

**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 : **D025**) **S. M. DORLE**
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : Shri Manoj kumar singh, DGM (Mines), Shri Anil Singh
Official with
Designation
- (iv) Date of Inspection : 07/09/2017
- (v) Prev.inspection date : 27/10/2016

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 : 25/02/1979
- (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 : 01/03/1999

MSH0078
 8.68
 20
 30/06/2022

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 Plan/Scheme of Mining | : | Renewal under rule 22 MCR1960 | 12/05/2003 |
| | | Modif.of approved Mining Plan | 13/10/2006 |
| | | Mining Scheme rule 12 MCDR1988 | 07/07/2008 |
| | | Mining Scheme rule 12 MCDR1988 | 10/01/2012 |
| | | Mining Scheme rule 12 MCDR1988 | 10/01/2013 |
| | | MP review under 17(1) MCR 2016 | 11/08/2017 |

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 | G1 | G1 | |
| 1c | Exploration Agencies and Expenditure in lakh rupees during the year | Nil | Nil | |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | NA | NA | No area left for further exploration with in the lease |
| 1e | Balance reserve as on 01/04/20 | - | 511329 tonnes | |
| 1f | General remarks of inspecting officers on geology, exploration etc | | | No exploration proposals during the year 2016-17 |

Development :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|--|------------------------------------|------------------------------------|---|
| 2a | Location of development w.r.t.lease area | O/c Dev for 2016-17 is 93700 cum | O/c Dev for 2016-17 is 10241 cum | Lessee informed that the shortfall in development is due to less demand of Mn ore in market |
| 2b | Separate benches in topsoil, overburden and minerals (Rule 15) | Topsoil- 01 Ob-02 Mineral-01 | Topsoil- 01 Ob-02 Mineral-01 | Lessee informed that the shortfall in development is due to less demand of Mn ore in market |
| 2c | Stripping ratio or ore to OB ratio | 1:10 | 1:10 | |
| 2d | Quantity of topsoil generation in m3 | Nil | Nil | |

| | | | | |
|----|---|-------|-------|---|
| 2e | Quantity of overburden generation in m3 | 93700 | 10241 | |
| 2f | General remarks of inspecting officers on development of pit w.r.t. type of deposit etc | | | Less than 50% of the proposed development has achieved for the year 2016-17 |

Exploitation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|---|--|---------|
| 3a | Number of pit proposed for production | 01 | 01 | |
| 3b | Quantity of ROM mineral production proposed | Quantity of ROM mineral production proposed 2015-16 is 36500 MT | Quantity of ROM mineral production proposed 2015-16 is 3108 MT (25%) | |
| 3c | Recovery of sailable/usable mineral from ROM production | 18250 (50%) | 1108(27%) | |
| 3d | Quantity of mineral reject generation | 4380 MT | 8459 MT | |
| 3e | Grade of mineral rejects generation and threshold value declared. | 10-12 % | <12% | |
| 3f | Quantity of sub grade mineral generation. | 18250 | 1825 | |
| 3g | Grade of sub grade mineral generation | 17-18% | 17-18% | |
| 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. | No | No | |

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|----|--|---------------|---------------|--|
| 3j | Provision of drilling and blasting in mineral benches | Nil | NA | |
| 3k | Provision of mining machineries in mineral benches | Nil | NA | |
| 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 | 3.27 Hectare | 3.27 Hectare | |
| 3n | Ore to OB ratio for the pit/mine during the year. | 1:10 | 1:10 | |
| 3o | Total area put in use under different heads at the end of year | 4.356 Hectare | 4.356 Hectare | |
| 3p | Production of ROM mineral during the last five year period as applicable | 120184 MT | 74261MT | |
| 3q | General remarks of inspecting officers on method of mining etc. | | | Production is less due to less market demand. Recovery encounter of internal rack bands. |

Solid Waste Management - Dumping:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|---|---|---------|
| 4a | Separate dumping of topsoil, OB and mineral rejects (Rule 32,33) | Yes | Yes | |
| 4b | Location of topsoil, OB and mineral reject dumps | Dumped on footwall side of lease i.e north west | Dumped on footwall side of lease i.e north west | |

| | | | | |
|----|--|---------------------------------|---|---------------------------------|
| 4c | Number of dumps within lease area and outside of lease area | 05 (waste& mineral reject dump) | As per proposal | |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | Worked as per proposal given. | Dump No. Area (Hect.) Height (M) Angle | Dump type |
| | | | TS/OB/MR/SGM | |
| | | | WD-1 8.00 70 | MR 1.52 |
| | | | WD-2 12 | OB 0.49 72 |
| | | | WD-3 | OB 0.08 9 65 |
| | | | BD-4 | SGM 0.05 6 68 |
| | | | BD-5 | SGM 0.14 1.8 65 |
| 4e | Number of active and alive dumps. | 3 Nos | 3 Nos | |
| 4f | Number of dead dumps. | 02 Nos | 02 Nos | |
| 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 | Nil | Nil | Garland drains already existing |
| 4j | Number of settling ponds | Nil | Nil | |
| 4k | Specific comments of inspecting officer on waste dump management | | | Dumps properly maintained |

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. | Nil | Nil | |
| 5b | Area under backfilling of mined out area | Nil | Nil. | |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32) | Given for restoration of at end of mining | As per proposal | |
| 5d | Total area fully reclaimed and rehabilitated | Nil | Nil | |
| 5e | General remarks of inspecting officers on backfilling and reclamation etc. | | | No proposal in mining plan |

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 | Yes. | |
| 6b | Area available for rehabilitation (ha) . | Nil | Nil | |
| 6c | afforestation done (ha). | Nil | Nil | |
| 6d | No. of saplings planted during the year | Nil | Nil | |
| 6e | Cumulative no .of plants | Nil | Nil | |
| 6f | Any other method of rehabilitation | Nil | Nil | |
| 6g | Cost incurred on watch and care during the year | Nil | Nil | |

| | | | |
|----|--|-----|-----|
| 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 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 | 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 | Nil | Nil |

| | | | | |
|----|---|-----|-----|-----------------------------|
| 6p | Compliance of environmental monitoring (core zone and buffer zone) | Nil | Nil | |
| 6q | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc. | | | As per approved mining plan |

Mineral Conservation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|--------------------------------------|-----------------|--|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | Grade wise sorting within lease area | As per proposal | |
| 7b | Method of grade-wise mineral sorting i.e. manual or mechanical. | Manual | As per proposal | |
| 7c | Different grade of mineral sorted out at mines. | Yes | Yes | |
| 7d | Any beneficiation process at mines | No | No | |
| 7e | General remarks of inspecting officer on Mineral conservation and beneficiation issues | | | Storage area of different grade of mineral further needs to be improved by mine manageme |

Environment:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|-----------|-------------|---------|
| 8a | Separate removal and utilization of topsoil (Rule 32) | Nil | NA | |

| | | | |
|----|---|--|---|
| 8b | Concurrent use or storage of topsoil | Nil | NA |
| 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 | Waste rock is dumped separately in earmarked dumps | As per proposal |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | Restoration will be done during mine closure period. | Nil |
| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41) | 100 | 100 |
| 8g | Survival rate | Nil | Around 50% |
| 8h | Water sprinkling on roads to control airborne dust | Yes | Sprinklers and water tankers are deployed |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area | | Quarterly monitoring of environmental parameters as per as per approved document is being done in core and buffer zones |

Compliance of Rule 45:

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|--|--|-------------|---------|
| 9a | Status of submission of Monthly and Annual returns | M.R. Submitted upto August 2017 Annual return 2016-17 submitted | | |

| | | | |
|----|---|-------------------|---------------|
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | Information given | Found correct |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | Information given | Found correct |
| 9d | Scrutiny of Annual return on afforestation | Information given | Found correct |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade and quantity) | Information given | Found Correct |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | Information given | --- |
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | Information given | Found correct |
| 9h | Scrutiny of Annual return on fixed assets | Information given | ----- |
| 9k | Scrutiny of Annual return on mining machineries | Information given | Found correct |

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 |

Date :

(S. M. DORLE)

Indian Bureau of Mines