



NIT No. 20/OMC/AGM(MAT)/15

Date: 18.11.2015

**PROCUREMENT OF LABORATORY EQUIPMENTS FOR
THE DIRECTORATE OF GEOLOGY, ODISHA**

The Odisha Mining Corporation, a Govt. of Odisha undertaking intends to procure for Laboratory Equipments the Directorate of Geology, Govt. of Odisha. The detail specification of the Laboratory Equipments eligibility criteria of the bidders, the terms and conditions of the tender are available in our website i.e. www.orissamining.com / www.omcltd.in and also in the website of the Govt. of Odisha i.e. www.odisha.gov.in. The tender documents need to be downloaded by the intending tenderers from the websites. The last date of receipt of tenders in the office of the undersigned is 04.12.2015 upto 3.30 PM and same shall be opened on the same day at 4.00PM.

OMC reserves the right to cancel any or all the tenders without assigning any reason there of.

**Addl. General Manager (Materials)
The Odisha Mining Corporation Limited
OMC House, Bhubaneswar-751 001**



Odisha Mining Corporation Limited

(A GOLD CATEGORY STATE PSU)

NIT No. 20/OMC/AGM(MAT)/15

Date: **18.11.2015**

The Odisha Mining Corporation, a Govt. of Odisha Under taking intends to procure Laboratory Equipments such as XRF & XRD Analyser for the Directorate of Geology. Govt. of Odisha.

Important Information

Bid Reference	No. <u>20</u> /OMC/AGM(MAT)/15 Dt. 18.11.2015
Availability of Bidding Document	: No Manual sale of Bidding Document. The Document to be downloaded from the website i.e. www.orissamining.com / www.omcltd.in and www.odisha.gov.in w.e.f. dtd. 19.11.2015
Last date of availability of the tender in the website.	: The Document shall be available in the website till 04.12.2015 upto 3.00PM to be downloaded from the web site by the interested bidders.
Last date and time for Receipt of the bids(both techno-commercial and price bid)	: 04.12.2015 upto 3.30PM
Time and date of opening of Bids Techno commercial bid Price Bid	: 04.12.2015 at 4.00 PM : To be intimated separately to the eligible bidders.
Place of opening of Bids	: Conference Hall of Corporate Office, OMC Ltd., Bhubaneswar.
Cost of Tender Paper	: ~1000.00 (Rupees one thousand only) + VAT@5% in shape of DD in favour of OMC Ltd. drawn on any Schedule Bank Payable at Bhubaneswar.
EMD	: ~1,00,000.00(Rupees one Lakh only) in shape of DD/ pay order payable in favour of OMC Ltd. drawn on any schedule bank payable at Bhubaneswar.
Address for Correspondence	: Addl. General Manager (Materials) Odisha Mining Corporation OMC House, Bhubaneswar PIN-751 001, Odisha, India Ph- 0674-2391876, Fax- 0674-2392662

1. SOURCE AND AVAILABILITY PERIOD OF TENDER PAPER

The tender paper needs to be down loaded from our website i.e. www.orissamining.com / www.omcltd.in latest by **04.12.2015**. There will be no manual sale of tender paper.

2. PROCEDURE, DATE, TIME AND PLACE FOR SUBMITTING THE BIDS

The bidders are required to submit the bid in two parts in two separate sealed envelopes.

Part-I: Techno-commercial Bid (The envelop containing Techno-commercial bid shall be super scribed as "Techno Commercial Bid" for supply of Laboratory Equipments for Directorate of Geology, Govt. of Odisha.

Part-II: Price Bid (The envelop containing Price Bid shall also be super scribed as "Price Bid" for supply of Laboratory Equipments for Directorate of Geology, Govt. of Odisha)

The above two envelopes shall be covered in a third envelope super scribing the tender number, due date of opening and complete address of the tenderer. The tender should be addressed to Addl.General Manager (Mat), Odisha Mining Corporation Ltd, Bhubaneswar-751 001, Odisha. The bid should be submitted by **04.12.2015 upto 3.30PM.**

Each Bidder shall submit only one Proposal.

The Bidders has the option of dropping their bid in the tender box to be placed in the office of the AGM (Material)/ sending their Proposal to OMC by registered post, speed post or courier. Bids submitted by telex / telegram / fax / e-mail shall not be considered under any circumstances. Bids received after the Bid Deadline shall not be accepted under any circumstances. OMC shall not be responsible for any delay in receipt of the Proposals. Any proposal received by OMC after the Bid Deadline shall be returned unopened.

3. DATE, TIME AND PLACE OF OPENING OF THE BID

The techno commercial bid shall be opened in presence of the bidders or their authorized representatives at 4.00 PM of **04.12.2015** in the Conference Hall of Corporate Office, OMC Ltd., Bhubaneswar. The price Bid of the eligible bidders qualified through techno commercial appraisal shall be opened on a suitable date with prior intimation.

4. Cost of the tender/bidding document &EMD

Cost of Tender paper	~ 1000.00(Rs one thousand only) + VAT @5%
EMD	~ 1,00,000.00(Rupees one lakh only)

The cost of bidding document along with EMD shall be submitted in shape of Bank draft drawn on any scheduled Bank payable at Bhubaneswar in favour of Odisha Mining Corporation Limited. The DD towards the cost of tender paper and EMD should be submitted in the envelope for techno-commercial bid. EMD

furnished by all unsuccessful tenderers shall be returned after the expiry of tender validity period or within 30 days of the award of the order whichever is earlier without any further request from the tenderer. If the bidder withdraws or amends impairs or derogates from the tender in any respect within the period of validity of his tender or award of contract, the EMD will be forfeited.

Exemption of EMD shall be allowed to the bidders eligible for such exemption as approved or permitted by the State Government. For such exemption the bidder have to furnish the documentary evidence along with the Bid.

5. ELIGIBILITY CRITERIA FOR TENDERERS

- i. The bidder must have valid sales tax registration (TIN /VAT/CST).
- ii. The bidder must be a manufacturer/ authorised distributor of the similar Laboratory Equipments. If the bidder is a company then should have valid registration.
- iii. The turn over of the bidder in any one of the last three years starting from 2011-12 financial year should be minimum `1(One) Crore.
- iv. The manufacturer should be operating in India for last three years. In case of the foreign manufacturer, the manufacturer should have the marketing/ service net work in India for last three years.
- v. The bidder must have supplied such Laboratory Equipments to Govt./ PSU like GSI, CMPDIL, MECL, AMD etc. during last 7 years.
- vi. The tenderer must not have been black listed for bidding within a period of three preceding years from the date of submission of the tender above by any competent Court of Law, forum or any Govt. or statutory entities.

6. Documents to be enclosed in the Envelope for Techno commercial Bid.

- i. Forwarding letter as per Schedule-1.
- ii. Tender document downloaded from the website and duly signed by bidder on each page of the tender document.
- iii. DD of ` 1,000/- + VAT@5% towards cost of tender paper.
- iv. DD of ` 1,00,000/- towards EMD, if not otherwise exempted by the state Govt. of Odisha.
- v. Documents in support of the registration of the bidder as a manufacturer of the Similar Laboratory Equipments.
- vi. Copy of the valid Sales Tax registration certificate.
- vii. Documents in support of turn over of the bidder in shape of audited A/C statement.

- viii. Copy of the certificate from the organization where similar type of order has been executed. Documents in support of the following.
 - a. The work order / purchase order received from the other organizations.
 - b. The technical specification of the machine and the operating manual.
 - c. The certificate of the users in respect of performance, after sales service and availability of spares.
 - d. The document in support of the manufacturer having operating/ marketing/ service net work in India for last three years.
 - e. The bidder from out side state will file in the form of an affidavit indicating that they are not registered under the VAT act as they have not started business in the state of Odisha and they have no liability under the act. The affidavit shall be as per the format as at Schedule-2.
- ix. Self declaration certificate/ undertaking in support of not being black listed by any Reputed Private Organisation/ State & Central Govt. PSU.

While submitting the signed tender Document in the techno-commercial bid, Bidders should maintain caution not to fill up the price bid format in the tender Document. The filled in price bid should only be enclosed in the envelope for price-bid.

7. **Validity of Proposal**

The validity of the Proposal should be 6(six) months from the Bid Deadline. OMC reserves the right to reject any Proposal which does not meet this requirement.

8. **Bid Evaluation**

The bid evaluation process comprises of the following two steps:

- 1) ***Step I*** – Techno commercial bid evaluation
- 2) ***Step II*** – Price bid evaluation.

1) **Step- I (Techno commercial bid evaluation)**

- i. Techno commercial Check would involve financial status and technical evaluation of the Bidder (Financial & Technical Check). If necessary the bidders may be required to make a presentation on the features of their product. The technical committee shall visit the works and working site where identical equipment is operating to ascertain the technical capability of the machine. The recommendation of the technical committee shall be one of the basis for qualifying the bidder. The other factors such as after sales spares and service net work, maintenance cost etc. shall also be taken in to consideration while evaluating the techno commercial bid.

- ii. Bidders qualifying in the techno commercial bid shall be declared as Qualified Bidders.
- iii. The price-Bid of the qualified bidders shall be opened & the price bid of the Bidders other than the Qualified Bidders shall be returned unopened as soon as possible.

2) Step- II (Price bid evaluation)

- i. Envelope-2: Price bid shall be opened only for the Qualified Bidders.
- ii. The Bidder offering lowest rate shall be declared as the Preferred Bidder. The comparison of price shall be made among the qualified bidders. The price quoted shall be in **Indian Rupees (INR)** only. Price bid containing the rate of any item in any other currency other than INR shall not be acceptable.

The decision of OMC with regard to the Bid Evaluation shall be final and binding on all Bidders and shall not be available to be questioned before any forum or court of law.

TECHNICAL SPECIFICATIONS FOR “Sequential Wavelength Dispersive X-Ray Fluorescence Spectrometer (WDXRF)”.

Supply, Installation and commissioning of fully automated computer controlled sequential WD X-ray Fluorescence spectrometer (WDXRF) and accessories. The XRF system should be a sequential wavelength dispersive XRF Spectrometer (WDXRF) with capabilities for high speed and high precision qualitative, quantitative and semi quantitative (Standard less) analysis. The instrument should be capable of analyzing elements and compounds from beryllium to Uranium in the concentration ranges from PPM level to 100% in Rocks, Soils in solid loose powder and pressed powder samples. The system should be capable of analyzing major elements including halogens related to geological samples. (i.e Rocks & Soils).

GENERAL

All kinds of safety protection for radiation, electrical, electronics should be in built as per International regulation/norms. All these norms should be clearly specified in the offer. The spectrometer should be floor mounted with minimum space requirement.

- WDXRF spectrometer with X-ray tube below the sample surface at a suitable angle i.e. inverted geometry, auto sample changer and goniometer.
- Offer latest model with the capability of analyzing elements from Be 4 - U 92. If WDXRF with elemental range beyond Uranium is available the same will be given preference.
- Sample spinner (min. 30 rpm) compensating for inhomogeneity effect
- Internal thermal stabilisation
- Control of equipment through microprocessors and electronics
- Automatic programmable sample changer with at least 24 positions or better.

WDXRF spectrometer should be available in a single cabinet including the control electronics. Separate computer table to be provided for putting the computer, monitor & printer.

Vendors must quote their most recent model.

SAMPLE HANDLING & PRESENTATION

Sample types	Should be able to handle Solids , pressed powders, loose powders, fused beads & liquids in a variety of sample holders. Spectrometer should have the facility to automatically recognize sample types.
Sample Changer	X-Y changer with capacity to handle minimum 30 (or higher) position, samples of variable dimensions. Should be supplied with min 30 (or higher) position tray.

X-Ray GENERATOR

Max KV	Minimum 60KV or more
Max mA	Minimum 140mA or more
Voltage increment	In steps of 1KV
Current increment	In steps of 1mA
Cooling	Air / Water cooled

Software for Remote Diagnosis, Maintenance and Service:

The WDXRF system should have the software for remote diagnosis, maintenance and service, allowing direct control and inspection of all system components to easily identify / recognize during operation.

X-RAY TUBE

Insulation	Ceramic
Anode material	Rh
Tube type	End window type
Max KV	Minimum 60KV or more
Max mA	Minimum 140mA or more
Voltage increment	In steps of 1KV
Current increment	In steps of 1mA
Tube window thickness	Should not be less than 75micron

OPTICS

Primary filters	Should have minimum 3 primary tube filters.
Primary Collimators	Should have minimum 3 primary collimators.
Beam Path	Should be selectable as Vacuum , Helium.
Crystal Changer	Should have minimum 8 position crystal changer.
Crystals	Should have LiF200, PET, GE curved & suitable multilayer crystal for analysing elemental range "O-Mg". Suitable special separate individual crystals for "C" & "B" to be offered.
Vacuum pump	The spectrometer should be evacuated with single rotary vacuum pump operation. Vacuum pump should be built inside the spectrometer cabinet.
Spinner	Should have built-in spinner with min 30rpm rotation speed.
Safety	Dust control system should be inbuilt with the system. Or else alternative sample dust protection system to avoid dust, to be offered with basic system. If any other dust protection/collection device is available from the vendor – it must be offered with the basic system. Complete protection from sample dust, loose particles falling during measurement should be ensured.

GONIOMETER

Linearity	+/- 0.025degree for 2 theta. Or better.
Angular reproducibility	Must be equal or less than +/- 0.001 degree for 2 theta or better.
Step siize	Should be 0.001or better.
Drives	Should have two independent drives for theta & 2theta.

DETECTORS

Number of detectors	Should have atleast 2 nos of detectors, Flow proportional & Scintillation detector. All the detectors should be equidistant from the crystal mill.
P-10 gas	2 nos. Of P-10 gas cylinders with 1 no. of gas regulator should be offered from indigenous supply.

SOFTWARES

(A) INSTRUMENT CONTROL & CALIBRATION SOFTWARE

User friendly software with following features should be quoted:

Windows Operating base	Should be WINDOWS XP/Vista/7 based
Basic minimum features	Should have following basic minimum features <ul style="list-style-type: none">• Multipoint background correction.• Line overlap correction.• Ratio calculation.• Auto PHD/PHA measurements.• Calibration curve (Net intensity/ concentration, corrected intensity/ concentration) for quantitative analysis.• Emperical matrix correction models.• Theoretical matrix correction models.• Compton & Rayleigh scattering correction model.• Calculation of concentration functions.• Data storage.• Result conversion to excel sheet.

(B) STANDARDLESS ANALYSIS

The instrument should be offered with factory calibrated Standard-less analysis in various kinds of samples (solid, liquid, loose powder, pressed pellets & fused beads). If standard-less calibration to be performed at site, all the standards required for the calibration should also be offered. Validation sample minimum 1 no. & monitor samples minimum 2 nos to be offered. 1 no. 90meter Mylar 6micron roll & 1 no. 90meter Mylar 2.5 micron roll to be offered.

COMPUTER

A branded, PC compatible with the instrument having latest configurations and 17" TFT Colour monitor and colour laser jet printer should be quoted.

POWER SUPPLY

Power supply for XRF should be as per Indian Standard.

SAMPLE HOLDERS

30 numbers (or higher as appropriate) of steel sample holders to handle solid samples, 30 (or higher as appropriate) nos. of Steel sample holders to handle solid or pressed pellet or fused bead samples to be quoted.

ACCESSORIES

1. **Air compressor** if required should be supplied from imported source.
2. Two numbers **P-10 gas cylinders** along with two numbers of gas regulators to be supplied from indigenous source.
3. One no. **20 KVA online UPS** with two hours backup to be offered from reputed indigenous source.
4. One number suitable **external chiller** for XRF to be offered.

Sample Preparation Units:

1. **Pelletizing press:** The party should offer one suitable automatic pelletising press with tools and Dia. **Pellet Hydraulic Press 40 Tons**
 - Hydraulic Press 40 Tons with digital display of set and actual load.
 - Hydraulic pump feed rate 3.2 mm/sec (during piston forward) 5.3 mm/ sec (during piston return)
 - Hydraulic Pump capacity : 4LPM at 250 bar
 - Hydraulic Pressure: 250 bar (Max.)
 - Safe Operating Pressure : 200 bar (With Digital display of set and actual load)
2. **Semi Automatic Pulverizer** with tungsten Carbide Vessel (100 cc) – 1no to be offered.
3. **Primary crusher:** Jaw Crusher -1 no. with feed size upto 100mm & output size 1-10mm to be offered.
4. Secondary crusher: 1 number **Roll crusher**
5. One **ball mill** with appropriate size ball to powder 1-2 kg of rock or ore sample.
6. One **Sieve Shaker** with different compatible sieves (diameter about 30cm) of size 2mm, 1mm, 850 micron, 500 micron, 300 micron, 210 micron, 150 micron, 100 micron, 75 micron, 45 micron.
7. One **vacuum Cleaner**

Consumables: Required consumables for 5 years of trouble free operation to be supplied.

Set of **International standards** for analysis must be provided.

OPTIONAL ITEMS FOR XRF.

1. Electric heated Fusion Machine - Fusion Bead Sample Preparation System:
Electrically heated Fusion Machine with facility to also make fused solutions. Temperature range minimum 1200deg C with minimum 1 position bead preparation station. The system should not require any no water cooling or compressed air system for cooling. The system should be supplied with a Pt-Au crucible (typical composition 95%Pt5%Au) weighing approx. 30gms flat bottom type. The casting mold should be of 35mm diameter and weighing approx. 30gms. Recommendations from vendors on the type of crucible and mold are also welcome. The system should be provided with a polishing kit for the Pt-ware and also a racaster/ reshaper for the Pt-ware. Following flux to be provided:
2. 1kgs of flux Lithium Tetraborate:Lithium Metaborate in ratio 65:35 minimum purity 99.99%
3. 1kg of flux Lithium Tetraborate:Lithium Metaborate in ratio 35:65 minimum purity 99.99%
4. 1kg of flux Lithium Tetraborate minimum purity 99.99%.
5. 1kg of flux Lithium Metaborate minimum purity 99.99%.
6. 1000 tablets of typically 20mg weight of Ammonium Iodide to be used as wetting agent.
7. Vendor to undertake full service back-up for the Fusion Bead machine during and after warranty period. He should preferably have a trained manpower for the fusion bead machine as well.

ACCEPTANCE

Acceptance of results will be done by running CRM standards & matching the standard deviation as per the CRM certificate. CRM standards will be supplied by the supplier.

OPERATION MANUAL

Both Hardcopy and softcopy should be provided. Service manual with complete circuit diagram, trouble shooting and diagnostic must be provided.

WARRANTY

Instrument must have comprehensive warranty of 2 years.

INSTALLATION, COMMISSIONING & TRAINING

The system will be installed and commissioned at specified site and the installation site may be inspected by the vendor before submission of tender. Responsibility of the vendor to facilitate electrical, gas and water supply for the operation of the machine from the mains of the premises. Training and operational know-how's is to be imparted to the users at site or at vendor's lab. free of cost including lodging and boarding.

ANNUAL MAINTENANCE CONTRACT

The cost of AMC for 3 (three) years with and without spares separately after warranty period to be quoted. However, the quoted cost of AMC shall not be considered to derive the L-1 bid.

TECHNICAL SPECIFICATION FOR POWDER X-RAY DIFFRACTOMETER SYSTEM.

Objective: The X-ray Diffractometer is required for phase analysis of variety of powders and additionally the system will be used to carry out phase analysis and crystallographic tasks on a variety of mineral powder samples. Vendor should quote most recent model.

1. X-RAY GENERATOR & TUBE: Long Fine Focus X-ray Tube.

- i) X-ray generator of minimum 3.0kW.
- ii) High voltage range 0-50KV or more.
- iii) Current range 0 -50 mA or more
- iv) Output stability: $\pm 0.01\%$ per 1 % mains variation.
- v) X-ray tube With ceramic insulation. Minimum power of the tube should be 1800W.
- vi) Cu anode. (Mo And Co anodes are optional and should also be quoted)
- vii) Voltage step width: 1Kv.
- viii) Current step width: 1mA.
- ix) Facility to rotate the tube from Line Focus to Point Focus.

2. GONIOMETER: The goniometer should be vertically mounted and should be θ - θ type only .The goniometer movement should be via DC Servo Drive or stepper motor and should have optical sensors to eliminate any inaccuracies in positioning on account of vibrations, backlash or positioning errors. There should be no need for alignment when mounting and demounting of other accessories like Low Temperature Attachment. Further the goniometer should have the following features

- | | | |
|-----------------------------|---|---|
| I. Angular accuracy | : | $\pm 0.0025^{\circ}$ or better. |
| II. Angular reproducibility | : | $\pm 0.0001^{\circ}$ or better. |
| III. Scan speed | : | 0.001 – 1.2 ⁰ /sec or better. |
| IV. Slew speed | : | 8 deg/sec or better. |
| V. 2θ movement range | : | 0 - 140 ⁰ 2θ or better. |
| VI. Step size | : | $\pm 0.001^{\circ}$ or better. |

3. OPTICS:

Optics should be provided with primary, programmable divergence slits and anti-scatter slits programmable receiving slit, secondary monochromator to remove fluorescence effect at secondary site. Suitable soller slit & mask should be provided.

- i) The optics should be capable of being operational in standard focusing/Bragg-Brentano geometry as well as parallel beam geometry. The changeover between these geometries to fulfill various applications should be very easy without the need for any user realignment, preferably not requiring any manual intervention.
- ii) One flat sample stage with **automatic sample changer** which should take at least 12 samples (or more) at a time.
- iii) Special sample holders and accessories should be provided for carrying out measurements of Nano size samples for mineral phase analysis and particle size distribution.

4. DETECTOR:

Xenon proportional with latest Fast Solid State Array Detector or equivalent detector with following minimum specifications:

- i) The detector should operate in 0D, 1D and 2D mode. In 2D (Area detector) mode should have the capability to give data in form of Debye Scherer rings and convert the same to normal diffractograms.
- ii) Count rate linearity over whole detector without saturation $\geq 1 \times 10^8$ cps or more.
- iii) Detector should be useful for following applications –
 - Fast high resolution powder diffraction & Structure Refinement
- iv) If the detector technology requires any re-gassing (refilling of gas) / refurbishing then the same should be clearly brought out in the quotation. Any such costs of re-gassing (refilling) / refurbishing and associated costs for a period of 10 years will be to the vendor's account.
- v) Detector should not require any constant recalibrations.

5. **ELECTRONICS:** The system electronics should have an integrated shutter control and be capable of monitoring and controlling all diffractometer functions such as angles, counts, slits, generator safety, etc.

6. **Remote diagnostic facility should be provided. All standards for calibration &K beta filter should be provided.**

7. **COMPUTER CONTROL UNIT:** A latest branded PC compatible with the instrument having latest configurations and 17" TFT Colour monitor and colour laser jet printer should be quoted.

8. SOFTWARE:

- i) General - The software should be capable of simultaneous diffractometer control, data collection and analysis, peak search, search-match, profile fitting and elaborate pattern treatment such as data smoothening, background subtraction, $k\alpha_2$ stripping, etc.

- ii) Search match software should be provided.
- iii) ICDD PDF2&ICSD database should be quoted as an option.
- iv) Crystallographic Software- **Riveted** based quantitative phase analysis software. The software should be able to have different algorithms for Monoclinic and Triclinic crystal structures. Software should be able to determine lattice parameters. Further functions to be covered are as below
 - Qualitative analysis
 - Phase quantification by RIR method
 - Peak/Line Profile analysis
 - Lattice parameter determination
 - Crystallite size determination
 - %age Crystallinity Determination
 - Phase quantification based on Rietveld method
 - Unit Cell determination
 - Space Group Determination
 - 4 methods of search for cells – DICVOI, ITO, TREOR, McMaillle.
 - Le Bail fit for refinement of unit cell dimensions, sample height, preferred orientation and relative peak intensities.
 - Electron density Fourier Mapping
 - Ab-initio Structure Determination Method
 - Systematic non parametric analysis patterns through cross co-relation method
- v) All software should be provided with minimum of 5 user licenses. The software should be able to be loaded on 5 different PC's including laptops at any point of time.

9. SAFETY: Should confirm to Indian and International safety standards and regulations pertaining to X-ray Radiation and other hazards. Vendor to provide certificate stating the radiation dosage for the quoted model. This should be below 1micro sievette / hour at a distance of 10cms from the instrument at full load. Certificate to this effect should be enclosed with the offer.

10. ADDITIONAL ACCESSORIES AND ATTACHMENTS :

2 No of Zero background sample are to be supplied.

3 Set of **International standards** for each variety for analysis of Bauxite, Iron Manganese, Chromite etc (50 gm minimum) must be supplied.

The equipment should also have provision for further expansions / upgrade depending on the requirements. The quoted model should be the latest state of the art. It should be based on advanced platforms supporting alignment free technologies.

11. ACCESSORIES FOR WATER and POWER SUPPLY: The vendor should quote for a chiller of adequate capacity for the XRD.

20KVA online UPS to run XRD and Chiller (one hour backup) must be quoted.

Required consumables for 5 years of trouble free operations to be supplied.

12. WARRANTY – Minimum 2 years warranty should be provided for XRD and chiller.

13. Installation : The system will be installed and commissioned at specified site and the installation site may be inspected by the vendor before submission of tender.
Responsibility of the vendor to facilitate electrical, gas and water supply for the operation of the machine from the mains of the premises.

14. TRAINING – Training and operational know-how's is to be imparted to the users at site or at vendor's lab. free of cost including lodging and boarding.

TERMS AND CONDITIONS OF THE TENDER

1. Place of supply and Installation:

The equipments are to be delivered at **Laboratory** of the Directorate of Geology, Odisha in **Bhubaneswar**, Dist-**Khurda** in the state of Odisha.

2. Price:

2.1. The price quoted by the tenderers shall not in any case, exceed the controlled price, if any, fixed by Central/ State Government and maximum retail price (MRP) of the manufacturer.

2.2. The Commercial Proposal shall not be conditional or with qualification. In case it is conditional or with qualification, or hand written, the Proposal shall be summarily rejected.

2.3. The price bid should be type written, no hand written price bid shall be entertained. The price quoted shall be in Indian rupees (INR) only. The price for both the machines should be quoted separately. In the event of discrepancy of the quoted rate in figure and words, the rate quoted in words shall prevail.

2.4. The landed price of the equipments should be quoted. The details break up of the taxes and duties, packing and forwarding etc included in it has to be furnished.

The quoted price should include installation commissioning at the place of delivery.

3. Delivery:

The bidder has to indicate the delivery period of the Laboratory Equipments basing on which delivery period will be finalised and stipulated in the P.O.

4. Penalty:

In case the supplier fails to deliver within the period agreed and stipulated in the purchase order, the supplier shall be liable to pay penalty 0.25% of the basic order value for each 1/10th delay of the original delivery period calculated in number of days. However penalty shall not exceed 5% of the basic order value. The amount shall be deducted from the bills payable by the corporation to the vendor. If the order is not executed within twice the duration of the agreed delivery period then it will be at the discretion of OMC management to cancel the PO./ Contract with forfeiture of EMD.

However, OMC shall review the evolving work requirement for the accomplishment of order by the vendor and if required, may extend the time period.

5. Installation and commissioning:

After delivery of the equipment the demonstration/ trial run of the equipments shall be done by the supplier at free of cost at the delivery site. However the cost of consumables (if required any) shall be borne by the Director of Geology.

6. Training to the Personnel:

The supplier shall impart adequate training to personnel at his/ their factory/ workshop/ in the working site, as the case may be at their cost.

7. Damage During transit and installation:

The supplier shall replace any part of whole system as may be necessary in the event of damage during transit or found damaged on arrival or during installation of the system or if found not in conformity to the specifications at his/their own cost.

8. Supply of spares:

The tenderer should furnish an undertaking to provide spare parts timely for up keeping the equipments on demand.

9. Warranty:

9.1. The warranty will remain valid for 24 months from the date of successful commissioning of the machines and must be submitted at the time of installation to the consignee (Director of Geology, Govt. Of Odisha)

9.2. The warranty will cover all the parts of the machines or item and any replacement or repair required within the warranty period will be provided by the supplier at free of cost at the required destination.

9.3. The supplier shall promptly respond the complaint of the purchaser otherwise steps shall be taken for recovery of the expenditure incurred by the user from the Performance Guarantee.

10. Quality Testing:

10.1. Each equipment shall be tested with in the prescribed field at the point of supply. If the performance of the equipment found unsatisfactory by the committee, the equipment shall be replaced by the supplier at their own cost.

10.2. The tenderer should clearly understand that the decision of the technical committee of the Directorate of Geology, Odisha as to the quality of the supplied equipment shall be final and binding.

11. Terms and Payments:

11.1 No advance payment towards cost of laboratory equipment will be made to the supplier.

11.2 Eighty percent (80%) of the value of the supplied equipment shall be made on the receipt of stock entry certificate and successful installation as well as performance certificate from the Director of Geology, Odisha. Such payment shall be made within one month of getting performance certificate.

Balance 20% shall be paid on receipt of a Performance Bank Guarantee of equivalent amount as per the prescribed format at schedule-3 from any nationalized bank payable at Bhubaneswar valid till completion of warrantee period(i.e. two years).The EMD submitted shall be returned after receipt of the PBG with due confirmation from the concerned Bank.

12. AMC of the equipments:

The bidders are also required to indicate the terms and conditions for AMC of both the Laboratory Equipments. It is exploratory whether to go for AMC or not.

However, the cost of AMC shall not be considered to derive the L-1 bid.

The bidder has to intimate:

i) Annual Maintenance charge of each equipment excluding the cost of spares.

ii) Annual Maintenance contract including the supply of spares.

The bidders are required to furnish the copy of the AMC executed with the other organization along with the performance certificate.

13. Right to Reject any of the Proposals:

13.1. OMC reserves the right to reject any Proposal if:

- a) Does not fulfil the Eligibility criteria.
- b) The required documents are not enclosed.
- c) If the bidder is not otherwise legally competent to bid.

13.2 Notwithstanding anything contained in this tender, OMC reserves the right to reject any Proposal or to annul the Bidding Process or reject all Proposals, at any time, without any liability or any obligation for such rejection or annulment, without assigning any reasons whatsoever. Should that happen, the EMD shall be returned forthwith if the rejection or annulment is not attributable to or any fault on account of the bidder.

13.3 If the bidder selected through tender process fails to carry out /execute the work as per the condition of PO, OMC reserves the right to negotiate with the L-2 Bidder to award the work or take any such measure as may be deemed fit at the sole discretion of OMC, including annulment/ cancellation of the bidding process.

14. If any dispute or difference arises out of this contract/Agreement, the same shall be resolved by an arbitrator to be appointed by CMD/Chairman/MD of OMC and the said arbitrator shall be a retired Supreme Court / High Court Judge or a retired Dist.Judge as the case may be. The arbitrator shall, however, be conducted in accordance with the arbitration and conciliation Act,1996.The prayer for appointment of arbitrator shall be made within 3 months of the dispute or difference.

Signature of the Tenderer

Addl.General Manager (Mat)

SCHEDULE-1
Forwarding letter (To be enclosed in the Techno commercial Bid)

(On the Letter head of the Bidder)
(The bidders is required to indicate in this forwarding letter the details of the documents including DD attached in the bid)

Date:

To

Addl.General Manager (Mat)
Odisha Mining Corporation Ltd.
OMC House, Bhubaneswar - 751001
Odisha, India

Sub: Proposal towards supply of Laboratory Equipments for the Directorate of Geology, Govt. of Odisha.

I/We having My/Our
..... Office at

Do declare that I/We carefully read the terms and conditions as laid down in the Tender documents for the supply of Laboratory Equipments. I will abide by all conditions set forth in the tender paper.

I/we further declare that I/We possess valid manufacturing license/Distributor licence for such equipments.

Bearing no. Valid upto.....

I/We Do hereby declare that I will supply the Laboratory Equipments and accessories as per the terms and conditions of the tender document.

Signature of the bidder

Date :

Schedule-2

AFFIDAVIT

I/We Having My/Our
.....office at..... do declare that I/We carefully
read the terms and conditions as laid down in the Tender documents for the supply of
Laboratory Equipments. I will abide by all conditions set forth in the tender papers.

I further declare that the firm is not registered under the VAT Act as we have not
started any business in the state of Odisha. I/We further state that I/We do not have
any liability under the Act.

Signature of the bidder

Date :

Name & Address of the firm:

PROFORMA FOR BANK GUARANTEE

DATE :

BANK GUARANTEE

Name of Bank:

To

The Odisha Mining Corporation Limited,

Bhubaneswar

Dear Sir,

Guarantee No.

Amount of Guarantee ` /- (Rupees.....)only.

Guarantee cover from..... to

Guarantee remain full force

Last date for lodgment of claim : (Two months from date of expiry).

This Deed of guarantee executed by (Bank Name), constituted under the **Banking companies (Acquisition & Transfer of Undertaking) Act**..... having its registered office at and amongst other places, a branch at (hereinafter referred to as the bank) in favour of the Odisha Mining Corporation Ltd., **Bhubaneswar** (hereinafter referred to as OMC, the beneficiary) for an amount not exceeding `/- (Rupees) only at the request of **M/s**..... (hereafter referred to as the agency).

This guarantee is issued subject to the condition that the liability of the bank under this guarantee is limited to maximum of ` /- (Rupees.....) only and the guarantee shall remain in full force from to (**date of expiry**) with further claim period of two months and cannot be invoked otherwise than by a written demand or claim under this guarantee served on the bank on or before(last date of lodgment of claim) by the OMC, **Bhubaneswar** in writing.

For (Bank) Seal

Branch Manager

Branch

SUBJECT TO AS AFORESAID

(Main guarantee matter may be typed hereafter)

BG No :.....
Date:.....
Amount:.....
Valid period from to
Claim period.....

BANK GUARANTEE

The Odisha Mining Corporation Ltd BBSR (herein after called as the OMC) has agreed to accept from M/s atPO PSDistrict.....,State....., (herein after called as Agency) a bank guarantee for ` (Rupees) only for the period fromto..... with a claim period of two months & the last date of lodgment of claim withintowards EMD/SD/ISD/Performance Guarantee/ Guarantee against advance payment in connection withWork/ Contract/ PO/ Tender.

We(Bank).....branch, do hereby undertake to indemnify and keep indemnified "OMC." to the extent of ` (Rupees..... only) for the period from to with the last date of lodgment of claim within

We (Bank).....branch, further agree that if a demand is made by the OMC, have no right to decline to cash the same for any reason whatsoever . The fact that there is a dispute between the said Agency and the OMC is no ground for us to decline to honour the Bank guarantee and is a sufficient reason for the OMC to enforce the bank guarantee unconditionally without any reference to the said Agency.

We.....(Name of the Bank & Branch).....branch, further agree that a mere demand by the OMC . is sufficient for us(Bank Name),..... branch, to pay the amount covered by the bank guarantee without reference to the said Agency and any protest by the said Agency cannot be valid ground for us,.....Bank..... Branch, to decline payment to the OMC.

Wethe bank, undertake to pay to the OMC any money so demanded notwithstanding any dispute or disputes raised by the said agency in any suit or proceedings pending before any court or tribunal relating thereto as our liability under this present being absolute and unequivocal.

If notice of demand is served on the Bank and for this purpose it shall be deemed sufficient if such notice is served on our branch at, Bhubaneswar, by the OMC before the last date of lodgment of claim under this guarantee, then notwithstanding anything to the contrary herein contained, the liability of the Bank under this guarantee shall be enforceable as due to us.

BG No :.....
Date:.....
Amount:.....
Valid period from to
Claim period.....

Wethe bank further agree that the OMC shall have fullest liberty, without our consent and without affecting in any manner our obligation hereunder to vary any of the terms and conditions of the agreement/work order/contract / order etc or to extend time of performance by the said agency from time to time or to postpone for any time or from time to time any of the powers exercisable by the OMC against the said agency and to forbear or enforce any of the terms and conditions relating to the order and shall not be relieved from our liability by reason of any such variation or extension being granted to the said Agency or for any forbearance, act or omission on the part of the OMC or any indulgence by the OMC to the said agency.

We (Name of the Bank & specify branch Name) branch, lastly undertake not to revoke this guarantee during its currency except with the previous consent of the OMC in writing.

Notwithstanding anything contained herein above:

1. All claims under this guarantee must be presented to(name of the bank).....(Branch), Bhubaneswar (Odisha) .
2. Our liability under this Bank Guarantee shall not exceed `(Rupees)only.
3. This guarantee will not get discharged due to change in the constitution in the bank or the said agency.
4. This Bank Guarantee shall remain valid upto (date of expiry) with additional claim period of two months and claim under this guarantee can be served on or before (last date of claim).
5. We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if OMC serves a written claim or demand on the bank on or before (last date of for lodgment of claim.)

Signature:

Name:

Address:

For & on behalf of

(Seal)

Signed and delivered this on

Format for Commercial Proposal

(On the Letterhead of the Bidder)

(The Commercial Proposal shall not be conditional or with qualification. In case it is conditional or with qualification, the Proposal shall be summarily rejected.)

(Bidder must exercise caution not to enclose the Commercial Proposal format provided in the tender Documents. The Commercial Proposal must be submitted separately in Envelope for price-bid)

Date:

To

**Addl.General Manager (Mat)
Odisha Mining Corporation
OMC House, Bhubaneswar – 751001
Odisha, India**

Sub: Price Bid towards supply of Laboratory Equipments for the Directorate of Geology, Govt. of Odisha.

Dear Sir,

With reference to the captioned tender, we are pleased to offer our Commercial Proposal for the following machine.

Sl. No.	Item	Qty.	Price/ Rate in figure in Indian Rupees (INR) only	Amount in Indian Rupees in words.
1.	X-Ray fluoresce (XRF) Spectrometers as mentioned in technical specifications	1 No.		
2.	Accessories for XRF	1 Set		
3.	X-Ray Diffractometer (XRD) as mentioned in technical specification	1 No.		
4.	Accessories for XRD	1 Set		

The break up of the landed price indicating basic price, taxes and duties, transportation and forwarding etc are stated below.

We have completely read and understood the tender Documents, and this Commercial Proposal is unconditional and is in line with the requirements of the tender Documents.

Yours faithfully,

(Signature of the Authorised Signatory of Bidder)

PRICE BID FORMAT

Sl. No.	Price Component	Amount (in ₹)	Amount (in word)
1.	a) Total Basic Price		
2.	b) Discount, if any, as a percentage basis		
3.	c) Sub Total (A-B)		
4.	d) Packing & Forwarding, if any as a percentage/ value basis on "C"		
5.	e) Sub Total (C+D)		
6.	f) Excise Duty and ED Cess as percentage Basis on "E"		
7.	g) Sub Total (E+F)		
8.	h) Sales Tax(CST) as percentage basis on "G" (NO. FORM-C SHALL BE ISSUED)		
9.	i) Sub Total (G+H)		
10.	j) Entry Tax (if any) to vendor or Govt. as percentage Basis on "I"		
11.	k) Sub Total (I+J)		

SIGNATURE OF THE BIDDER