

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

FMCP Inspection REPORT

Bangalore regional office

Mine file No : KNT/CTD/FE/6/BNG

Mine code : 30KAR07001

- (i) Name of the Inspecting : **A101**) **ARUN KUMAR**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Mines Manager : Manjunath J
Official with
Designation
- (iv) Date of Inspection : 22/02/2019
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **B.B.H. M.L.1074**
- (b) **Registration NO.** : **IBM/4247/2011**
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address
- State : KARNATAKA
- District : CHITRADURGA
- Village : B. B. HALLI
- Taluka : CHITRADURGA
- Post office : BHEEMASAMUDRA
- Pin Code : 577520
- FAX No. : 080-42459737 (F), 96112176
- E-mail : bbh@mel.co.in, minent@me
- Phone : 080-42459797 (O),081942070
- (f) Police Station : HOSADURGA
- (g) First opening date : 01/04/1972
- (h) Weekly day of rest : SUN
2. Address for : M/s Mineral Enterprises Ltd
correspondance : No.49, 3rd Floor, Khanija Bhavan
West Wing, Race Course Road,BANGALORE-560001
3. (a) Lease Number : KAR0283
- (b) Lease area : 103.81
- (c) Period of lease : 20
- (d) Date of Expiry : 06/10/2012
4. Mineral worked : IRON ORE Main
MANGANESE ORE Associated

5. Name and Address of the

Lessee : MINERAL ENTERPRISES (P)LTD
 # 300, 1/B, 16TH CROSS,
 SADASHIVNAGAR, BANGALORE
 KARNATAKA
 Phone:080-3612569, 3613182
 FAX :080-3612737

Owner : MINERAL ENTERPRISES (P)LTD
 # 300, 1/B, 16TH CROSS,
 SADASHIVNAGAR, BANGALORE
 KARNATAKA
 Phone: 080-3612589, 36
 FAX : 080-3612737

Agent : N.B.SANJAY
 CHITRADURGA KARNATAKA
 Phone:
 FAX :

Mining Engineer

Name : G.ASHOK KUMAR,Full Time
 Qualification :
 Appointment/ : 01/02/2006
 Termination date

Geologist

Name : N.S.THYAGARAJA,Part Time
 Qualification : MSc GEOLOGIST
 Appointment/ : 11/06/2004
 Termination date

Manager

Name : ASHOK KUMAR G.S.
 Qualification : 1ST CLASS MINES MANAGER CERTIFICATE OF C
 Appointment/ :
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Renewal under rule 22 MCR1960	20/11/1992
		Renewal under rule 22 MCR1960	09/08/1999
		Modif.of approved Mining Plan	08/04/2003
		Mining Scheme rule 12 MCDR1988	08/03/2004
		Modif.approved Mining Scheme	20/10/2008
		Mining Scheme rule 12 MCDR1988	17/06/2009
		Modif.approved Mining Scheme	07/09/2012
		Renewal under rule 24 MCR1960	26/12/2012
		Modif.of approved Mining Plan	10/03/2016
		MP modif under 17(3) MCR 2016	03/11/2016
		MP modif under 17(3) MCR 2016	06/12/2017
		MP modif under 17(3) MCR 2016	03/07/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	06 Core Bore Holes proposed in Block No:2 (3-No's), Block No:3 (3-No's) for FY 2017-18	No exploration carried out so fa.	Violation pointed out for non compliance
1b	Exploration over lease area for geological axis 1 or 2	No proposal in the reporting year (FY-2018-19)	G1:56.69 Ha. G2: 14.74 Ha. Barren area: 31.10 Ha.	-
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	NA	-
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal	The area under Block 2 & Block 3 needs to be explored	-
1e	Balance reserve as on 01/04/20	-	55.90 Milion Tons as on 01.04.2018.	999315.660Tonnes of ore has been mined in the year 2018-19
1f	General remarks of inspecting officers on geology, exploration etc			06 bore holes were proposed in Block No 2 & 3 totalling to 300 mts in the year 2017-18, the lessee had not carried out exploration. However 61 core bore holes (4151 mts) has been done against the proposal of 28 (1540mts) from 2012-13 to 2013-14. Violation pointed out.

Development :

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

2a	Location of development w.r.t. lease area	Cross section E-E' to U-U' between 949m to 868m RL, (Pit no.1) Cross section S-S' to U-U', between 868 and 862 m RL (Pit no.3)	Working as per the proposal within the given section lines.	Development carried out in Pit 1 & Pit 3.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No proposal for separate topsoil, overburden benches & mineral bench	All the benches contain ore & OB. No generation of top soil in the reporting year.	All the benches from top RL to bottom RL contain ore.
2c	Stripping ratio or ore to OB ratio	1:0.46	1:0.31 As on 28.02.2019.2019	Development is in progress
2d	Quantity of topsoil generation in m3	No proposal	Nil	No generation of top soil
2e	Quantity of overburden generation in m3	269506 m3	187058.82 m3 As on 28.02.2019. Work is under progress	BD =1.7 for waste
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Development of the mine is carried out in accordance with the approved modified RMP.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2 Pits.Pit no.1 & Pit no.3	Working in 2 pits	-
3b	Quantity of ROM mineral production proposed	1000000 Tonnes	999315.660 Tonnes as on 28.02.2019	For the FY 2018-19
3c	Recovery of sailable/usable mineral from ROM production	80 %	80 %	20% of Sub grade generated during the period is blended along with the high grade.
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.	Pit 1- 183277 T,Pit 3- 16723 T	No separate stack of sub grade mineral available.	It is blended along with the high grade ore & dispatched.
3g	Grade of sub grade mineral generation	Fe 45% to 52%	Ore of above 45 -52% produced and blended with high grade ore	There is no separate stacking of sub grade/ mineral reject
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized method proposed	Mechanized method adopted	Dry crushing & screening process is adopted to segregate lumps & fines
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	No beneficiation carried out during this period	-
3j	Provision of drilling and blasting in mineral benches	No drilling & blasting proposed	No drilling & blasting is carried out	Rock is soft & friable in nature. Using Ripper dozer and Hydraulic rock breaker.
3k	Provision of mining machineries in mineral benches	Mechanized method of mining proposed	Mechanized method adopted for mining with the help of HEMM	-
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Suitable bench ht & width proposed in mineral bench	Benches of height 6 mtr & sufficient width are maintained.	Bench Ht-6 Mtr Bench Width-7 Mtr
3m	Total area covered under excavation/pits	45.82 Ha	45.82 Ha	-
3n	Ore to OB ratio for the pit/mine during the year.	1:0.46	1:0.31, as on 28.02.2019	Stripping ratio within proposed limits. Development in progress.

3o	Total area put in use under different heads at the end of year	Current workings - 45.82 Ha. Waste disposal- 10.74 Ha. Plants, Buildings & Roads- 2.65 Ha.	1)Current workings - 40.82 Ha. 2)Waste disposal- 10.74 Ha. 3)Plants, buildings & roads- 2.65 Ha.	As per AR 2017-18
3p	Production of ROM mineral during the last five year period as applicable	2014-15: 379966 2015-16: 379985 2016-17: 379985 2017-18: 570000 2018-19 : 1000000 (in tonnes)	2014-15: NIL 2015-16: NIL 2016-17: 94985.6 2017-18: 568974.45 2018-19: 999315.660 as on 28.02.2019 (in tonnes)	Actual production within the proposed limits.
3q	General remarks of inspecting officers on method of mining etc.			The mining method is mechanized and the bench height & width are maintained.No blasting was carried out in the mine.

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 for OB proposed.	Over burden or waste dumping is carried out in designated place in active dump and terraces formed at every 10 mtr interval	There is no separate dumping of top soil & mineral reject.
4b	Location of topsoil, OB and mineral reject dumps	OB - N- 1571751 to E- 632389 N- 1571773,E- 632248 N- 1571485 to E- 632399	Location of the dump is as per the proposed location.	Dumping is carried out in the earmarked location with siutable terraces at 10 mts interval.
4c	Number of dumps within lease area and outside of lease area	WML-01 No. OML- No dump proposed	One active dump is maintained within Lease Area	One dump is maintained for dumping OB/waste

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dump proposed outside the UPL	Dumping is carried out outside the UPL	Dumping is carried out in earmarked place
4e	Number of active and alive dumps.	One dump proposed	One dump available	-
4f	Number of dead dumps.	No proposal	Part of the active dump is Inactive	The bottom terraces of the dump is inactive.
4g	Number of dumps established.	No proposal	Part of the dump is stabilized	Dump stabilization by Geotextile & plantation.
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal	Retaining wall & garland drains are in place to arrest the silt	-
4i	Length of Retaining wall or garland drain all along dumps	No proposal	Nil	Already retaining wall of 1210 mtr & garland drains- 1381 mtr have been constructed during the year 2012-13
4j	Number of settling ponds	No proposal	Nil	constructed 6 no's of settling ponds as per R&R recommendation by ICFRE in the year 2012-13
4k	Specific comments of inspecting officer on waste dump management			The waste dump management in the mine satisfactory. Part of the active dump is stabilized by plantation & geotextile. RW & GD in place.

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	Mineral is not yet exhausted.
5b	Area under backfilling of mined out area	No proposal	Nil	-

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	Nil	Mineral are not exhausted
5d	Total area fully reclaimed and rehabilitated	No proposal	Nil	-
5e	General remarks of inspecting officers on backfilling and reclamation etc.			The mineral is not exhausted . No area in the mine is devoid of mineral & no backfilling proposed and done.

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 every year	PMCP report has not been submitted so far	Violation for non compliance pointed out
6b	Area available for rehabilitation (ha) .	Not in proposal	Nil	nil
6c	afforestation done (ha).	0.99 Ha on dump	2.00 Ha done on dump slopes	nil
6d	No. of saplings planted during the year	2000 Saplings proposed on dumps	7500 saplings done.	WML-1169 saplings & 30ML- 31 saplings
6e	Cumulative no .of plants	2000 saplings	7500 saplings as per the approved document in the plan period	nil
6f	Any other method of rehabilitation	No proposal	No method of rehabilitation proposed and done	nil
6g	Cost incurred on watch and care during the year	3.25 Lacks proposed	7.25 lacks spent on watch & care.	nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal	No benches are exhausted for backfilling	All benches contain mineral

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	Not applicable	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	No proposal	Not applicable	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	All benches are mineralized and contains ore	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No proposal	NA	nil
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	No proposal	Plantation of 7.53 Ha. Area of waste land within lease area is carried out in the past period	Nil
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	No proposal	Plantation of 7.53 Ha. Area of waste land within lease area is carried out in the past period	Nil
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	No proposal	Plantation is the only method adopted	7.53 Ha plantation carried out in the past in waste land
6p	Compliance of environmental monitoring (core zone and buffer zone)	Water, Air, Noise monitoring proposed	Environmental monitoring carried out in the core & buffer zone for air, water and noise.	Carried out through GEMS, Hospet

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Plantation has been proposed and done on the slope of the dumps and waste land.
----	---	---

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting with in the lease area proposed	Grade wise sorting done with in the lease area	No ROM dispatch, only lumps & fines are dispatched
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical method proposed	Sorting of fines & lumps done using mechanical means.	200 TPH crushing & screening plant is used
7c	Different grade of mineral sorted out at mines.	-5 mm with less than 55% Fe, +5-20mm: 56-58% Fe, +20-40mm: 56-58% Fe	Lumps 55%-58% Fe, Lumps below 55% Fe and Fines below 55% Fe	A screening plant is used to separate lumps & fines
7d	Any beneficiation process at mines	No proposal	Not applicable	Only dry screening plant of 200 TPH static plant is used
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Mineral conservation is taken care by blending the low grade ores with high grade ores available in the mines.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No Proposal of removal & utilization of topsoil	No removal & utilization of topsoil	No generation of top soil.
8b	Concurrent use or storage of topsoil	No proposal	Not applicable	Nil

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping for OB proposed	Waste dumping is carried out in the earmarked place	Active dump is used for OB, waste rock dumping
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No Proposal for use of OB, rejects & fines dumps for restoration	Not applicable	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Plantation proposed to be carried out in dumps	plantation done and stabilized a part of the dump by geotexttile.	Currently ore is not exhausted and no proposal for the year 2018-19
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	6125 No's of sapling plantation proposed	10000 No's of Plantation within Mining lease Area	Till 2018-19, 480612 number of saplings have been planted
8g	Survival rate	70%	70%	nil
8h	Water sprinkling on roads to control airborne dust	Water sprinkling proposed on roads to control the dust	Airborne dust is controlled through water sprinkling regularly	20 KLD tanker is used for water sprinkling on roads to control airborne dust
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			The aesthetic beauty in and around the mine is maintained and greenery developed with in and outside the lease area.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns		Monthly returns up to Jan-2019 Annual Returns submitted on 13.07.2018.	FY 2017-18

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Agent- Sanjay NB, Manager & Mining Engineer- J Manjunath, Geologist-M B Mohan	Same Mining Engineer & Geologist were available at the time of inspection	FY 2017-18
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Under Workings-40.82 Ha, Waste disposal-10.74 Ha, Infrastructure-2.65 Ha, Others 48.32 Ha	Appears to be correct	FY 2017-18
9d	Scrutiny of Annual return on afforestation	WML-1169 @ 85% survival & OML-331 @75% survival	Appears to be correct	FY 2017-18
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Nil	FY 2017-18
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM: OB- 95422.710 Tons, Production: 568974.45 Tons, CB- 4309.210 Tons	Appears to be correct	FY 2017-18
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale Value(Avg.)- Rs.1396/Ton, Ex-Mine price- Rs.2248/Ton (Lumps) & Rs.753/Ton (Fines) , Cost of production- Rs.645/Ton	Appears to be correct	FY 2017-18
9h	Scrutiny of Annual return on fixed assets	Rs.50334806 including plant & machinery	Appears to be correct	-
9k	Scrutiny of Annual return on mining machineries	Backhoe-4 Nos., Tippers- 02 Nos., Load Haul Dumpers- 05 Nos., Dozer, crusher & Water Tanker-01 each	Appears to be correct	-

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)	18/03/2019			
MCDR17	Rule 26(2)	18/03/2019			
MCDR17	Rule 35(2)	18/03/2019			

Date :

(ARUN KUMAR)

Indian Bureau of Mines