

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

**MCDR inspection REPORT**

**Bangalore regional office**

**Mine file No :** KNT/BLR/FE/403/BNG

**Mine code :** 30KAR03113

- (i) Name of the Inspecting : **S21** ) **H M Shivakumar**  
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : Sri.Vuppu Lowa Raju Mines Manager, Sri.C.V. Narayan R  
Official with  
Designation
- (iv) Date of Inspection : 27/08/2022
- (v) Prev.inspection date : 27/09/2021

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **DONIMALAI(53.20 H)**
- (b) **Registration NO.** : **IBM/250/2011**
- (c) **Category** : **A Fully Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **KARNATAKA**
- District : **BELLARY**
- Village : **TARANAGAR**
- Taluka : **SANDUR**
- Post office : **TARANAGAR**
- Pin Code :
- FAX No. : **080-41105775branchoffice@na**
- E-mail : **admin@nadeemminerals.com**
- Phone : **080-41105475 (O)7406944424**
- (f) **Police Station** : **SANDUR**
- (g) **First opening date** : **19/07/2006**
- (h) **Weekly day of rest** : **SUN**
2. **Address for correspondance** : **NADEEM MINERALS, ALFA MANOR, No. 227,**  
**1st FLOOR, GREENGLEN LAYOUT, Off: OUTER RING Road**  
**BELLANDUR, VARTUR HOBLI, Bangalore-560103**
3. (a) **Lease Number** : **KAR0996**
- (b) **Lease area** : **53.2**
- (c) **Period of lease** : **20**
- (d) **Date of Expiry** : **18/07/2026**
4. **Mineral worked** : **IRON ORE** **Main**

## 5. Name and Address of the

Lessee : NADEEM MINERALS.,  
 BELLARY KARNATAKA  
 Phone:  
 FAX :

Mining Engineer  
 Name : Manohar Mallikarjuna K, ,Full Time  
 Qualification :  
 Appointment/ :  
 Termination date

Geologist  
 Name : Venkatasubbaiah Ch, Full Time  
 Qualification : M.Sc GEOLOGY  
 Appointment/ :  
 Termination date

Manager  
 Name : Vuppu Lowa Raju  
 Qualification : FCC  
 Appointment/ : 01/05/2020  
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	29/01/1998
Plan/Scheme of Mining		Fresh under rule 22 MCR1960	08/07/1999
		Modif.of approved Mining Plan	18/10/2005
		Modif.of approved Mining Plan	24/04/2007
		Renewal under rule 22 MCR1960	25/05/2007
		MS modif under MCR 1960	21/04/2014
		Mining Scheme rule 12 MCDR1988	23/02/2016
		MP modif under 17(3) MCR 2016	25/10/2017
		MP review under 17(1) MCR 2016	24/06/2020
		MP review under 17(1) MCR 2016	24/11/2020

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No Proposal	NA	
1b	Exploration over lease area for geological axis 1 or 2	26.82 ha exploration in G1 level 14 Core bore holes with 1,255 Meterage and 24 Trial pits proposed.	Out of 52.82 Ha, 26.82 ha explored in G1 level during the year as proposed by drilling 18 Boreholes (together RC & Core holes) with a Meterage of 642 and 24 Trial pits.	Out of 52.82 Ha 26.82 ha explored in G1 level during the year as proposed by drilling 18 Boreholes (together RC & Core holes) with a Meterage of 642 and 24 Trial pits. 26.82 Ha is Mineralized and remaining 26 Ha is proved non Mineralized.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	In house drilling by M/s. Nadeem Minerals Private Limited.	Total Cost ? 20,90,085/-	Figures are as reported by the Lessee. However the figures are not tallying with the AR-2021-22.
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	
1e	Balance reserve as on 01/04/20	9.157 Million Tonnes	9.157 Million Tonnes	Reserves As per AR-2021-22

1f	General remarks of inspecting officers on geology, exploration etc	<p>Geology: The ML area contains Iron Ore &amp; banded hematite jasper which is hard in nature.</p> <p>Exploration: A total of 18 exploratory Boreholes (together 12RC &amp; 4Core holes) with a Meterage of 642 and 24 Trial pits are done during 2021-2022. The entire 52.82 Ha Mining Lease area has been explored, Out of which 26.82 Ha has been proved Mineralized and remaining 26 Ha is proved non Mineralized.</p>
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	North Pit: N-1668444 - 1668803 E-0672015 - 0672187 South Pit: N-1667910- 1668341 E-0672201 - 0672539	North Pit: N-1668737 - 1668482 E-0672063 - 0672146 South Pit: N-1668310- 1668000 E-0672306 - 0672484	Development is carried out within the proposed limit. However lagging in development and production. Violation issued.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	4 in Overburden and 2 in Mineral	4 in Overburden and 2 in Mineral	OB: 4 benches MB: 02 benches As per AR 2021-22. Separate benches maintained as proposed.
2c	Stripping ratio or ore to OB ratio	1:0.53	1:0.25	Stripping ratio as proposed is not achieved due to less production and development. Violation issued.

2d	Quantity of topsoil generation in m3	No Proposals	No topsoil generated	No top soil is generated during the year as the mining work is carried out in the already broken up area.
2e	Quantity of overburden generation in m3	216641 MT	70158 MT	As per AR-2021-22 it is 70158 tonnes. Violation issued for less development than proposed.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Development works are carried out within the proposed grid limits, however lagging from the proposed extent. Benches are by and large systematically maintained owing to the hard nature of the deposit as per the approved proposals.

### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2 pit's one in each block namely North and South Block.	2 pit's one in each block namely North and South Block.	2 pit's one in each block namely North and South Block as proposed in the approved Mining Plan.
3b	Quantity of ROM mineral production proposed	4,10,000 MT	2,77,000 MT	Production reported as per AR2021-22. Violation issued for not achieving the proposed production.
3c	Recovery of sailable/usable mineral from ROM production	95%	95%	As per the approved Mining Plan recovery is 95%

3d	Quantity of mineral reject generation	No proposals	No mineral reject generated.	No quantity of Mineral reject is reported during the year in Annual Returns.
3e	Grade of mineral rejects generation and threshold value declared.	Generation of mineral reject not involved.	Generation of mineral reject not involved.	No quantity of Mineral reject is reported during the year in Annual Returns.
3f	Quantity of sub grade mineral generation.	NIL	NIL	No sub grade mineral is generated.
3g	Grade of sub grade mineral generation	NIL	NIL	No sub grade mineral was generated.
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized method by engaging Dry crushing & screening unit of 350 Tph capacity.	Mechanized method by engaging Dry crushing & screening unit of 350 Tph capacity.	The segregating of ROM Ore is by mechanized method by engaging Dry crushing & screening unit of 350 Tph capacity.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposals	None	NIL
3j	Provision of drilling and blasting in mineral benches	Drilling and blasting being practiced in hard ore bands, soft ore shall be excavated directly.	Drilling and blasting being practiced in hard ore bands, soft ore shall be excavated directly.	The formations are mostly hard in nature & drilling blasting is done in hard stratum except for soft Ore body. Most of the material handling requires drilling & Blasting. Wagon drill deployed for drilling of blast holes and slurry explosives used as proposed.

3k	Provision of mining machineries in mineral benches	Air Compressor - 1 Backhoe - 4 Dumper - 10 Wheel loader - 2 Crusher - 1 Water tanker - 2 Rock drill (Non - Elec.) - 1	Air Compressor - 1 Backhoe - 4 Dumper - 10 Wheel loader - 2 Crusher - 1 Water tanker - 2 Rock drill (Non - Elec.) - 1	Machineries as proposed numbers are engaged in the mineral benches for achieving the proposed quantity of production and development.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Mine is proposed to operate by mechanized opencast mining with 8 m bench height	Mine is being operated by mechanized opencast mining with 8 m bench height	By and large the bench height and width are maintained as per the proposal.
3m	Total area covered under excavation/pits	15.11 Ha	15.11 Ha	Appears to be correct and as given in AR-2021-22 and on verification of drone data.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.53	1:0.25	Violation issued for deviation in stripping ratio.
3o	Total area put in use under different heads at the end of year	Area under mining 15.11 Waste dumping- 11.456 Backfilling- 4.64 Mineral storage- 1.30 Infrastructure - 0.20 Roads -1.0 Green belt & Afforestation -8.054  Mineral Separation - 0.35 Undisturbed Area - 9.71 Others (R&R works) - 1.0 TOTAL - 52.82	Area under mining 15.11 Waste dumping- 11.456 Backfilling- 4.64 Mineral storage- 1.30 Infrastructure - 0.20 Roads -1.0 Green belt & Afforestation -8.054 Mineral Separation - 0.35 Undisturbed Area - 9.71 Others (R&R works)- 1.0 TOTAL - 52.82	Lease area utilization as at the end of Plan Period. As per the AR for 2021-2022.

3p	Production of ROM mineral during the last five year period as applicable	2017-18 (4,10,000 Tonnes) 2018-19 (4,10,000 Tonnes) 2019-20 (4,10,000 Tonnes) 2020-21 (4,10,000 Tonnes) 2021-22 (4,10,000 Tonnes)	2017-18(1,66,000 Tonnes) 2018-19 (98,000 Tonnes) 2019-20 (41,500 Tonnes) 2020-21(3,85,220 Tonnes) 2021-22 (2,77,000 Tonnes)	Production Proposals & achieved figures are as per the online submitted Annual Returns of the respective years.
3q	General remarks of inspecting officers on method of mining etc.			The Mine is a fully mechanized mine and machinerries as proposed are engaged for development, Production and segregation of ore. The mine is by and large systematically developed.

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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No topsoil generation involved. OB for the 2021-22 is 2,16,641 MT No mineral reject.	No topsoil generation involved. OB for the 2021-22 is 70,158 MT No mineral reject.	Dumping of waste/OB is carried out at the proposed location by forming terraces and backfilling into mined out area. Topsoil generated in the past has been utilized in for plantation in the Mine. No Mineral reject or top soil during during 2021-2022.
4b	Location of topsoil, OB and mineral reject dumps	OBof Shale at NW Part and BHJ is at NE corner.	OB of Shale at NW Part and BHJ is at NE corner.	All waste dumps are located within the ML.



4c	Number of dumps within lease area and outside of lease area	Dump WML:5(2 active & 2 stabilized) Backfilled : 1 OML:- Nil	WML:5 (2 active & 2 stabilized) Backfilled : 1 OML:- Nil	All the waste dumps are located within ML and no dumps outside the ML.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	NE&SE portion of the lease area	NE&SE portion of the lease area	All the dumps are out side the UPL and backfilled into mined out pit.
4e	Number of active and alive dumps.	3 No	3 No	--
4f	Number of dead dumps.	2 No	2 No	Out of 2 Dead dumps one is fully stabilized and other partially stabilized by way of plantation and geo textiling with toe wall and garland drains.
4g	Number of dumps established.	2 No (One dump is stabilized & afforested, Second one is Partially stabilized)	2 No (One dump is stabilized & afforested, Second one is Partially stabilized)	Out of 2 Dead dumps one is fully stabilized and other partially stabilized by way of plantation and geo textiling with toe wall and garland drains.
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Yes	Yes
4i	Length of Retaining wall or garland drain all along dumps	No proposals during 2021-22	Nil	3 retaining walls measuring to a total length of 2170mts and 3 garland drains measuring a total length of 720 mtrs are constructed in the past.
4j	Number of settling ponds	No proposal of Settling ponds during 2021-22	NIL	--

4k	Specific comments of inspecting officer on waste dump management	There are 3 active dumps and 2 dead dumps outside the UPL. Stabilization of inactive dumps are being done as proposed along with protective measures by constructing toe/retaining walls, plantation etc.
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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.	Backfilling of shaly waste in BF1 area at NW part on X-X' section.	Waste generated during mining was Backfilled at proposed sectional area of X-X' section.	Backfilling is in progress in the proposed part of the already mined out pit. Over 4.64 Ha of the mined out pit is backfilled.
5b	Area under backfilling of mined out area	0.37 Ha	0.37 Ha	During 2021-22, 0.37 Ha has been backfilled by Dumping as reported.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No Proposal	No top soil generation involved during 2021-22	Topsoil generated is utilized in safety zone and dump for afforestation.
5d	Total area fully reclaimed and rehabilitated	*0.37 Ha *Backfilling will be over existing backfilled area of 4.64 ha only.	*0.37 Ha *Backfilling is done over existing backfilled area of 4.64 ha only	4.64 Ha is back filled as per AR-2021-22.

5e	General remarks of inspecting officers on backfilling and reclamation etc.	Backfilling of the mined out pit is in progress as proposed. Over 4.64 Ha of the mined out pit is backfilled till date. Reclamation is done by plantation over the fully backfilled portion.
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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).	Yes	Yes	Submitted on 22/06/2022
6b	Area available for rehabilitation (ha) .	--	--	
6c	afforestation done (ha).	0.184 Ha	0.184 Ha	Plantation as proposed is done. Violation issued.
6d	No. of saplings planted during the year	460 Nos.	460 Nos.	--
6e	Cumulative no .of plants	82,460 Nos.	1,17,560 Nos.	As reported by the lessee
6f	Any other method of rehabilitation	--	--	--
6g	Cost incurred on watch and care during the year	Rs. 2,36,000/-	Rs. 2,36,000/-	Amount spent on watch and ward is as reported by the lessee.

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	(i)Complied (ii) 0.37 Ha	(i)Complied (ii) 0.37 Ha	There is an existing backfilled area of 4.64 Ha and during the year 2021-22 backfilling is done over this area itself over an extent of 0.37 Ha as proposed thereby increasing the height of backfilling.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Total 4.64 Ha	Total 4.64 Ha	Backfilling done. Afforestation is yet to be done.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Yes, Afforestation to be Done 460 no's of saplings are proposed to plant.	YesAfforestation is to be done. 460 no's of saplings were planted.	
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.	By Terracing with plantation	By Terracing with plantation	nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No Proposal	NIL	NIL
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	NIL	NIL	NIL

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	By plantation	Plantation done	NIL
6p	Compliance of environmental monitoring (core zone and buffer zone)	Ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone.	Ambient air quality monitoring stations were established in the core zone as well as in the buffer zone and monitoring regularly by Sai Universal Mining Services(SUMS)-NABL accredited laboratory Hosapete	Environmental Monitoring in Core zone & Buffer zone being done as per MOEF Guidelines. 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.			The proposed the afforestation is done. All the PMCP activities are mostly carried out in accordance with the Approved Mining Plan.

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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting within the lease area	Dry crushing & screening for size separation is being practiced at mine site by using the Metsocrushing &Screening Plant of 350 TPH.	The Grade /size wise sorting of ROM is done by crushing and screening within the lease area dispatched after segregating
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical method proposed for grade-wise mineral sorting.	Grade wise sorting achieved through Mechanical method(mobile Crushers and Screening plants)	The segregating of ROM Ore is by mechanized method by engaging Dry crushing & screening unit of 350 Tph capacity.
7c	Different grade of mineral sorted out at mines.	No proposal	>35% to <55%	Grade wise sorting done as per buyers requirement.
7d	Any beneficiation process at mines	No proposal	None	No beneficiation process carried out except dry crushing & screening

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Mineral conservation aspect is taken care of. No beneficiation is carried out. The ore is segregated grade wise and size wise into lumps and fines at mine site by engaging mobile crusher & screening units.
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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Top Soil generation not involved during the year 2021-22	Not Applicable	Working with in the Broken up area.
8b	Concurrent use or storage of topsoil	NIL	NIL	Working with in the Broken up area.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Dumping being carried out as proposed in the approved Modification and Review of Mining Plan.	Dumping being carried out as proposed in the approved Modification and Review of Mining Plan.	Waste (OB) and BHJ generated in the past is dumped and stored separately in the locations as proposed.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	The waste generated is proposed to be backfilled within the exhausted area	Backfilling is being carried out within the Mineral exhausted area	There is an existing backfilled area of 4.64 Ha and during the year 2021-22 backfilling is done over this area itself over an extent of 0.37 Ha as proposed thereby increasing the height of backfilling.

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Exhausted pit is being restored by way of backfilling and Afforestation works carried out on inactive terraces of backfilling dump.	Exhausted pit is being restored by way of backfilling and Afforestation works carried out on inactive terraces of backfilling dump.	Protective & safety measures are being carried out for management of dumps. One portion of the Exhausted pit is being restored by way of backfilling and Afforestation works carried out on inactive terraces of backfilling dump.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Measures for Planting in the mineral exhausted area	Plantation work had been carried out in the Back filled dump area as per the Modification and Review of Mining Plan	During the year 2021-22 Plantation done over 0.184 Ha with 460 saplings. About 1,17,560 Nos sapling were planted so far cumulatively as reported.
8g	Survival rate	80%	80% Survival	As per AR-2021-22
8h	Water sprinkling on roads to control airborne dust	Regular water sprinkling on the haulage roads, Core zone, Plant area as well as on approach road to suppress airborne dust on roads and dumps.	Regular water sprinkling inside the lease area as well as on approach road to suppress air borne dust on roads and dumps.	2No's of 8 & 12 K.L. capacity of water tanker deployed in mine.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty in and around the mine is good and all efforts are taken in its maintenance.

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Compliance of Rule 45:

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Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	Monthly Returns: Submitted up to July -2022 Annual Returns: submitted up to 2021-22	Annual Returns: submitted on 29/06/2022. Monthly Returns: Submitted up to July -2022.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mines Manager - VuppuLowa Raju Mining Engineer -Manohar Mallikarjuna Geologist	Verified and found all the Statutory persons were present on the day of inspection.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Backfilled area - 4.64Ha Covered under current workings - 15.11Ha Reclaimed/Rehabilitated - 4.64Ha Used for waste disposal - 11.456Ha Occupied by plant, buildings, residential & roads - 1.55Ha Other purpose (Afforestation, safety zone, stockyard) - 10.17Ha Work done under progressive mine closure plan during the year - 0.184Ha	As per AR for2021-22. Appears to be in order.
9d	Scrutiny of Annual return on afforestation	460Saplings were planted on dumps@80% survival rate.	As per AR for2021-22. Appears to be in order.



9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	There is no proposal to generate mineral reject.	NIL	NIL
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Production Opening Balance: 1,64,878 MT Production: 2,77,000MT Processing: 3,12,878 MT ClosingBalance :1,29,000 MT Grade Wise Stock: Below 55% : 4,07,336.66 MT	As per AR for2021-22. Appears to be in order.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Salevalue:Rs.6 ,44,46816.74 Ex.Mineprice:7 43.59Rs/MT Cost of production: 498.53Rs/MT	As per AR for2021-22. Sale value and EX Mine Price appears to be in order.	
9h	Scrutiny of Annual return on fixed assets	Fixed assets: Rs. 1585408	As per AR for2021-22. Value of appears to be in order.	
9k	Scrutiny of Annual return on mining machineries	Air Compressor - 1 Backhoe - 4 Dumper - 10 Wheel loader - 2 Crusher - 1 Water tanker - 2 Rock drill (Non - Elec.) - 1	As per AR for2021-22. Appears to be in order.	

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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)	21/09/2022			
MCDR17	Rule 45(7)(a)	21/09/2022			

**Date :**

(H M Shivakumar)

Indian Bureau of Mines