

PROPOSAL FOR PROSPECTING OF MINERALS IN FOREST LAND

UNDER SECTION 2 OF F C ACT 1980

PERTAINING TO

BIRASAL CHROMITE MINING LEASE

[ML Area: 583.021 ha]

(Forest Land: 504.30 ha + Non-forest land: 78.721 ha)

**UNDER
KANKADAHADA TAHASIL
& DHENKANAL FOREST DIVISION
OF
DHENKANAL DISTRICT, ODISHA.**

OMC

THE ODISHA MINING CORPORATION LIMITED
(A Government of Odisha Undertaking)
OMC HOUSE, P.O. BOX-34, BHUBANESWAR-751001

C O N T E N T S

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FORM - C

Form for seeking prior approval under section 2 of the proposals by the State Governments and Other authorities for prospecting of minerals in forest land

PART - I

(to be filled up by User Agency)

I. Project detail:

(i) Name, address and contact details of the User Agency:

Birasal Chromite Mining lease
Odisha Mining Corporation Limited
OMC House, P.O.Box-34,
Bhubaneswar-751001.

(ii) Legal status of the User Agency:

The Odisha Mining Corporation Ltd., Registered under company act 1956, A Public Sector Undertaking of Govt. of Odisha.

(iii) Name, designation and full address of the person making application:

Sri Sudhansu Kumar Das
Dy.General Manger (Geo),
Odisha Mining Corporation Limited,
OMC House, P.O.Box-34,
Bhubaneswar-751001, Phone No.0674- 2377458.

(iv) Documents in support of the competence or authority of the person making this application to make application on behalf of the User Agency enclosed:

Yes. Enclosed as Annexure - I

(v) Mineral commodity to be explored:

Chromite ore

(vi) Short narrative of the activities proposed to be undertaken in both forest and non-forestland:

- a) Shifting of the drilling machine with all accessories from one proposed bore hole point to another proposed borehole point through proposed access road.
- b) Existing road shall be utilised to the full extent.
- c) Temporary tent is to be pitched for keeping the drilling accessories, drill core boxes, rest shed for workers and watch & ward. The drilling work will be from 6.0 A.M. to 6.0 P.M. Only security persons will stay round the clock for watch and ward purpose.
- d) Core boxes shall be shifted by the truck for sampling of core.
- e) Water tanker shall be utilised for supply of water to the drilling site as and when required in the day time.
- f) Temporary water vat (3mt X 3mt X 1mt) shall be constructed one for each drilling site for recycling water required for drilling. These vats will be reclaimed after completion of drilling.

- (vii) Details of approvals accorded by the concerned Ministry or Department in the State or Central Government, as the case may be, for grant of prospecting license in favour of the User Agency:

Not Applicable

- (viii) Details of forest and non-forest land included in the prospecting lease:

Forest Land: 504.30 ha
Non-Forest Land: 78.721 ha
Total ML Area: 583.02 ha

- (ix) Total area of forest land required for prospecting:

- (a) Area of forest land likely to experience permanent change in land use:

Nil

- (b) Area of forest land likely to experience temporary change in land use:

10.3580 Ha.

- (x) Total period for which the forest land is proposed to be utilised for prospecting:

05 years

- (xi) Estimated cost of the project:

Drilling cost (@ Rs.7000/-per metre for 33250 mtrs:	Rs 2327.50 Lakhs
Supervision cost (salary & wages):	Rs 30.80 Lakhs
Vehicle for supervision:	Rs 15.80 Lakhs
Sampling & analysis:	Rs 13.965 Lakhs
Total cost:	Rs 2488.065 Lakhs

- (xii) Details of forest land diverted earlier, if any, in favour of the User Agency in the State or Union territory along with current status of the use of such forest land:

Not applicable.

- (xiii) Details of permission accorded earlier, if any, in favour of the User Agency for prospecting of minerals in forest land along with current status of prospecting in each case:

Not applicable

2. Details of Maps enclosed

- (i) Survey of India topo-sheet(s), in original in 1:50,000 scale showing boundary of prospecting block; boundary of each patch of forest land located within the prospecting block; location of each sample plot or borehole site, roads or pathway (existing as well as new pathway to be shown separately) to be used for transportation of drilling equipments; boundary of the adjoining forests and protected areas located within ten (10) Kilometres distance from boundary of forest land identified for prospecting etc.: (Yes/No).

Yes

Note 1: In case Survey of India Topo sheet in 1: 50,000 scale is not available, especially in case of the areas located near International Borders and other strategic locations, in place of Survey of India Topo sheet other maps available in public domain may also be used.

Note 2: Due to technical reasons, while undertaking the prospecting activities, the user agency may vary location of boreholes, sample plots, roads or paths etc. up to 300 meters, provided area of forest land proposed to be utilised and number of trees proposed to be cut does not exceed the same given in the proposal.

Justification for prospecting in forest land:

3. (i) The host rock for chromite is Dunite-Peridotite suit of Ultrabasics in Sukinda valley. These are later on altered to Limonite, Laterite, chromiferous laterite and soil cover. Though very less surface exposure of chromite ore body is found in the lease hold there are possibilities of sub-surface mineralization, irrespective of the land pattern. Chromite is a strategic mineral and before a decision is taken on the balance land over the ML thorough examination by subsurface exploration is inevitable considering the site specific nature of the deposit.

(ii) **Details of alternatives examined:**

The operation is confined to the lease area only. The objective is to explore the total ML area irrespective of its type. Therefore no other alternative in this case is possible.

(iii) **Detail of non-invasive prospecting activities, if any, undertaken by the user agency in the forest land indicated in the extant proposal:**

No

4. Whether the forest land identified for prospecting is located in scheduled areas (Yes/No):

No

5. Details of activities proposed to be undertaken in forest land:

(i)	Surface sampling	
	(a) Grab sampling	No
	(b) Chip sampling	No
	(c) Groove sampling	No
	(d) Channel sampling	No
	(e) Bulk sampling	No
	(f) Geochemical grid sampling with sample line spacing	No
(ii)	Pitting or trenching	
	(a) Number and dimension of pits or trenches	No
	(b) Total volume of excavation	No
	(c) Area of forest land to be utilised for pits or trenches	No
(iii)	Drilling	
	(a) Number and diameter of boreholes or wells	133 nos, 4"dia
	(b) Spacing of boreholes or wells	200 mtrs
	(c) Area to be temporarily disturbed at each bore hole or well (20 m X 10 m for each borehole)	0.02 Ha
	(d) Area, if any, to be permanently disturbed at each bore hole or well	No
	(e) Total meterage of boreholes or wells (@250 mt per hole)	33250 mt
	(f) Number of drill core samples (@ 20 samples per hole)	2660 Nos
	(g) Volume of drill core samples	21.812 m ³
(iv)	Construction of roads or path	
	(a) Length and width of roads or paths proposed to be constructed;	Length: 14,317.86 m Width: 5 mtr
	(b) Area of forest land proposed to be utilised for roads or paths;	7.159 ha

(v)	Any other activity (pl. specify)	Nil
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6. Area of forest land likely to experience temporary change in land use due to:

(i)	Surface sampling;	No
(ii)	Pitting or trenching;	No
(iii)	Drilling;	2.660 ha
(iv)	Construction of roads or paths;	7.159 ha
(v)	Any other activity (pl. specify.);	Nil
	Total:	9.819 ha

7. Area of forest land likely to experience permanent change in land use due to:

(i)	Surface sampling;	No
(ii)	Pitting or trenching;	No
(iii)	Drilling;	No
(iv)	Construction of roads or paths;	No
(v)	Any other activity (pl. specify.);	Nil
	Total:	Nil

8. Details of machinery or equipments to be deployed for prospecting:

Sl. No.	Name of equipment or machinery	Mode of traction	Size (L x B x H) In meter	Estimated deployment (machine hours)	Maximum noise level (decibel)
1	Drilling rig- DICD 50 Or equivalent type	Chain roller	2.5 x 4 x 4.0	12 Hrs/day	< 70dB
2	Water pump	By truck	2.5 x 4 x 3.0	12 Hrs/day	< 70 dB
3	Water tanker	Tyre based wheel	2.5 x 4 x 3.0	12 Hrs/day	< 70 dB
4	Truck	Tyre based wheel	2.5 x 4 x 3.0	12 Hrs/day	< 70 dB
5	Jeep/Bolero	Tyre based wheel	2.0 x 2.5 x 2.0	12 Hrs/day	< 70 dB

9. Details of existing paths or roads proposed to be utilised for transport of the equipment or machines in the forest land:

7.698 ha (15396 mtr length of the road existing X 5mtr)

10. Approximate number and approximate duration of stay in the forest land of the persons proposed to be deployed for prospecting:

Security Personnel : 4 nos
 Drilling Crews : 8 nos
 Supervisory staff : 4 nos
 Operating Hours: 6.0 AM to 6.0 PM

11. Summary of the estimated quantity of ore and other samples proposed to be collected during the prospecting (not applicable for hydrocarbon sector):

Sl. No.	Details of samples	Qty. proposed to be collected (Metric Tonne)
1.	20 samples of chrome ore per hole and 5 rock samples per hole.	(21.812 m ³ X 3.0) + (5.453 m ³ X 2.0) – 76.342 metric tonnes

12. Estimated accuracy and confidence level for mineral reserve assessment: 80%
13. Estimated accuracy and confidence level in case number of bore holes proposed to be drilled is reduced by:

		Accuracy (%)	Confidence level (%)
(i)	10 %	75	75
(ii)	20%	70	70
(iii)	30%	65	65
(iv)	40%	60	60
(v)	50%	50	50

14. In case the proposal is for extension of the period of the permission granted for prospecting, or for drilling of additional bore holes, please provide following additional information:

- (i) Details of approval accorded under the Forest (Conservation) Act, 1980 in the past:

Sl. No.	Number and date of the approval accorded	Area of forest land permitted for prospecting (ha)	Validity period of approval	
			From	To
		Not applicable		

- (ii) Report on status of compliance to the conditions stipulated in the approval accorded in the past enclosed (Yes/No): No

- (iii) Details of violation(s), if any committed: Nil

- (iv) Justification for extension of permission accorded for prospecting: Not applicable

- (v) Details of prospecting activities undertaken and sample collected, so far:

Surface Geological mapping of the entire ML & only few numbers of sample collection was made in past. Geomagnetic survey was completed. Core drilling and DTH drilling in already explored block and adjacent non-forest area was taken up much earlier to 1980.

15. Details of documents enclosed:

A. LIST OF ANNEXURE

No	Particulars
Annexure-I	Copy of Power of Attorney holder of OMC
Annexure-II	Grant order of the mining lease.
Annexure-III	Copy of the letter by IBM for undertaking exploration.

B. LIST OF PLATES

Plate No	Title of the plate	Scale
Plate No.I	Key Plan on Survey of India Topo sheet No.14 N 12.	1:50000
Plate No.II	Lease plan showing surface features, forest & non-forest lands & proposed Bore Hole points & the proposed access road.	1:3960

Date: 07.11.2014,

Place: Bhubaneswar,


 (S.K. Das)
 Dy. General Manager (Geology)
 Authorised signatory
 M/s Odisha Mining Corporation Limited
 Bhubaneswar-751001
 State serial No. of proposal 751001

(To be filled up by the Nodal Officer with date of receipt)