INDIAN BUREAU OF MINES MINERALS DEVELOPMENT 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 : A101) ARUN KUMAR

Officer and ID No.

(ii) Designation : Deputy Controller Mines

(iii) Accompaning mine : Shri.. Bharathidasan-Mine Manager, Shri. Mohammed Rafi

Official with

Designation

(iv) Date of Inspection : 23/07/2019
(v) Prev.inspection date : 20/06/2018

PART-I : GENERAL INFORMATION

.. (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@nate=mail : admin@nadeemminerals.com
Phone : 080-41105475 (0)7406944424

(f) Police Station : SANDUR

(g) First opening date : 19/07/2006

(h) Weekly day of rest : SUN

2. Address for : NADEEM MINERALS, ALFA MANOR, No. 227,

correspondance 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:

Owner : FAISAL SHAREEF,

BANGLORE URBAN KARNATAKA

Phone: 9980944424, 08

FAX :

Manager

Name : BHARATHI DASAN

Qualification : DIPLOMA IN MINING , MINES MANAGER FCC

Appointment/ : 06/12/2012

Termination date

6. Date of approval of Mining

Plan/Scheme of Mining

: Modif.of approved Mining Plan 18/10/2005 Modif.of approved Mining Plan 24/04/2007 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

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
la	Backlog of previous year	NIL	No Backlog	72 RC Drill holes were drilled amounting to 3287 Meters in the previous years. 11RC Boreholes Proposed in the FY 2019-20 with total meterage of 720 meters.
1b	Exploration over lease area for geological axis 1 or 2		G-1: 3.408 Ha,G-3-0.160 ha .Ultimate total mining area 26 Hectors has already been explored in G1 Category as per the UNFC Norms with 30 to 100 meters grid intervals.	Total mineralized area-3.568 Ha, Non mineralized area-49.252 Ha.No activity is to be carried out in unbroken forest area as per the Ho'ble SC Order.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	Nil	APC Drilling and Constructions PVT Limited were previously deployed for carringout the explorations, approximately 93.6 lakhs were spend on drilling.
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not specified	0.16 Hato be explored	Exploration proposed in FY19-20 to know the vertical extent and to bring G-3 to G-1 level.
1e	Balance reserve as on 01/04/20	-	2137000 MT	As per IBM Annual Return
1f	General remarks of inspecting officers on geology, exploration etc			72 RC Drill holes were drilled amounting to 3287 Meters in the previous years. However 11RC Boreholes proposed in the FY 2019-20, amounting to 720 meters

Development :

Sl.No. Item Propasals Actual work Remarks

2a	Location of development w.r.t.lease area	-		N 1668240 - 1668438, E 671279 - 672344 and N 16677846 TO 1668126, E 672359 TO 672539.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches proposed in OB and Ore.	Separate benches maintained in OB and Ore.	Ore - 2 Benches, OB - 4 Benches
2c	Stripping ratio or ore to OB ratio	1:0.97	1:4.06	Stripping ratio increased due to bulging and irregular intersections of shale and BHJ into the ore bands.
2d	Quantity of topsoil generation in m3	No Proposals	Not Applicable	No top soil generated.
2e	Quantity of overburden generation in m3	190065 m3. 400134 MT	189333 m3 399634 MT	Bulk density considered; Ore - 3 t/m3, BHQ/BHJ -2.2 t/m3 and OB- 2 t/m3
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Development was done as per the proposal within the specified grids. Higher stripping ratio due to low quantity of extracted material & irregular intersections of shale and BHJ into the ore bands

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	= ·	Section 8-8' to 10-10' & Section 13-13' to 15-15'	_

3b	Quantity of ROM mineral production proposed	4,10,000 Tonnes	98,000 Tonnes	Not achieved due to multiple and irregular intersection of BHJ and Shales in to the ore bands
3с	Recovery of sailable/usable mineral from ROM production	95%	95%	5% is treated as waste.
3d	Quantity of mineral reject generation	No proposals	No mineral reject generated during the FY 2018-19	398575 MT of 16% Fe is shown in section 4 of Part V in AR 2018- 19.Violation pointed out
3e	Grade of mineral rejects generation and threshold value declared.	No proposal	Nil	-
3f	Quantity of sub grade mineral generation.	No Proposal	Not Applicable	-
3g	Grade of sub grade mineral generation	No proposal	Not Applicable	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized method proposed for segregating Fines and Lumps from ROM.	Mechanized method adapted for segregating Fines and Lumps from ROM	Dry Crushing and Screening Unit of 100TPH deployed.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	No such beneficiation study carried out.	_
3j	Provision of drilling and blasting in mineral benches	Proposed Drilling and blasting in hard ore bands.	Drilling and blasting is carried out in hard ore bands and BHQ/BHJ.	Slurry explosives in conjunction with detonators and detonating fuse
3k	Provision of mining machineries in mineral benches	Provision made to deploy mining machineries in mineral benches.	Mining machineries deployed in the mine to win the ore.	2 Nos - Excavators,4 Nos Dumpers,1 Nos Wheel Loaders,1 NoWagon Drill,1 No Compressor,2 NosWater Tankers (on the date of inspection)

31	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	8 Mts bench height proposed in overburden and mineral benches	It was observed that haphazard mining was carried out in Pit 2 towards the southern part of the lease area.	Systematic working was not carried out in accordance with the approved modified RMP in Pit 2 towards the southern part of the lease area. Violation pointed out.
3m	Total area covered under excavation/pits	11.76 На	14.69 Ha as per AR 2018- 19 received	The area under mining is overlapped with backfilling area. Violation pointed out for necessary correction.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.97	1:4.06	Stripping ratio increased due to lower production & irregular intersections of shale and BHJ into the ore bands.
30	Total area put in use under different heads at the end of year	ha, Waste Dumping 12.43 ha, backfilling - 8.35 ha, mineral	Area under Mining - 14.69 ha, Waste Dumping 7.86 ha, backfilling -5 ha, plant building and road - 1.97 ha, Greenbelt stockyard and afforestation -8.37 ha, under progressive mine closure plan 2 ha	The area under mining is overlapped with backfilling area. Violation pointed out for necessary correction.
3p	Production of ROM mineral during the last five year period as applicable	2014-15 - 4,10,000 MT 2015-16 -	2014-15 -4,10,000 MT 2015-16 -2,92,015 MT 2016-17 -93,920 MT 2017-18 -1,66,000MT 2018-19 - 98,000 MT	Actual production within the proposed limits

3q General remarks of inspecting officers on method of mining

Mining was carried out in 2pits as per the proposal, but Systematic working was not carried out in Pit 2 towards the southern part of the lease area. Violation pointed out.

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 BHQ/BHJ and backfilling proposed	Separate dumping of BHQ/BHJ and backfilling in the earmarked location as per modified RMP	No, mineral reject and topsoil generated
4b	Location of topsoil, OB and mineral reject dumps	BHJ Dump- N 1668809 to 1668956 E 671860 to 672003 Backfilling: N1668548 to 1668855, E 671974 to 672107	OB/SB: Backfilling Over sectional area of 4-4' to 5-5' & BHQ/BHJ Dump over the sectional area of 13-13' to 14-14'	Backfilling in between section 4-4 to 5-5 and BHQ/BHJ accommodated over the upper terraces of backfilling dump within the sectional area of 3-3.
4c	Number of dumps within lease area and outside of lease area	nos.	Within Lease 5 nos. Outside Mining lease - NIL	No dump outside the lease area
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dumps proposed outside the UPL and backfilling inside the UPL.	50 mts away from UPL.	-
4e	Number of active and alive dumps.		Two dumps are active and alive	Backfilled area is considered as active dump
4f	Number of dead dumps.	3 Nos.	3 Nos.	-
4 g	Number of dumps established.	3 Nos.	3 Nos.	Stabilized by plantation and coir matting.

4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal	Retaining wall and garland drain all along dumps constructed.	Retaining wall and garland Drains constructed all along the dumps in the previous years.
4i	Length of Retaining wall or garland drain all along dumps	No proposals	Not Applicable	R&R works completed as per ICFRE plan and no proposals given during 2018-19
4j	Number of settling ponds	No proposals	Not Applicable	Two settling proposed as per R&R plan was not constructed due to non-availability of forest permission and the same was informed to the R&R Cell.
4k	Specific comments of inspecting officer on waste dump management			Separate dumping for BHQ/BHJ & backfilling proposed. Waste dump was carried out as per the plan envisaged.

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 of the exhausted mining pit proposed for part backfilling	Part backfilling is carried out as the approved modified RMP	Backfilling is carried out at section 4-4' and 5-5' as per proposal
5b	Area under backfilling of mined out area	1.05 На	1.05 на	Cumulative of 5 ha has been backfilled.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	Not applicable.	No top soil generated.
5d	Total area fully reclaimed and rehabilitated	3.95 на	3.95 на	5 terraces in backfilled area and plantation done.

5e General remarks of inspecting officers on backfilling and reclamation etc.

Part backfilling done in sectional 4-4 to 5-5 covering 5 hectors with 5 terraces and plantation done

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
ба	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	To be submitted before 1st july every year.	Annual report on PMCP submitted on 29/6/2019	-
6b	Area available for rehabilitation (ha) .	1.05 на	1.05 На	1.05 hector covered under backfilling in the FY 2018-19
6с	afforestation done (ha).	1.00 На	1.00 На	Plantation done on the backfilled area
6d	No. of saplings planted during the year	2,500 Nos. of saplings proposed	6,200 Nos.of saplings planted	-
6e	Cumulative no .of plants	77,000 Nos. saplings	1,08,700 Nos saplings	-
6f	Any other method of rehabilitation	No proposal	NIL	-
6g	Cost incurred on watch and care during the year	Rs. 5,00,000/-	Rs. 11,09,022/-	-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	1.05 ha	1.05 ha.	No change
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Part backfilling proposed.	Part backfilling done	Part backfilling is done on exhausted in mining pit which is devoid of ore

6ј				
0)	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	Proposed 2500 saplings	6200 number of saplings planted on backfilled area.	_
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No Proposal	NIL	-
61	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	By Terracing with plantation	-
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	_
60	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	Nil	_
бр	Compliance of environmental monitoring (core zone and buffer zone)	ambient air	Season wise environmental monitoring of ambient air quality, water quality, dust fall rate, soil sample analysis and noise level are being carried out regularly	All parameters within limits
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			PMCP activities were carried out as per the proposal.Backfilling is in progress in pit 1.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting proposed within the lease area	Grade wise sorting done within the lease area	-
7b	Method of grade- wise mineral sorting i.e. manual or mechanical.	Mechanized method proposed	Mechanized Mineral sorting adopted.	Dry crushing and Screening Plant.
7c	Different grade of mineral sorted out at mines.	Fines -10MM Lumps + 10MM to - 40MM and Iron Ore Lumps + 40 MM.	Fines -10MM Lumps + 10MM to - 40MM.	<pre>+ 40mm and above material is stocked separately and marketed as per the requirnament</pre>
7d	Any beneficiation process at mines .	No proposal	No such beneficiation study carried out.	Advised to carry out the mineralogical test to be done at IBM laboratory
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Grade wise sorting done within the lease area with mechanized mans adapting dry crushing and screening unit

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)	proposed for	Separate dumps stocked for BHQ/BHJ and backfilling of OB	-
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use		Part backfilling of the mined out area is backfilled with the OB Removed	-

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Proposed	Part backfilling of the mined out area is backfilled with OB removed.	5 terraces in backfilling area and plantation done all along the terraces
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Existing: 77,000 Saplings. During 2018- 19: 2,500 Saplings proposed	Existing: 1,08,700 saplings During 2018-19: 6,200 Saplings were planted	-
8g	Survival rate	70%	70% survival rate	-
8h	Water sprinkling on roads to control airborne dust		Regular water sprinkling inside the lease area as well as on approach road to suppress air borne dust on roads and dumps.	Installed Sprinklers on Coir Matting and in plantation area.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			The aesthetic beauty in and around the mine is good as lessee has carried out plantation and environmental protective measures have been taken as per the modified RMP

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly return; submitted up to june 2019. Annual Returns: submitted for the year 2018-19.	AR Submitted on 28/06/2019	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager		Mining Engineer and Mine Manager were present during the inspection	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	ha, Waste Dumping 7.86 ha,	backfilling area. Violation pointed out for necessary
9d	Scrutiny of Annual return on afforestation	Within Mining Lease - 6200 planted with 70% survival rate.	Appears to be correct
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	398575 MT	No mineral rejected generated during year, but shown in Sec(4) of Part V. Violation pointed out.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	•	Appears to be correct.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Rs. 1126 PMT,	Appears to be correct.
9h	Scrutiny of Annual return on fixed assets	Rs. 13327655 including plant machinery and transport equipment.	Appears to be correct

9k Scrutiny of Back hoe - 5 Appears to be correct.

Annual return on number,

mining machineries

Dumpers -12 numbers, Wheel

Loaders - 4 numbers, Rock Drill non electric - 1 number and Crusher - 1

number.

Details of violations observed during current inspection and compliance position of violation pointed out

Violation	n observed	Show couse position	
Rule NO.	Issued on Compliance on	Rule NO. Issued on Compliance on	
MCDR17 Rule 11(1)	30/07/2019 22/10/2019		
Rule 45(7)	30/07/2019 22/10/2019		
MCDR17 Rule 31(4)	30/07/2019 22/10/2019		

Date : (ARUN KUMAR)

Indian Bureau of Mines