

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

Mining Plan Modification REPORT

Hyderabad regional office

Mine file No : AP/ADB/MN-30/HYD

Mine code : 40APR01018

- (i) Name of the Inspecting : **DP09**) **D.P.Ravi kumar**
Officer and ID No.
- (ii) Designation : Assistant Mining Geologis
- (iii) Accompanying mine : S/SHRI K.U.JENEKAR, QP, CH.RAMESH, LESSEE'S REPRESENTA
Official with
Designation
- (iv) Date of Inspection : 19-NOV-21
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **BHORAJ(122.65 HA)**
- (b) **Registration NO.** : **IBM/733/2011**
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address :
State : **TELANGANA**
District : **ADILABAD**
Village :
Taluka :
Post office :
Pin Code :
FAX No. : **NA**
E-mail : **besyml@gmail.com**
Phone : **9822033153**
- (f) Police Station : **JAINATH**
- (g) First opening date : **17-APR-15**
- (h) Weekly day of rest : **SUN**
2. Address for : **M/s Balaji Electro Smelters Ltd.,**
correspondance : **Post Box 26, Plot No.B-18, MIDC, LOHARA**
YAVATMAL-445001
3. (a) Lease Number : **APR2411**
- (b) Lease area : **122.59**
- (c) Period of lease : **50**
- (d) Date of Expiry : **13-JUL-59**
4. Mineral worked : **MANGANESE ORE** Main

5. Name and Address of the

Lessee : BALAJI ELECTRO SMELTERS LTD
PLOT NO.B-18, MIDC YEOTMAL
MAHARASHTRA
Phone:07232 245048
FAX :

Owner : BALAJI ELECTRO SMELTERS LTD.
PLOT NO. 18, MIDC, LOHARA
YEOTMAL MAHARASHTRA
Phone: 07232 245048
FAX : 07232 244048

6. Date of approval of Mining	:	MP review under 17(1) MCR 2016	03-NOV-16
Plan/Scheme of Mining	:	MP review under 17(1) MCR 2016	03-MAY-19

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1b	Exploration over lease area for geological axis 1 or 2	24ha	48 ha	Non Mineralized area
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Self	Self	
1d	Balance area to be explored to bring Geological axis in 1 or 2	72.92 ha	72.92 ha	To find the possibility of Ore over non mineralised area.
1e	Balance reserve as on 01/04/20		After depletion of production for the year 2020-21, the balance reserves are as on 01.04.2021=13032 t	Manganese ore in this belt occurs as a thin band (20 cms to 70 cms) interbanded with chert and jasper between the two limestone beds. The lime stones are highly siliceous . The ore zone within itself contains bands of jasper / chert and is highly jointed. The ore body is highly friable, striking along NW-SE direction and dips at angle varying between 3° to 30°. So far 1.65 Ha potential mineralised area has been explored in G1 scale. balance area to be explored for absence of mineral.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Mining operations are proposed to carry out in between grid line N 2183714 - 2183787 & E 241563- 241747	Work done within the proposed co-ordinates.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches for Overburden and Mineral is proposed	Seperate benches of OB & Mineral are developed.	
2c	Stripping ratio or ore to OB ratio	1:6.6	1:4.0	
2d	Quantity of topsoil generation in m3	6971 CUM	No details furnished.	
2e	Quantity of overburden generation in m3	7490 CUM	6600 Tonnes	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		Development and production was proposed between the grids of N 2183714 - 2183787 & E 241653 - 241747 and achieved in the same location.	

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One Pit	One Pit	
3b	Quantity of ROM mineral production proposed	3548 T	1242 T	
3c	Recovery of sailable/usable mineral from ROM production	Rcovery of salable is 80% of ROM	100%.	
3d	Quantity of mineral reject generation	Nil	Nil	

3e	Grade of mineral rejects generation and threshold value declared.	No generation of Mineral reject is anticipated.	No mineral reject reported.
3f	Quantity of sub grade mineral generation.	No Proposal	Nil
3g	Grade of sub grade mineral generation	Nil	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Segregation is to be done Manually.	Manual segregation is being done.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	NA	NA
3j	Provision of drilling and blasting in mineral benches	Jackhammer drilling machine of 33 m dia is proposed to be used & blasting is being carried out by using ANFO with detonators	Drilling & blasting operations are being carried out as per proposals.
3k	Provision of mining machineries in mineral benches	No proposal	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	1.5 meters height is suitable for this type of deposit.	Yes suitable.
3m	Total area covered under excavation/pits	0.35 ha	0.08 ha., area was covered under excavation

3n	Ore to OB ratio for the pit/mine during the year.	1:6.6	1:4.0
3o	Total area put in use under different heads at the end of year	1.24 ha	0.50 ha area was covered under different heads
3p	Production of ROM mineral during the last five year period as applicable	2016-17 1947, 2017-18= 2002, 2018-19 =2043, 2019-20 =3447.8 Tonnes, 2020-21=2184 t	2016-17= 144 Tonnes, 2017-18 =2190 Tonnes, 2018-19 =1729 Tonnes, 2019-20= 1253 Tonnes, 2020-21=1242 Tonnes
3q	General remarks of inspecting officers on method of mining etc.	Manual method is proposed by carrying out mining operation.	Manual Method of mining is being adopted using Jack Hammer drill.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No seperate dump for waste is proposed, the waste is to be backfilled in the mined out area. The top soil generated is to be stacked on southern side of the pit temporarily and to re utilised over backfilled area	Backfilling for preading of waste and Top soil is carried out / utilized.	
4b	Location of topsoil, OB and mineral reject dumps	No top soil dump and waste dump proposed	Nil	

4c	Number of dumps within lease area and outside of lease area	No dump	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No proposal, waste is being utilised for backfilling of mined out area	No dumps, waste is utilised for backfilling of mined out area.
4e	Number of active and alive dumps.	No proposal	Nil
4f	Number of dead dumps.	No proposal	Nil
4g	Number of dumps established.	No proposal	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal	Nil
4i	Length of Retaining wall or garland drain all along dumps	No proposal	Nil
4j	Number of settling ponds	No Proposal	Nil
4k	Specific comments of inspecting officer on waste dump management		Waste generated is utilised for backfilling of mined out area, over which top soil will be spread to make the land suitable for agricultural purpose.

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.	Full Extraction of ore before backfilling	Full Extraction is done	
5b	Area under backfilling of mined out area	Nil	0.10 ha., area reported backfilling.	

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Yes, top soil is to be spread in a proper manner over backfilled area so that the land is restored to its near to the original condition for cultivation	Top soil generation is utilized for reclamation purpose.
5d	Total area fully reclaimed and rehabilitated	No proposal	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.		The mined out area is backfilled by waste siliceous limestone to bring it in to original ground level and restore the area by spreading of Top soil to premining condition.

Progressive Mine Closure Plan:

Sl.No.	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	To be submitted	Submitted	
6b	Area available for rehabilitation (ha) .	Nil	Nil	
6c	afforestation done (ha).	0.26 Ha	0.14 ha.	
6d	No. of saplings planted during the year	117 saplings	117 saplings	
6e	Cumulative no .of plants	234	200	

6f	Any other method of rehabilitation	Not proposed	Nil	
6g	Cost incurred on watch and care during the year	Nil	Nil	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D	No proposal	Nil	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	Nil	
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	No proposal	Nil	
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	117 sapplings on safety zone	117	sapplings carried out

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 is to be done	monitoring is being carried out
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		Plantation is being carried out to improve aesthetixc beauty also PMCP maesures were implemenetd as proposed

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Entire ROM generated is to be sorted and sized manually and dispatched	Entire ROM generated is being sorted and sized manually and dispatched	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	
7c	Different grade of mineral sorted out at mines.	Grade wise sorting & sizing is to be caried out manually to obtain required grade of Ore	Sorting & sizing is being done manually	

7d	Any beneficiation process at mines .	No proposal	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		ROM generated is sorting & Sizing manually. Entire ROM generated is reported to have been dispatched

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes, top soil has to be removed and place it seperately for utilisation	Top soil is utilised for restoration of land	
8b	Concurrent use or storage of topsoil	Yes Proposed to store the top soil temporarily and to be utilised for spreading over backfilled area	Top soil is stacked seperately and utilised over backfilled area.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No genration of Mineral reject is anticipated. Further no separate dumps for waste is proposed as it is utilised for backfilling	As proposed.	

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use		6600 tonnes of waste generated was backfilled
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Mined out area is being backfill by waste and levelled. The top soil to be sprad as top layer and restore to ground levelbring utilised	Reclamation is carried out as per approved proposals.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Plantation in the area is scary additinal plantation of 117 spplings to be planted	117 sapplings were planted during the year2020-21
8g	Survival rate		40%
8h	Water sprinkling on roads to control airborne dust	Water sprinkliung arrangement to be done to suppress the dust generated	water sprinkling arrangements are observed
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		The mined out area is backfilled, levelled and make it sutable for Agriculture. Aesthetic beauty in and around mines area is maintained.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
--------	------	-----------	-------------	---------

9a	Status of submission of Monthly and Annual returns	Monthly and Annual returns to be submitted regularly	Monthly returns submitted up to November 2021. Annual Return is submitted for the year 2020-21.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer Shri Pradeep Pimalshense	Mining Engineer Shri Pradeep Pimalshense
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under Pit 0.19 ha., reclamation 0.27ha., road 0.30 ha., Plantation 0.26 ha.	Area under Pit 0.19 ha., reclamation 0.27ha., road 0.30 ha., Plantation 0.26 ha.
9d	Scrutiny of Annual return on afforestation	174 Plants	174 plants
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Below 25% Mn 0.55 tonnes, between 25 to 35% Mn 14.459 tonnes	As submitted by the lessee
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-Mine Price between 25 to 35% Mn = Rs 6128 ,Sale Price = Rs 6128, Cost of Production =Rs 2924	As submitted by the lessee.
9h	Scrutiny of Annual return on fixed assets	Nil	Nil
9k	Scrutiny of Annual return on mining machineries	Air Compressor (25 cum / min)-1	Air Compressor (25 cum / min)-1.

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

Date :**(D.P.Ravi kumar)**

Indian Bureau of Mines