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MCDR inspection REPORT

Bangalore regional office

Mine file No : KNT/BLR/FE/395/BNG

Mine code : 30KAR03104

- (i) Name of the Inspecting : **S47**) **DR. Sudhakara T.L**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Shanmukhappa Mandal (Mine Agent), Amartaluri V. Rao (
Official with
Designation
- (iv) Date of Inspection : 28/12/2023
- (v) Prev.inspection date : 14/03/2023

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **DHARMAPURI**
- (b) **Registration NO.** : **IBM/178/2011**
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address
State : KARNATAKA
District : BELLARY
Village : RAMGAD
Taluka : SANDUR
Post office : SANDUR
Pin Code : 583119
FAX No. : 08395-260676
E-mail : vescosdr@yahoo.com
Phone : 08395-260121
- (f) Police Station : SANDUR
- (g) First opening date : 01/01/1995
- (h) Weekly day of rest : SUN
2. Address for : M/S.VEERABHADRAPPA SANGAPPA & COMPANY
correspondance : 2-138, BELLARY ROAD,
SANDUR - 583119
3. (a) Lease Number : KAR1204
- (b) Lease area : 51
- (c) Period of lease : 50
- (d) Date of Expiry : 16/02/2051
4. Mineral worked : IRON ORE Main

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5. Name and Address of the

Lessee : VEERABHADRAPPA SANGAPPA & COMPANY
 # 2/138, BELLARY ROAD,
 HOSPET, BELLARY KARNATAKA
 Phone:08395-260120
 FAX :08395-260676

Owner : K S VINAYAK NOMINATED OWNER
 VESCO HOUSE 2/138, BELLARY
 RD SANDUR BELLARY KARNATAKA
 Phone: 08395260183
 FAX :

Agent : Shanmukhappa Mandal
 VESCO House, 2/138, Ballari
 road, Sandur BELLARY
 KARNATAKA
 Phone: 9900010433
 FAX :

Mining Engineer

Name : SUBRAMANI M,Full Time
 Qualification : B E MINING
 Appointment/ : 01/08/2022
 Termination date

Geologist

Name : SATISH K CHOUGULE,Full Time
 Qualification : M.Sc APPLIED GEOLOGY
 Appointment/ :
 Termination date

Manager

Name : Amartaluri V. Rao
 Qualification : Dip. in Mining, Ist FCMM
 Appointment/ : 15/09/2009
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	20/03/1991
Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	05/06/1997
	:	Mining Scheme rule 12 MCDR1988	08/04/2002
	:	Mining Scheme rule 12 MCDR1988	20/10/2005
	:	Renewal under rule 24 MCR1960	24/05/2013
	:	MP modif under MCR 1960	16/09/2015
	:	MP review under 17(1) MCR 2016	10/11/2016
	:	MP review under 17(1) MCR 2016	23/11/2021

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PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	2022-23 04 core bore holes with a total metearge 240 meters	07 Boreholes 260 mtrs	63 core boreholes were drilled to a total meterage of 2954m from 1992-93 to 2022-23.
1b	Exploration over lease area for geological axis 1 or 2	G1-13.85 Ha, G2-1.65 Ha G4-2.96 Ha	G1-16.81 Ha, G2-1.65 Ha	Actual figures given as per approved Mining plan. During inspection lessee reported that 16.81ha area has been converted under and 1.65ha under G2.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	Drilled by Geo-tech Exploration, Nagpur Expenditure: 13.45 Lakhs	
1d	Balance area to be explored to bring Geological axis in 1 or 2	G2-1.65 Ha G4-2.96 Ha	G2-1.65 Ha	Exploration work is under progress.
1e	Balance reserve as on 01/04/20		7,975,862 MT as on 31.03.2023	As per Annual returns submitted for FY 2022-23
1f	General remarks of inspecting officers on geology, exploration etc			In the mineralized area, lessee has carried out 63no. of core bores holes with a total meterage of 2594m. Exploration is under progress.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	N 1667120 to 1667290 E 661480 to 662660	N 1667135 to 1667285 E 661480 to 662625	Development is done within the proposed grid

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2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in mineral proposed. No separate benches proposed for overburden.	Separate benches in mineral maintained.	
2c	Stripping ratio or ore to OB ratio	1: 0.16 OB: 40,841.00 m3 73,514.00 tonnes Ore: 4,60,000 tonnes	1: 0.03 OB: 7255.56.22 m3 13060.00 tonnes Ore: 4,60,000 tonnes	Proposed stripping ratio not achieved, violation pointed out under Rule 11(1) of MCDR, 2017.
2d	Quantity of topsoil generation in m3	No proposal	Nil	There is no top soil generation as the mining work is carried out within the broken up area.
2e	Quantity of overburden generation in m3	40,841.00 m3 73,514.00 tonnes	7255.56.22 m3 13060.00 tonnes	Proposed OB generation is not achieved, violation pointed out under Rule 11(1) of MCDR, 2017.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Lessee has carried out the development very systematically within the proposed grid limit. However, proposed OB is not achieved, hence, , violation pointed out under Rule 11(1) of MCDR, 2017.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
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3a	Number of pit proposed for production	1 Pit proposed	Working carried out in 1 pit only	Approximate dimension of the proposed production Length- 341m, Width-132m, Depth-50 m
3b	Quantity of ROM mineral production proposed	4,60,000 tonnes	4,60,000 tonnes	Proposed quantity achieved.
3c	Recovery of sailable/usable mineral from ROM production	95%	100%	Lessee team stated that anticipated intercalated waste not encountered during mining and the recovery is 100%.
3d	Quantity of mineral reject generation	7524.00 tons	7524.00 tons generated which is blended with high grade ore & sold.	Lessee team stated that Mineral reject on ore benches is occurred as a small reefs & bands which cannot be separated & it is mixed with high grade ore while excavation and blended.
3e	Grade of mineral rejects generation and threshold value declared.	+35 to -45% Fe	+35 to -45% Fe	
3f	Quantity of sub grade mineral generation.	7524.00 tons	7524.00 tons generated which is blended with high grade ore & sold.	Lessee has consumed the sub-grade ore by blending with high grade iron ore.
3g	Grade of sub grade mineral generation	+35 to -45% Fe	+35 to -45% Fe	
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 (100 TPH) & Screening (250TPH)
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No Proposal	NIL	

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3j	Provision of drilling and blasting in mineral benches	Drilling & blasting proposed in mineral benches.	5% volume of production & development is used for drilling & blasting.	10% of the total volume proposed for drilling & blasting.
3k	Provision of mining machineries in mineral benches	Hydraulic excavator & tipper combination proposed	Combination of Hydraulic excavator & tipper adopted.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height- 7.5m, Width- 8 to 10m	YES Height- 7.5m, Width- 8 to 10m	
3m	Total area covered under excavation/pits	Proposal of 12.98 Ha at the end of reporting year.	Achieved 12.98 ha at the end of reporting year.	As per Approved RMP, dtd: 23.11.2021 & Annual Returns for FY 2022-23.
3n	Ore to OB ratio for the pit/mine during the year.	1: 0.16 OB: 40,841.00 m3 73,514.00 tonnes Ore: 4,60,000 tonnes	1: 0.03 OB: 7255.56.22 m3 13060.00 tonnes Ore: 4,60,000 tonnes	Proposed OB generation is not achieved, violation pointed out under Rule 11(1) of MCDR, 2017.
3o	Total area put in use under different heads at the end of year	Area in Ha Pit- 12.98 Ha Dump- 4.15 Ha Green belt- 1.13 Ha Others- 0.20 Ha	Area in Ha Pit- 12.98 Ha Dump- 4.00 Ha Green belt-1.13Ha Others- 0.35 Ha	As per Annual Returns for FY 2022-23
3p	Production of ROM mineral during the last five year period as applicable	2018-19: 4,60,000 2019-20: 4,60,000 2020-21: 4,60,000 2021-22: 4,60,000 2022-23: 4,60,000	2018-19: Nil 2019-20: Nil 2020-21: Nil 2021-22: Nil 2022-23: 4,60,000	As per Annual Returns

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3q General remarks of inspecting officers on method of mining etc. Lessee has carried out mechanized mining as proposed. Proposed production quantity for the year 2022-23 has been achieved and Mineral reject generated has been consumed by blending with high grade iron ore.

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	Separate dumping for OB carried out	There is no top soil generation as entire mining area is broken up area
4b	Location of topsoil, OB and mineral reject dumps	Top Soil No Proposal Dumping N 1667120-1667290 E 661480-662660 Mineral Reject : 7524.00 tons	Top Soil Nil Dumping N 1667135-1667285 E 661480-662625 Mineral Reject : Blended with high grade iron ore.	Dumping of waste is done within the marked area and there is no top soil generation.
4c	Number of dumps within lease area and outside of lease area	WML : 1 dump OML : Nil	WML : 1 dump OML : Nil	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	OB Dump proposed outside the UPL	Outside UPL	NW side 80 to 100 m away from UPL
4e	Number of active and alive dumps.	1 No'	1 No'	There is only one active dump.
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.	Yes	Retaining wall & garland drain are constructed all along the dumps.	Existing Toe wall : 845m GD : 780m Constructed in the past as per R&R and it is maintained.

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4i	Length of Retaining wall or garland drain all along dumps	Retaining wall: 150m Garland drain: 25m	RW- 154m GD- 25m	Proposal of construction of Toe wall and garland drain of 2022-23 has been completed during the year 2023-24.
4j	Number of settling ponds	No Proposal	NIL	Existing GCD : 3 Nos. LBCD : 2 Nos. SMCD : 1 No. SST : 2 No's. Constructed in the past as per R &R & it is maintained.
4k	Specific comments of inspecting officer on waste dump management			Lessee has carried out dumping at the proposed location and dumping has been done systematically. Lessee has constructed Retaining wall and garland drain along the toe of the waste dump.

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 exhausted for backfilling
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	
5d	Total area fully reclaimed and rehabilitated	No proposal	NIL	

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5e General remarks of inspecting officers on backfilling and reclamation etc. Mineral is not exhausted in the pit, there is no scope for carrying out back filling in the existing pit.

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).	PMCP report to be submitted by 1st July every year	PMCP report for the FY 2022-23 is submitted.	Submitted within stipulated time (26.06.2023)
6b	Area available for rehabilitation (ha) .	No proposal	Nil	1.36 Ha Part of active dump is stabilized by coir mat in the previous years.
6c	afforestation done (ha).	0.37 Ha	NIL	Lessee team reported that, due to insufficient place for plantation inside ML, plantation of 0.20 Ha area was taken at Bandri Govt School.
6d	No. of saplings planted during the year	925 Seedlings	NIL	284 no's of plantation taken at outside ML at Bandri Govt. School
6e	Cumulative no .of plants	---	2030 no's of seedlings 58000 no's of Agave suckers	Inside ML As on 30.11.2023
6f	Any other method of rehabilitation	No proposal	NIL	
6g	Cost incurred on watch and care during the year	Rs 92,500.00	Rs 16,520.00	Cost includes plantation of inside & outside ML area.

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6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx 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

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6p	Compliance of environmental monitoring (core zone and buffer zone)	Environmental monitoring proposed in Core & Buffer zone	Environmental monitoring carried out in Core zone & Buffer zone by Cosmo Laboratory Ballari.	<p>Nov-2023 Buffer Zone Air-(So2-14.72, No2-15.44 µ/cum) Pm10-53.78 Pm2.5- 15.44</p> <p>G. Water- (TDS-2960 mg/l)</p> <p>S. Water- (TDS-508 mg/l)</p> <p>Noise-dB(A) Max'- 55.92 Min'- 48.87</p> <p>Core Zone Air-(So2-14.54, No2-17.04 µ/cum) Pm10-52.04 Pm2.5- 15.38</p>
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			<p>Lessee has regularly monitoring the air, water and noise inside and outside the lease. Parameters are within the permissible limit. Due to lack of place for plantation within the lease, lessee has carried out plantation in the Govt. school located at Bandri village.</p>

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting proposed in the lease area	Grade wise sorting done in the lease area.	Fines & Lumps are dispatched after sorting out ROM.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical sorting proposed	Mechanical method adopted for grade wise sorting.	Dry Crushing (100 TPH) & Screening (250TPH)

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7c	Different grade of mineral sorted out at mines.	Lumps: (+10 to -40) mm Fe-62-65% & Fines: (-10mm) Fe- 62-65%	Lumps: (+10 to -40) mm 62-65% Fe- 98,000.00 (t) & Fines: (-10mm) 62-65% Fe- 3,62,000.00 (t)	Grade wise sorting done as per buyers requirement.
7d	Any beneficiation process at mines .	No proposal	NIL	Mobile dry crushing & screening plant are utilized.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Lessee has carried out size-wise/grade-wise separation of iron ore by crushing and screening process. Lessee has utilized Mineral reject (sub-grade iron ore) with high grade iron ore. Practices adopted are good from the point of Mineral conservation.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	Nil	No generation of top soil
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 proposed.	Separate dump of overburden maintained.	Separate stocks of fines maintained.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	NIL	

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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)		Agave Suckers: 1,58,000.00 no's Seedlings: 8,118.00 no's Seeds for coir mat: 95 kgs	During the year lessee has carried out the plantation outside the lease due space constraints.
8g	Survival rate	85 %	80%	
8h	Water sprinkling on roads to control airborne dust	Water sprinklings on haul roads proposed to control air borne dust	Carried out as per proposal	Lessee has made Water tankers with (8000 litres) capacity along with water mist arrangement at mine site for suspension of dust.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty in and around the mine is good.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. submitted upto Nov 2023 A.R. submitted upto 2022-23		MR submitted on 07.12.2023 AR submitted on 26.06.2023
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mines Manager: Appears to be correct 01 Graduate Mining Engineer: 01 Diploma Mining Engineer: 01 Geologist: 01		Mines Manager: Amartaluri V. Rao Mining Engineer: Subramani M Geologist: Satish K. Chougule were present during the date of inspection

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9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area in Ha Pit - 12.98 Ha Dump - 4.00 Ha Green belt - 1.13 Ha Others - 0.35 Ha	Appears to be correct	As per the Annual returns of 2022-23
9d	Scrutiny of Annual return on afforestation	NIL	During the year Nil inside lease	Lessee has carried out plantation outside lease
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral reject : 0	No mineral reject stock at mine site	Lessee has consumed the mineral reject by blending with high grade ore
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM: Opening Balance- Nil Production: 4,60,000 Closing balance- Nil Dump Working: Opening Balance- Nil Closing balance- Nil Lumps: 62-65% Fe- 98,000.00 (t) Fines: 62-65% Fe- 3,62,000.00 (t)	Appears to be correct	

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9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale Value: Lumps -4718.23 Rs/ton, Fines -3967.27 Rs/ ton Ex-mine price: - Lumps - 62-65% Fe- 4718.23 Rs/ ton Fines - 62-65% Fe- 3967.27 Rs/ ton Cost of Production 2108.35 Rs/ ton	Appears to be correct	As per the Annual returns of 2022-23
9h	Scrutiny of Annual return on fixed assets	NIL	NIL	Lessee has reported the fixed assets details of this mine in Ramanamali Iron ore mine (mine code 30KAR03138)
9k	Scrutiny of Annual return on mining machineries	Excavator - 4 No's Wheel loader - 2 No's Dumper - 7 No's Crusher - 2 No's Back Hoe - 1 No Water Tanker - 1 No Screener - 2 No's	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)	15/02/2024			

Date :**(DR. Sudhakara T.L)**

Indian Bureau of Mines