

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

**Inspection under SDF for star rating of mines REPORT**

**Bangalore regional office**

**Mine file No :** KNT/BLR/FE/160/BNG

**Mine code :** 30KAR03110

- (i) Name of the Inspecting : **P005** ) **C.PARAMESHWARAN**  
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri P.V. R. Prasad. Mines Manager  
Official with  
Designation
- (iv) Date of Inspection : 06/11/2019
- (v) Prev.inspection date : 24/11/2018

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **KARADIKOLLA**
- (b) **Registration NO.** : **IBM/197/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :  
State : KARNATAKA  
District : BELLARY  
Village : BAVIHALLI  
Taluka : SANDUR  
Post office : BAVIHALLI  
Pin Code :  
FAX No. : 0832-2521012 (F),  
E-mail : mines@chowgule.co.in  
Phone : 0832-2525000 (O), 888886:
- (f) Police Station : SANDUR
- (g) First opening date : 31/05/1968
- (h) Weekly day of rest : SUN
2. Address for : M/s Chowgule & Co. Pvt. Ltd  
correspondance # 264, COLLEGE ROAD,  
WARD III,HOSPET, BELLARY, KARNATAKA-583201.
3. (a) Lease Number : KAR0170
- (b) Lease area : 459.73
- (c) Period of lease : 20
- (d) Date of Expiry : 22/09/1983
4. Mineral worked : IRON ORE Main

## 5. Name and Address of the

Lessee : CHOWGULE AND CO LTD  
 Chowgule House, Mormugao  
 Harbour Goa-403 803 SOUTH  
 GOA GOA  
 Phone:0832-2521010  
 FAX :0832-2521011 /12

Owner : V.V.Chowgule, MD of M/s Chowgule & Co. Pvt. Ltd.  
 Chowgule House Mormugao  
 Harbour Goa-403803 SOUTH  
 GOA GOA  
 Phone: 0832-2521010  
 FAX : 0832-2521011 /1

Agent : Sanjay R. Chakraborty  
 C/o Chowgule & Company Pvt.  
 Ltd. Chowgule House,  
 Mormugao Harbour Goa SOUTH  
 GOA GOA  
 Phone: 0832-2521010  
 FAX : 0832-2521011 /1

Mining Engineer  
 Name : B.Sanand,Full Time  
 Qualification : B.E &2nd Class  
 Appointment/ : 09/11/2015  
 Termination date

Geologist  
 Name : Sudhir Y Wakhale,Full Time  
 Qualification : M. Tech (Applied Geology)  
 Appointment/ : 09/06/2014  
 Termination date

Manager  
 Name : PRV Prasad  
 Qualification : DIP.IN.MINING&1st class  
 Appointment/ : 12/11/2015  
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Renewal under rule 22 MCR1960	17/02/1993
		Renewal under rule 22 MCR1960	05/11/2003
		Mining Scheme rule 12 MCDR1988	06/12/2013
		MP review under 17(1) MCR 2016	07/12/2017
		MP modif under 17(3) MCR 2016	07/02/2019

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposals.	Nil	nil
1b	Exploration over lease area for geological axis 1 or 2	No proposals.	Nil	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposals.	Nil	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposals.	Nil	Nil
1e	Balance reserve as on 01/04/20	No proposals.	UNFC-(111)= 12.202 MMT of +35-+65%Fe as on 1.1.2019, 121 & 122= 0.75MMT of +45%Fe-65%Fe, 333=0.95MMT of +45 to 65%Fe.	12,081,628 Tons under 111 795,025 Tons under 122 947,986 Tons under 331
1f	General remarks of inspecting officers on geology, exploration etc	Given appropriate proposals.	yes satisfactory.	yes very good.

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Location of working: North block-N 1676686 to N 1676824/ E 661204 to E 661404 Central block-N 1676374to N 1676552/ E 661984 to E 662164	Location of working: North block-N 1676686 to N 1676824/ E 661204 to E 661404 Central block-N 1676370to N 1676550/ E 662036 to E 662170	within the proposals.

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Top soil -no proposal. Benches in overburden-9 nos. Benches in Ore-5 nos. Total benches -9 nos.	Top soil - Benches in overburden-8 nos. Benches in Ore-6 nos. Total benches -9 nos.	no changes.
2c	Stripping ratio or ore to OB ratio	1: 0.87	1:0.99	within the proposals.
2d	Quantity of topsoil generation in m3	No proposal	but actual is 2,356m3	Top soil recovered from the working area and kept for plantation purpose.
2e	Quantity of overburden generation in m3	216,887 m <sup>3</sup>	247,072 m <sup>3</sup>	30,185 m3 extra from the targetted quantity.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	proposals made	satisfactory development.	slight deviation in the central block.

### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Two (North Block & Central Block)	Only in north block & not in central block / no operation in certal on the day of inspections.	yes only in north blocks/ violation issued.
3b	Quantity of ROM mineral production proposed	500,000 tons	499,930 tons	almost achieved.
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	same no change.
3d	Quantity of mineral reject generation	No proposals.	Nil	Nil
3e	Grade of mineral rejects generation and threshold value declared.	No proposals.	Nil	Nil

3f	Quantity of sub grade mineral generation.	No proposals.	Nil	Nil
3g	Grade of sub grade mineral generation	No proposals.	Nil	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	No proposals.	Nil	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposals.	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	Proposed.	Carried out wherever hard formation encountered.	yes utilizing as per the approved document.
3k	Provision of mining machineries in mineral benches	proposed	yes it is being carried out as proposed	yes done as per the approval of MP.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	given proposals	suitably it is maintained.	yes satisfactory.
3m	Total area covered under excavation/pits	22.30 ha	22.30 ha	same as above.

3n	Ore to OB ratio for the pit/mine during the year.	1) Covered under current workings 22.30 Ha. 2) Reclaimed & Rehabilitated by Geo textile- (11.274) Ha. 3) Used for waste disposal	waste dump area = 11.274 ha, mineral storage= 6.455 ha, reclamation & rehabilitation =11.274 ha. infrastruture =0.780 ha are different with the above proposals, as compared with para 8.6 of financial assurance.	this needs to be reconciled.
		14.124 Ha. 4) Occupied by plant , building,  Infrastructure etc		
		5.030 Ha. 5) Afforestation -		
		2.680 Ha.		
		6) Mineral storage & Green belt area - 10.675 Ha.		
3o	Total area put in use under different heads at the end of year	2014-15 =3,80,000 2015-16 =3,80,000 2016-17= 3,80,000 2017-18= 3,80,000 2018-19= 500,000	2014-15 =3,79,022.72 2015-16 =379,792.92 2016-17= 379,938.26 2017-18= 379,969.69 2018-19= 499,930.57	done within the approved quantity.
		2016-17= 3,80,000 2017-18= 3,80,000 2018-19= 500,000 3,79,022.72 379,792.92 379,938.26 379,969.69 499,930.57		

3p	Production of ROM mineral during the last five year period as applicable	Proposed for systematic operation	Very much satisfactory & very much scientific methos of mining is practiced.	very much satisfactory.
3q	General remarks of inspecting officers on method of mining etc.			

## Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Top soil-NIL Over Burden-Mineral reject-not proposed	Top soil recovered from the working area utilized for plantation and balance quantity stacked at South block. OB is dumped at earmarked area at Central Block No mineral reject generated.	No Mineral rejects generated.
4b	Location of topsoil, OB and mineral reject dumps	Top SOIL-NIL Location of Over Burden dump: N 1675880 to N 1676100 E 662437 to E 662600	Top soil- South block. Location of Over Burden dump: N 1675880 to N 1676100 E 662437 to E 662600	No Mineral rejects generated. OB as per proposal.
4c	Number of dumps within lease area and outside of lease area	Within lease - 5 nos. Outside lease -2 nos. (EID-3 & 4)	Within lease - 5 nos. Outside lease -2 nos. (EID-3 & 4)	No deviation. 4 nos. dumps are dead & inactive dumps & one no. active.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Proposed outside the ultimate pit.	Carried out Outside the ultimate pit.	same no changes.
4e	Number of active and alive dumps.	Active dump - 1 no. (AD-6)	Active dump - 1 no. (AD-6)	no changes.

4f	Number of dead dumps.	Within lease - Dead dumps - 4no.s ID-1, ID-2, ID-3 & AD-5 Outside lease - - Dead dump - 2 nos. (EID-3 & 4)	Within lease - Dead dumps - 4no.s ID-1, ID-2, ID-3 & AD-5 Outside lease - Dead dump - 2 nos. (EID-3 & 4)	no changes.
4g	Number of dumps established.	All Inactive dumps are stabilized	All Inactive dumps are stabilized	no changes.
4h	Whether Retaining wall or garland drain all along dumps are there.	Proposed	provided all around	yes provided.
4i	Length of Retaining wall or garland drain all along dumps	443m Retaining wall 289m Garland drain	443m Retaining wall 289m Garland drain Cumulative length& nos. 3 nos. --1822M ; PCC 1787M; Gabion wall 190m; Dry wall 422m; Peripheral bund 100m.	Adequate retaining wall and garland drainage arrangement provided
4j	Number of settling ponds	not proposed	Cumulative 5 nos. constructed and cleaning regularly.	same as above.
4k	Specific comments of inspecting officer on waste dump management	proposed	Done as per approved document.	satisfactory.

#### 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 proposals	nil	nil
5b	Area under backfilling of mined out area	No proposals	nil	nil



5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposals	nil	nil
5d	Total area fully reclaimed and rehabilitated	No proposals	nil	nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Not proposed during the year 2018-19	nil	nil

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Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	proposed	Yes. Annual report on PMCP submitted as per Rule 26(2) of MCDR,2017.By speed post-on 27.06.2019	nil
6b	Area available for rehabilitation (ha) .	No proposal in Approved Review and Updation of Mining Plan.	Nil	Nil
6c	afforestation done (ha).	No proposal in Approved Review and Updation of Mining Plan.	Nil	Nil
6d	No. of saplings planted during the year	No proposal in Approved Review and Updation of Mining Plan.	Nil	Nil
6e	Cumulative no .of plants	No proposal in Approved Review and Updation of Mining Plan.	Nil	Nil
6f	Any other method of rehabilitation	No proposal in Approved Review and Updation of Mining Plan.	Nil	Nil

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6g	Cost incurred on watch and care during the year	No proposal in Nil Approved Review and Updation of Mining Plan.	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	No proposal in Nil Approved Review and Updation of Mining Plan.	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal in Nil Approved Review and Updation of Mining Plan.	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No proposal in Nil Approved Review and Updation of Mining Plan.	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal in Nil Approved Review and Updation of Mining Plan.	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal in Nil Approved Review and Updation of Mining Plan.	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No proposal in Nil Approved Review and Updation of Mining Plan.	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal in Nil Approved Review and Updation of Mining Plan.	Nil

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal in Nil Approved Review and Updation of Mining Plan.		Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Environmental monitoring four seasons on Air, Water and Noise in core & buffer zone.	Regularly conducting environment monitoring Air, Water & Noise at Core zone & Buffer zone (nearby villages) during Winter, Summer and Monsoon & Post monsoon seasons.	as above
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	No proposal in Approved Review and Updation of Mining Plan.	No work other than the proposals drawn.	Yes as above.

#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Proposed.	Yes it is being done	Yes done.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Proposed	Mechanized	same as proposed.
7c	Different grade of mineral sorted out at mines.	Proposed	Fines = 55~58, 58~60, 60~62, 62~65 Lumps=55~58, 58~60, 60~62, 62~65 & +65	as reported.
7d	Any beneficiation process at mines	No Proposal	Nil	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Proposals drawn	Done as per the proposals to the satisfactions.	yes satisfactory.

## Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	2,356m3	Top soil recovered from the working area and kept for plantation purpose.
8b	Concurrent use or storage of topsoil	No proposals.	nil	Old stock of top soil used for plantation/Geo textile cover on dump slopes.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposed	Over burden & processed ore fines & lumps stacked Separately	Done as per the proposals.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not proposed	nil	nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Dump afforestation/ Geo textile /coir mat covering	Part of the dumps afforested and covered with Geo-textile/coir mat.	Done as per the proposals.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	1750 no. s	2329 no. s	Done as per the proposals.
8g	Survival rate	75%	90% (WML) 75% (OML)	no chnages.
8h	Water sprinkling on roads to control airborne dust	Given proposals.	yes done as proposed.	satisfactory work is being done in the mne.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Proposed.	Done as proposed.	very much appreciable.

## Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly Return Submitted up to September 2019. Annual Return submitted up to 2018-19.	submitted as per the format.	No delay in submission of returns.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Appointed as per the Rule	Mining Engineer - Mr. B. Sananda Geologist - Mr. Shreepad M. Hegde Manager - Mr. P.R.V Prasad	yes preent in the mines.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	1) Covered under current workings - 22.30 Ha. 2) Used for waste disposal 14.124 Ha. 3) Occupied by plant, building, etc- 5.030 Ha. 4) Mineral storage & Green belt area- 10.675 Ha. 5) Afforstation/ Geotextile covered area- (11.274) Ha.	1) Covered under current workings - 22.30 Ha. 2) Used for waste disposal 14.124 Ha. 3) Occupied by plant, building, etc - 5.030 Ha. 4) Mineral storage & Green belt area- 10.675 Ha. 5) Afforstation/ Geotextile covered area- (11.274) Ha.	Still there is difefrence in the R/ R, WD & Mineral stocks.
9d	Scrutiny of Annual return on afforestation	1,750 no.s	1450nos. (WML) & 879 nos. (OML)Total 2,329 nos.	as above.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No proposals.	Nil	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Proposed.	As on 1.4.2019-ROM stock = 241,131.59 tons Lumps=18,781.78 tons Fines= 26,104.01 tons	as reported.

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale through e-auction Sale Value-Ex-mine price-Lumps - Rs. 2646 to 3585/ton Fines - Rs. 1359 to 2867/ton. Production cost-907.81	Sale Value - Ex-mine price-Lumps - Rs. 2,646 to 3,585/ton Fines - Rs. 1,359 to 2,867/ton. Production cost - 907.81	No chnages.
9h	Scrutiny of Annual return on fixed assets	Rs. 2,88,07,792/-	Rs. 2,88,07,792/-	as above
9k	Scrutiny of Annual return on mining machineries	Excavator - 1 no. ( 2.6 m3) Excavator - 4 no.s (1.6 m3) Excavator - 3 nos. (0.90 m3) Wheel Loader - 2 nos. ( 2.7 m3) Wheel Loader - 3 nos. ( 1.15 m3) Dozer - 1no. ( 183 HP) Ripper - 1 no.(410 HP) Trucks - 16 no. s ( 16 Ton cap) Others-1 (220 HP)	Excavator - 1 no. ( 2.6 m3) Excavator - 4 no.s (1.6 m3) Excavator - 3 nos. (0.90 m3) Wheel Loader - 2 nos. ( 2.7 m3) Wheel Loader - 3 nos. ( 1.15 m3) Dozer - 1no. ( 183 HP) Ripper - 1 no.(410 HP) Trucks - 16 no. s ( 16 Ton cap) Others-1 (220 HP)	Alost same.

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

Violation observed			Show couse position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on
MCDR17	Rule 11(1)	10/02/2020			
MCDR17	Rule 45(5)(k	10/02/2020			

**Date :**

(C.PARAMESHWARAN)

Indian Bureau of Mines