalent INR or US$. | | |
| Clause 5.0 | In case the Bidder is subsidiary company (should be a wholly owned subsidiary of the parent/ultimate parent/holding company) who does not meet financial criteria by itself and submits its bid based on the strength of parent/ultimate parent/holding company, then following documents need to be submitted:<br><br>i. Turnover of the parent/ultimate parent/holding company (supporting company) should be in line with Para A.2 (1.0) above.<br>ii. Net Worth of the parent/ultimate parent/holding company (supporting company) should be positive in line with Para A.2 (2.0) above<br><br>iii. Corporate Guarantee (PROFORMA - 10) on parent/ultimate parent/holding company's (supporting company) letter head signed by an authorized official undertaking that they would financially support their wholly owned subsidiary company for executing the project/job in case the same is awarded to them.<br><br>iv. A certificate from the Statutory Auditor of the bidding company to establish the relationship and equity percentage holding between bidding company and the supporting company. The certificate should be duly concurred/endorsed by the Company Secretary or one of the Directors of the company concerned. | | |

**APPENDIX–B1**

# REVISED TECHNICAL EVALUATION CHECKLIST – LOGGING SECTION

Bidder need to furnish the checklist while submitting bid documents along with supportive documents. If anything is not captured in the checklist and is mentioned in the NIT, bidder needs to comply with all those clauses with supportive documents as mentioned in **SECTION- B**.

| | | | |
|---|---|---|---|
| **Tender No.** | | | |
| **Bidder's Name** | | | |
| **OIL NIT Clause No.** | **OIL NIT Clause Description** | **Bidder's Remarks (Complied / Not Complied / Deviation)** | **Relevant Page no. of the Bid to support Bidder's response** |
| **LOGGING SECTION** | | | |
| | The Cased Hole Logging Unit shall be equipped with a split drum capable of accommodating both 5/16-inch and 7/32-inch wireline logging cables. The unit shall comprise a logging cabin fitted with a surface acquisition system loaded with the latest version of the required software to perform wireline logging operations, well completion, and perforation services up to a minimum depth of 6,500 meters in vertical, highly deviated, and horizontal wells. | | |
| **1.0** | **ELECTRICAL SYSTEM / EQUIPMENT:** | | |

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| 1.0 (i) | Adequate, stable electrical power generated by the truck's Hydraulic alternator (Marathon generator Magna Plus Model: 283PDL1766 or equivalent brand/model having minimum 20 kw capacity) for power requirement of the surface system, downhole tools, air-conditioners & all other electrical accessories in the logging unit. The hydraulic alternator of the truck is to be driven by a Power Take-off unit coupled to the truck transmission system. | | |
| 1.0 (ii) | The Alternator output voltage should be regulated within +/- 5 volt between no load and full load voltage. | | |
| 1.0 (iii) | Must be equipped with voltage and frequency monitor & control, over/under voltage and frequency protection. | | |
| 1.0 (iv) | The power generator must have automatic safety shut-down features. | | |
| 1.0 (v) | The electrical system must have a Power Distribution board inside logging cabin, with circuit breakers, power plant controls, and frequency, voltage and current meters. | | |
| 1.0 (vi) | A suitable power intake point is to be provided to feed power into the unit from external source. Flexible cable (Approx. 20 M in length) with suitable plugs for this purpose should be provided. | | |
| 1.0 (vii) | Electrical power outlets for internal accessories are to be provided | | |
| 1.0 (viii) | Exterior power outlets should be properly covered. | | |

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| 1.0 (ix) | Color coded / Function coded truck electrical wiring and easily accessible for maintenance and service purposes must be provided. Entire wiring should be well documented. | | |
| 1.0 (x) | A back up electrical power source of minimum 8 KW should be provided. Following backup power system should be provided with manual switchover connection.<br><br>One Diesel Generator, low noise/silent (Preferably Cummins Onan Model 8HDKAU-41934R having 8KW capacity) mounted on the unit in addition to the main hydraulic alternator. | | |
| 1.0 (xi) | There should be provision of toggle switch to toggle between the power sources (Hydraulic Alternator and Backup diesel Generator) instead of manually swapping out power cables. | | |
| 1.0 (xii) | There should be provision of starting the backup diesel generator remotely from the logging cabin. | | |
| **2.0 LOGGING CABIN / OPERATOR'S COMPARTMENT:** | | | |
| 2.0 (i) | The logging cabin must have a dual sliding window with toughened, shatterproof safety, antiglare transparent glass in front of the operator console area to provide unrestricted view of operations.<br>Roll up tinted window shades is to be provided to minimize sunlight or external light glare through the windows. | | |
| 2.0 (ii) | Cabin roof should be suitably designed to drain out the rain water. | | |

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| 2.0 (iii) | Logging cabin should be fitted with at least three (03) numbers roof mounted air conditioners, each of minimum 13500 btu. | | |
| 2.0 (iv) | Proper metallic cover should be provided to protect the air conditioners from external damage. | | |
| 2.0 (v) | Temperature and humidity indicator are to be provided inside the cabin. | | |
| 2.0 (vi) | Cabin pressurization system should be provided to pump filtered fresh air in to the logging cabin for preventing dust entry. | | |
| 2.0 (vii) | Three nos. of Swivel type chairs should be provided. One for the winch operator (movable and height adjustable) and two with rollers for the logging engineer. Additional sitting arrangement for at least two persons should be provided inside the cabin. | | |
| 2.0 (viii) | Working table fitted with monitors must be having ample space for seating of two engineers side by side. | | |
| 2.0 (ix) | At least four nos. of drawers with locking arrangement to store manuals, multi meters and other materials. | | |
| 2.0 (x) | Slip proof metallic floor with suitable washable carpet should be provided.<br>Note: Aluminum floor, with a wood sub floor, with non-slip rubber coating on top of it, is also acceptable. | | |
| 2.0 (xi) | Logging Engineer's console/ computer system should be located at 90 degree to the operator's winch panel. | | |
| 2.0 (xii) | A fire extinguisher at readily accessible location should be provided.<br>A first aid kit at readily accessible location should be provided. | | |

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| 2.0 (xiii) | The operator's console should include line load display, electronic depth display, engine RPM meter, oil pressure meter, air pressure meter and hydraulic oil temperature meter and meters for any other required parameters related to winch and engine etc. | | |
| 2.0 (xiv) | The logging cabin should have provision of displaying various parameters such as generator voltage, frequency, power drawn from internal and external source etc. | | |
| 2.0 (xv) | 110 V / 220 V AC along with 12V/24 V DC interior lights are to be provided. | | |
| 2.0 (xvi) | Apart from normal power outlets (110Vac, 50/60 Hz) provided inside the logging cabin minimum two numbers of power outlets (220Vac, 50/60 Hz, 5 Amps rated) to be given in the logging cabin with multi socket that accepts British plugs in addition to Euro, NEMA American and Australian plugs with ON/OFF switch. | | |
| 2.0 (xvii) | Suitable LED lights must to be installed at the drum area for proper illumination. Proper LED rig-lights (AC) of minimum 5000 Lumen each to be installed to illuminate the working area. Additionally, LED rig-lights (DC) of sufficient power should be installed immediately below the rear corner rig-lights operated directly from the truck battery. Both the lights at the rear exterior corners must have suitable metallic cover at sides to protect against impact. | | |
| 2.0 (xviii) | The rear corner LED rig lights should be mounted on a motorized platform controlled by remote to focus the light at desired area of working. | | |

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| 2.0 (xix) | A dedicated LED light to be provided, positioned from the operator's viewpoint and focused on the winch drum, to ensure clear visibility of the cable winding during night operations. | | |
| 2.0 (xx) | Safety warning lights (red in log mode / green in safe mode) should be installed in the backside of the logging unit which should be visible from the catwalk while arming the perforating gun. | | |
| 2.0 (xxi) | The logging unit's steel/aluminum welded construction materials should be properly painted to resist corrosion. | | |
| 2.0 (xxii) | The Panel Rack should be placed in such a manner that the electrical wires connected to the rear side of the panels are easily accessible for connection purposes. A side window to be provided for easy access to the panels' rear side connections. | | |
| 2.0(x xiii) | xxiii. Gas detection with warning system (preferably buzzer) capable of detecting at least Methane, H2S and CO shall be provided inside the logging engineer's cabin/operators compartment. Suitable adapters/fixtures for calibration of the gas detector must be provided. | | |
| 2.0(x xiv) | Non-sparking electrical switches shall be provided inside the logging cabin/ operators compartment. | | |
| 2.0(x xv) | Wall mounted white board should be provided with magnetic duster in the engineers cabin. | | |
| 2.0(x xvi) | Apart from the things mentioned above, bidder may provide any other standard fittings inside the logging cabin. | | |
| Note | The Logging cabin must be designed to provide ample working and seating space. | | |
| **3.0** | **HYDRAULICS WINCH SYSTEM** | | |

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| 3.0 (i) | The unit should be equipped with Split Drums (with antirust / non-corrosive coating) to accommodate 5.55625 mm (7/32") OD and of 7.9375 mm (5/16") OD single conductor wireline non-spliced cables having at least 7000 meters in length each. | | |
| 3.0 (ii) | The winch drum powered by the unit's hydraulic system should have speed ranges from 0.3 m/min or less to 150 m/min or more with fine speed control even at maximum load condition. | | |
| 3.0 (iii) | A certificate should be provided confirming micro fractures / cracks free base mounting frame of the cable drums. | | |
| 3.0 (iv) | Operation of both the winch drums should be controlled by an electronic proportional joystick control mounted on the operator's control panel. The joystick should get locked when brought to neutral position. | | |
| 3.0 (v) | Electrically operated pneumatic or hydraulic failsafe brake for the winch to be provided in the logging cabin. | | |
| 3.0 (vi) | The logging unit winch drum must be capable to provide over-pulls up to 8,500 lbs during stuck conditions, the hydraulic system rating of the drums winch must be sufficient to withstand these over-pulls safely (well within system rating of the logging units). | | |
| **4.0** | **WIRELINE LOGGING CABLE:** | | |
| 4.0 | The installed cables in the logging unit should meet specifications as mentioned in the clause 4.1 and 4.2. | | |
| **5.0** | **OVERHEAD SPOOLING AND DEPTH/TENSION MEASURING SYSTEM:** | | |

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| 5.0 (i) | The logging unit should have overhead cable spooling systems for 7.9375 mm (5/16") O.D. and 5.556 mm (7/32") mono conductor cable. | | |
| 5.0 (ii) | The overhead Spooling system must be strong, lightweight with height adjustment and side to side steering. | | |
| 5.0 (iii) | Metric depth measuring system (**Make: AM5K Benchmark /Bidders Own Make/Logging Unit Manufacturers Make**) with depth and tension measuring panel needs to be provided for depth measurement/recording having dual electronic encoders, a tension device (Load Pin) and independent mechanical/electronic backup encoder. If separate accessories are required for using both the cables, that also needs to be provided. The backup depth display from the mechanical/electronic encoder is to be made available near the winch operator panel. | | |
| 5.0 (iv) | Line weight measuring system with a weight indicator to measure line tension of at least 15,000 lbs to be provided. It should have digital display for total and differential load. Weight measurements should have audio and screen alarms at operator's panel for increase / decrease of line load. The line weight measuring system should have provision for both load pin and rig floor load cell connected with the sheave wheel. | | |
| **6.0 ADDITIONAL LOGGING UNIT FEATURES:** | | | |
| 6.0 (i) | Built-in line oiler system for lubricating the cables with operating switches on the winch operator's control panel. | | |
| 6.0 (ii) | Grounding reel fitted with at least 50 meters cable with clamps for grounding during perforations and other allied wire line operations. | | |

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| 6.0 (iii) | Reels necessary for intercom, top load cell etc., of at least 70m length to be provided. | | |
| 6.0 (iv) | **DELETED.** | | |
| 6.0 (v) | Tool racks with suitable, independently working air bags for transportation of downhole tools must be provided. The air bags must be easy to access for replacement. | | |
| 6.0 (vi) | Tool storage area installed under the floor of the drum area for the longest tool must be guided with roller support throughout the rack length and fitted with air bags for transportation. | | |
| 6.0 (vii) | The winch drums must be fitted with slip rings having ample protection from moisture, dust and rain. Both slips rings should be easily accessible for repair and maintenance work.<br>Note: A single composite slip ring connected to both the cable drums is also acceptable. | | |
| 6.0 (viii) | A Switch must be provided to conveniently switch between both the cables inside the logging cabin. | | |
| 6.0 (ix) | Rear bumper should be fitted with a working vise and light weight folding step. | | |
| 6.0 (x) | All the electrical wires running in the winch / draw works compartment must be concealed/in a conduit. | | |
| 6.0 (xi) | Body to be painted to OIL's specification (with OIL logo). Logo / specification shall be provided by OIL after placement of order. | | |
| 6.0 (xii) | Safety / Warning Signs (pertaining to radioactive and explosive jobs) must be provided. | | |
| **7.0 STORAGE REQUIREMENT WITHIN THE LOGGING UNIT:** | | | |

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| 7.0 (i) | Two separate compartments, one for carrying Explosive Shaped Charges and the other for carrying Electric Detonators should be provided. These two compartments should be separated by a distance of minimum 1.5 meters as per Indian Explosive Rules. The inside of these compartments should be paneled with good quality non-sparking material. These two individual compartments should be minimum 1.15 meters away from the electrical power sources and fuel tanks mounted in the Logging Truck. The minimum sizes of the compartments are as per clause 7.0(i) in the tender. | | |
| 7.0 (ii) | Enough storage space should be provided to carry at least 6 nos. of TAG guns. The length of these racks should be at least 6 meters each and should accommodate 5 inch OD gun/tool. Additional racks should be provided to transport at least 4 nos. (minimum 3 meters in length) of logging tools with diameter ranging from 1 11/16" to 4". In addition to this 2 small (at least 1.5 meters in length) racks should be provided for carrying CCL, MPD and other short length tools. | | |
| 7.0 (iii) | Fixed positions should be provided for transportation of one pair of sheave wheels which is required for logging operation. | | |
| 7.0 (iv) | Separate compartments to be provided for carrying hand tools / wrenches, rig up accessories and other logging related accessories. All compartments should have heavy duty locking / latching arrangement. | | |

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| 7.0 (v) | A suitable mounting arrangement for the high pressure grease control head to be provided near the spooler (cable drum area of the logging unit).<br>Note: please refer to the pressure control equipment section for length and OD of the high pressure grease control head. | | |
| 7.0 (vi) | The drum area flooring will be of aluminum tread plate material. | | |
| 7.0 (vii) | A roll up weather resistant cover must be installed over the drum area opening. | | |
| **8.0** | **SURFACE LOGGING SYSTEM** | | |
| 8.1 | The log data acquisition and processing system should be a rack mounted PC based system, integrated collection of state-of-the-art hardware & software. It must be field proven, latest version logging system, capable of performing the logging & completion operations mentioned in the tender document as per clause 8.1(i) to 8.1(iii) | | |
| 8.2 | The log data acquisition and processing system has a Shooting Panel with features as mentioned in the tender document clause 8.2(i) to 8.2(iii) | | |
| 8.3 | LED displays should be used for depth and line speed monitoring for winch operator. | | |
| 8.4 | The logging system should have mono-conductor out connection point so as to facilitate logging with the use of external panels. It is preferred that the connection point is an UHF female socket (SO-239) connector. | | |
| **9.0** | **LOGGING SYSTEM COMPUTER HARDWARE** | | |

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| | It must be a state-of-the-art PC based logging system. In addition to other standard fittings / accessories which are mounted in the logging cabin, the system includes at least all the features mentioned in the tender document as per clauses 9.0(i) to 9.0(xi). | | |
| **10.0** | **LOGGING SYSTEM SOFTWARE** | | |
| 10.0 (i) | The data acquisition software must be latest version "WARRIOR" based. The system software should be based on latest version of windows based operating system. Perpetual license for supplied software should be provided. | | |
| 10.0 (ii) | Software must be in English language. | | |
| 10.0 (iii) | Detailed help on the complete system should be available. | | |
| 10.0 (iv) | The software must be capable of performing well completion and cased hole logging operations. | | |
| 10.0 (v) | The System must be able to export/import log data into API standard LAS, LIS and ASCII format. | | |
| 10.0 (vi) | Oil India Limited's logo must be incorporated in all outputs. | | |
| 10.0 (vii) | The system software must include real time depth correction capability during logging. | | |
| 10.0 (viii) | The system software must display real-time corrected depth and line tension. | | |
| 10.0 (ix) | Utilities like splice, merge and edit of logs to be provided. | | |
| 10.0 (x) | It should be capable of logging both in meters and feet. | | |

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| 10.0 (xi) | Virus protection Software must be provided in the system with a license validity of at least 1 year with backup in CD/DVD/Portable Drive. | | |
| 10.0 (xii) | Complete image of the system must be provided in CD/DVD/Portable Drive/USB. | | |
| 10.0 (xiii) | The bidder should give an undertaking to update the data acquisition and data processing sofware as and when updates are available for a period of 15 years from the date of commissioning of the unit at no cost to OIL. | | |
| 10.0 (xiv) | Installer files of all software used in the system must be provided on CD / DVD's as back up. | | |
| 10.0 (xv) | If any Lab Test and Diagnostic software is there, for the surface system and downhole tools, must be provided. | | |
| 10.0 (xvi) | Details of the software with price break up need to be provided. | | |
| **11.0** | **RIG-UPACCESSORIES** | | |
| 11.0 (i) | Stray voltage monitor: One rig voltage monitor mounted inside the cabin, with 50 meters long leads and accessories to measure a minimum rig voltage of 0.20 Volt at well site. | | |
| 11.0 (ii) | The Logging unit should be fully equipped with rig up and other standard accessories for straightaway commissioning of the unit. Detailed list along with price break up for each item is to be provided. However, certain operationally vital items with quantity as mentioned in the table below are to be | | |

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| | included and confirmed in the offer. | | |
| 11.0 (iii) | Rig-up/operational accessories are to be provided as per the table mentioned in the clause no. 11.0(iii) | | |
| NOTE | In addition to the items in the above list, the bidder must quote for any other item(s), if required, for straightaway commissioning of the unit. During equipment commissioning, if it is found that certain items are required but not quoted by the bidder, then the bidder must provide the same free of charge to OIL. OIL at its discretion may increase or decrease the quantity of items mentioned in the above list. | | |
| **12.0** | **TECHNICAL MANUALS AND DOCUMENTATION** | | |
| 12.0 | Technical manuals and documentations mentioned are to be supplied as per Tender clause 12.1 to 12.2. | | |
| **13.0** | **LOGGING TOOLS AND ACCESSORIES** | | |

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| 13.0 | All the down-hole logging tools as mentioned below should be rated for minimum 104 MPA (15,000 PSI) pressure and 176.6 Deg. C (350 Deg. F) temperature. Temperature rating should be for a minimum of one-hour continuous exposure in the well bore. The tools and cable head should have thread size 1 3/16" - 12 N – 2 ("GO" connection). All supplied tools and accessories must be corrosion resistant. All the tools, centralizers/de-centralizers quoted must be of metallic body.<br><br>Note: Bidder must provide equivalent 20 nos. crossovers and 20 nos. servicing kit in case thread types used in tools are different from the type listed above (1-3/16"-12N–2 "GO" connection). | | |
| 13.1 | Casing Collar Locator (CCL) to be provided as per tender requirement in clause 13.1. | | |
| 13.2 | Shooting GR/CCL to be provided as per tender requirement in clause 13.2. | | |
| 13.3 | Plug/Packer setting tool and Junk catcher to be provided as per tender requirement in clause 13.3. | | |
| 13.4 | Sinker Bar to be provided as per clause 13.4 | | |
| 13.5 | Multi Finger Imaging Tool (MIT) or equivalent to be provided as per the clause 13.5 | | |
| 13.6 | Free Point tool to be provided as per clause 13.6 | | |
| 13.7 | Skid Mounted 10k Psi Wireline Pressure Control Equipment System & Other Related Accessories to be provided as per clause 13.7 | | |
| **14.0 BOWEN 150 SERIES OR EQUIVALENT CASED HOLE FISHING EQUIPMENT** | | | |

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| 14.0 | Bowen 150 series or equivalent Cased Hole Fishing equipment to be provided as per clause 14.0 (i to ix). | | |
| **15.0 SPARES PARTS AND CONSUMABLES (Similar to the one fitted in the logging units)** | | | |
| 15.0 | Spares and Consumables are to be quoted as per clauses 15.1 through 15.7 of the tender document. | | |
| **16.0 STANDARD PRICE LIST** | | | |
| 16.0 | Standard price list is to be provided as per clause 16.0 | | |
| **17.0 PAST PERFORMANCE** | | | |
| 17.0 | Past performance as mentioned in clause 17.0 | | |
| **18.0 ADDITIONAL NOTES TO BIDDERS** | | | |
| 18.0 | the bidder must confirm in writing that it complies with all clauses from 18.0.a to 18.0.f | | |

# APPENDIX–B1

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| **19.0** | **DEVIATIONS FROM TECHNICAL SPECIFICATIONS** | | |
| 19.0 | The bidder must quote as per the tender requirement only and provide full information wherever applicable in the bid. After opening of the bids, in case any technical clarification is required on any bid, OIL will seek clarification from that bidder and the bidder will have to reply/clarify with complete details within the specified time mentioned by OIL. If not complied, that particular bid may not be considered for further evaluation.<br>The bidder must respond to each and every clause in the NIT in a tabular form as per APPENDIX – B1. | | |
| **20.0** | **UNPRICED BID** | | |
| 20.0 | In stage-2 of the tender, Bidder must submit an un-priced bid along with technical bid by omitting the price from the invoices for technical evaluation of the bid. | | |
| **SEC-C** | Training and Inspection is to be quoted as per Section C of tender document | | |
| **SEC-D and SEC-E** | Delivery and Installation and commissioning to be completed as per Section D and Section E respectively. | | |

# APPENDIX–B1

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| **SEC-F** | **WARRANTY and LIQUIDATED DAMAGE:**<br>Bidders agree to comply with Warranty and Liquidated Damages clauses given in Section-F | | |