

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

Mining Plan Modification REPORT

Bangalore regional office

Mine file No : KNT/BLR/FE/416/BNG

Mine code : 30KAR03125

- (i) Name of the Inspecting : **A101**) **ARUN KUMAR**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : A.Sreekantha Reddy, Mines Manager & A.Venkateswar Re
Official with
Designation
- (iv) Date of Inspection : 25/04/2019
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **NEB RANGE(ML 2150)54.63**
- (b) **Registration NO.** : **IBM/13651/2012**
- (c) **Category** : **A Manual**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **KARNATAKA**
- District : **BELLARY**
- Village : **NEB RANGE**
- Taluka : **SANDUR**
- Post office :
- Pin Code :
- FAX No. : **08392-271156 (F)**
- E-mail : **hrgtiom@gmail.com**
- Phone : **08392-279946, 8453630795, !**
- (f) **Police Station** : **SANDUR**
- (g) **First opening date** :
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **SRI.H.G.RANGAN GOUD,**
correspondance **15/142, NEHARU CO-OPERATIVE COLONY**
HOSPET, BELLARY - 583201
3. (a) **Lease Number** : **KAR0336**
- (b) **Lease area** : **54.64**
- (c) **Period of lease** : **20**
- (d) **Date of Expiry** : **04/08/2022**
4. **Mineral worked** : **IRON ORE** **Main**

5. Name and Address of the

Lessee : H.G.RANGAN GOUD
 #15/142, NEHRU CO-OP
 COLONY, HOSPET, BELLARY
 KARNATAKA
 Phone:08394-429647,428505
 FAX :

Owner : H.G.RANGAN GOUD
 #15/85, NEHRU CO-OP COLONY,
 HOSPET, BELLARY KARNATAKA
 Phone: 08394-54455,585
 FAX :

Manager

Name : A.SHRIKANT REDDY
 Qualification : DIP.IN MINING ENGIN
 Appointment/ : 09/05/2011 31/07/2015
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	07/03/1990
Plan/Scheme of Mining		Renewal under rule 22 MCR1960	16/01/2003
		Modif.of approved Mining Plan	16/03/2006
		Mining Scheme rule 12 MCDR1988	12/11/2008
		Mining Scheme rule 12 MCDR1988	16/04/2014
		MP review under 17(1) MCR 2016	31/03/2017

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	3 No's of Trail pits proposed in each FY 2017-18 & FY 2018-19	Trail pits -06 Nos amounting to 18 Mts. In addition 12Nos of RC boreholes drilled with total meterage of 322 Mts done in the year 2018-19.	No backlog.
1b	Exploration over lease area for geological axis 1 or 2	G1- 3.22 Ha G2- Nil G3- Nil G4- 29.24 Ha	6 No's of Trail pits done as per proposal. G1-7.26 ha	Additional 12 No's RC drill boreholes are drilled in the year 2018-19, thus G1-area is increased to 7.26 Ha
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not specified	SYT Earth movers , Bellary, Sai Universal Mining Service, Hospet, and expenditure Rs 701250/- for the year 2018-19	Exploration carried out in the month of January 2019
1d	Balance area to be explored to bring Geological axis in 1 or 2	-	G4- 29.24 Ha	Exploration proposed in future.
1e	Balance reserve as on 01/04/20		1.81 Million Tons	As per Annual returns for the year 2018-19
1f	General remarks of inspecting officers on geology, exploration etc			Exploration carried out by drilling 12 RC boreholes amounting to 322 Mts and 6 Nos of trial pits in the reporting year.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Development proposed : N-1675274- 1675419, E- 665090- 665151	Development done: N-1675274- 1675419,E- 665090- 665151 in between section line 'DD' to ' EE'	Extension of existing pit towards North Western side

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches proposed for overburden & Mineral	All the benches contain ore & OB	In ore 01 bench ,OB bench -Nil
2c	Stripping ratio or ore to OB ratio	1:0.35	1:0.34	Bulk Density: Ore- 3.2 t/CuM, OB-2.0 t/CuM
2d	Quantity of topsoil generation in m3	No proposal	Nil	No generation of top soil
2e	Quantity of overburden generation in m3	39603 Tonnes	39327 Tonnes	Bulk density - 2.68t/CuM (Reef & Float)
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Development was carried out within the proposed grids. Mining Reef & Float ore each of one bench.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One Pit and float workings	Working in one pit only	Approximate dimensions of the pit is (215m X 155m X 47m)
3b	Quantity of ROM mineral production proposed	Reef 105000(Tons) + Float 9000 (Tons)= 1,14,000 in tones	Reef 105000(Tons) + Float 9000 (Tons)= 1,14,000 in tones	No change
3c	Recovery of sailable/usable mineral from ROM production	95 % In reef 50 % in float	95 % In reef 50 % in float	no change
3d	Quantity of mineral reject generation	No proposal	Nil	-
3e	Grade of mineral rejects generation and threshold value declared.	No proposal	Not applicable	-
3f	Quantity of sub grade mineral generation.	No proposal	Nil	No sub grade mineral generated

3g	Grade of sub grade mineral generation	No proposal	Not applicable	-
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised method proposed for segregation from ROM	Processing ROM by dry crushing & screening plant	Screen capacity 140 tones per hour.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	No beneficiation study carried out	Dry crushing & screening
3j	Provision of drilling and blasting in mineral benches	Provision is made for Drilling & Blasting in mineral benches	Drilling & Blasting is carried out in mineral benches.No secondary blasting. Use of hydraulic rock breaker.	Slurry explosive in conjunction with milli second delay detonator.
3k	Provision of mining machineries in mineral benches	Yes , provisions of machineries Excavators -2 Tippers - 3 Wagon drilling-1 Mobile crushing-1 Water Tanker - 1	Excavators -2(1.1CUM) Tippers - 3 (16 tones) Wagon drilling-1 (110 MM dia) Mobile Screening- 1 (140 tones per/hr) Water Tanker -2 (8000 liters)	-
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench Height 6mtrs & width not less than height of the bench is proposed	Bench height & width maintained & suitable for method of mining.	-
3m	Total area covered under excavation/pits	5.90 Ha in the plan period	4.93Ha	-
3n	Ore to OB ratio for the pit/mine during the year.	1:0.35	1:0.34	No significant change

3o	Total area put in use under different heads at the end of year	Area under current Working - 5.90 Ha, used for waste disposal- 1.57 Ha, Mineral storage-0.5 Ha, Infrastructure-0.23 Ha, Roads-0.26 Ha, Mineral separation plant- 0.40 Ha, Green belt-2.88 Ha	Area under current Working - 4.930 Ha, used for waste disposal- 0.910 Ha, occupied the plants, welfare buildings & roads- 0.790Ha, Other purposes(Mineral Storage, Green Belt)- 2.33 Ha	-
3p	Production of ROM mineral during the last five year period as applicable	2014-15:1,14,000 2015-16:1,14,000 2016-17:1,14,000 2017-18:1,14,000 2018-19:1,14,000 (in tones)	2014-15:Nil 2015-16:Nil 2016-17:29,000 2017-18:1,14,000 2018-19:1,14,000 (in tones)	Mining operations resumption on22/02/2017
3q	General remarks of inspecting officers on method of mining etc.			Mining method was carried out by drilling & blasting in conjunction with HEMM. Bench height & width maintained.

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 OB proposed	Separate OB dump maintained	No generation of top soil.
4b	Location of topsoil, OB and mineral reject dumps	Proposed location of OB- N1675289-1675389, E-664951-665080	Location of OB: N-1675270- 1675355, E-664950- 665075 in between section line 'AA' to ' DD'	The location of the waste dump had been changed.Violation point out

4c	Number of dumps within lease area and outside of lease area	WML-1 OML - Nil	WML-1 OML- Nil	-
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dump proposed outside the ultimate pit limit	Dumping is done outside the ultimate pit limit.	Dump was observed at distance of 60mtrs away from UPL.
4e	Number of active and alive dumps.	One active dump	Only One active dump.	-
4f	Number of dead dumps.	No dead dumps proposed	Nil	-
4g	Number of dumps established.	No proposal	Not applicable	-
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall or garland drain all along dump proposed	Retaining wall or garland drain all along dump constructed.	RW & GD constructed previously
4i	Length of Retaining wall or garland drain all along dumps	No proposal	Not applicable	190 Mtrs of retaining wall & 190 Mtrs Garland drain constructed in the year 2017-18
4j	Number of settling ponds	No proposal	Not applicable	2 settling ponds are constructed in the year 2013-14
4k	Specific comments of inspecting officer on waste dump management			The location of the waste dump had been changed. Violation point out.

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.	Part backfilling proposed of 3000 CuM in worked out float area	Backfilling not carried out due to extension of ore body	Boreholes drilled in the float working area showed persistent of ore body at depth
5b	Area under backfilling of mined out area	0.31 Ha proposed	Nil	Reef ore body beneath the float ore

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	Nil	There is no generation of topsoil during plan period. Proposed working area falls in the exiting pit.
5d	Total area fully reclaimed and rehabilitated	No area is proposed as fully reclaimed & rehabilitated	Nil	-
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Part backfilling had been proposed in the worked out area of float ore. Boreholes drilled showed persistent of ore body at depth.

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 on or before 1st July of every year	Submitted on 06/09/2018 for the year 2017-18	-
6b	Area available for rehabilitation (ha) .	0.31 Ha proposed	Nil	No backfilling carried out due to persistence of mineral at depth
6c	afforestation done (ha).	0.31 Ha proposed	0.30 Ha covered under plantation	Plantation done in the Safety Zone.
6d	No. of saplings planted during the year	2000 No's saplings proposed	1600 No's saplings planted as Gap plantation	Violation pointed out.
6e	Cumulative no .of plants	Not specified	43,061 nos. of saplings planted.	-
6f	Any other method of rehabilitation	No proposal	Not applicable	-
6g	Cost incurred on watch and care during the year		Rs 2,00,000/- towards watch & ward,watering & purchase of saplings	-

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	0.31 Ha proposed	Nil	-
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Backfilling proposed by waste material	Nil	-
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Backfilling proposed	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	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)	Environmental monitoring proposed in core zone & Buffer Zone.	Regular Environmental monitoring carried out for air,water,noise & soil in core zone & Buffer Zone.	Parameters was observed to be within the permissible limits
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			PMCP activities was carried out as per the proposal except for less nos. of saplings planted.Violation pointed out

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting proposed with in lease area	Grade wise separation is done with in lease area	Dry crushing & Screening
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical method proposed for mineral sorting	Mechanical sorting is done with crushing and screening	Mobile crushing & screening plant of 200TPH
7c	Different grade of mineral sorted out at mines.	Different Grades proposed:45-52% Fe & 56-65% Fe	Lumps & Fines: 55-below 58% Fe	Dispatched as per the market requirement
7d	Any beneficiation process at mines	No proposal	No such study carried out	-
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			No violations on served i r to mineral conservation on the date of inspection.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposals for separate removal and utilization of topsoil	There is no generation of topsoil during plan period.	The working area falls in the existing pit.

8b	Concurrent use or storage of topsoil	No proposal	Nil	Top soil is used for plantation as an when it is generated
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping of OB & BHQ proposed	Separate dumps of OB & BHQ are maintained	Fines & Lumps are stacked separately & dispatched as per the requirement
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Backfilling proposed in 0.31 Ha	Backfilling was avoided due to existence of mineral at depth	-
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Nil	-
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	2000 saplings	1600 nos. of saplings planted Within the ML area	-
8g	Survival rate	70 %	70 %	-
8h	Water sprinkling on roads to control airborne dust	Water sprinkling proposed on haul roads to control airborne dust	Regular Water sprinkling was done to suppress the dust.	Deployed two Water tankers of 8000 Lts each.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty in and around the mine is maintained. 43,061saplings planted.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to March 2019 A.R. Submitted up to 2017-2018	Annual Return submitted on 27.06.2019
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer & Manager: Shri. A.Sreekantha Reddy Mining Geologist: Shri. K.Santhosh Reddy	Mining Engineer & Mines Manager were present during the course of inspection.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under current Working - 4.930 Ha, used for waste disposal- 0.910 Ha, occupied the plants, welfare buildings & roads- 0.790Ha, Green belt & Mineral storage 2.33Ha	Appears to be correct
9d	Scrutiny of Annual return on afforestation	Within the ML area-1600 @70% Survival	Appears to be correct
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	ROM: Opening Stock-Nil, Production- 114000 Tons, Closing Stock- Nil	Appears to be correct

- 9g Scrutiny of Annual return on sale value, Ex. Mine price and production cost Sale value: Rs.1584.74/Ton
Ex-mine Price: Lumps -55% to below 58% Fe-Rs 2147 /ton, Fines- 55% to below 58% Fe-Rs 1399/Ton
Cost of the production Rs 1131.24 /ton Appears to be correct
- 9h Scrutiny of Annual return on fixed assets Value of the fixed assets: Rs 87.01 Lakhs including Plant, Machinery, transport equipment & Capitalised Expenditure Appears to be correct
- 9k Scrutiny of Annual return on mining machineries Excavators -2 Nos., Tippers - 3Nos., Wagon drilling- 1No., Mobile Screening- 1No. & Water Tanker -2Nos. Appears to be correct
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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)	30/05/2019	15/07/2019			

Date :**(ARUN KUMAR)**

Indian Bureau of Mines