

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

MCDR inspection REPORT

Bangalore regional office

Mine file No : KNT/DVN/MN/2/BNG

Mine code : 40KAR27004

- (i) Name of the Inspecting : **A101**) **ARUN KUMAR**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri.M Nagaraj-Mines Manager
Official with
Designation
- (iv) Date of Inspection : 04/10/2019
- (v) Prev.inspection date : 08/03/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KADATHIHALLI (12.95 HA)**
- (b) **Registration NO.** : **IBM/21855/2017**
- (c) **Category** : **A Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **KARNATAKA**
- District : **DAWANGERE**
- Village :
- Taluka :
- Post office :
- Pin Code :
- FAX No. : **0839-2268033**
- E-mail : **sriymco@gmail.com**
- Phone : **09480000123**
- (f) **Police Station** : **Harpanahalli**
- (g) **First opening date** : **18/01/2018**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **B.C.M Compund,**
correspondance **Infantry Road, Cantonment**
BELLAY -583 104
3. (a) **Lease Number** : **KAR1611**
- (b) **Lease area** : **12.95**
- (c) **Period of lease** : **20**
- (d) **Date of Expiry** : **17/09/2001**
4. **Mineral worked** : **MANGANESE ORE** **Main**

5. Name and Address of the

Lessee : YERRITHATHA MINING COMPANY
 DAWANGERE KARNATAKA
 Phone:
 FAX :

6. Date of approval of Mining : Renewal under rule 24 MCR1960 25/01/2007
Plan/Scheme of Mining : Modif.of approved Mining Plan 31/03/2016

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal	Nil	Nil
1b	Exploration over lease area for geological axis 1 or 2	G1 & G2	G1-0.74 Ha & G3-0.21Ha	04 vertical core bore holes with 45 Mts Maximum depths were drilled for the total length of 173.5 Mts in 2015.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not specified	Nil	Approx. Rs. 9, 22,600/- were spent for exploration in 2015 including mobilization & analysis of samples.
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not specified	Nil	-
1e	Balance reserve as on 01/04/20		278222 tonnes	As per AR submitted for FY:2018-19
1f	General remarks of inspecting officers on geology, exploration etc			No exploration proposal in the reporting year. 0.74 Ha & 0.21 Ha have been covered under G1 & G3 level of exploration as per the approved document.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	Proposed location of development :N1620198-N1620276 and E589475-589540	Actual location of development :N1620200-N1620254 and E589493-589535	Advancement of the benches towards north -western direction, in section line 4-4' and extends towards 3-3' (592 to 598 mRL). Total 03benches.

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in overburden and mineral proposed	Separate benches in overburden and mineral maintained	No generation of top soil. OB- 2 Benches & Mineral- 1 Bench
2c	Stripping ratio or ore to OB ratio	1:0.29	1:0.85	Bulk density : Mn ore-2.8t/m3, OB- 2.0t/m3
2d	Quantity of topsoil generation in m3	No Proposal	Nil	No top soil generated
2e	Quantity of overburden generation in m3	5813 Tons	4500 Tons	5813 Tons of OB was proposed for 20,008 Tons of Manganese Ore
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			No deviation was found w r t development during the course of inspection.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One pit proposed	Actual working in one pit only(P1)	Appx. dimension of the pit: (78m*65m*8m) (L*W*D)
3b	Quantity of ROM mineral production proposed	20,008 Tons	5,250 Tons	-
3c	Recovery of sailable/usable mineral from ROM production	80% recovery proposed in Manganese Ore	80%	-
3d	Quantity of mineral reject generation	2000 Tons	1500 Tons	-
3e	Grade of mineral rejects generation and threshold value declared.	+10 to <25 Mn%	12% Mn	-
3f	Quantity of sub grade mineral generation.	No proposal	NA	No proposal of sub grade mineral
3g	Grade of sub grade mineral generation	No proposal	Not applicable	Nil

3h	Manual / Mechanised method adopted for segregating from ROM	Manual method proposed for segregating from ROM	Sieving & sorting done manually	Hand sieving is done
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	No such beneficiation study carried out	nil
3j	Provision of drilling and blasting in mineral benches	Provision is made for Drilling & blasting in hard zone	No drilling & blasting carried out. Rock breaker is used in place of blasting	Only 20% of the total material handling requires drilling & Blasting
3k	Provision of mining machineries in mineral benches	Provision of mining machineries is made Excavator-01 Nos, Tippers- 02 Nos.,WL & Drill-01 No.	Excavators-01no's Tippers-02 no's,Water Tanker-01 No.	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height- 06Mtrs & Bench Width not less than the height of the bench	Bench Height of 5-6 Mts & Width of 8-10 Mts maintained	-
3m	Total area covered under excavation/pits	0.7 Ha in the plan period	0.30 Ha covered under excavation	nil
3n	Ore to OB ratio for the pit/mine during the year.	1:0.29	1:0.85	nil

3o	Total area put in use under different heads at the end of year	Area under mining-0.7 Ha, waste dump site-1.76 Ha, Mineral Storage-0.5 Ha, Subgrade Stock-0.2 Ha, infrastructure (work shop, administrative building etc.)-0.7 Ha, Roads-0.32 Ha, Mineral separation plant-0.5Ha, Green belt-0.75 Ha, Afforestation-1.50Ha, Untouched area-6.26 Ha in the plan period	current o/c workings-0.3 Ha, used for waste disposal-0.7 Ha, occupied by plant, buildings, residential, welfare buildings & roads-0.12Ha, Other Purpose (Unused)-11.44 Ha	Nil
3p	Production of ROM mineral during the last five year period as applicable	2014-15: Nil 2015-16: Nil 2016-17: 10931 2017-18: 15008 2018-19: 20008 (in tonnes)	2014-15: Nil 2015-16: Nil 2016-17: Nil 2017-18: Nil 2018-19: 5250 (in tonnes)	Mine started on 18.01.2018. Actual production is within the proposed limits
3q	General remarks of inspecting officers on method of mining etc.			Mining was carried out in one pit using heavy Earth Moving equipment with drilling & blasting. However no D & B was carried out. Rock breaker was used instead of drilling & blasting.

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 overburden proposed	Separate dumping carried out for over burden in the earmarked area	No top soil generated & mineral reject is blended with high grade of Manganese Ore

4b	Location of topsoil, OB and mineral reject dumps	OB dump: N 1620118 to N 1620238,E 589610 to E 589750	OB dump: N 1620125 to N 1620222,E 589619 to E 589735	The dumping ground is towards the eastern boundary (BP-6) of the mining lease area.
4c	Number of dumps within lease area and outside of lease area	Within mining lease-06Nos.of dumps, Outside mining lease- Nil	06 dumps present with in the Lease	05dumps are very small in quantity & scattered in the ML area.Only one active dump.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	The dump is proposed outside the UPL	Dump is located outside the UPL	Active dumping is carried out towards the eastern boundary (BP-6) of the ML area
4e	Number of active and alive dumps.	01active dump proposed	01active & alive dump maintained	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.	Retaining wall or garland drain all along dumps proposed	Retaining wall was not available in part of the active dump.	Violation pointed out
4i	Length of Retaining wall or garland drain all along dumps	Retaining Wall of 60Mts & Garland drain of 65 Mts proposed in active dump No.1	Retaining Wall of 60Mts not constructed as per proposal	Violation pointed out
4j	Number of settling ponds	No Proposal	Nil	-
4k	Specific comments of inspecting officer on waste dump management			Separate dump of Overburden and mineral reject maintained. Violation pointed out for not constructing the retaining wall as proposed.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No proposal	Nil	No backfilling proposed for mining plan period
5b	Area under backfilling of mined out area	No proposal	Nil	Mining started recently in 2018
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	Nil	No top soil generated
5d	Total area fully reclaimed and rehabilitated	No proposal	Nil	-
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Backfilling & reclamation was not proposed and is not applicable as the mine started on 18.01.2018. Mineral exists 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 by 1st July every year	Annual report on PMCP in accordance with Rule 23 E(2) is not submitted	Violation pointed out
6b	Area available for rehabilitation (ha) .	No Proposal	Nil	-
6c	afforestation done (ha).	0.45 Ha	0.2 Ha	-
6d	No. of saplings planted during the year	800 Saplings proposed	500 sapling & 1000 shrubs within Mining Lease area @85% survival rate	Plantation done in safety zone
6e	Cumulative no .of plants	3800 saplings in the plan period	Approx.4000 saplings in green belt area, safety barrier .	-

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 (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 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	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 in core zone & buffer zone season wise proposed	Environmental monitoring is carried out on quarterly basis for air, water & noise	Env. Monitoring was carried out by Global Environment & Mining Services, Hospet
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			The mine was recently opened & there is no proposal of backfilling & restoration except plantation. Environmental monitoring was carried out regularly.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting of ROM by manual sizing & sorting proposed within the lease area	Grade wise sorting & dispatch done within the lease area	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual sorting proposed	Manual sorting done.	Nil
7c	Different grade of mineral sorted out at mines.	Lumps: 40mm to 8mm(Mn +25%), Chips: 4m to 10mm(Below 25%Mn) & Fines -Below 10mm(-25%Mn)	Below 25%Mn	-
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	All the Mn ore below the marketable grade is stacked as mineral reject and is blended with high grade ore
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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	Nil	No top soil generated.
8b	Concurrent use or storage of topsoil	No proposal	Nil	-
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dump for overburden & mineral reject proposed	Separate dump for overburden & mineral reject maintained	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Nil	-
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)	800 saplings with 1000 nos. of shrubs	WML-500 Saplings planted.	Plantation done in safety zone
8g	Survival rate	70%	85%	-

8h	Water sprinkling on roads to control airborne dust	Water sprinkling on roads proposed to control airborne dust	Water sprinkling on roads is done regularly to control airborne dust	Water tanker of 8000 liter capacity is being used for water sprinkling on roads to prevent generation of borne dust
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			No significant change was observed in aesthetic beauty in and around the mine due to mining

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns		M.R. Submitted up to Sep-2019 A.R. Submitted for FY 2018-19	Annual return submitted on 04/07/2019
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Agent: Shri. B M Arjun Manager: Shri. M Nagaraj M	Mines manager present during the course of inspection	Violation pointed out for non appointment of Mining Engineer & Geologist.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under current o/c workings-0.3 Ha, used for waste disposal-0.7 Ha, occupied by plant, buildings, residential, welfare buildings & roads-0.12Ha, Other Purpose (Unused)-11.44 Ha	Appears to be correct	
9d	Scrutiny of Annual return on afforestation	WML: 500@ 85%	Appears to be correct	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	1500Tons, Grade -12%Mn	Appears to be correct	

9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM: opening stock- Nil , production- 5250 Tons, closing stock- Nil	Appears to be correct
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale value: 2502.00 Rs/ton, Ex mine price: 2502.00 Rs/ton ,cost of production:80.00Rs/ton	Appears to be correct
9h	Scrutiny of Annual return on fixed assets	Rs. 9034033 including Plant, Machinery & Capitalised Expenditure	Appears to be correct
9k	Scrutiny of Annual return on mining machineries	Excavators- 01no Tippers- 02 no's, Water Tanker -01No.	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)	29/10/2019	16/01/2020	MCDR17	Rule 35(2)	29/10/2019	16/03/2020
MCDR17	Rule 26(2)	29/10/2019	16/01/2020	MCDR17	Rule 55(1)	29/10/2019	16/03/2020
MCDR17	Rule 35(2)	29/10/2019					
MCDR17	Rule 55(1)(3)	29/10/2019					

Date :

(ARUN KUMAR)

Indian Bureau of Mines