

**INDIAN BUREAU OF MINES
MINERALS DEVELOPEMMENT AND REGULATION DIVISION**

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/BXT/KPT/MCDR-03/BBS

Mine code : 07ORI09005

- (i) Name of the Inspecting : **S010**) **SHRI G.C. SETHI**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri M.K.Sethy, Manager(Mining)
Official with
Designation
- (iv) Date of Inspection : 28/09/2019
- (v) Prev.inspection date : 19/11/2018

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KODINGAMALI BAUXITE MINE**
- (b) **Registration NO.** : **4269**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : KORAPUT
- Village : KODINGAMALI RF&PRF
- Taluka : LAXMIPUR
- Post office : LAXMIPUR
- Pin Code : 765013
- FAX No. : 06742396889
- E-mail : info@orissamining.com
- Phone : 06742396889
- (f) Police Station : Laxmipur
- (g) First opening date : 02/02/2018
- (h) Weekly day of rest : SUN
2. Address for : Kodingamali Bauxite Mine
correspondance KORAPUT
3. (a) Lease Number :
- (b) Lease area :
- (c) Period of lease :
- (d) Date of Expiry :
4. Mineral worked :

5. Name and Address of the

Lessee : M/S OMC LTD.
 AT & PO: TIRING PAHAR DIST.
 KEONJHAR, ORISSA KEONJHAR
 ORISSA
 Phone:06766-233064
 FAX :06766-233085

Owner : M/S OMC LTD.
 M/S OMC LTD. OMC HOUSE,
 POST BOX NO. 34
 BHUBANESWAR-751010 KEONJHAR
 ORISSA
 Phone: 06766-233064
 FAX : 06766-233085

Agent : HEMANT KUMAR SINGH
 KORAPUT ORISSA
 Phone:
 FAX :

Mining Engineer

Name : PIR MOHAN BEHERA, Full Time
 Qualification :
 Appointment/ : 14/03/2018
 Termination date

Geologist

Name : T N PANIGRAHI, Full Time
 Qualification :
 Appointment/ : 15/03/2018
 Termination date

Manager

Name : MANOJ KUMAR SETHI
 Qualification :
 Appointment/ : 14/03/2018
 Termination date

6. Date of approval of Mining : MP modif under MCR 1960 11/04/2016
 Plan/Scheme of Mining : MP modif under 17(3) MCR 2016 20/12/2017

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	20 Nos. of Bore Hole proposed during the year 2017-18 and 24 Nos. of Bore holes proposed during the year 2018-19	Nil	As on date of inspection 12 nos. of Bore Holes drilled. Deviation in exploration work has been pointedout to lessee vide this office violation letter dated 10.10.2019.
1b	Exploration over lease area for geological axis 1 or 2	50.04 ha	NIL	Deviation in exploration work has been pointedout to lessee vide this office violation letter dated 10.10.2019.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not specified	NIL	
1d	Balance area to be explored to bring Geological axis in 1 or 2		As per modification of Mining Plan approved on 20.12.2017, the balance area to be explored is 142.675 ha.	
1e	Balance reserve as on 01/04/20	As per modification of Mining Plan approved on 20.12.2017, the balance reserve is 61.13 million tonne and resource is 16.38 million tonne.	Balance reserve as on 01.04.2019 is 58.377 million tonne	
1f	General remarks of inspecting officers on geology, exploration etc		The mining operation commenced from 02.02.2018 and exproation work is under progress.	

 Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	The development proposed advancement towards North & West diection.	As per proposal	Mining operation carried out within the proposed area.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate bench for overburden and minerals proposed. Top soil layer is very thin and no separate bench proposed.	As per proposal	
2c	Stripping ratio or ore to OB ratio	1:0.04	1:0.18	
2d	Quantity of topsoil generation in m3	20000 CUM	79159 CUM	
2e	Quantity of overburden generation in m3	110000 CUM	448571 CUM	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		Development of pit has been carried out as per proposal.	

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One pit proposed	The mmine was operated in single pit.	
3b	Quantity of ROM mineral production proposed	3.0 million tonne proposed for the year 2018-19	2.7 million tonne produced	

3c	Recovery of sailable/usable mineral from ROM production	3.0 million tonne	2.7 million tonne
3d	Quantity of mineral reject generation	No proposal	NIL
3e	Grade of mineral rejects generation and threshold value declared.	No Proposal	Nil
3f	Quantity of sub grade mineral generation.	No Proposal	Nil
3g	Grade of sub grade mineral generation	No proposal	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechnaized	Mechanized
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	Nil
3j	Provision of drilling and blasting in mineral benches	Proposal is to adopt mechanical opencast method of mining with deployment of major earth moving machineries and 150-165 mm (6.5") dia blast hole drill.	

3k	Provision of mining machineries in mineral benches	Proposal is to adopt mechanical opencast method of mining on two shifts basis with deployment of major earth moving machineries as 150-165 mm (6.5") dia blast hole drill, 4.5 cu.m. Hydraulic Excavators, 4.5 cum Front End Loaders, 400 HP Bull dozer, Semi-mobile crusher of 400 - 1000 tph capacity, 400 HP ripper dozer & 15/25 / 35 t dumpers	As per proposal
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	10m height benches proposed	As per proposal
3m	Total area covered under excavation/pits	As per modification of mining plan approved, the area covered under excavation at the end of plan period is 46.80 ha.	17.75 ha has been used as on 31.03.2019.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.04	1:0.18

3o	Total area put in use under different heads at the end of year	Area used at the end of plan period Mining- 46.8 ha Road-9.7 ha Infrastructure -20.0 ha Temp. Dump-3.0 ha Safety Zone- 18.098 ha	At the end of 2018-19 Mining- 17.75 ha, Road- 9.7 ha, Infrastructure-20.0ha, Temp Dump-2.8 ha, Safety Zone- 18.098 ha	
3p	Production of ROM mineral during the last five year period as applicable	2017-18- 1.5 million tonne 2018-19- 3.0 million tonne	2017-18- 0.053 million tonne, 2018-19- 2.7 million tonne	The mining operation commenced from 2017-18.
3q	General remarks of inspecting officers on method of mining etc.		Kodingamali Bauxite Mine Lease is a Category-A mine (Fully Mechanized). The mine shall be worked in conventional opencast mechanized method. Mining operation. The average production will be 3.0 Mt of bauxite by developing benches of 10 m height and maintaining working width of 25 m.	

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate Temporary dumping of OB & Top soil proposed. No prposal of generation of mineral rejects.	As per proposal.	

4b	Location of topsoil, OB and mineral reject dumps	Top-soil generated shall be stacked separately & preserved for later use for plantation & spreading over the back-filled area. Overburden/waste for 2017-18 & 2018-19 years of operations is envisaged to be stacked separately on the western lobe of Initial mining area, which is devoid of bauxite.	As per proposal
4c	Number of dumps within lease area and outside of lease area	Two dumps inside lease area. Outside Nil.	Two dumps inside lease area. Outside Nil.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	The waste dump is beyond UPL and also proposal of rehandling of the same.	The waste dump is beyond UPL and also proposal of rehandling of the same.
4e	Number of active and alive dumps.	Two active dump	Two active dump
4f	Number of dead dumps.	NIL	NIL
4g	Number of dumps established.	NIL	NIL
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Yes

4i	Length of Retaining wall or garland drain all along dumps	Construction of 500m retaining wall & garland drain proposed.	The same has been constructed.
4j	Number of settling ponds	One proposed	Six Nos. constructed.
4k	Specific comments of inspecting officer on waste dump management		The retaining wall and garland drain has been constructed around waste dump.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No proposal	No area fully extracted during the year.	
5b	Area under backfilling of mined out area	No Proposal	Nil	Area not matured for backfilling.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No Proposal	Nil	Area not matured for reclamation/rehabilitation.
5d	Total area fully reclaimed and rehabilitated	No proposal	Nil	Area not matured for reclamation/rehabilitation.
5e	General remarks of inspecting officers on backfilling and reclamation etc.		As the mining operation commenced from 2017-18, no lease area matured for reclamation/rehabilitation.	

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
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6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Yes	Submitted	
6b	Area available for rehabilitation (ha) .	No proposal	Nil	Area not matured for reclamation/rehabilitation
6c	afforestation done (ha).	No proposal	1.3 ha	
6d	No. of saplings planted during the year	No proposal	1380Nos.	
6e	Cumulative no .of plants	No proposal	1380 Nos.	
6f	Any other method of rehabilitation	No proposal	Nil	Area not matured
6g	Cost incurred on watch and care during the year	No proposal	Not specified	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal	Nil	Area not matured for backfilling
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	Nil	Area not matured
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No proposal	Nil	Area not matured for backfilling and plantation

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No proposal	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Monitoring of Air, water , dust, ground vibration etc has been proposed	Monitored at regular interval
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		As the mining operation was commenced from 2017-18, therefore no are matured for closure activity.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM is saleable. No grade wise sorting. Direct sale with sampling of grade.	ROM is saleable. No grade wise sorting. Direct sale with sampling of grade.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical
7c	Different grade of mineral sorted out at mines.	No proposal	Nil
7d	Any beneficiation process at mines .	No proposal	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		The ROM is directly saleable no beneficiation required.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Proposal of separate removal of topsoil and utilization of the same during backfilling/plantation has been proposed.	As per proposal	
8b	Concurrent use or storage of topsoil	Proposed for concurrent backfilling after exhaustion of mineral	No area matured for backfilling	

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)			
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Nil	Area not matured
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Nil	Area not matured
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)			
8g	Survival rate	No proposal	Nil	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on roads has been proposed		Water sprinkling carried out
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Green vegetation covered around mine area.

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Submitted	Submitted	

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer-3, Geologist-2, Manager-1,	Found to be in order
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area in pit- 17.75 ha Reclaimed area- 0, Area under dump-3.68 ha	Found to be in order.
9d	Scrutiny of Annual return on afforestation		
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral reject generated is zero.	No mineral reject generated
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM-2700000 tonne	Found to be in order
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-mine Price- Rs. 822.41 Cost of production - Rs. 515.48	Found to be in order.
9h	Scrutiny of Annual return on fixed assets	value of Fixed assets is Rs. 7478104.00	Found to be in order
9k	Scrutiny of Annual return on mining machineries	Details of mining machineries deployed in mine has been furnished in the annual return.	Found to be in order

Details of violations observed during current inspection and compliance position of violation pointed out

Violation observed			Show cause position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on
MCDR17	Rule 11(1)	10/10/2019			
	Rule 45(5)(b)	10/10/2019			
MCDR17	Rule 35(2)	10/10/2019			

Date :

(SHRI G.C. SETHI)

Indian Bureau of Mines