

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

MCDR INSPECTION REPORT

Nagpur regional office

Mine file No : MAH/NAG/MN-211/NGP

Mine code : 40MSH14015

- (i) Name of the Inspecting : **B014**) **CHANDRESH BOHRA**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri Vikrant Khedikar, Mine Manager
Official with
Designation
- (iv) Date of Inspection : 10-Jun-21
- (v) Prev.inspection date : 19-Mar-20

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **SATUK**
- (b) **Registration NO.** : **IBM/5711/2011**
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address
- State : MAHARASHTRA
- District : NAGPUR
- Village : BELDONGRI
- Taluka : PARSEONI
- Post office : SATUK
- Pin Code :
- FAX No. :
- E-mail :
- Phone : 42160
- (f) Police Station :
- (g) First opening date : 25-Feb-79
- (h) Weekly day of rest : SAT
2. Address for : P. O. - SATUK,
correspondance : TAH. - PARASEONI,
DISTT.- NAGPUR (M. S.).
3. (a) Lease Number : MSH0079
- (b) Lease area : 95.29
- (c) Period of lease : 20
- (d) Date of Expiry : 01-Mar-99

MSH0078
 8.68
 60
 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 : C.P.N.PATHAK
 3, MOUNT ROAD EXTN. POST
 BOX NO. 34 NAGPUR NAGPUR
 MAHARASHTRA
 Phone: 0712 - 2545703
 FAX : 0712 - 2524996

6. Date of approval of Mining	:	Renewal under rule 22 MCR1960	12-May-03
Plan/Scheme of Mining		Modif.of approved Mining Plan	13-Oct-06
		Mining Scheme rule 12 MCDR1988	07-Jul-08
		Mining Scheme rule 12 MCDR1988	10-Jan-12
		Mining Scheme rule 12 MCDR1988	10-Jan-13
		MP review under 17(1) MCR 2016	11-Aug-17
		MP modif under 17(3) MCR 2016	01-Mar-21

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	07 nos of boreholes	08 no. of boreholes	
1b	Exploration over lease area for geological axis 1 or 2		100 % potentially mineralized area has been explored upto G1 level.	Ore zone is proved upto 240 MRL by 16 boreholes drilled by moil and further 8 boreholes drilled in year 2020-21. The ore zone is associated with mica schist on hangwall and quartz mica on footwall belonging to munsar formation. The ore mainly consist of braunite and hollandite which is soft and friable.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	MOIL	MOIL & 25 Lakh Approx	
1d	Balance area to be explored to bring Geological axis in 1 or 2		whole potentially area has been explored at G1 level.	
1e	Balance reserve as on 01/04/20		111- 88575 tons as On 1.4.2020	

1f	General remarks of inspecting officers on geology, exploration etc	Geologically area has been explored by exploratory drilling upto G1 level. Ore zone is proved upto 240 MRL by 16 boreholes drilled by moil and further 8 boreholes drilled in year 2020-21. The ore zone is associated with mica schist on hangwall and quartz mica on footwall belonging to munsar formation. The ore mainly consist of braunite and hollandite which is soft and friable.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t. lease area	50 metre winze was proposed in year 2020-21	No development wa done	Violation is raised in this regard.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	There is no top soil. Seperate stacking of waste rock and mineral reject was proposed.	No top sol, waste rock and mineral reject generated.	
2c	Stripping ratio or ore to OB ratio	Not applicable	Nil	
2d	Quantity of topsoil generation in m3	Nil	Nil	
2e	Quantity of overburden generation in m3	120 m3	Nil no development activity done	Violation is raised in this regard

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	No development of underground working has been started only dump working was carried out against proposal . no specific reason was given. violation is being raised in this regard
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Nil	Nil	Already three water logged pits are available in the lease. no opencast mining was proposed in year 2020-21.
3b	Quantity of ROM mineral production proposed	30000 Ton	5002 Ton from dump mining	No production done from underground working only mining done from mineralized dump . violation raised in this regard
3c	Recovery of sailable/usable mineral from ROM production	20% in dump	recovery of dump is almost 100 % as only mineralized area is handled as lower grade mineral is also saleable now.	
3d	Quantity of mineral reject generation	Nil	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	Nil	Nil	
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	Manual	Manual sorting has been done on mineralized dump.	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No such proposal	Nil	
3k	Provision of mining machineries in mineral benches	Jack hammer drill, compressor and pumps	only dump handling done	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Not applicable	Nil	
3m	Total area covered under excavation/pits	1.55 ha	1.55 ha	
3n	Ore to OB ratio for the pit/mine during the year.	Nil	Nil	
3o	Total area put in use under different heads at the end of year		(MINERAL STORAGE - 0.25 HA, MINERALIZED DUMP - 0.75 HA, AREA UNDER MINING 1.55 HA)	
3p	Production of ROM mineral during the last five year period as applicable	2016-17-36500 2017-18-16100 2018-19- 22000 2019-20-26000 2020-21-30000	2016-17-11277 2017-18-4616 2018-19- 5076 2019-20-11977 2020-21-5002	
3q	General remarks of inspecting officers on method of mining etc.			Propose method of mining was proposed underground and dump mining but only dump mining was carried out .

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	seperate dumping of waste rock and mineral reject proposed. no top soil generated	no waste rock and mineral reject generated as only mineral from mineralized dump recovered.	
4b	Location of topsoil, OB and mineral reject dumps	N200 to N290 & E 70 to E 500 ob dump bd dump no. 1 on western side of lease-mineral reject	no dumping as no waste rock and mineral reject generated	
4c	Number of dumps within lease area and outside of lease area	Black dump-03, Waste dump-01	Black dump-03, Waste dump-01	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	outside UPL	outside UPL	
4e	Number of active and alive dumps.	03 black dump , 01 waste dump-03	03 black dump, waste dump-01	
4f	Number of dead dumps.	Nil	Nil	
4g	Number of dumps established.	Nil	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there.	No such proposal	Nil	
4i	Length of Retaining wall or garland drain all along dumps	No such proposal	Nil	
4j	Number of settling ponds	Nil	Nil	
4k	Specific comments of inspecting officer on waste dump management			No waste rock handled as no underground development done and in mineral dumps only mineral was removed so no further addition of dump took place.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No such proposal	Nil	
5b	Area under backfilling of mined out area	No such proposal	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No such proposal	Nil	
5d	Total area fully reclaimed and rehabilitated	Nil	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			No area is matured for backfilling and no backfilling done as no proposal

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).	PMCP report must be submitted on or before 1st July of every year for preceeding year	Report submitted	
6b	Area available for rehabilitation (ha) .	No such proposal	Nil	
6c	afforestation done (ha).	005 ha	.05 ha	
6d	No. of saplings planted during the year	50 nos.	50 nos.	
6e	Cumulative no .of plants	No such data available	1950	
6f	Any other method of rehabilitation	No such proposal	Nil	

6g	Cost incurred on watch and care during the year	25000/- on plantation and environment monitoring	25,000/-
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

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Nil	Nil	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Environment monitoring proposed	Environment monitoring for air and water done	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Plantation as proposed of 50 nos done and environment monitoring carried out.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	30000 Ton	5002 ton	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	
7c	Different grade of mineral sorted out at mines.	below 25%, 25-35 % Mn, 35-45% Mn	below 25%, 25-35 % Mn, 35-45% Mn	
7d	Any beneficiation process at mines .	No such proposal	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Mineralized dumps are exploited and mineral bearing material extracted so mineral conservation aspect is satisfactory.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	No such proposal	Nil
8b	Concurrent use or storage of topsoil	No such proposal	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No top soil. Seperate dumping of waste rock and mineral reject proposed.	No top soil and waste rock and 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)	50 (cumulative 1950)	50 (cumulative 1950)
8g	Survival rate	no such proposal	60%
8h	Water sprinkling on roads to control airborne dust	Water tanker	water tanker

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Working is being carried in mineralized dump only and underground development has not been started. Plantation is done along the road side in the southern part of lease. Existing pits are water logged.
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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly returns must be submitted by 10th of every month for the preceding month and Annual return must be submitted by 1st of july of every year for preceding year.	Annual return for 2020-21 submitted and monthly return submitted upto June 2021.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer- Shri Bhuvneshwar Tung, Mine Manager- Vikrant Khedikar, Geologist- Sneha Tiwari	information furnished are correct	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	(vi) Other Purpose (MINERAL STORAGE - 0.25 HA, MINERALIZED DUMP - 0.75 HA, AREA UNDER MINING 1.55 HA)	Information furnished are correct	
9d	Scrutiny of Annual return on afforestation	50 cumulative 1950	Information furnished are corect	

9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Below 25% Mn Nil (b) 25% to below 35% Mn Nil (c) 35% to below 46% Mn Nil	Information furnished are correct
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Below 25% Mn 3225.03 (b) 25% to below 35% Mn 4978.59 (c) 35% to below 46% Mn 14976.66	Correct information furnished
9h	Scrutiny of Annual return on fixed assets	Rs 30741073	It seems correct
9k	Scrutiny of Annual return on mining machineries	WATER TANKER 6000.000 LITRE 1 Non Electrical Opencast JEEP/TRACTOR 20.000 HP 1 Non Electrical Opencast DUMPER 10.000 TONNE 1 Non Electrical Opencast FRONT END LOADER 0.300 CUM 1 Non Electrical Opencast	

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)	30-Jun-21	06-Oct-21			

Date :

(CHANDRESH BOHRA)

Indian Bureau of Mines