

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

Check up inspection REPORT

Bangalore regional office

Mine file No : KNT/BLR/FE/375/BNG

Mine code : 30KAR03069

- (i) Name of the Inspecting : **M003**) **G C MEENA**
Officer and ID No.
- (ii) Designation : Regional Controller Mines
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 16/10/2020
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **SUBBARAYANAHALLI**
- (b) **Registration NO.** : **IBM/4369/2011**
- (c) **Category** : **A Fully Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **KARNATAKA**
- District : **BELLARY**
- Village : **SUBBARAYANAHALLI**
- Taluka : **SANDUR**
- Post office : **NANDIHALLI**
- Pin Code :
- FAX No. : **080-22213172,**
- E-mail : **info.mml@nic.in,mmliodsandur**
- Phone : **080-22278814 / 15 /16**
- (f) **Police Station** : **SANDUR**
- (g) **First opening date** : **01/01/1980**
- (h) **Weekly day of rest** : **SUN**
2. **Address for correspondance** : **M/s Karnataka State Minerals Corporation Limited**
Vaishnavi Farm House, Doulathpur Road
Iron ore Sector, Sandur-583 119 Karnataka
3. (a) **Lease Number** : **KAR0199**
- (b) **Lease area** : **80.93**
- (c) **Period of lease** : **20**
- (d) **Date of Expiry** : **12/04/2019**
4. **Mineral worked** : **IRON ORE** **Main**

5. Name and Address of the

Lessee : Karnataka State Minerals Corp. Ltd
 TTMC, A Block, 5th Floor,
 BMTC Building, K.H.Road,
 Shanthinagar Bengaluru
 BANGALORE KARNATAKA
 Phone:080-22278813-14-15-16
 FAX :080-22213172

Owner : Naveen Raj Singh, IAS & MD
 Karnataka State Minerals
 Corp. Ltd TTMC, A Block,
 5th Floor, BMTC Building,
 K.H. Road, Shanthinagar,
 BANGALORE KARNATAKA
 Phone: 080-22278813-14
 FAX : 080-22213172

Agent : Shankarlingaiah
 Karnataka State Minerals
 Corp. LTD TTMC Building, A
 blcok,5th Floor BMTC Bus
 station, Shanthinagar
 BANGALORE KARNATAKA
 Phone: 080-22278813-14-15-16
 FAX : 080-22213172

Mining Engineer

Name : Dhruvaraj S, Full Time
 Qualification : BE (Mining)
 Appointment/ : 01/04/2017
 Termination date

Geologist

Name : T. Ramakrishna, Full Time
 Qualification : MSc (Geology)
 Appointment/ : 01/07/2015
 Termination date

Manager

Name : M.R.K.Bagawan
 Qualification : Dip. In Mining,
 Appointment/ : 04/03/2016
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	22/12/1992
Plan/Scheme of Mining	:	Existing rule 11 MCDR1988	29/11/1995
	:	Renewal under rule 22 MCR1960	20/12/2002
	:	Mining Scheme rule 12 MCDR1988	23/04/2007
	:	Modif.of approved Mining Plan	14/09/2010
	:	Modif.of approved Mining Plan	27/09/2013
	:	Modif.of approved Mining Plan	31/10/2014
	:	Mining Scheme rule 12 MCDR1988	16/04/2015
	:	Modif.approved Mining Scheme	04/03/2019
	:	MP review under 17(1) MCR 2016	12/02/2020

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal	2014-15 & 2015-16 total is 3501Rmtrs	5 bore holes which were proposed to be drilled in 2015-16 has not been completed violation pointed out.
1b	Exploration over lease area for geological axis 1 or 2	G1&G2	G1- 71.69 Ha. G2 -1.37 Ha.	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Nil	Nil	Soil Tech (India)Pvt. Ltd., Pune 2014-15 & 2015-16 total is 3501Rmtrs with expenditure of Rs.1,35,00,000/-
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not applicable	7.00 Ha.	Entire area covered under exploration except 7.00 Ha. Area which falls under temporary dump.
1e	Balance reserve as on 01/04/20	---	Proved :-68.63 Million tones Probable :- 2.92 Million tones	As per Annual returns submitted for FY 2019-20
1f	General remarks of inspecting officers on geology, exploration etc			

Development :

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

2a	Location of development w.r.t. lease area	The propose location of development :- N-486 - 1653 , E-771- 1345 Proposed working in between 984 m R.L. to 936 M.R.L.	Actual location of development :- N-486.16- 1510.12 E-771.16 - 1172.70 actual working carried out in between 936 M R.L. to 984 M R.L.	Working between section line 1-1' to J-J'
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No separate benches in topsoil, overburden and mineral proposed	All the benches contains mineral & O/B	Total 24no's of benches formed
2c	Stripping ratio or ore to OB ratio	1:0.18	1:0.04	
2d	Quantity of topsoil generation in m3	No proposal	NIL	
2e	Quantity of overburden generation in m3	251501 Tonnes.	14184 Tonnes	Less available time for working due to delay in obtaining required permissions from concern authorities
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	1 Pit	Working in one pit only In Meters L x W x D 993X226X48	Approximate dimension of pit L x W x D 1052X500X192 mtrs. With 24 No's of benches

3b	Quantity of ROM mineral production proposed	13,39,998 tonnes	3,42,356.29Tonnes	Less available time for working due to delay in obtaining required permissions from concern authorities.
3c	Recovery of sailable/usable mineral from ROM production	Proposed recovery of 95% in ore	95% recovery is achieved	5 % is considered as waste
3d	Quantity of mineral reject generation	No proposal	Not applicable	No mineral reject proposed & generated
3e	Grade of mineral rejects generation and threshold value declared.	No proposal	Not applicable	+45% Fe grade ore is being utilized by blending with high grade as per market condition
3f	Quantity of sub grade mineral generation.	No proposal	Not applicable	No sub grade mineral was generated.
3g	Grade of sub grade mineral generation	No proposal	Not applicable	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized method proposed for segregating from ROM	Mechanized method adopted for segregating from ROM	Dry crushing & screening of 250 Tph.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	No such beneficiation study carried out	
3j	Provision of drilling and blasting in mineral benches	Drilling & Blasting proposed in mineral benches	Drilling & Blasting carried out as per proposal in hard strata encountered.	30 % of overall material handling requires drilling & Blasting. Ammonium nitrate & slurry explosives in conjunction with Nonel detonators.

3k	Provision of mining machineries in mineral benches	1.Front end loaders = 2 Nos. 2. Excavators = 4Nos. 3.Tippers /Dumpers = 20Nos. 4.MobileScreening /Crushing = 5 Nos. 5.Water Tankers = 10Nos. 6.DTH drill unit = 1No.	1.Front end loaders = 4 Nos. 2.Excavators = 6 Nos 3.Tippers/Dumpers = 24Nos 4.MobileScreening/Crushing=5 Nos. 5.Water Tankers = 7 Nos. 6.DTH drill unit = 1No.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height of the Bench - 8Mtrs Width of the Bench - 10Mtrs	Bench height & width maintained as per proposal	
3m	Total area covered under excavation/pits	49.10 Ha. Proposed under mining pit at the end of plan period.	47.73Ha.covered under working pit.	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.18	1:0.04	Bulk density :- Ore 3.5 O/B 2
3o	Total area put in use under different heads at the end of year	Mining - 49.10 Ha., Waste dump - 3.99 Ha., Mineral storage -0.30 Ha., Infrastructure - 0.05 Ha., Roads - 0.5 Ha., Green belt - 3.05 Ha., Engineering measures - 0.73 Ha	Mining - 47.73 Ha., Waste dump - 2.79 Ha., Reclaimed/Rehabilitated - 3.71 Ha., Infrastructure - 0.55 Ha., Un touched area - 25.280 Ha.,	

3p	Production of ROM mineral during the last five year period as applicable	2015-16	3.00	2015-16	1.6MTPA	Actual production within the proposed limit
			MTPA	2016-17	2.16MTPA	
		2016-17	3.00	2017-18	1.68MTPA	
			MTPA	2018-19	0.79MTPA	
		2017-18	3.00	2019-20	0.342 MTPA	
			MTPA			
		2018-19	1.34			
	MTPA					
		2019-20				
		1.34	MTPA			

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)	Separate dumping of O/B proposed	Separate dumping of O/B is carried out	
4b	Location of topsoil, OB and mineral reject dumps	Proposed Temporary O/B Dump (PTD- 1) N-748.76 to 888.99 & E-794.42 to E-916.67	Actual location of Temporary O/B Dump(PTD- 1) N - 768.7 to N - 840.25 E - 817.54 to E - 871.27	O/B Dumping carried out in the North western part of the Mining Lease
4c	Number of dumps within lease area and outside of lease area	Dump Within lease area :- 4No., Outside M.L.area :- Nil	Dump Within lease area :- 4No., Outside M.L.area :- Nil	2 No's of BHQ/waste dumps & 2No's of O/B Dumps
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	O/B Dump proposed within UPL	O/B Dump located within UPL	Entire M.L. Area is mineralized and hence temporary dumping was carried out.
4e	Number of active and alive dumps.	1 Dump	1 Dump	
4f	Number of dead dumps.	3	3	

4g	Number of dumps established.	NIL	NIL	All the dumps are temporary in nature and back filling will be done in the conceptual stage of mining.
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall & Garland drain proposed all along the dumps.	Retaining wall & Garland drain proposed all along the dumps.	
4i	Length of Retaining wall or garland drain all along dumps	236 Rmtrs.RW 199 Rmtrs GD	Constructed RW of 110 Rmtrs	Cumulative of 1491 mtrs of RW & 1420 mtrs of GD constructed so far.
4j	Number of settling ponds	No proposal	NIL	5 Nos of settling tanks are constructed in the year 2013-14 as per R&R cell.
4k	Specific comments of inspecting officer on waste dump management			

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	NIL	Pit was not matured for back filling as ore is not exhausted.
5b	Area under backfilling of mined out area	No proposal	NIL	NIL
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	NIL	NIL
5d	Total area fully reclaimed and rehabilitated	No proposal	NIL	NIL

5e General remarks of inspecting officers on backfilling and reclamation etc.

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).	To be Submitted before 1st.July of every year.	Submitted on 20.06.2020	
6b	Area available for rehabilitation (ha) .	No Proposal	NIL	Existing dumps were temporary in nature and entire M.L.Area is mineralized.5900 sapling planted at an cost of 18.58 Laks. cumulative.
6c	afforestation done (ha).	No Proposal	NIL	--
6d	No. of saplings planted during the year	No Proposal	NIL	
6e	Cumulative no .of plants	No Proposal	NIL	
6f	Any other method of rehabilitation	No Proposal	NIL	
6g	Cost incurred on watch and care during the year	No Proposal	NIL	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	--	--	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	--	--	

6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	(i)200 No's - 0.017 Ha.	(i) 300 No's , 0.50Ha.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	--	--
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	--	--
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	200 No's - 0.017 Ha	300 No's , 0.50Ha.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	--	--
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	--	--
6p	Compliance of environmental monitoring (core zone and buffer zone)	Season wise environmental monitoring of ambient air quality, water quality, noise & Soil samples & Soil samples proposed.	Season wise environmental monitoring of ambient air quality , water quality, noise & Soil samples carried out.All environmental parameters were observed to be within the permissible limit.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise mechanical shorting proposed within the lease area	No ROM Mineral dispatch. Grade wise sorting done mechanically within the M.L. area as per proposal.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical Method of grade wise mineral sorting proposed	Grade wise sorting done mechanically within the M.L. area as per proposal	
7c	Different grade of mineral sorted out at mines.	Fines :- -0-10 mm Lumps :- 10 - 20 mm & 20-40 mm within the Mining lease area.	Fines :- 60 to below 62% Fe. Lumps :- 60 to below 62% Fe, 62 to below 65% Fe. Dispatched.	Lumps & Fines of various grade dispatched as per market requirement.
7d	Any beneficiation process at mines	No proposal	No basification process carried out except dry crushing & screening	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	No generation of Top soil	Working with in the Brocken up area.
8b	Concurrent use or storage of topsoil	No proposal	Not applicable	No top soil is generated

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate temporary dump of O/B proposed	Separate O/B dump carried out in North western part of the M.L. Area.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	NIL	Entire M.L.area is mineralized &no part of the mining pit is matured for back filling
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	NIL	Protective & safety measures are being carried out for management of temporary dump as per approved R&R Plan
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	NIL	Entire M.L. area falls under forest. 300 sapling planted during 2019-20 with in the M.L.area.	
8g	Survival rate	Not available	80%	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling proposed on haul road to control airborne dust	Regular water sprinkling is done by water tanks to suppress the dust .	7 No's of 10 K.L. capacity of water tanker deployed in mine.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly Returns Submitted up to Sep-2020 Annual Returns submitted for FY 2019-20		

- 9b Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager
 Manager .
 Sri.M.R.K.Baga
 wan
 Mining
 engineer :
 Sri.Sharananan
 da
 Geologist :
 Sri.T.Ramkrish
 na
- 9c Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.
 Mining - 47.73 Ha., Waste
 dump - 2.79 Ha.,
 Reclaimed/Reha
 bilited - 3.71 Ha.,
 Infrastructure
 - 0.55 Ha., Un
 touched area -
 25.280 Ha.,
- 9d Scrutiny of Annual return on afforestation
 Within M.L.Area-
 300Nos.of
 saplings @ 80%
 survival rate. Appears to be correct.
- 9e Scrutiny of Annual return on mineral reject generation (Grade and quantity)
 NIL
- 9f Scrutiny of Annual return on ROM stock and/or graded ore
 ROM Stock:-
 Opening stock-
 416697.30
 Tonnes,
 Production -
 342356.290
 Tonnes,
 Closing stock
 - 697053.590
 Tonnes.
- 9g Scrutiny of Annual return on sale value, Ex. Mine price and production cost
 Sale Value
 average = Rs.
 2326 /- tonnes
 Ex. Mine price
 average = Rs.
 2760/- tonnes
 Production
 cost
 Rs.1100.00/-

9h	Scrutiny of Annual return on fixed assets	8.49 Crores including land, industrial, plant-machinery & capitalized expenditure.
9k	Scrutiny of Annual return on mining machineries	1.Excavators = 06Nos. 2.Wheel loaders = 04Nos. 3.Water Tankers = 07Nos. 4.Tippers/Dumpers = 24Nos. 5.Crusher/Screening = 05Nos.

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 26(1)	05/11/2020			

Date :

(G C MEENA)

Indian Bureau of Mines