

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

**MCDR inspection REPORT  
Jabalpur regional office**

**Mine file No :** MP/BGT//MN-194/NGP Vol.II

**Mine code :** 40MPR01016

- (i) Name of the Inspecting : **KQ06** ) **NARESH KUMAR KATARIYA**  
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Sh S Pathak (Mine Manager), Sh S. Pani (Geologist), Sh  
Official with  
Designation
- (iv) Date of Inspection : 17-DEC-20
- (v) Prev.inspection date :

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **SITAPATHORE**
- (b) **Registration NO.** : **IBM/5711/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address  
State : MADHYA PRADESH  
District : BALAGHAT  
Village : SITAPATORE  
Taluka : KATANGI  
Post office : SUKLI  
Pin Code :  
FAX No. : 0712-2592073  
E-mail : moil\_ngp@sancharnet.in  
Phone : 0712-2590775
- (f) Police Station : TIRODI
- (g) First opening date : 01-JUL-62
- (h) Weekly day of rest : MON
2. Address for : MOIL BHAWAN, 1A-KATOL ROAD,  
correspondance : CHAONI, NAGPUR  
PIN-440013
3. (a) Lease Number : MPR0575
- (b) Lease area : 43.35
- (c) Period of lease : 20
- (d) Date of Expiry : 30-JUN-22
4. Mineral worked : MANGANESE ORE Main

5. Name and Address of the  
Lessee : MANGANESE ORE INDIA LTD  
BALAGHAT BALAGHAT MADHYA  
PRADESH  
Phone:  
FAX :

6. Date of approval of Mining :  
Plan/Scheme of Mining

## 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	10 Nos. of DTH	8 Nos. of DTH drilled	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	MOIL Limited	MOIL Limited	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	36.802 Hect area to be explored to bring Geological axis G-1	
1e	Balance reserve as on 01/04/20		Balance reserve as on 01/04/2020: 111 : 80451 Tonnes	

1f	General remarks of inspecting officers on geology, exploration etc	The ore zone occurs in rocks of Munsar stage, which is having mainly course grained silliminite, muscovite schist. They strike in N25 ° E - S25 ° W with moderate to high dip towards west. The manganese ore horizon extends from a SW (pit6) to NE (pit 8) in general strike direction, with a oblitative attitude at pit No.3. The country rock to the East of ore is biotite gneiss & epidote gneiss, whereas on the other side it is felspathic mica schist & mica silliminite schist.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	PIT NO.6 & 8	PIT NO.6 & 8	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes	OB: 2 benches Ore:1 bench	
2c	Stripping ratio or ore to OB ratio	1:12	1:12	
2d	Quantity of topsoil generation in m3	NIL	NIL	

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2e	Quantity of overburden generation in m3	120020 m3	141003 m3	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Mine development has been done from pit no. 06 & 08.

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### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	02Nos.(Pit No.6 & 8)	02Nos.(Pit No.6 & 8)	
3b	Quantity of ROM mineral production proposed	Opencast Mining: 9900 T Dump Working: 7000 T	From Opencast Mine - 9698 Tonnes From Dump Working - 7056 Tonnes	
3c	Recovery of sailable/usable mineral from ROM production	Bed:90% Dump:15%	Bed:90% Dump:15%	
3d	Quantity of mineral reject generation	2535 Tonnes	1675 Tonnes	
3e	Grade of mineral rejects generation and threshold value declared.	Below 20%	Below 20%	
3f	Quantity of sub grade mineral generation.	58742 Tonnes	40000 Tonnes	
3g	Grade of sub grade mineral generation	Below 10%	Below 10%	
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	

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3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Analysis & By developing small dimension pits	Analysis & By developing small dimension pits
3j	Provision of drilling and blasting in mineral benches	DTH hammers of 110 mm by wagon drills	DTH hammers of 110 mm by wagon drills
3k	Provision of mining machineries in mineral benches	Yes	Mine operation is being carried out by Shovel Dumper combination as per approved document. SHOVEL (HYDRAULIC) 0.900 CUM 01 no. TIPPER 10.000 CUM 04 nos. DOZER 90.000 HP 01 no. PUMPS (NON-ELEC.) 1200.000 L/MN 01 no. WATER TANKER 6000.000 LITRE 1 ROCK DRILL (NONELEC.) 110MM 01 nos.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes
3m	Total area covered under excavation/pits	6.548 Ha	6.548 Ha
3n	Ore to OB ratio for the pit/mine during the year.	1 : 12	1 : 12
3o	Total area put in use under different heads at the end of year	19.811 Hect	19.811 Hect
3p	Production of ROM mineral during the last five year period as applicable	2015-16=16900 2016-17=16900 2017-18=16900 2018-19=16900 2019-20=16900	2015-16=10585 2016-17=12317 2017-18=12115 2018-19=16900 2019-20=16754

3q	General remarks of inspecting officers on method of mining etc.	Opencast working and dump working is being done as per proposal of approved document.
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#### Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Proposed seprate dumping	Dumping seprately as per proposal	
4b	Location of topsoil, OB and mineral reject dumps	Within mine Lease area	Within mine Lease area	
4c	Number of dumps within lease area and outside of lease area	Within Lease - 04 Outside - Nil	Within Lease - 04 Outside - Nil	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	On Foot wall side of pit	On Foot wall side of pit	
4e	Number of active and alive dumps.	4	4	
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.	Yes	Yes	
4i	Length of Retaining wall or garland drain all along dumps	200 Mtrs	200 Mtrs	
4j	Number of settling ponds	one	one	

4k	Specific comments of inspecting officer on waste dump management	Dump working is being done from the old dumps for mineral conservation.
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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.	Full extraction of mineral in existing pit	Full extraction of mineral in existing pit	
5b	Area under backfilling of mined out area	0.17 Ha	0.17 Ha	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NIL	NIL	Top soil generated in previous years was already utilized for plantation
5d	Total area fully reclaimed and rehabilitated	Nil	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Backing filling was on progress in the area where mineral was fully extracted.

#### 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).	Yes	Submitted as per Rule	



6b	Area available for rehabilitation (ha) .	NIL	NIL
6c	afforestation done (ha).	0.2 ha	0.2 ha
6d	No. of saplings planted during the year	1000 nos	1000 nos
6e	Cumulative no .of plants	Not proposed	2000 nos
6f	Any other method of rehabilitation	Not proposed	NA
6g	Cost incurred on watch and care during the year	Maintained by departmental workmen	Maintained by departmental workmen
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	NIL	NIL
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NIL	NIL
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	NIL	NIL
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NIL	NIL

6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NIL	NIL
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	1000 nos	1000 nos
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.		

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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	16900 T	16754 T	

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7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	
7c	Different grade of mineral sorted out at mines.	25%-46%	25%-46%	
7d	Any beneficiation process at mines .	Manual jigging	Manual jigging	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Opencast working and Dump working was being done with manual sorting and jigging for mineral conservation.

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**Environment:**

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No top soil.	Not Applicable	
8b	Concurrent use or storage of topsoil	Top soil not available.	Not Applicable	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposed seperate Waste & Mineral dump	Implemented	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Yes	Yes	

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8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Yes	Yes	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Plantation to be done in the waste land of ML area.	Plantation was done in the waste land of ML area.	
8g	Survival rate	80%	90%	
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			Plantation was done in the waste land of lease area and around the mining lease.

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#### Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	MR of Apr-19 to Mar-20 to be submitted and AR of 2019-20 to be submitted.	MR of Apr-19 to Mar-20 have been submitted and AR of 2019-20 has been submitted in time.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Yes	Shri Manoj Kumar Singh, Mining Engineer Shri M.R. Bhanse, , Mine Geologist	

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9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Yes	(i) Already exploited & abandoned by opencast (O/C) mining 0.000 0.000 0.000 (ii) Covered under current (O/C) Workings 0.000 13.434 13.434 (iii) Reclaimed/Rehabilitated 0.000 0.000 0.000 (iv) Used for waste disposal 0.000 4.660 4.660 (v) Occupied by plant, buildings, residential, welfare buildings & roads 0.000 3.630 3.630 (vi) Other Purpose (0) 0.000 0.000 0.000 (vii) Work done under progressive mine closure plan during the year 0.000 0.000 0.000
9d	Scrutiny of Annual return on afforestation	Yes	2000 saplings planted
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Yes	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Yes	From Opencast Mine - 9698 Tonnes From Dump Working - 7056 Tonnes
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Yes	25% to below 35% Mn - 5203.00 35% to below 46% Mn - 11165.00
9h	Scrutiny of Annual return on fixed assets	Yes	Rs 54.65 Lakhs

9k	Scrutiny of Annual return on mining machineries	Yes	Mine operation is being carried out by Shovel Dumper combination as per approved document. SHOVEL (HYDRAULIC) 0.900 CUM 01 no. TIPPER 10.000 CUM 04 nos. DOZER 90.000 HP 01 no. PUMPS (NON-ELEC.) 1200.000 L/MN 01 no. WATER TANKER 6000.000 LITRE 1 ROCK DRILL (NONELEC.) 110MM 01 nos.
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**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