

Bid Document

Bid Details	
Bid End Date/Time	08-04-2021 13:00:00
Bid Opening Date/Time	08-04-2021 13:30:00
Bid Life Cycle (From Publish Date)	90 (Days)
Bid Offer Validity (From End Date)	60 (Days)
Ministry/State Name	Ministry Of Petroleum And Natural Gas
Department Name	Oil India Limited
Organisation Name	Oil India Limited
Office Name	Oil India Limited
Total Quantity	1
Item Category	ADVANCED POLARISATION MICROSCOPE
Minimum Average Annual Turnover of the Bidder	23 Lakh (s)
Years of Past Experience required	3 Year (s)
MSE Exemption for Years of Experience and Turnover	No
Startup Exemption for Years of Experience and Turnover	No
Document required from seller	Experience Criteria,Past Performance,Bidder Turnover,OEM Authorization Certificate *In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer
Past Performance	50 %
Bid to RA enabled	No
Time allowed for Technical Clarifications during technical evaluation	7 Days
Inspection Required	No
Evaluation Method	Total value wise evaluation

EMD Detail

Required	No
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ePBG Detail

Advisory Bank	AXIS BANK LTD
ePBG Percentage(%)	3.00
Duration of ePBG required (Months).	29

(a). EMD & Performance security should be in favour of Beneficiary, wherever it is applicable.

Beneficiary:

CHIEF MANAGER MATERIALS

Oil India Limited, OIL INDIA Limited, OIL INDIA Limited, Ministry of Petroleum and Natural Gas
(Balen Bharali)**Splitting**

Bid splitting not applied.

1. The minimum average annual financial turnover of the bidder during the last three years, ending on 31st March of the previous financial year, should be as indicated above in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the bidder is less than 3-year-old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria.
2. Experience Criteria: In respect of the filter applied for experience criteria, the Bidder or its OEM {themselves or through reseller(s)} should have regularly, manufactured and supplied same or similar Category Products to any Central / State Govt Organization / PSU / Public Listed Company for number of Financial years as indicated above in the bid document before the bid opening date. Copies of relevant contracts to be submitted along with bid in support of having supplied some quantity during each of the Financial year. In case of bunch bids, the category of primary product having highest value should meet this criterion.
3. Past Performance: The Bidder or its OEM {themselves or through re-seller(s)} should have supplied same or similar Category Products for 50% of bid quantity, in at least one of the last three Financial years before the bid opening date to any Central / State Govt Organization / PSU / Public Listed Company. Copies of relevant contracts (proving supply of cumulative order quantity in any one financial year) to be submitted along with bid in support of quantity supplied in the relevant Financial year. In case of bunch bids, the category related to primary product having highest bid value should meet this criterion.

ADVANCED POLARISATION MICROSCOPE (1 pieces)

Brand Type	Unbranded
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Technical Specifications

Buyer Specification Document	Download
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Consignees/Reporting Officer and Quantity

S.No.	Consignee/Reporting Officer	Address	Quantity	Delivery Days
1	Dharmendra Kumar Gogoi	781022,CoEEES, OIL INDIA LIMITED, RUKMINIGAON, G S ROAD, GUWAHATI	1	60

Bid Specific Additional Terms and Conditions

- 1.Scope of supply (Bid price to include all cost components) : Supply Installation Testing Commissioning of Goods and Training of operators and providing Statutory Clearances required (if any)

[This Bid is also governed by the General Terms and Conditions](#)

In terms of GeM GTC clause 26 regarding Restrictions on procurement from a bidder of a country which shares a land border with India, any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. While participating in bid, Bidder has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action in accordance with the laws.

---Thank You---



ऑयल इंडिया लिमिटेड
(भारत सरकार का उद्यम)
Oil India Limited
(A Government of India Enterprise)

PO : Udayan Vihar
Guwahati – 781171, Assam (India)
Phone: +91-361-2595682
Email: bikramjit_singha@oilindia.in



TECHNICAL SPECIFICATION

ITEM: ADVANCED POLARISATION MICROSCOPE CONSISTING Mot. 'Z', MOTORISED / CIRCULAR STAGE WITH ORTHOSCOPY & CONOSCOPY OBSERVATION, DIGITAL CAMERA, IMAGE ANALYSIS SOFTWARE & COMPUTER.

TECHNICAL SPECIFICATIONS

- 1.0 Power Supply: 230 \pm 10% volts, 50hz single phase AC.
- 2.0 Latest state of the art technology Optical Microscope with fully Motorized, Integrated Electronically Autofocused system for Orthoscopy & Conoscopy Observations with high resolution camera based image analysis system.
- 3.0 The system should be capable of observing the polished section of Sedimentary rock, Mineral samples in Oil & Air medium and displaying a clear image, based on high-resolution camera on the PC monitor.
- 4.0 The equipment to be attached with the latest Branded PC having Operating software for complete image processing and interactive, auto feature measurements.
- 5.0 AUTOFOCUSED MOTORISED RESEARCH POLARISED MICROSCOPE:**
- 5.1 Upright Integrated Electronically Mot. 'Z', Focus having Z-Resolution \leq 25 nm. With Frame mounted Touch screen monitor for interacting & controlling motorized components and change Observation for easy switching between different contrasting techniques. Illumination axis for transmitted and reflected light with mirror housing. Having Manually controlled Variable Field and Aperture diaphragm.
- 5.2 Should have an integrated Electronically Operated Auto focus drive with a resolution of minimum 25 nm, with stabilized regulating power supply for 12V / 100 W Quartz tungsten halogen illumination with motorized intensity control. The focus drive should have Manual coaxial "Coarse" and "Fine" focusing knobs for manual focusing and Focus Finder Button for protection at higher magnification objectives.
- 5.3 The System should have automatic setting of color temperature along with Light Manager & Contrast Manager capability to set Optimum Color-Contrast effect automatically.
- 5.4 Min. 6-Position motorized revolving Reflector turret for accommodating six various Reflector blocks for Reflected & Transmitted Polarization Observation.
- 5.5 The system should be equipped with a 6-Position Encoded (Readable from Computer) centering revolving nosepiece to accommodate 6 Nos. of Pol objectives.
- 5.6 Polarized Epi & Dia-illumination Optics with fully Apochromatically corrected beam path removing longitudinal Chromatic & Spherical aberration.
- 5.7 Transmitted & Reflected light illuminator with 12 Volt 100 Watt Halogen bulb.
- 5.8 Objectives with magnifications 2.5X, 5X, 10X, 20X, 50X and 100X (imm/Oil) for Incident & Transmitted light Pol Observation. All Objectives should be engraved with 'Pol' Mark.
- 5.9 Wide field paired 10X eyepieces with focusing front lens suitable for spectacle wearers (Field No. \geq 25 mm.) and with a measuring reticule in one of the eyepieces.
- 5.10 5 position Coded Tube Lens turret should have 1x lens with quartz plate iris diaphragm and focusable/centrable Bertrand lens for advanced Conoscopy.
- 5.11 The microscope should be equipped with a Software controlled motorized Scanning X-Y stage (minimum 75 x 50 mm) with an independent Joy stick/Track ball for manual operation. Stage controller should be provided.
- 5.12 Trinocular tube with light distribution facility (100/0: 0/100) for visual and photo ports. C-mount adaptor for attaching a high resolution digital camera.
- 5.13 360° Rotatable insertable Universal Analyzer with Lambda plate & Vernier 0.1 degree for Reflected & Transmitted illumination.
- 5.14 Individual 90° rotatable Polarizer for Reflected observation & Transmitted Polarizer should be Frame Mounted.
- 5.15 Depolarization slider for Reflected Observation to eliminate Pseudo Coloring / Contrast effect.
- 5.16 Compensator $\lambda/4$, Compensator λ should be provided.
- 5.17 The microscope should be equipped with 360° Rotatable Polarizing Stage with Click Stop, Vernier & Graduation. Attachable Mechanical X-Y stage should be provided.

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- 5.18 Parfocality of Microscope Objectives should be maintained to obtain balanced Focus in All over the entire range of Magnification.
- 5.19 Universal Pol. Condenser with N.A. 0.9.
- 5.20 The Microscope & System should be Operated through Five ways i.e. Automatically, Manually through Knobs, Frame mounted minimum 10 Nos Pre-Programmed Buttons, By TFT monitor & Through Software from PC.
- 6.0 **OPTIONAL ITEMS:**
- 6.1 DIC & Circular DIC (C-DIC) sliders should be equipped with the System for advance 'Pol' Imaging of Samples with Fixed Stage position to Observe 4-Quadrant effect.
- 6.2 Double filter wheel for accommodating 8 Nos. of filters like Daylight, neutral density and panchromatic green filter to be included for Observation in various Wave Lengths.
- 7.0 **HIGH RESOLUTION DIGITAL CAMERA:**
- 7.1 High Performance microscopy camera incl. driver software. dual USB 3.0 & USB 2.0 connection.
- 7.2 No. of Pixels: minimum 1936 (H) x 1460 (V) = 2.8 Mega Pixels. Pixel size: minimum 4.54 μm x 4.54 μm . Chip size: equivalent to 2/3" (11 mm diagonal). Max. Full Well Capacity: Approx. 15.000 e.
- 7.3 Selectable color interpolation quality levels:
 "High Speed Color" for fastest processing speed or
 "High Quality Color" for best interpolation results
 High Quality Black and White conversion mode.
- 7.4 Live frame rates minimum @38 fps - Highest Res. & minimum @93 fps - normal Res.
- 7.5 Dynamic Range: Typical >2500: 1. Interface through USB 2 & USB 3.
- 7.6 One stage Peltier cooling, regulated to 18°C sensor temperature.
- 7.7 Integration Time to be: 1 ms to 60 s. 36 bit RGB(12x3) colour depth with true color resolution.
- 7.8 The camera control and drivers should be seamlessly integrated into the control software. The software should be incorporated with all microscope control functions.
- 7.9 Live Relative Spectral sensitivity curve to display & control live R-G-B Contrast.
- 8.0 **IMAGE ANALYSIS SOFTWARE:**
- 8.1 A seamlessly integrated system software for total Microscope control, Scanning stage control and Camera control with the following imaging and image processing functions:
- 8.1.1 Automatic camera exposure control for optional image grabbing for Polarized and Fluorescence images.
- 8.2 The software should be capable of scanning the total sample field by field Automatically with automatic focus control and with an extended focus function for sharp images for even uneven surfaces.
 The software should be capable of automatic image (grey image and binary image) processing with a possibility of interactive image processing for complicated and irresolvable images.
- 8.3 All the grabbed images should be displayed in a gallery mode for selection and interactive image analysis.
 Automatic image analysis based on grey level segmentation for all morphological measurements like Grain size, Area Fraction, Volume analysis, Multiple Phase determination.
- 8.4 Image analysis software should be capable of all interactive Auto feature, Auto field, Auto Focus and intensity measurements and for all densitometry analysis for Reflectance and measurements.
- 8.5 System and application software back up to be provided. The system should have instructions for auto focus and predictive focus both.
- 8.6 All Motorized operations should be controlled through manually also.
- 8.7 Facility for Z-Stacking, Height Map Generation, 3D imaging, 3D Projection etc.
- 8.8 Optional: Future Up-gradation facility should be there for Combining with FESEM / SEM through Co-Relative Technique to combine LM - EM Images.

NOTE: MICROSCOPE, CAMERA & SOFTWARE SHOULD FROM SAME MANUFACTURER FOR OPTIMUM TECHNICAL COMPATIBILITY AND PERFORMANCE.

- 9.0 Manuals: One set of operating manual and service manual (in English) should be provided with the instrument. (Soft copy & Hard copy).
- 10.0 Spares: Spares required for three years of operation should be quoted separately. **Same shall not be considered for evaluation of Bid.**
- 11.0 Warranty: Warranty shall be for 24(twenty-four) Months from the date of Installation.

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- 12.0 Computer & Printer: Suitable & applicable Branded Advanced PC (Latest Version - i5) along with 24" LED monitor and high resolution colour printer with duplex printing facility should be provided with the System as an Integrated part.
- 13.0 Installation & Commissioning: To be done at CoEES. Charges to be inclusive.
- 14.0 Training: Training to be provided onsite at CoEES from experience trainer from vendor for atleast 4(four) days on "FREE OF COST" basis.
- 15.0 Installation and commissioning should be done by trained engineers from the vendor at CoEES on "FREE OF COST" basis.

16.0 CONFORMITY TO SPECIFICATIONS

- 16.1 The bidder must fill the **Technical Compliance Sheet (Annexure - CC)** and submit along with the offer.
- 16.2 The technical specifications must conform to the requirements as mentioned in Specifications.
- 16.3 The bidder must confirm that the offered unit/goods are fresh manufacture.
- 16.4 For any bought out item their Catalogue/ technical literature etc. showing sectional drawing of each component along with the necessary maintenance spare parts, Identification number etc. shall be provided.
- 16.5 The bids and the accompanied technical documentation must be in English language only. The bids other than English language must have an English version.
- 16.6 The technical documents to be submitted along with the bid shall include -
- 16.6.1 Literature with detailed specifications, Make & Model of items.
- 16.6.2 Technical documents & Layout/Process flow diagram of the whole system.
- 16.6.3 Piping & Instrumentation Diagram (P&ID) for Instrumentation and Control system
- 16.7 The bidder must confirm that the offered optical polarizing microscope System shall perform at the desired level as mentioned in the specifications.
- 16.8 Bidder's response to all tender stipulations should clearly be defined. Bidder shall furnish specific details/specifications of all major components, systems with Make & Model, etc. Generalized response like "As per tender Specifications/Technical Leaflet", "Noted", "and Accepted" or in any similar fashion is not acceptable.
- 16.9 The supplier should also submit a list of companies to whom similar systems have been sold and are presently in operation.

17.0 COMMITMENTS OF THE SPARES

- 17.1 The bidders must submit a written undertaking that they would be able to supply all the requisite spares and consumables for a minimum period of 10 (ten) years from the Certified date of completion / successful field commissioning of the unit.
- 17.2 The bidders must provide the commissioning spares at their cost along with the Equipment. They must submit a list of such spares.
- 17.3 Spares list for whole unit for 3-years trouble free operation must be quoted in their bids. The spare list shall contain the details of part nos., name OEM and other details as may be necessary for procurement of the parts quoted. While quoting for these spares the bidders must take in to account the consumption pattern of the spares as deemed fit. However, OIL reserves the right to decide to procure the whole of the quoted spares or part thereof. **However, the same will be not considered for bid evaluation. It is to be noted that the price quoted shall remain firm during this 3(Three) years period.**

TECHNICAL COMPLIANCE SHEET

The Technical Compliance Sheet must be completed and submitted with your offer. Please ensure that all these points are covered in your offer. These will ensure that your offer is properly evaluated. Please mark 'Yes' or 'No' and specify relevant page no. of your bid document where detail or compliance has been confirmed. **All Technical parameters should be reflected in Original OEM Brochure.**

S/NO.	PARTICULARS	COMPLIED/ NOT COMPLIED	REMARKS /PAGE NO. IN BID/ REFERENCE OF DOCUMENT IN BID
1.0	Power Supply : 230 ± 10% volts, 50hz single phase AC		
	TECHNICAL SPECIFICATIONS		
2.0	Latest state of the art technology Optical Microscope with fully Motorized, Integrated Electronically Autofocused system for Orthoscopy & Conoscopy Observations with high resolution camera based image analysis system.		
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5.0	AUTOFOCUSED MOTORISED RESEARCH POLARISED MICROSCOPE:		
5.1	Upright Integrated Electronically Mot. 'Z', Focus having Z-Resolution ≤25 nm. With Frame mounted Touch screen monitor for interacting & controlling motorized components and change Observation for easy switching between different contrasting techniques. Illumination axis for transmitted and reflected light with mirror housing. Having Manually controlled Variable Field and Aperture diaphragm.		
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5.11	The microscope should be equipped with a Software controlled motorized Scanning X-Y stage (minimum 75 x 50 mm) with an independent Joy stick/Track ball for manual operation. Stage controller should be provided.		
5.12	Trinocular tube with light distribution facility (100/0: 0/100) for visual and photo ports. C-mount adaptor for attaching a high resolution digital camera.		
5.13	360° Rotatable insertable Universal Analyzer with Lambda plate & Vernier 0.1 degree for Reflected & Transmitted illumination.		
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5.19	Universal Pol. Condenser with N.A. 0.9.		
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6.2	Double filter wheel for accommodating 8 Nos. of filters like Daylight, neutral density and panchromatic green filter to be included for Observation in various Wave Lengths.		
7.0	HIGH RESOLUTION DIGITAL CAMERA:		
7.1	High Performance microscopy camera incl. driver software. dual USB 3.0 & USB 2.0 connection.		
7.2	No. of Pixels: minimum 1936 (H) x 1460 (V) = 2.8 Mega Pixels. Pixel size: minimum 4.54 μm x 4.54 μm . Chip size: equivalent to 2/3" (11 mm diagonal). Max. Full Well Capacity: Approx. 15.000 e.		
7.3	Selectable color interpolation quality levels: "High Speed Color" for fastest processing speed or "High Quality Color" for best interpolation results High Quality Black and White conversion mode.		
7.4	Live frame rates minimum @38 fps – Highest Res. & minimum @93 fps – normal Res.		
7.5	Dynamic Range: Typical >2500: 1. Interface through USB 2 & USB 3.		
7.6	One stage Peltier cooling, regulated to 18°C sensor temperature.		

7.7	Integration Time to be : 1 ms to 60 s. 36 bit RGB(12x3) colour depth with true color resolution.		
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8.6	Facility for Z-Stacking, Height Map Generation, 3D imaging, 3D Projection etc.		
8.7	Optional: Future Up-gradation facility should be there for Combining with FESEM / SEM through Co-Relative Technique to combine LM – EM Images.		
9.0	Manuals :		
	One set of operating manual and service manual (in English) should be provided with the instrument. (Soft copy & Hard copy).		
10.0	Spares:		
	Spares required for 3(three) years of operation should be quoted separately.		
11.0	Warranty : 24 Months from installation.		
12.0	Computer & Printer:		
	Suitable & applicable Branded Advanced PC (Latest Version – i5) along with 24” LED monitor and high resolution colour printer with duplex printing facility should be provided with the System as an Integrated part.		
13.0	Installation & Commissioning: To be done at CoEES. Charges to be inclusive.		
14.0	Training : Training to be provided onsite at CoEES by experience trainer from vendor for atleast 4 days at “free of cost” basis.		