

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

MCDR inspection REPORT

Nagpur regional office

Mine file No : MP/BGT/MN-6/NGP

Mine code : 40MPR01002

- (i) Name of the Inspecting : **KQ14**) **NARESH KUMAR KATARIYA**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Sh V. R. Parida (Agent), Sh. U.S. Bhati (Mine Manager)
Official with
Designation
- (iv) Date of Inspection : 10-FEB-21
- (v) Prev. inspection date : 05-MAR-20

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **BALAGHAT**
- (b) **Registration NO.** : **IBM/5711/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Underground
- (e) Postal address :
State : MADHYA PRADESH
District : BALAGHAT
Village : BHARWELI
Taluka : BALAGHAT
Post office : BHARWELI
Pin Code :
FAX No. :
E-mail : www.moil.nic.in/mm.bg@mail
Phone : 07122890050 0712245185
- (f) Police Station :
- (g) First opening date : 30-JUN-03
- (h) Weekly day of rest : SAT
2. Address for :
correspondance :
3. (a) Lease Number : MPR0579
- (b) Lease area : .79
- (c) Period of lease : 20
- (d) Date of Expiry : 30-JUN-22

MPR0574
182.3
20
30-JUN-22

4. Mineral worked : MANGANESE ORE Main

5. Name and Address of the

Lessee : M/S MANGANESE ORE (INDIA) LTD.
3, MOUNT ROAD EXTENSION
POST BOX NO. 34, NAGPUR
(MP) NAGPUR MAHARASHTRA
Phone:
FAX :

Owner : SH.G.P.KUNDARGI
M/S MANGANESE ORE INDIA
LTD. MOIL BHAVAN, 1A, KATOL
ROAD, NAGPUR-440013 NAGPUR
MAHARASHTRA
Phone: 0712-2532252
FAX : 0712-252499

Agent : M P PATEL
BALAGHAT MINE PO BALAGHAT
BALAGHAT MADHYA PRADESH
Phone: 245187
FAX : 245184

Mining Engineer

Name : Shri B.S.KARPE,Part Time
Qualification : B.E.(MINING)
Appointment/ : 01-OCT-07
Termination date

Geologist

Name : S. K. SARKAR,Full Time
Qualification : M TECH(APPLIED GEOLOGY)
Appointment/ : 06-SEP-06
Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Renewal under rule 22 MCR1960	15-OCT-03
		Modif.of approved Mining Plan	28-JAN-06
		Renewal under rule 24 MCR1960	28-AUG-06
		Mining Scheme rule 12 MCDR1988	18-JAN-08
		Mining Scheme rule 12 MCDR1988	22-MAY-08
		Modif.approved Mining Scheme	03-MAR-11

Mining Scheme rule 12 MCDR1988

03-OCT-13

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Total 5 Nos. With 3356 Mtrs. (Bore Hole proposed in SOM from year 2017-18 to 2021-22)	10 Nos. Bore hole Completed with 4104.00 Mtrs. (during SOM Period, From 2017-18 to 2019-20)	
1b	Exploration over lease area for geological axis 1 or 2	NIL	NIL	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	MOIL LIMITED, Rs: 10565878/-	MOIL LIMITED, Rs: 19499267/-	
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL	NIL	
1e	Balance reserve as on 01/04/20		Balance Reserve as on 01/04/2020: 111: 11.5 Million tonnes 211: 2.5 Million tonnes 332: 10.5 Million tonnes	
1f	General remarks of inspecting officers on geology, exploration etc			The proposed exploration has been carried out as per provided details.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	Development done for Underground Cut and fill method. Horizontal, Vertical and Shaft development done at different levels. Total Deveolpment proposed 2675 mtr.	Shaft - 615.4 m Horizontal development- 1471.85 m Vertical Development - 201.6 m Total Deveolpment achieved-.2288.85 mtrs	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Mine is worked by Underground Cut and fill method.	Mine is worked by Underground Cut and fill method.	
2c	Stripping ratio or ore to OB ratio	NA	NA	
2d	Quantity of topsoil generation in m3	Not Applicable	Not Applicable	
2e	Quantity of overburden generation in m3	6551 m3	8634 m3	Underground Mine (Waste generated from U/G is used in backfilling of stopes)
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			The mine is run by shaft. Waste rock are mica schist, Quartz shist etc.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Not Applicable, because this is a Under Ground mine	Not Applicable, because this is a Under Ground mine	

3b	Quantity of ROM mineral production proposed	2015-16 0.538Million Tone 2016-17 0.540Million Tone 2017-18 0.426Million Tone 2018-19 0.455Million Tone 2019-20 0.594Million Tone	2015-16 Tone 2016-17 Tone 2017-18 Tone 2018-19 Tone 2019-20 Tone	0.315Million 0.297Million 0.326Million 0.341Million 0.374 Million
3c	Recovery of sailable/usable mineral from ROM production	70%	70%	
3d	Quantity of mineral reject generation	118963 M3	40000 M3	
3e	Grade of mineral rejects generation and threshold value declared.	10% to Below20% Mn	10% to Below20% Mn	
3f	Quantity of sub grade mineral generation.	NIL	NIL	
3g	Grade of sub grade mineral generation	NIL	NIL	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not applicable	Not applicable	

3j	Provision of drilling and blasting in mineral benches	YES	YES	Drilling in the drivage for haulage road, cross cut and ore drive will be done by pneumatically operated jack hammer of 33 mm dia of the length of 1.5 m.
3k	Provision of mining machineries in mineral benches	YES	SDL -65 HP with 0.66 M3, LHD- 4 T in U/G workings	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Not applicable	Not applicable	
3m	Total area covered under excavation/pits	2.633 ha. road, 13.5 ha. mining, 6.435 ha. dumps. 5.64 ha. mineral. & 14.977 infrastructure	2.633 ha. road, 13.5 ha. mining, 6.435 ha. dumps. 5.64 ha. mineral. & 14.977 infrastructure.	
3n	Ore to OB ratio for the pit/mine during the year.	1:90	1:43	
3o	Total area put in use under different heads at the end of year	2.633 ha. road, 13.5 ha. mining, 6.435 ha. dumps. 5.64 ha. mineral. & 14.977 infrastructure	2.633 ha. road, 13.5 ha. mining, 6.435 ha. dumps. 5.64 ha. mineral. & 14.977 infrastructure.	
3p	Production of ROM mineral during the last five year period as applicable	In Million Tone	2015-16 0.315 2016-17 0.297 2017-18 0.326 2018-19 0.341 2019-20 0.374 In Million Tone	

3q General remarks
of inspecting
officers on
method of mining
etc.

Underground Cut &
fill mining method
is practised by
stopping.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	NA	NA	
4b	Location of topsoil, OB and mineral reject dumps	Within Lease area	Within Lease area	
4c	Number of dumps within lease area and outside of lease area	Four dumps	Active Dump = 1 Inactive dumps=3	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not applicable	Not applicable	
4e	Number of active and alive dumps.	Active Dumps 1 within lease area	Active Dumps 1 within lease area	
4f	Number of dead dumps.	Inactive dumps 3 within lease area	Inactive dumps 3 within lease area	
4g	Number of dumps established.	Total 03	Total 03	
4h	Whether Retaining wall or garland drain all along dumps are there.	NIL	NIL	
4i	Length of Retaining wall or garland drain all along dumps	NIL	NIL	
4j	Number of settling ponds	Total - 03	Total - 03	

4k	Specific comments of inspecting officer on waste dump management	Approx 10.95 Ha waste dump has been rehabilitated by plantation
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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.	Extraction by developing stops in UG	Extraction by developing stops in UG	IN U/G Backfilling by Waste (Genrated During Development) and Hydraulic Sand stowing
5b	Area under backfilling of mined out area	170000 Cum Mtrs.	78249 Cum Mtrs.	IN U/G Backfilling by Waste (Genrated During Development) and Sand
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not applicable	Not applicable	
5d	Total area fully reclaimed and rehabilitated	Not applicable	Not applicable	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			It is U/G mine cut & fill stoping practised sand filling is done.

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
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6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Yes	Yes	
6b	Area available for rehabilitation (ha) .	Not applicable	Not applicable	Not applicable
6c	afforestation done (ha).	5 Ha.	0.5 Ha.	
6d	No. of saplings planted during the year	10000	1000	
6e	Cumulative no .of plants	NA	11000	
6f	Any other method of rehabilitation	NA	NA	
6g	Cost incurred on watch and care during the year	Departmental	Departmental	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	3600 M3	3710 M3	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	3600 M3 (20 % WASTE USED)	3710 M3 (20 % WASTE USED)	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	NA	NA	

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NA	NA
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	NA	NA
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	NIL	NIL
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	NIL	NIL
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	Plantation	Plantation
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes	Yes

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Total area covered by plantation within the lease: 143.375 hect. Total No. of Trees planted within mining lease: 400883Nos., No. of trees survived: 354383 Nos., Survival rate (In percent): 88.41%. and Area covered by plantation Outside Mining Lease: 8.00 hect, Total No. of Trees planted outside mining lease: 38200 Nos., No. of trees survived: 33616 Nos., Survival rate (In percent): 88.00%
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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.	1. Below 25% Mn 2. 25% to 35% Mn. 3. 46% and above Mn	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanised	Mechanised	
7c	Different grade of mineral sorted out at mines.		1. Below 25% Mn 2. 25% to 35% Mn. And 46% and above Mn	
7d	Any beneficiation process at mines	Yes	Washing and jigging plant established for beneficiation.	

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Washing and jigging plant established for beneficiation. The ore is sorted in various grades and then sold.
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Environment:

Sl.No.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not applicable	Not applicable	
8b	Concurrent use or storage of topsoil	Not applicable	Not applicable	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes	Yes	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Yes	Yes	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Plantation	Plantation	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Yes	planted 1000 trees in the RY 2019-20	

8g	Survival rate	80%	80%	
8h	Water sprinkling on roads to control airborne dust	Yes	Yes	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Mine is a developed U/G Mine. Plantation was done in the waste land available in surface.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns		Annual return was submitted in From H2 on 07/06/2020 and Monthly returns submitted for the RY 2019-20.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Yes	MINING ENGINEER - SH. N V KHEDEKAR Geologist - Sh. Vinay Rahandale	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Yes	53.207 Hect	
9d	Scrutiny of Annual return on afforestation	Yes	1000 Plants	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Yes	40000 Tonnes 10% to 20% Mn	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Yes	0.594 Million Tonnes	

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Yes	As per Annual Return.
9h	Scrutiny of Annual return on fixed assets	Yes	As per AR
9k	Scrutiny of Annual return on mining machineries	Yes	As per AR

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

Date :

(NARESH KUMAR KATARIYA)

Indian Bureau of Mines