

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

Review and updation of Mining Plan REPORT

Nagpur regional office

Mine file No : MPR/BGT/MN-47/NGP

Mine code : 40MPR01044

- (i) Name of the Inspecting : **SQ32**) **SANDEEP KUMAR SINGH**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 18-JAN-20
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **LUGMA-UKWA (73.567H)**
- (b) **Registration NO.** : **IBM/5711/2011**
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address :
State : MADHYA PRADESH
District : BALAGHAT
Village :
Taluka :
Post office :
Pin Code :
FAX No. :
E-mail :
Phone :
- (f) Police Station :
- (g) First opening date : 02-MAR-07
- (h) Weekly day of rest :
2. Address for : 3, MOUNT ROAD EXTENSION,
correspondance NAGPUR
3. (a) Lease Number : MPR1802
- (b) Lease area : 73.57
- (c) Period of lease : 20
- (d) Date of Expiry : 13-SEP-25
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 24 MCR1960 | 08-MAY-06 |
| Plan/Scheme of Mining | : | Modif.of approved Mining Plan | 08-MAY-09 |
| | : | MP modif under MCR 1960 | 13-OCT-16 |

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|---|--------------------|---|---|
| 1a | Backlog of previous year | 16 upto 17-18 | 8 done upto 17-18 | 8 boreholes |
| 1b | Exploration over lease area for geological axis 1 or 2 | 990mtr, 4 borehole | 812mtr, 02 | |
| 1c | Exploration Agencies and Expenditure in lakh rupees during the year | Rs: 2500000/- | Rs:3085600 /- | |
| 1e | Balance reserve as on 01/04/20 | as on 01.04.2019 | Balanace reserve as on 01/04/19--- 111: 0.537 121: 0 Balanace resource as on 01/04/19 211 0.000 221 0.167 222 0 IN MILLION TONS. 331 3.093 332 2.804 | |
| 1f | General remarks of inspecting officers on geology, exploration etc | | | the leese has modified plan for 19-20.balance boreholes are 8 holes with meterrage 3210 mtr has been planned in yr 19-20. |

Development :

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|-----------------------------|--------------------|---------|
| 2a | Location of development w.r.t.lease area | u/g mine-ch-7800 to ch-7800 | ch-7800 to ch-7800 | |

| | | | | |
|----|---|----|----|--|
| 2b | Separate benches in topsoil, overburden and minerals (Rule 15) | na | na | |
| 2c | Stripping ratio or ore to OB ratio | na | na | |
| 2d | Quantity of topsoil generation in m3 | na | NA | |
| 2e | Quantity of overburden generation in m3 | NA | NA | |
| 2f | General remarks of inspecting officers on development of pit w.r.t. type of deposit etc | | | MINE HAS DEVELOPED SHAFT.SHAFT IS USED FOR MEN AND MATERIAL HAULAGE.TWO SHAFTS HAVE BEEN DEVELOPED TO MINE .SHAFTS ARE MORE THAN 100 MTR DEEP.WORK DONE DURING YEAR :Shaft sinking-58m, shaft x-cut- 20 m, ore drive- 630 m winze/raise- 148 m , X-cut-153 m |

Exploitation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|-----------|------------------|-------------------------------------|
| 3a | Number of pit proposed for production | NA | NA | U/G MINE WITH TWO SHAFTS DEVELOPED. |
| 3b | Quantity of ROM mineral production proposed | 10000T | 7000 | |
| 3c | Recovery of sailable/usable mineral from ROM production | ROM | ROM IS SALEABALE | |

| | | | | |
|----|--|--------------------|-------------------|--|
| 3d | Quantity of mineral reject generation | 3000 | 3000 | MN ORE BETWEEN 10-20 MN IS STACKED IN YARD AS PER PROPOSAL |
| 3e | Grade of mineral rejects generation and threshold value declared. | 10-20% | 10-20% | |
| 3f | Quantity of sub grade mineral generation. | NA | NA | |
| 3g | Grade of sub grade mineral generation | NA | NA | |
| 3h | Manual / Mechanised method adopted for segregating from ROM | SCREENING, SORTING | SCREENING/SORTING | |
| 3i | Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects. | NO | NO | |
| 3j | Provision of drilling and blasting in mineral benches | IN UG MINE | YES | |
| 3k | Provision of mining machineries in mineral benches | NA | NA | |
| 3l | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | NA | NA | |
| 3m | Total area covered under excavation/pits | 1.5 HECT | 1.50 HECT | U/G MINE |
| 3n | Ore to OB ratio for the pit/mine during the year. | 3820m3: 7000T | 10287 :7000 T | |

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|----|--|--|--|--|
| 3o | Total area put in use under different heads at the end of year | PIT-1.5 HECT,OB DUMPS 1.8,MINERAL STORAGE.5,INFR ASTRUCTURE-.8HECT | PIT-1.5 HECT,OB DUMPS 1.8,MINERAL STORAGE.5,INFRASTRUCTURE -.8HECT | IT IS NOW U/G MINE. |
| 3p | Production of ROM mineral during the last five year period as applicable | 2013-14 0.000 2014-15 0.000 2015-16 0.000 2016-17 0.005 2017-18 0.005 2018-19 0.010 | 2013-14 0.000 2014-15 0.000 2015-16 0.000 2016-17 0.000 2017-18 0.001 2018-19 0.007 | |
| 3q | General remarks of inspecting officers on method of mining etc. | | | MINE HAS TWO SHAFTS.CUT AND FILL MINING PRACTISED WITH SUNLEVELS.MINES IS WELL DEVELOPED WITH STOPING. |

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 | SUBGRADE STORED. MINE WASTE BEING STACKED AT SURFACE.- |
| 4b | Location of topsoil, OB and mineral reject dumps | NA | NA | |
| 4c | Number of dumps within lease area and outside of lease area | ONLY ONE DURING THIS PLAN | ONLY ONE DURING THIS PLAN | |
| 4e | Number of active and alive dumps. | 1 | 1 | |
| 4g | Number of dumps established. | ONE | ONE | DURING THIS PLAN PERIOD ONLY ONE DUMP. OLD AROUND 22 HECT AREA IS UNDER WASTE DUMPS. |

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|----|--|-----|-----|--|
| 4h | Whether Retaining wall or garland drain all along dumps are there. | NA | NA | |
| 4j | Number of settling ponds | NIL | NIL | U/G MINE. |
| 4k | Specific comments of inspecting officer on waste dump management | | | A SMALL QUNATITY OF WASTE FROM UG MINE IS STACKED ON SURFACE AROUND 12000 M3..5MTR HIGH.IS IS SECURED BY BUNDS AROUND IT.IT IS 20MTRBY 100 MTR.SAME IS LOCATED IN MAIN LEASE OF SAME COMPANY ADJOINING WIOTH THIS. |

Solid Waste Management - Backfilling:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|-----------|-------------|---|
| 5e | General remarks of inspecting officers on backfilling and reclamation etc. | | | IT IS UNDER GROUND MINES.STOPES ARE FILLED UP WITH SAND AND WASTE GENERATED.STOPING DONE WITH OVER ALL RECOVERY OF 50 - 70 %. |

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). | | NO | |
| 6b | Area available for rehabilitation (ha) . | NA | NA | |

| | | | | |
|----|--|--|---|---|
| 6c | afforestation done (ha). | NA | NA | |
| 6g | Cost incurred on watch and care during the year | | | NO PROPOSALS UNDER THIS CATEGORY- MINED OUT BENCHES. |
| 6h | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D | UG MINE. | | |
| 6l | Compliance on reclamation and rehabilitation by backfilling (v)any other specific means. | THERE IS PROPOSAL TO BACKFILL STOPEES. | STOPEES MINED ARE BACKFILLED. | |
| 6m | Compliance of rehabilitation of waste land within lease (i)afforestation | 500 TREES FOR GREEN BELT | 1000 PLANTS | |
| 6o | Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation | NA | NA | |
| 6p | Compliance of environmental monitoring (core zone and buffer zone) | YES | ENVIRONMENTAL MONITORING OF VARIOUS PARAMETERS IS DONE. | |
| 6q | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc. | | | IT IS UG MINE.MAINLY GREEN BELT DEVELOPMENT WORK IS DONE. |

Mineral Conservation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|------|-----------|-------------|---------|
|--------|------|-----------|-------------|---------|

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|----|--|--|--|--|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | 1.ferro grade- 38% to 48% of Mn. 2. silico grade- 25% to 38% of Mn. 3. LGHS gade 25-20% Mn | 1.ferro grade- 38% to 48% of Mn. 2. silico grade- 25% to 38% of Mn. 3. LGHS gade 25-20% Mn | below 20% Mn. (14-16% Mn.) is reject and saperately stacked as the threshold value 10% Mn. For future use as per market availaility. |
| 7b | Method of grade-wise mineral sorting i.e. manual or mechanical. | MANUAL | MANUAL | |
| 7c | Different grade of mineral sorted out at mines. | 1.ferro grade- 38% to 48% of Mn. 2. silico grade- 25% to 38% of Mn. 3. LGHS gade 25-20% Mn | 1.ferro grade- 38% to 48% of Mn. 2. silico grade- 25% to 38% of Mn. 3. LGHS gade 25-20% Mn | |
| 7d | Any beneficiation process at mines . | NO | NO | |
| 7e | General remarks of inspecting officer on Mineral conservation and beneficiation issues | | | below 20% Mn. (14-16% Mn.) is SUBGRADE and saperately stacked as the threshold value 10% Mn. For future use as per market availaility. MINERAL SORTED IN VARIOUS GRADES AS MENTIONED FOR BETTER MARKETIBILITY. |

Environment:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|------|-----------|-------------|---------|
|--------|------|-----------|-------------|---------|

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|----|---|--------------------------------|------------|---------|
| 8a | Separate removal and utilization of topsoil (Rule 32) | NA | NA | |
| 8b | Concurrent use or storage of topsoil | NA | NA | |
| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | FOR WASTE AND MINERAL REJECT | YES MADE | |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | NA | | UG MINE |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | NO | NO | UG MINE |
| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41) | BASELINE- 6000,500 EVERY YEAR. | 700 | |
| 8g | Survival rate | 80% | 70% | |
| 8h | Water sprinkling on roads to control airborne dust | YES | BEING DONE | |

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|----|--|---|
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area | LOT OF PLANATATION SEEN IN MINES AREA.IT IS NOW UG MINE.GARDEN DEVELOPED IN OFFICE AREA.GREEN BELT WORK IS DONE IN MINES. |
|----|--|---|

Compliance of Rule 45:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|---|--|---------|
| 9a | Status of submission of Monthly and Annual returns | | YES SUBMITTED. | |
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | 7. Manager R.Y.Deshpande 8. Mining Engineer in charge Mayank Jain 9. Geologist in charge Vinay Rahangdale | INFO ON GEOLOGIST NEEDS CLARIFICATION. | |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | (iv) Used for waste disposal 0.800 (v) Occupied by plant, buildings, residential, welfare buildings & roads 0.500 (vii) Work done under progressive mine closure plan during the year 2.000 | | |

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|----|---|--|--|
| 9d | Scrutiny of Annual return on afforestation | (i) Number of trees planted during the year 5000 (ii) Survival rate in percentage 80.00 | GREEN BELT DEVELOPMENT IN MINES. |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade and quantity) | (c). Typical analysis of mineral reject (s) Constituent Grade % Mn 10 | REJECTS ABOVE 10-20 % MN STACKED IN YARD. |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | GRADED ORE- STOCK- 1371.210T -MN- 25-35% | |
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | COP- 6343.77, EXMINE -6259.57 , SALE PRICE- 5198.769741 | |
| 9h | Scrutiny of Annual return on fixed assets | FA=165506055 | |
| 9k | Scrutiny of Annual return on mining machineries | AIR COMPRESSOR LIST OF MACHINERY GIVEN 1000.000 CUM/MN 1 WINDING ENGINE (ELEC.) 10000.000 KG 1 PUMPS (ELEC.) 2200.000 L/MN 3 BLAST HOST DRILL 32.000 MM 15 VENTILATION FAN 300.000 CUM/H 2 | |

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 55(1) (3) | 08-MAY-20 | | | | |
| MCDR17 Rule 26(2) | 08-MAY-20 | | | | |

Date :

(SANDEEP KUMAR SINGH)

Indian Bureau of Mines