

**OIL INDIA LIMITED**  
**RAJASTHAN FIELD**  
**JODHPUR**

**AMENDMENT No. 2 Dated 31.08.2021**  
**To TENDER No. CJI7793P22**

A. This amendment against Tender No. CJI7793P22 is issued as under:

| Sl. No. | Page No/Clause No   | Existing Clause   | Amended Clause  |
|---------|---|---|---|
| 1       | PART – 3,<br>SECTION – II,<br>SCOPE OF<br>WORK/TERMS OF<br>REFERENCE /<br>TECHNICAL<br>SPECIFICATIONS | New Clause.   | The following Scope of Work / Technical Specifications/ Terms of Reference / Special Conditions of Contract (SCC) shall supplement and/or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.  |
| 2       | PART – 3,<br>SECTION – II,<br>SCOPE OF<br>WORK/TERMS OF<br>REFERENCE /<br>TECHNICAL<br>SPECIFICATIONS | The Scope of work under this contract can be broadly divided into two parts:<br><br><div style="text-align: center;">PART-A</div> (a) Core cutting and recovery from subsurface to surface<br><br><div style="text-align: center;">PART-B</div> (b) Core handling & On site analysis.<br>(c) Stabilization & Shipment (Core Transportation)<br>(d) Processing, Preservation and Plugging<br>(e) Unconventional/Conventional Reservoir Core Analysis<br>(f) Routine Core Analysis.<br>(g) Special Core Analysis<br>(h) Geochemical, Sedimentology and Mineralogical, Biostratigraphy Studies<br>(i) Geomechanical Analysis<br>(j) Heavy Oil Analysis | The Scope of work under this contract can be broadly divided into two parts:<br><br><div style="text-align: center;">PART-A</div> (a) Core cutting and recovery from subsurface to surface<br><br><div style="text-align: center;">PART-B</div> (b) Core handling & On site analysis.<br>(c) Stabilization & Shipment (Core Transportation)<br>(d) Processing, Preservation and Plugging<br>(e) Unconventional/Conventional Reservoir Core Analysis<br>(f) Routine Core Analysis.<br>(g) Special Core Analysis<br>(h) Geochemical, Sedimentology and Mineralogical, Biostratigraphy Studies<br>(i) Geomechanical Analysis<br>(j) Heavy Oil Analysis<br><br><b>Bidder can quote for either PART-A only or for PART-B only or for both the parts of the Scope of Work. Bidder to categorically confirm the same in their technical bid.</b> |

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| 3 | PART – 3,<br>SECTION – II,<br>SCOPE OF WORK,<br>Clause no. 3.0            | Rajasthan Field-OIL is planning to acquire unconventional & conventional cores in India specially in Rajasthan Basins. These cores will be taken by unconventional & conventional coring method and the diameter of the core will be in the range of 3.5 inch to 4 inches. The inner barrel will be of Fiber Glass material.  | Rajasthan Field-OIL is planning to acquire unconventional & conventional cores in India specially in Rajasthan Basins. These cores will be taken by unconventional & conventional coring method and the diameter of the core will be in the range of 3.5 inch to 4 inches. The inner barrel will be of Aluminium material.  |
| 4 | PART – 3,<br>SECTION – II,<br>SCOPE OF WORK,<br>Clause no. 3.0            | Coring (maximum 27 meter in one run) of all rock types (carbonate, sand/sandstone, limestone/dolomite, shale/mudstone, salt/anhydrite) in vertical holes of 8 ½” & 12 ¼” diameter in the depth range of (500m – 2200) m   | Coring (maximum 18 meter in one run) of all rock types (carbonate, sand/sandstone, limestone/dolomite, shale/mudstone, salt/anhydrite) in vertical holes of 8 ½” & 12 ¼” diameter in the depth range of (500m – 2200) m   |
| 5 | PART – 3,<br>SECTION – II,<br>SCOPE OF WORK,<br>Clause no. 3.1 (A)<br>(3) | Core Handling Equipment complete with<br><input type="checkbox"/> Core cradle<br><input type="checkbox"/> Gypsum, Resin or foam stabilization to secure / preserve the one meter cores in the inner tube.<br><input type="checkbox"/> Foam to secure the one-meter core in the packing box to avoid damage during transportation.<br><input type="checkbox"/> 2” masking tapes<br><input type="checkbox"/> Red and black indelible markers<br><input type="checkbox"/> Eye mask / respirator gloves<br><input type="checkbox"/> Circular air saw c/w carbide tipped blade for fiber inner tube<br><input type="checkbox"/> Toolbox (hammers, nails etc.)<br><input type="checkbox"/> Ratchet Straps for securing core barrels to cradles.<br><input type="checkbox"/> Any other material, consumable and tools required | Core Handling Equipment complete with<br><ul style="list-style-type: none"> <li>• Core cradle</li> <li>• Gypsum, Resin or foam stabilization to secure / preserve the one meter cores in the inner tube.</li> <li>• Foam to secure the one-meter core in the packing box to avoid damage during transportation.</li> <li>• 2” masking tapes</li> <li>• Red and black indelible markers</li> <li>• Eye mask / respirator gloves</li> <li>• Circular air saw c/w carbide tipped blade or Circular Electrical saw c/w carbide tipped blade with separate electrical connection for Aluminium inner tube</li> <li>• Toolbox (hammers, nails etc.)</li> <li>• Ratchet Straps for securing core barrels to cradles.</li> <li>• Any other material, consumable and tools required</li> </ul> |
| 6 | PART – 3,<br>SECTION – II,<br>SCOPE OF WORK,<br>Clause no. 3.1 (A)<br>(1) | Complete set of Coring Unit comprising of:<br><input type="checkbox"/> Outer barrels, inner barrels complete with swivel, stabilizers<br><input type="checkbox"/> Core catching equipment, all accessories & tools required during operation with sufficient back-up required for trouble free operation.<br><input type="checkbox"/> Handling tools and spares.<br><input type="checkbox"/> Cross-over sub, if required.   | Complete set of Coring Unit comprising of:<br><input type="checkbox"/> 2 Nos. Outer barrels (9 m), inner barrels complete with swivel, stabilizers<br><input type="checkbox"/> Core catching equipment, all accessories & tools required during operation with sufficient back-up required for trouble free operation.<br><input type="checkbox"/> Handling tools and spares.<br><input type="checkbox"/> Cross-over sub as per the Contractor’s core assembly and overshot connection as under, if required:   |

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|    |   | <input type="checkbox"/> Circulating sub on top of core barrel.<br><input type="checkbox"/> End caps / clamps / tape.<br><input type="checkbox"/> Core plugging tool with core trimming tool<br><input type="checkbox"/> Core Gamma Tool.<br><input type="checkbox"/> Any other material, consumable and tools required.      | a) For 8.1/2" hole-6.1/2" d/collar with 4" IF connection.<br>b) For 12.1/4" hole-8" d/collar with 6.5/8" Reg<br><input type="checkbox"/> Circulating sub on top of core barrel.<br><input type="checkbox"/> End caps / clamps / tape.<br><input type="checkbox"/> Core plugging tool with core trimming tool<br><input type="checkbox"/> Core Gamma Tool.<br><input type="checkbox"/> Any other material, consumable and tools required.                              |
| 7  | PART - 2, BID EVALUATION CRITERIA, SECTION - A, Clause 1.15.1 | Provided that the sister subsidiary/co-subsi-dary company and the bidding company are both directly owned 100% subsidiaries of an ultimate parent/holding company.  | Provided that the sister subsidiary/co-subsi-dary company and the bidding company are both 100% subsidiaries of an ultimate parent/holding company either directly or through intermediate 100% subsidiaries of the ultimate parent/holding company or through any other 100% subsidiary 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. |
| 8  | PART - 2, BID EVALUATION CRITERIA, SECTION - B, Clause 1.15.1 | Provided that the sister subsidiary/co-subsi-dary company and the bidding company are both directly owned 100% subsidiaries of an ultimate parent/holding company.  | Provided that the sister subsidiary/co-subsi-dary company and the bidding company are both 100% subsidiaries of an ultimate parent/holding company either directly or through intermediate 100% subsidiaries of the ultimate parent/holding company or through any other 100% subsidiary 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. |
| 9  | PART - 2, BID EVALUATION CRITERIA, SECTION - C, Clause 1.15.1 | Provided that the sister subsidiary/co-subsi-dary company and the bidding company are both directly owned 100% subsidiaries of an ultimate parent/holding company.  | Provided that the sister subsidiary/co-subsi-dary company and the bidding company are both 100% subsidiaries of an ultimate parent/holding company either directly or through intermediate 100% subsidiaries of the ultimate parent/holding company or through any other 100% subsidiary 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. |
| 10 | PART - 2, BID EVALUATION CRITERIA, SECTION - A, Clause 1.19   | The Bidder should be able to complete the initial mobilization of all their resources at the very first well in Western Rajasthan (India) and start work within thirty (30) days from initial mobilization notice and subsequent mobilizations within ten (10) days from subsequent mobilization notice by Company. Bidder to | The Bidder should be able to complete the initial mobilization of all their resources at the very first well in Western Rajasthan (India) and start work within forty-five (45) days from initial mobilization notice and subsequent mobilizations within ten (10) days from subsequent mobilization notice by Company. Bidder to categorically confirm to this clause.   |

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|    |   | categorically confirm to this clause.   |   |
| 11 | PART – 2, BID EVALUATION CRITERIA, SECTION – C, Clause 1.19 | The Bidder should be able to complete the initial mobilization of all their resources at the very first well in Western Rajasthan (India) and start work within thirty (30) days from initial mobilization notice and subsequent mobilizations within ten (10) days from subsequent mobilization notice by Company. Bidder to categorically confirm to this clause. | The Bidder should be able to complete the initial mobilization of all their resources at the very first well in Western Rajasthan (India) and start work as under:<br>i) Within forty-five (45) days from initial mobilization notice and subsequent mobilizations within ten (10) days from subsequent mobilization notice by Company. Bidder to categorically confirm to this clause for Part-A of SOW (Core cutting and recovery from subsurface to surface).<br>ii) Within thirty (30) days from initial mobilization notice and subsequent mobilizations within ten (10) days from subsequent mobilization notice by Company. Bidder to categorically confirm to this clause for Part-B of SOW ((Core handling & On site analysis, Stabilization & Shipment (Core Transportation), Processing, Preservation and Plugging, Unconventional/Conventional Reservoir Core Analysis, Routine Core Analysis, Special Core Analysis, Geochemical, Sedimentology and Mineralogical, Biostratigraphy Studies, Geomechanical Analysis, Heavy Oil Analysis). |
| 12 | FORWARDING LETTER, Clause no. 7.1 (i) (b)                   | Power of Attorney for signing the bid.  | Power of Attorney / Resolution of Company's Board of Directors for signing the bid.   |
| 13 |   |   | Revised Proforma-H is uploaded alongwith.   |
| 14 | PART – 3, SECTION – II, SCOPE OF WORK,                      | New Clause  | <b>Petrophysical Log Based Sample Optimisation (Cluster Analysis):</b> Petrophysical log based analysis through an appropriate statistical method to select the samples for the above analysis to be performed. Generally it is done to optimise the number of samples to an apparent level of heterogeneity within a given database.<br>Data Integration and Interpretation and deliverables:<br>Core evaluation report to be submitted with an overview of wellsite and coring operations, analysis of canister gas content and gas composition data, standard geochemical analysis (TOC/Programmed pyrolysis), XRD, SRP, adsorption isotherm(if available) and rock mechanical data(if available). Report should also include basic interpretation of all data on a per formation  |

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|    |  |   | <p>basis. Interpretation includes calculated gas storage capacities {free, adsorbed (as a function of TOC), and dissolved} to estimate Total Gas Storage Capacity and Gas-in-Place. For liquid rich formations, oil saturation and Oil-in-Place estimation based on geochemical and /or SRP data should also be included. Comparison should be made between avg. canister gas content and calculated gas storage capacity (midpoint of reservoir). Report should provide best statistical analysis required to complete the log to core calibration and/or the Hydrocarbon-in-Place analysis report.</p> <p>Log to core calibration and Hydrocarbon-in-Place analysis should involve the utilization of relevant and available rock and fluid data, computer based log interpretation. Using rock and fluid data multi-variate solutions to log response should be derived to develop statistically significant solutions for mineralogy, organic richness, porosity, fluid saturation, permeability and rock mechanical properties. The calibrated log model should be based upon exclusive unconventional log analysis methods which are used to estimate rock and reservoir properties including Hydrocarbon-in-Place and reservoir quality in both cored and un-cored intervals at the same resolution as the log depth-step. Deliverables should include details of log model solutions, compiled LAS file (log, core and model digits) and relevant depth plots and models.</p> <p>The deliverables will include but not limited to:</p> <ul style="list-style-type: none"> <li>o All the observed or derived data are required in digital format.</li> <li>o Detail procedure of experiments</li> <li>o Weekly progress of the job.</li> <li>o Final Interpretation report 2 hard copies along with Digital copy.</li> </ul> <p>Final project report 2 hard copies along with Digital copy.</p> |
| 15 | PART – 3,<br>SECTION – II,<br>SCOPE OF WORK,<br>Clause no. 3.4 (I) | <p><b>Rock Mechanic Studies: (For both Conventional and unconventional)</b><br/>Service provider to carry out the followings with respect to rock mechanic studies:</p> | <p><b>Rock Mechanic Studies: (For both Conventional and unconventional)</b><br/>Service provider to carry out the followings with respect to rock mechanic studies:</p>  |

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|  | <ul style="list-style-type: none"> <li><input type="checkbox"/> Triaxial Compressive Strength Test-triaxial compressive strength and static Young's modulus and Poisson's ratio at axial strain rate of 5 x 10<sup>-6</sup> per second.</li> <li><input type="checkbox"/> Acoustic Velocity Test-Compressional (P) and shear (S) wave velocities at 1MHz, dynamic elastic parameters etc.</li> <li><input type="checkbox"/> Proppant embedment test.</li> <li><input type="checkbox"/> Compressive strength tests for fracture design and wellbore stability.</li> <li><input type="checkbox"/> Unconfined Compressive Strength (UCS)</li> <li><input type="checkbox"/> Multi-Stage Triaxial Compressive Strength (M-S TCS)</li> <li><input type="checkbox"/> Triaxial Compressive Strength – VTI isotropy measurement</li> <li><input type="checkbox"/> Brazilian Tensile Strength</li> <li><input type="checkbox"/> Thick Walled Cylinder (TWC)</li> <li><input type="checkbox"/> Uniaxial Pore Volume Compressibility</li> <li><input type="checkbox"/> Brinell Hardness</li> <li><input type="checkbox"/> Leeb Hardness</li> </ul> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Triaxial Compressive Strength Test-triaxial compressive strength and static Young's modulus and Poisson's ratio at axial strain rate of 5 x 10<sup>-6</sup> per second.</li> <li><input type="checkbox"/> Acoustic Velocity Test-Compressional (P) and shear (S) wave velocities at 1MHz, dynamic elastic parameters etc.</li> <li><input type="checkbox"/> Proppant embedment test.</li> <li><input type="checkbox"/> Compressive strength tests for fracture design and wellbore stability.</li> <li><input type="checkbox"/> Unconfined Compressive Strength (UCS)</li> <li><input type="checkbox"/> Multi-Stage Triaxial Compressive Strength (M-S TCS)</li> </ul> |
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- B. Revised Price Bid Format (Proforma-B) has been uploaded under Notes & Attachments of e-tender portal.
- C. Replies to Pre-bid queries have been uploaded under Amendments folder of Technical Rfx.
- D. The Bid Closing/Technical Bid Opening Date of the Tender is extended as:  
Bid Closing Date & Time: 14.09.2021 at 11-00 hrs. (IST)  
Technical Bid Opening Date &Time: 14.09.2021 at 15-00 hrs. (IST)
- E. All other terms & Conditions remain unchanged.

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**PROFORMA LETTER OF AUTHORITY**

TO  
**GM (C&P)**  
Contracts & Purchase Department  
Oil India Ltd., Rajasthan Project  
Jodhpur-342005  
Rajasthan, India

Sir,

**Sub: OIL's IFB No. CJI-7793-P22**

We \_\_\_\_\_ confirm that Mr. \_\_\_\_\_ (Name and address) is authorised to represent us to Bid, negotiate and conclude the agreement on our behalf with you against Tender Invitation No. \_\_\_\_\_ for hiring of services for \_\_\_\_\_.

We confirm that we shall be bound by all and whatsoever our said representative shall commit.

Yours Faithfully,

**Authorised Person's Signature:** \_\_\_\_\_

**Name:** \_\_\_\_\_

**Designation:** \_\_\_\_\_

**Seal of the Bidder:**

**Note:** This letter of authority shall be on printed letter head of the Bidder and shall be signed by a person competent and having the power of attorney (power of attorney / Resolution from Company's Board of Directors shall be annexed) to bind such Bidder. If signed by a consortium, it shall be signed by members of the consortium.