

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

MCDR INSPECTION REPORT

Nagpur regional office

Mine file No : MAH/BHD/MN-33/NGP

Mine code : 40MSH05001

- (i) Name of the Inspecting : **B014**) **CHANDRESH BOHRA**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri Bhati, Mines Manager, Shri Sudhanshu, Geologist
Official with
Designation
- (iv) Date of Inspection : 16-Jul-21
- (v) Prev.inspection date : 18-Dec-20

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **CHIKLA**
- (b) **Registration NO.** : **IBM/5711/2011**
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Underground
- (e) Postal address
- State : MAHARASHTRA
- District : BHANDARA
- Village : SITASAONGI
- Taluka : TUMSAR
- Post office : SITASAUNGI
- Pin Code :
- FAX No. : 07122592073
- E-mail : mm.ch@moil.nic.in
- Phone : 07183 - 220231
- (f) Police Station : Chikla
- (g) First opening date : 01-Jul-62
- (h) Weekly day of rest : FRI
2. Address for : AT - SITASAONGI,
correspondance TAH.: TUMSAR
DISTT.: BHANDARA (MS) - 441 920
3. (a) Lease Number : MSH0062
- (b) Lease area : 150.64
- (c) Period of lease : 60
- (d) Date of Expiry : 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 : DEEPANKAR SHOME
 1-A, MOIL BHAVAN KATOL ROAD
 NAGPUR NAGPUR MAHARASHTRA
 Phone:
 FAX :

Agent : RAJESH BHATTACHARYA
 DONGRI BUZURG MINE BHANDARA
 BHANDARA BHANDARA
 MAHARASHTRA
 Phone:
 FAX :

Mining Engineer

Name : PRASHANT DAKRE, Full Time
 Qualification :
 Appointment/ :
 Termination date

Geologist

Name : SUDHANSHU CHAVAN, Full Time
 Qualification :
 Appointment/ :
 Termination date

Manager

Name : A. K. CHAUKSEY
 Qualification :
 Appointment/ :
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Renewal under rule 22 MCR1960	30-May-03
		Mining Scheme rule 12 MCDR1988	22-Jul-08
		Mining Scheme rule 12 MCDR1988	02-May-13
		MP review under 17(1) MCR 2016	30-Jun-17

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	8 no. of boreholes proposed in the plan approved from 2017-18-2021-22	12 no. of boreholes drilled	
1b	Exploration over lease area for geological axis 1 or 2		G1-99 ha, G2-1 ha and non mineralized area- 50.65 ha	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	MOIL Lts, expenditur no such proposal	MOIL Ltd, 22.92 crore approx	
1e	Balance reserve as on 01/04/20		111-14,88,942 Tons (U/g) & 20,906 Tons (Dump) & 121-4,34,331 Tons (U/g) as on 1.04.2021	
1f	General remarks of inspecting officers on geology, exploration etc			In chikla lease the exposed rock formation belongs to Tirodi, Sitasaongi and Munsar formation. Ore zone belongs to Munsar formation of sauncer series. It is overlain by Munsar Mica schist and underlain by quartzite & quartzite mica schist of Sitasaongi formation. The ore body average thickness is 6 m and strike length is 1.3 km and quality ranges from 10-38% Mn. The deposit of chikla is displayed in fold form . The axial plane of tehse fold strike East - West and dip due sout

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	-470 L, - 370L,-270L & - 270 L	Workd done as per proposed location	Chainage 1680 to 2275 at -370 L as per approved plan and stoping permission granted.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Not applicable as underground mining	Nil	
2c	Stripping ratio or ore to OB ratio	Not applicable	Not applicable	development ratio for the year 2020-21 is 1 :0,009 (1585 Ton waste and 171882 tons ore)
2d	Quantity of topsoil generation in m3	Nil	Nil	
2e	Quantity of overburden generation in m3	2245 Ton in 2020-21	1584.45	Due to covid pandemic mining activity hampered and proposed development could not be achieved
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Development activities like haulage road, winzes, ore drive , cross cut and other are done at proposed location but less than the proposed quantity due to spread of covid pandemic.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Not applicable as underground mining	Not applicable	
3b	Quantity of ROM mineral production proposed	1,80,000 Tons	1,71,882 Tons	
3c	Recovery of sailable/usable mineral from ROM production	80%	100%	Due to market demand mineral of quality between 10-20 % Mn also sold out so 100% recovery achieved.

3d	Quantity of mineral reject generation	35000 Ton	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	11-20% & threshold-10% Mn	Nil	
3f	Quantity of sub grade mineral generation.	Nil	Nil	
3g	Grade of sub grade mineral generation	No such proposal	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No such proposal	Nil	
3j	Provision of drilling and blasting in mineral benches	Jack hammer drilling and conventional explosives	Jack hammer drilling and conventional explosives	
3k	Provision of machineries in mineral benches	Not applicable as underground mining	not applicable but in u/g jack hammer is used for drilling, Locomotives and tubs for material handling from face to haulage shaft	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Not applicable as underground mining	Not applicable	Dump mining also not done in year 2020-21
3m	Total area covered under excavation/pits	4.465 ha	4.465 ha no addition of opencast working is it old worked out pits	
3n	Ore to OB ratio for the pit/mine during the year.	Not applicable as u/g mining	Not applicable	

3o	Total area put in use under different heads at the end of year	O/c working- 4.465 ha, Dumps-3.32 ha, Mineral Storage- 3.7745 ha, Township-2.98 ha, Infrastructure & road- n6.50 ha	O/c working- 4.465 ha, Dumps-3.32 ha, Mineral Storage- 3.7745 ha, Township-2.98 ha, Infrastructure & road- n6.50 ha
3p	Production of ROM mineral during the last five year period as applicable	2016-17-180000 Tons 2017-18- 180000 Tons 2018-19- 180000 Tons 2019-20-180000 Tons 2020-21-180000 tons	2016-17-171951Tons 2017-18- 162745 Tons 2018-19- 175609Tons 2019-20-179524 Tons 2020-21-171882 tons
3q	General remarks of inspecting officers on method of mining etc.	In chikla mine s underground mining is done with cut and fill stoping method. Working was carried out upto -470'Level and as per proposal given in the plan. Worked out stope is backfilled with sand stowing and waste material generated from development .	

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No top soil as underground mining, OB and mineral reject are proposed to stack seperately	OB and mineral reject are stacked seperately	

4b	Location of topsoil, OB and mineral reject dumps	waste generated during development is proposed to use as backfilling material alongwith stowing material, mineral reject at top at location	waste generated is used as backfilling and no mineral reject generated as all the material generated as ROM was saleable
4c	Number of dumps within lease area and outside of lease area	4 waste dumps and 3 mineralised dump inside lease	4 waste dumps and 3 mineralised dump inside lease
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not applicable as underground mining	Not applicable
4e	Number of active and alive dumps.	1 active dump	1 active dump
4f	Number of dead dumps.	3 dumps	3 dumps
4g	Number of dumps established.	2 dumps	2 dumps
4h	Whether Retaining wall or garland drain all along dumps are there.	retaining wall and garland drain available around dump	retaining wall and garland drain available around dump
4i	Length of Retaining wall or garland drain all along dumps	Not proposed	1200 m
4j	Number of settling ponds	no such proposal	Nil
4k	Specific comments of inspecting officer on waste dump management		Waste generated during development activities was used as backfilling material in the stope at the bottom and thereafter backfilling is done with sand stowing.

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.	Not applicable	Nil	
5b	Area under backfilling of mined out area	Not applicable as underground mining	Nil	Method of stoping is cut and fill method wherein goaf created due to extraction of mineral is filled with sand stowing. apart from this some quantity of waste material generated during development is also used for filling purpose.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not applicble as underground mining	Not applicable	
5d	Total area fully reclaimed and rehabilitated	Not applicable as underground mining	Not applicable	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			As working is underground mining backfilling is not applicable however worked out stope is filled with sand stowing material and some quantity of waste generated during development.

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).	Annual PMCP report is to be submitted before 1st of July of every year for preceding financial year.	submitted	

6b	Area available for rehabilitation (ha) .	Nil	Nil
6c	afforestation done (ha).	Nil	1 ha
6d	No. of saplings planted during the year	Nil	2000
6e	Cumulative no .of plants	234455	345656
6f	Any other method of rehabilitation	No such proposal	Nil
6g	Cost incurred on watch and care during the year	No such proposal	approx 50000 Rupees
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No such proposal	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No such proposal	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	No such proposal	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No such proposal	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No such proposal	Nil

6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No such proposal	Nil	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No such proposal	Nil	
6p	Compliance of environmental monitoring (core zone and buffer zone)	no such proposal	quarterly monitoring is done and parametres are well within limit	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			There was no specific proposal of PMCP however lessee has done plantation of 2000 saplings on the dumps

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM mineral sorting and grade wise despatch	ROM mineral sorting and grade wise despatch	A study report available which shows 100% recovery of ROM however this office has already issued letter to lessee to undertake recovery study under an agency who has already undertaken this kind of study.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	
7c	Different grade of mineral sorted out at mines.	-25% Mn, 25-35% Mn, 35-45% Mn and above 45%Mn	-25% Mn, 25-35% Mn, 35-45% Mn and above 45%Mn	

7d	Any beneficiation process at mines .	No beneficiation process at mines only crusher is there for size reduction	No beneficiation process at mines only crusher is there for size reduction
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		Manual sorting of material is done at mine,. In year 2020-21 due to market demand even 10-20 % Mn material sold out.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not applicable as underground mining	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)	seperate dumping of waste roack and mineral reject is proposed	seperate dumping of waste rock and mineral reject is done. However during the year all waste rock was used as backfilling and no mineral reject generated	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposal	Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No such proposal	Nil	

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)			
8h	Water sprinkling on roads to control airborne dust	with water tanker	water tanker is used for dust suppression	2 water tankers are available 8KL and 10 KL capacity.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Good number of plantation done in the lease area on waste land as well as on dumps due to which aesthatically lease area looks good.

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly return should be submitted by 10th of every month and annual return should be submitted by 1st of July for the preceding year.	Monthly return submitted upto June 2021 and Annual return of the year 2020-21 has been submitted.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer- Prashant dakre, Manager- A.K.Chauksey, Geologist- Sudhansu Chouhan	Information furnished are correct but now Shri A.K.Chouksey has been transferred and Shri Bhati is Manager	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Waste disposal-0.90 ha, Plant & Building- 9.480 ha		
9d	Scrutiny of Annual return on afforestation	2000 saplings planted		

9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	All the ROM produced was saleable
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Graded stock- 7342.099 tons	It seems correct
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex Mine Price & sale Value - less than 25%- 3076.63, 25-35%- 4231.34, 35-45%- 10604.64, Cost of production- 5955.78 Rs/T	
9h	Scrutiny of Annual return on fixed assets	1178684432 rupees	
9k	Scrutiny of Annual return on mining machineries	Winding Engine-2, Diesel Generator-2, Ventilation Fan- 3, Pumps- 9, Loco-4, Air Compressor- 5, Explosive van- 1, Crusher-1, Loader-1	

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 :

(CHANDRESH BOHRA)

Indian Bureau of Mines