

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

MCDR inspection REPORT

Hyderabad regional office

Mine file No : AP/VZNR/MN-105/HYD

Mine code : 40APR20050

- (i) Name of the Inspecting : **M029**) **MADHU SUDHAN YADAV M**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Sri.Mohammed Nimar, Mine Manager & Sri. Sridhar, Geol
Official with
Designation
- (iv) Date of Inspection : 08/03/2021
- (v) Prev.inspection date : 20/03/2020

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **GARBHAM**
- (b) **Registration NO.** :
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : ANDHRA PRADESH
District : VIZIANAGARAM
Village : GARBHAM
Taluka : MEREKAMUDIDAM
Post office : GARBHAM
Pin Code :
FAX No. :
E-mail :
Phone :
- (f) Police Station :
- (g) First opening date : 20/09/1995
- (h) Weekly day of rest : SUN
2. Address for :
correspondance
3. (a) Lease Number : APR0247
- (b) Lease area : 264.54
- (c) Period of lease : 20
- (d) Date of Expiry : 10/07/2022
4. Mineral worked : MANGANESE ORE Main

5. Name and Address of the

Lessee : RASHTRIYA ISPAT NIGAM LTD.
VISAKHAPATNAM STEEL PLANT
VISAKHAPATNAM
VISAKHAPATNAM ANDHRA
PRADESH
Phone:0891-
FAX :0891-

6. Date of approval of Mining	:	Renewal under rule 22 MCR1960	21/10/2003
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	15/07/2008
		Mining Scheme rule 12 MCDR1988	02/12/2013
		Mining Scheme rule 12 MCDR1988	02/12/2013
		MP review under 17(1) MCR 2016	02/02/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	
1b	Exploration over lease area for geological axis 1 or 2	2019-20 - Nil	2019-20 - Nil	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	----	----	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Potentially mineralised area is drilled. Remaining area exploration is proposed in the plan period for the year 2020-21 and 2021-22.	Balance area is proposed to drill in the remaining plan period.	
1e	Balance reserve as on 01/04/20	---	Proved Reserves as on 01/03/2021 - 2.011 million tonnes	
1f	General remarks of inspecting officers on geology, exploration etc			28 core boreholes drilled covering the potentially mineralised area.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	No proposal	Nil	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No proposal	Nil	
2c	Stripping ratio or ore to OB ratio	No proposal	Nil	

2d	Quantity of topsoil generation in m3	No proposal	Nil	
2e	Quantity of overburden generation in m3	No proposal	Nil	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			No development is proposed in the plan period. Dump mining is proposed and being carried out.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Nil	Nil	
3b	Quantity of ROM mineral production proposed	2019-20 - 60000 Te 2020-21 - 60000 Te	2019-20 - 3775 Te 2020-21 - 904 Te (till Jul'20)	Notice submitted for temporary discontinuance of work from 11/07/2020 due to expiry of Environment Clearance.
3c	Recovery of sailable/usable mineral from ROM production	90%	90%	
3d	Quantity of mineral reject generation	No proposal	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	Not applicable	Nil	
3f	Quantity of sub grade mineral generation.	No proposal	Nil	
3g	Grade of sub grade mineral generation	Not applicable	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Manual and mechanised Screening	Manual and mechanised Screening	

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	Nil
3j	Provision of drilling and blasting in mineral benches	No proposal	Nil
3k	Provision of mining machineries in mineral benches	Machineries proposed in mineral benches	Shovel - 1 No. Dumper - 1No. Dozer - 1 No. Loader - 1 No.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	4 meters	Digging height of the excavator is compatible for proposed bench height fo 4m.
3m	Total area covered under excavation/pits	Area for excavation: 11.84 Ha, Storage of top soil : 5.0 Ha, Overburden dump: 10.00 Ha, Mineral storage: 5.0 Ha, Infrsaturcture : 1.0 Ha, Road: 2.0 Ha, Green belt: 6.33 Ha, Others: 3.0 Ha. Total: 46.22 Ha	Area for excavation: 11.84 Ha, Storage of top soil : 7.0 Ha, Overburden dump: 10.00 Ha, Mineral storage: 5.0 Ha, Infrsaturcture: 1.0 Ha, Road: 2.0 Ha, Green belt: 6.33 Ha, Others: 5.0 Ha. Total: 46.22 Ha
3n	Ore to OB ratio for the pit/mine during the year.	No proposal	Nil
3o	Total area put in use under different heads at the end of year	46.22 Ha	46.22 Ha

3p	Production of ROM mineral during the last five year period as applicable	2014-15 - 15,000 Te 2015-16 - 15,000Te 2016-17- 15,000Te 2018-19 - 60,000Te 2019-20 - 60,000Te 2020-21 - 60000 Te	2014-15 - 16,223 Te 2015-16 - 12,245Te 2016-17- 3,365Te 2018-19 - 4,564Te 2019-20 - 3,774Te
3q	General remarks of inspecting officers on method of mining etc.	Production is carried out from the existing ore stockpile as per the proposal.	No production carried out from 11/07/2020. Notice (Form-E) submitted for temporary discontinuance of work from 11/07/2020 due to expiry of Environment Clearance.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No proposal	Nil	
4b	Location of topsoil, OB and mineral reject dumps	No proposal	Nil	
4c	Number of dumps within lease area and outside of lease area	No proposal	Nil	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside UPL	Outside UPL	
4e	Number of active and alive dumps.	One ore stock pile dump rehandling activity is being practised for recovery of ore.	One ore stock pile rehandling activity is being practised for recovery of ore.	
4f	Number of dead dumps.	Nil	Nil	
4g	Number of dumps established.	One	One	

4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal	Nil	
4i	Length of Retaining wall or garland drain all along dumps	No proposal	Nil	
4j	Number of settling ponds	No proposal	Nil	
4k	Specific comments of inspecting officer on waste dump management			Ore is being recoverd from the existing old ore stock pile. No mineral reject/subgrade/waste is generated.

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	
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	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			No area in the lease available for backfilling as no full extraction of ore was done so far.

Sl.No.	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	To be submitted	Submitted in time	
6b	Area available for rehabilitation (ha) .	Nil	Nil	
6c	afforestation done (ha).	1.0 Ha	1.0 Ha	
6d	No. of saplings planted during the year	2019-20 - 100 Nos.	2019-20 - 100 Nos.	
6e	Cumulative no .of plants	----	5500 Nos.	
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 (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	
6p	Compliance of environmental monitoring (core zone and buffer zone)	It was proposed to carry out Environmental monitoring in Core & Buffer Zone every quarter	Quarterly environmental monitoring carried out during 2019-20 and all the parameters are within the permissible limit.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			No area of pit has reached its ultimate pit limit to start Reclamation and Rehabilitation and backfilling activities.

Mineral Conservation:

Sl.No.	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting within lease area	Grade wise sorting carried out within lease area	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual and mechanised	Manual sorting and mechanised sorting is carried out by screening.	

7c	Different grade of mineral sorted out at mines.	25-35 %	25.35 %	
7d	Any beneficiation process at mines	No proposal	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Minerals are sorted manually and by mechanical screening in the form of lumps and fines. Lump size : -60mm to +10mm. Fines size : -10mm to +3mm.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	Nil	
8b	Concurrent use or storage of topsoil	No proposal	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No proposal	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)	100 Nos.	100 Nos.	
8g	Survival rate	---	90%	
8h	Water sprinkling on roads to control airborne dust	Water Tankers to be provided for dust suppression.	Water tanker is provided for dust suppression.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Greenbelt development is well developed within the lease area.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	To be submitted in time.	Submitted in time	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager - Sri. Md. Nimar Mining Engineer - Sri. G.V.Subba Rao Geologist - Sri. Sridhar	Manager & Mining Engineer - Sri. Md. Nimar Geologist - Sri. Sridhar	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Open pit - 7.00 Ha Dumps - 5.0 Ha Infrastructure - 3.05 Ha	Broadly as per submission.	
9d	Scrutiny of Annual return on afforestation	100 Nos.	Broadly as submission and same quantity is verified in afforestation register maintained.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Nil	

9f	Scrutiny of Annual return on ROM stock and/or graded ore	Opening stock - 22384 Te Closing stock - 18609 Te	As per submission
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost per tonne is not reported in the annual return	Violation issued as per rule.
9h	Scrutiny of Annual return on fixed assets	Fixed assets is reported as Nil	Violation issued as per rule.
9k	Scrutiny of Annual return on mining machineries	Back hoe -1 no. Dozer - 1 No. Tipper - 1 No.	Machinery available in mining lease area.

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
Rule 45(7)	25/03/2021				

Date :

(MADHU SUDHAN YADAV M)

Indian Bureau of Mines