

## MCDR INSPECTION REPORT

### General

| SL. No. | Particulars   | Details  |
|---------|---|--|
| 1       | File No.  | MCDR-MiFLOFE/29/2023-BBS-IBM_RO_BBS  |
| 2       | Name of the inspecting officer  | Vikram Deshpande, Assistant Controller of Mines  |
| 3       | Date of inspection  | 11/01/2025   |
| 4       | Name of the Mine  | Khandbandh Iron Ore Mines  |
| 5       | Total Lease Area (Ha) with breakup of Non-forest and forest land  | 35.774 Ha<br>Reserve Forest Land- 35.774 Ha  |
| 6       | Minecode  | 30ORI08113   |
| 7       | IBM Registration Number under rule 45 of MCDR, 2017   | IBM/4135/2011  |
| 8       | Name of the lessee, Address, phone, email and fax number  | M/s Sree Metaliks Limited<br>SML House, Main Road , Barbil,Odisha-758035<br>Phone No: 9437075129<br>Email: <a href="mailto:md@sreemetaliks.com">md@sreemetaliks.com</a><br>Fax No: 6767275529  |
| 9       | Village   | Near Village Khandbandh (Baitarani R.F)  |
| 10      | Taluka/Mandal   | Barbil   |
| 11      | District  | Keonjhar   |
| 12      | Pin code  | 758034   |
| 13      | State   | Odisha   |
| 14      | Post office   | Khandbandh   |
| 15      | Nearest police station  | Bamebari   |
| 16      | Nearest Railway station   | Jururi   |
| 17      | Date of Grant of Mining Lease   | 20.08.2007   |
| 18      | Date of Execution   | 11.01.2017   |
| 19      | Date of opening of Mine   | 21.03.2018   |
| 20      | Date of expiry  | 10.01.2067   |
| 21      | Name of the Nominated Owner with Address, phone, email, fax number and date of appointment  | N/A  |
| 22      | Name of the Mine Agent with Address, phone, email, fax number and date of appointment   | Mr. Mahesh Kumar Agarwal<br>SML House, Main Road , Barbil,Odisha-758035<br>Phone No: 9437075129<br>Email: <a href="mailto:md@sreemetaliks.com">md@sreemetaliks.com</a><br>Fax No: 6767275529   |
| 23      | Name of the Mines Manager with Address, mobile no, email, fax number and date of appointment in mine  | Mr. Manoj Kumar<br>At/Po : Khandbandh ;<br>District: Keonjhar, Odisha-758034<br>Phone No: 90019 94012<br>Email: <a href="mailto:smlmines@sreemetaliks.com">smlmines@sreemetaliks.com</a>   |
| 24      | Name of the Mining Engineer, Qualification and total experience with Address, mobile no, email, fax/phone number and date of appointment in mine    | Mining Engineer: Shri Sushil Kumar Gond<br>Qualification: B.Tech in Mining( Second Class Manager Certified Holder);<br>Experience: 11 years<br>Address: At/Po: Khandbandh ; District: Keonjhar, Odisha-758034.<br>Phone No: 9439551837   |
| 25      | Name of the Geologist, Qualification and total experience with Address, mobile no, email, fax number and date of appointment in mine                | Geologist: Sri Amrit Kumar Behera<br>Qualification: M.sc in Applied Geology;<br>Address: At/Po : Joda ; District: Keonjhar, Odisha-758034.<br>Phone No: 7978419414<br>Email: <a href="mailto:amritbeherajsp@gmail.com">amritbeherajsp@gmail.com</a>  |
| 26      | Date of Approval of Mining Plan/Review of Mining Plan/ their modifications with five-year period and specific condition in approval letter, if any. | Mining Plan-08.02.2008, 5 Years from the date of opening of the mines.<br>Modification and Review of the Mining Plan- 12.10.2018, Approved for a Period of 3 Years-2018-19 to 2020-21.<br>Modification and Review of the Mining Plan- 23.02.2021, Approved for a Period of 5 Years-2021-22 to 2025-26.<br>Modification and Review of the Mining Plan-04.01.2024, Approved for a Period of 3 Years- 2023-24 to 2025-26. |
| 27      | Mineral (s) granted in lease and proved for mining  | Mining Plan: - Vide letter No. MP/OTF-MECH/42-ORI/BHU/2007-08 Dt. 08.02.2008 under rule 22 of MCR 1960.<br>Review of Mining Plan:-MPM/FM/26-ORI/BHU/2018-19/1722 ,Dt-  |

|    |   |   |
|----|---|---|
|    |   | 12.10.2018<br>Review of Mining Plan:-MRPM/A/47/ORI/BHU/2020-21 ,Dt-23.02.2021<br>valid up to 31.03.2026<br>Modification of Review of Mining Plan:<br>MCDR-MiFLOFE/29/2023-BBS-IBM_RO_BBS, Dt-04.01.2024,Valid up to<br>31.03.2026 |
| 28 | Method of Mining(Open cast, Underground)      | Open cast   |
|    | Category (Fully Mechanised, Others or Manual) | Fully Mechanized  |
| 29 | Captive/Non Captive                           | Captive Consumption   |
| 30 | Present EC Capacity                           | 1.8 Million Tons Per Annum  |

## Exploration: ---

| SL.No. | Item   | Proposals (FY 2023-24)   | Actual work  | Remarks                           |
|--------|--|--|--|-----------------------------------|
| 1a     | Backlog of previous year   | -  | -  |                                   |
| 1b     | Exploration over lease area for Geological axis 1 or 2.            | -  | -  |                                   |
| 1c     | Exploration Agency & Expenditure in lakh Rupees during the year    | -  | -  |                                   |
| 1d     | Balance area to be explored to bring Geological axis               | -  | -  | Entire ML area explored under G-1 |
| 1e     | Balance reserves as on 01.04.2024                                  | As on 1/4/23 reserves as follows:<br>111-11992186 tonnes<br>211-6651639 tonnes   | As on 1/4/24 reserves as follows:<br>111-10496446 tonnes<br>211-6651639 tonnes | AR for 2023-2024                  |
| 1f     | General remarks of inspecting Officer on Geology, exploration etc. | The lease area is a part of the Horse-shoe shaped Singhbhum-Bonai-Keonjhar iron ore belt and eastern limb of the synclinorium. The general lithological succession is as follows: laterite, Lateritic iron ore, Hard and soft laminated iron ore, Shale, BHJ/BHQ. Entire ML area explored under G-1. |  |                                   |

## Development:--

| SL.No. | Item  | Proposals (FY 2023-24)   | Actual work  | Remarks   |
|--------|---|--|--|---|
| 2a     | Location of development w.r.t. lease area                               | Quarry-1<br>E 332330 to E332575<br>N 2429340 to N 2429650<br>Quarry-2<br>E 332650 to E332840<br>N 2429160 to N 2429315<br>Quarry-3<br>E332245 to E332355<br>N 2429150 to N 2429270 | Quarry-1<br>E 332395 to E332570<br>N 2429380 to N 2429660<br>Quarry-2<br>E 332650 to E332840<br>N 2429164 to N 2429310 | Violation of Rule 11(1) of MCDR 2017 issued to the lessee for not carrying out work in Quarry 3 |
| 2b     | Separate benches in topsoil, overburden and mineral                     | Separate benches in overburden and mineral proposed  | Separate benches in overburden and mineral made  | TOP soil: NIL<br>Overburden-03<br>Mineral – 10  |
| 2c     | Stripping ratio or ore to OB ratio                                      | 1:0.23   | 1:0.25   | No significant change   |
| 2d     | Quantity of topsoil generation in m3                                    | No topsoil generation proposed during reporting year   | No topsoil generated during reporting year.  |   |
| 2e     | Quantity of overburden generation in m3                                 | 203557 Cum   | 183550 Cum   |   |
| 2f     | General remarks of Inspecting Officer on development of pit w.r.t. type | The mining work is being carried out in 2 number of pits and violation of Rule 11(1) of MCDR 2017 has been pointed to the lessee for not opening of pit-3.                         |  |   |

## Exploitation:--

| SL.No. | Item  | Proposals (FY 2023-24)   | Actual work   | Remarks |
|--------|---|--|---|---------|
| 3a     | Number of pits proposed for production  | 3  | 2   |         |
| 3b     | Quantity of ROM mineral production proposed   | 1500024 MT   | 1495740 MT  |         |
| 3c     | Recovery of saleable/usable mineral from ROM production                                     | 90 % from saleable iron ore.   | 90 % from saleable iron ore.  |         |
| 3d     | Quantity of mineral reject generation   | 7200 MT  | 83970 MT  |         |
| 3e     | Grade of mineral reject generation and threshold value declared                             | 45 to 58 % Fe 45 to 58 % Fe  | 45 to 58 % Fe 45 to 58 % Fe   |         |
| 3f     | Quantity of sub-grade mineral generation  | Same as para 3d  |   |         |
| 3g     | Grade of sub-grade mineral generation   | Same as para 3d  |   |         |
| 3h     | Manual / Mechanized method adopted for segregating from ROM                                 | Mechanized Method proposed for segregating from ROM                    | Mechanized Method adopted for segregating from ROM                        |         |
| 3i     | Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject | No analysis or beneficiation proposed for sub-grade mineral and reject | No analysis or beneficiation carried out for sub-grade mineral and reject |         |

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|----|--|--|---|--|
| 3j | Provision of drilling & blasting in mineral benches  | Drilling & Blasting proposed in mineral benches  | Drilling & Blasting carried out in mineral benches  | Hole Dia-115 mm, Bench Height- 6 m, Burden-2.5 m, spacing- 3 m, Hole Depth-6m, Staggered drilling pattern<br>Blasting:-<br>Controlled Blasting Using Nonel shock tubes |
| 3k | Provision of mining machineries in mineral benches   | Use of HEMM proposed in mineral benches  | HEMM deployed in mineral benches  | Drills-1no's<br>Excavator-7 no's<br>Dumper-14 no's<br>Wheel Loader-3 no's<br>Dozer-1no's   |
| 3l | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | Yes  | The height of benches has broadly been maintained as per proposals except in Pit-2 where restoration of benches was in progress during inspection.  |  |
| 3m | Total area covered under excavation/pits   | 17.16 Ha.  | 17.16 Ha.   |  |
| 3n | Ore to OB ratio for the pit/mine during the year   | 1:0.23   | 1:0.25  |  |
| 3o | Total area put in use under different heads at the end of year                                       | Mining- 17.16<br>Mineral Storage -2.39<br>Roads- 0.91<br>Infrastructure - 1.88<br>Others-4.47<br>Total -26.81  | Mining- 17.16<br>Mineral Storage - 2.95<br>Roads- 0.79<br>Infrastructure - 1.26<br>Others- 5.94<br>Total - 25.150   |  |
| 3p | Production of ROM mineral (in Metric Tonnes) during last five-years period, as applicable            | 2017-18: 144900 tonnes<br>2018-19 : 623233 tonnes<br>2019-20 : 702028 tonnes<br>2020-21 : 702040 tonnes<br>2021-2022: 1499808 tonnes<br>2022-2023: 1500004 tonnes<br>2023-2024: 1500024 tonnes | 2017-18 : 42240 tonnes<br>2018-19 : 613940 tonnes<br>2019-20 : 699298 tonnes<br>2020-21 : 530831 tonnes<br>2021-2022: 701383 tonnes<br>2022-2023: 1100928 tonnes<br>2023-2024: 1495740 tonnes |  |
| 3q | General remarks of inspecting Officer on method of mining etc  | Open-cast fully mechanised mining method with shovel dumper combination is being carried as per approved document.   |   |  |

## Solid Waste Management-Dumping:--

| SL.No. | Item  | Proposals (FY 2023-24)   | Actual work  | Remarks   |
|--------|---|--|--|---|
| 4a     | Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)    | Separate dumping of OB & mineral reject proposed   | Separate dumping of OB & mineral reject carried out  |   |
| 4b     | Location of topsoil, OB & mineral reject dumps                    | TOP SOIL:-NIL<br>OB:<br>Dump - 1(Backfilling)<br>E 332205 - 332335<br>N 2429460 - 2429665<br>Mineral Reject:<br>E 332405-332610<br>N 2429165 - 2429250<br>E 332170-332230<br>N 2429435 - 2429550 | TOP SOIL:-NIL<br>OB:<br>Dump - 1(Backfilling)<br>E 332220 - 332300<br>N 2429500 - 2429650<br>Mineral Reject:<br>E 332190-332205<br>N 2429520 - 2429530 |   |
| 4c     | Number of dumps within lease area and outside lease area          | Within Lease Area:1<br>Outside lease area: Nil   | Within Lease Area 1<br>Outside Lease Area: Nil   |   |
| 4d     | Location of dumps w.r.t. ultimate pit limit                       | Dump - 1<br>E 332027 - 332126<br>N 2429555 - 2429653   | Dump - 1<br>E 332027 - 332126<br>N 2429555 - 2429653   |   |
| 4e     | Number of active & alive dumps                                    | 1  | 1  |   |
| 4f     | Number of dead dumps  | 0  | 0  |   |
| 4g     | Number of dumps stabilized  | 1  | 1  | Partially stabilized and dumping is taking place In remaining area. |
| 4h     | Whether Retaining wall or garland drain all along dumps are there | Yes  | Yes  |   |
| 4i     | Length of Retaining wall or garland drain all along dump          | Retaining Wall:- Maintained  | Retaining Wall:- Maintained  | Dimensions:<br>133*1*1<br>104*1*1<br>160*1.5*1                      |
| 4j     | Number of settling ponds  | No proposal during reporting year  | Not made.  | 2 Existed and maintained  |

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| 4k | Specific comments of inspecting Officer on waste dump management | Overburden wastes back-filling and mineral reject management are being carried out as per the approved proposals. |
|----|--|---|

#### Solid Waste Management-Backfilling: --

| SL.No. | Item   | Proposals (FY 2023-24)  | Actual work | Remarks  |
|--------|--|---|-------------|--|
| 5a     | Status on part or full extraction of mineral from mined out area before starting backfilling | Yes   | Yes         |  |
| 5b     | Area under backfilling of mined out area   | 1.42 Ha   | 1.4 Ha      | Total back filled area up to 2024 is 3.160 Ha. |
| 5c     | Concurrent use of topsoil for restoration or rehabilitation of mined out area                | NIL   | Nil         |  |
| 5d     | Total area fully reclaimed & rehabilitated   | NIL   | Nil         |  |
| 5e     | General remarks of inspecting Officer on backfilling and reclamation etc                     | Back-filling is being carried out at exhausted part of Pit/Quarry No-1 as per approved proposals. |             |  |

#### Progressive Mine Closure Plan: ---

| SL.N. | Item   | Proposals (FY 2023-24)  | Actual work  | Remarks                             |
|-------|--|---|--|-------------------------------------|
| 6a    | Whether Annual report on PMCP submitted on time and correctly - Rule 26(2). (Hard copy same provided)  | Before 1st July of, 2022-23   | Submitted on time  |                                     |
| 6b    | Management of worked/mined out benches<br>i) Area available for rehabilitation (ha)<br>ii) Afforestation done (ha)<br>iii) No. of saplings planted during the year<br>iv) Cumulative no. of plants<br>v) Any other specific method of rehabilitation                           | i) 0.75<br>ii) N/A<br>iii) N/A<br>iv) N/A<br>v) N/A   | i) 0.75<br>ii) N/A<br>iii) N/A<br>iv) N/A<br>v) N/A  |                                     |
| 6c    | Compliance on reclamation and rehabilitation by backfilling<br>i) Voids available for backfilling (L X B X D)<br>ii) Void filled by waste/tailings<br>iii) Afforestation on the backfilled area<br>iv) Rehabilitation by making water reservoir<br>v) Any other specific means | i) 1.42<br>ii) 1.42<br>iii) Nil<br>iv) Nil<br>v) Nil  | i) 0.16<br>ii) 0.16<br>iii) Nil<br>iv) Nil<br>v) Nil   |                                     |
| 6d    | Compliance of Rehabilitation of waste land within lease<br>i) Afforestation<br>ii) Area rehabilitated (ha)<br>iii) Method of rehabilitation  | i) 864<br>ii) 0.19Ha<br>iii) Gap Plantation   | i) 3000<br>ii) 0.75 Ha<br>iii) Gap Plantation  |                                     |
| 6e    | Compliance of Environmental monitoring (core zone & buffer zone)   | Environmental monitoring in Core zone and buffer zone proposed as per MOEFCC and SPCB guidelines. | Environmental monitoring in Core zone and buffer zone was carried out as per the proposals . | All parameters are within the limit |

#### Mineral Conservation:---

| SL.No. | Item   | Proposals ((FY 2023-24)  | Actual work   | Remarks  |
|--------|--|--|---|--|
| 7a     | ROM Mineral dispatch or grade-wise sorting within lease area                         | Grade-wise sorting within lease area                           | Grade-wise sorting carried within lease area .              | Grade wise sorting within the lease area. 45% to 55% Fe Above 55% Fe |
| 7b     | Method of grade-wise mineral sorting i.e. manual or mechanical                       | Mechanical method of grade-wise mineral sorting proposed       | Mechanical method of grade-wise mineral sorting carried out |  |
| 7c     | Different grade of mineral sorted out at mines                                       | 45% to 55% Fe<br>Above 55% Fe                                  | 45% to 55% Fe<br>Above 55% Fe                               |  |
| 7d     | Any beneficiation process at mines   | No beneficiation process proposed                              | No beneficiation process carried out                        |  |
| 7e     | General remarks of inspecting Officer on mineral conservation & beneficiation issues | Grade-wise soring & dispatches of ore/mineral was carried out. |   |  |

#### Environment:--

| SL.No. | Item  | Proposals ((FY 2023-24) | Actual work | Remarks |
|--------|---|-------------------------|-------------|---------|
| 8a     | Separate removal and utilization of topsoil | No such proposal        | Not done    |         |
| 8b     | Concurrent use or storage of topsoil        | No such proposal        | Not done    |         |



|    |  |  |   |  |
|----|--|--|---|--|
| 8c | Separate dumps for overburden, waste rock, rejects and fines   | TOP SOIL:-NIL<br>OB:<br>Dump – 1(Backfilling)<br>E 332220 – 332300<br>N 2429500 – 2429650<br>Mineral Reject:<br>E 332190-332205<br>N 2429520 – 2429530 | Broadly as per the proposals.   |  |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use        | Back-filling at exhausted part of Pit/Quarry No-1  | Broadly as per proposals  |  |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps ) | Back-filling at exhausted part of Pit/Quarry No-1  | After exhaustion of Quarry-1 backfilling will be done                                 |  |
| 8f | Baseline information on existence of plantation & additional plantation done                             | 864  | Up to FY 23-24: 3000 Nos of Plantation<br>2550 Plantation has been done this FY 24-25 |  |
| 8g | Survival rate  | ----   | 75%   |  |
| 8h | Water sprinkling on roads to control airborne dust   | Water spraying on haul roads, waste dumps and maintaining the approach road proposed   | Water spraying on haul roads, waste dumps and approach road carried out               | 750mtrs of permanent fixed type water sprinkler & Two Nos of 16, 12 KL Capacity Water Sprinkler has been deployed for Regular water spraying on haul roads and maintaining the approach road |
| 8i | General remarks of inspecting Officer on aesthetic beauty in & around mines area.                        | Aesthetic beauty in & around mines area is good as lessee implementing the PMCP proposal and carried out plantation as per the proposals.              |   |  |

### Compliance of Rule 45

| SL.No. | Item  | COMMENTS   |  | Remarks.        |
|--------|---|--|--|-----------------|
| 9a     | Status of submission of Monthly and Annual returns  | The monthly return of the Dec-2024 was submitted on 09.01.2025 and the annual returns of 2023-24 submitted on 29.06.2024.  |  |                 |
|        | S.N.  | Item   | Details Given in A.R.  | Actual in field |
| 9b     | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager           | Mines Manager: Shri Manoj Kumar<br>Mining Engineer: Shri Sushil Kumar Gond<br>Geologist: Shri Amrit Kumar Behera   | Mines Manager: Shri Manoj Kumar<br>Mining Engineer: Shri Sushil Kumar Gond<br>Geologist: Shri Amrit Kumar Behera |                 |
| 9c     | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | Mining- 17.16<br>Mineral Storage – 2.95<br>Roads- 0.79<br>Infrastructure – 1.26<br>Others- 5.94<br>Total – 25.150  | Appears to be correct  |                 |
| 9d     | Scrutiny of Annual return on afforestation  | 3000 trees   | Appears to be correct  |                 |
| 9e     | Scrutiny of Annual return on mineral reject generation (Grade & quantity)                     | 83970 tonnes, 55% Fe   | Appears to be correct  |                 |
| 9f     | Scrutiny of Annual return on ROM stock and/or graded ore                                      | <b>Fines closing stock in tonnes</b><br>51%-55%- 580.266<br>55%-58% - 2945.663<br>58%-60%- 59.466<br>60%-62% - 4917.303<br>62%-65%- 2159.760<br>65% and above- 10.600<br><br><b>CLO stock in tonnes</b><br><62% Fe (clo any size)- 1463.866<br><br>62%-65% Fe (5-18mm)- 102.656<br><br>62 to 65% Fe and above(10-40mm)- 13.500 | Appears to be correct  |                 |
| 9g     | Scrutiny of Annual return on sale value, Ex. Mine price & production cost                     | Cost of production & Ex. Mine price : ₹ 1525.42  | Appears to be correct as it is a captive mine  |                 |
| 9i     | Scrutiny of Annual return on fixed assets   | ₹ 118532356  | Appears to be correct  |                 |
| 9k     | Scrutiny of Annual return on mining machineries   | Back Hoe (1.850cum) : 1 nos ;<br>Back Hoe (1.5 cum) : 1 nos ;<br>Back Hoe (1.1 cum) : 5  | Observed to be correct   |                 |

|  |  |   |  |  |
|--|--|---|--|--|
|  |  | nos ;<br>Front End Loader(3.2 cum):<br>1nos;<br>Truck:14 nos ;<br>Water tanker: 4nos;<br>Crusher: 1 nos;<br>Dozer: 1nos |  |  |
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