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**MCDR inspection REPORT**

**Jabalpur regional office**

**Mine file No :** MP/KTN/LST-7

**Mine code :** 38MPR18013

- (i) Name of the Inspecting : **G007** ) **RAGHUBIR SHARAN GARG**  
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Shri Ajay Pandey, Agent Group of Mines and General Ma  
Official with  
Designation
- (iv) Date of Inspection : 14-JUN-23
- (v) Prev.inspection date : 19-OCT-22

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **BADARI ( 5.04 HECT.)**
- (b) **Registration NO.** : **IBM/614/2011**
- (c) **Category** : **A Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State** : **MADHYA PRADESH**
- District** : **KATNI**
- Village** : **BADARI**
- Taluka** : **VIJAYRAGHAVGARH**
- Post office** : **KAHANGAON**
- Pin Code** : **483880**
- FAX No.** : **07622221976**
- E-mail** : **snsktn@bom6.vsnl.net.in**
- Phone** : **07622- 221976, 222304**
- (f) **Police Station** :
- (g) **First opening date** : **02-MAY-77**
- (h) **Weekly day of rest** : **SAT**
2. **Address for** : **M/S S.N.SUNDERSON & COMPANY**  
**correspondance** **P.O.NO.39, CIVIL LINES, KATNI (M.P.) 483501**
3. (a) **Lease Number** : **MPR0262**
- (b) **Lease area** : **5.04**
- (c) **Period of lease** : **50**
- (d) **Date of Expiry** : **01-MAY-27**
4. **Mineral worked** : **LIMESTONE** **Main**

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## 5. Name and Address of the

Lessee : S.N.SUNDERSON & COMPANY  
 P.O.NO.39, CIVIL LINES,  
 KATNI MADHYA PRADESH  
 Phone:52304, 54061  
 FAX :07622-51976

Owner : S.N.SUNDERSON & COMPANY  
 POST BOX.NO.39 JABALPUR  
 ROAD, BARAGAWAN KATNI  
 MADHYA PRADESH  
 Phone: 52304, 54061  
 FAX : 07622-51976

## Mining Engineer

Name : BALRAM SINGH,Part Time  
 Qualification : B.Sc.(Mining), A.I.S.M  
 Appointment/ :  
 Termination date

|                               |   |                                |           |
|-------------------------------|---|--------------------------------|-----------|
| 6. Date of approval of Mining | : | Renewal under rule 22 MCR1960  | 14-MAR-00 |
| Plan/Scheme of Mining         |   | Mining Scheme rule 12 MCDR1988 | 14-SEP-04 |
|                               |   | Mining Scheme rule 12 MCDR1988 | 15-JUN-09 |
|                               |   | Mining Scheme rule 12 MCDR1988 | 12-SEP-14 |
|                               |   | MP modif under 17(3) MCR 2016  | 21-APR-17 |

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## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

| Sl.No. | Item  | Proposals   | Actual work  | Remarks  |
|--------|---|---|--|--|
| 1a     | Backlog of previous year  | One borehole (core drilling) of 60m deep  | Not done   | Deviation pointed out through rule 11(1) of MCDR vide letter dated 27/06/2023  |
| 1b     | Exploration over lease area for geological axis 1 or 2              | One borehole proposed to convert 0.8hect mineralised area presently fall into G2 level in to G1 level | Not done   | As entire mineralised area had not been converted into G1 level so violation of rule 12(4) pointed out. vide violation letter dated 27/06/2023 |
| 1c     | Exploration Agencies and Expenditure in lakh rupees during the year | Not proposed  | Not applicable as proposed exploration work not carried out. | -  |
| 1d     | Balance area to be explored to bring Geological axis in 1 or 2      | 0.8hect   | Not done   | violation of 12(4) pointed out.  |
| 1e     | Balance reserve as on 01/04/20                                      | Balense reserves as on 01/04/2023 are :-<br>111=142355tonne<br>122=292632tonne                        | 111=142358tonne<br>122=292632tonne                           |  |

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1f General remarks of inspecting officers on geology, exploration etc

The lease area from a part of the Semri Group and comprises rocks belonging to Rohtas formation of lower Vindhyan system consists limestone which is grey, light gray, fine to Medium Grained and Slightly fractured. limestone is soft and stratified. entire mineralised area have explored under G1 level except 0.8hect for which proposed exploration for 2022-23 are still to be completed. Lease period and remaining reserves are limited most probably by the end of present document.

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Development :

| Sl.No. | Item   | Propasals   | Actual work   | Remarks                     |
|--------|--|---|---|-----------------------------|
| 2a     | Location of development w.r.t.lease area of the quarry.        | Central and western part of the quarry.               | Central and western part of the quarry.                 |                             |
| 2b     | Separate benches in topsoil, overburden and minerals (Rule 15) | Separate benches in Topsoil, OB and minerals proposed | Separate benches in Topsoil, OB and minerals maintained |                             |
| 2c     | Stripping ratio or ore to OB ratio                             | 1:0.45  | 1:0.48  |                             |
| 2d     | Quantity of topsoil generation in m3                           | 18540m3   | 21000cum  |                             |
| 2e     | Quantity of overburden generation in m3                        | 12000m3   | 65318m3   | More than the proposed one. |

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|----|---|---|
| 2f | General remarks of inspecting officers on development of pit w.r.t. type of deposit etc | Development of pit proressevely going on as per proposal and appear ssuitable for the deposit and lease area ristraction. |
|----|---|---|

## Exploitation:

| Sl.No. | Item  | Propasals   | Actual work  | Remarks  |
|--------|---|---|--|--|
| 3a     | Number of pit proposed for production   | One   | One  | -  |
| 3b     | Quantity of ROM mineral production proposed   | 166904tonneROM ore and 133523tonne Salable quantity | 1335018tonne ROM ore and Salable Ore                                     | As per AR both ROM & Salable quantity is same whereas in approved MPLN both are different. |
| 3c     | Recovery of sailable/usable mineral from ROM production   | 80%   | Entire ROM produced is dispatched  |  |
| 3d     | Quantity of mineral reject generation   | Not proposed  | Nil as there is no mineral reject generation.                            |  |
| 3e     | Grade of mineral rejects generation and threshold value declared.                               | Not proposed  | NA   |  |
| 3f     | Quantity of sub grade mineral generation.   | Not proposed  | Nil as there is no sub grade mineral generation .                        |  |
| 3g     | Grade of sub grade mineral generation   | Not proposed  | NA   |  |
| 3h     | Manual / Mechanised method adopted for segregating from ROM                                     | Not proposed  | NA as entire ROM mineral produced from the mine dispatched subsiquently. |  |
| 3i     | Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects. | Not proposed  | Not done.  |  |

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|----|--|---|---|---|
| 3j | Provision of drilling and blasting in mineral benches  | Proposed with 2.5mX2.0mX2.9m ( SpecingXburden Xdepth of hole) pattern                 | As per proposal   |   |
| 3k | Provision of mining machineries in mineral benches   | Proposed  | Type of machinery<br>Capacity of each unit<br>No. of units<br>Electrical/Non-Electrical (specify)<br>Used in<br>opencast/underground (specify)<br>BACK HOE 1.200 CUM 3 Non<br>Electrical Opencast<br>DUMPER 20.000 TONNE 9<br>Non Electrical Opencast<br>AIR COMPRESSOR 110.000<br>CUM/MN 1 Non Electrical<br>Opencas |   |
| 3l | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | Separate benches of 8.0m height (maximum) in limestone & 6.0m height in OB proposed.  | Almost bench heights in Limestone , Overburden and on top soil maintained as per approved proposal ,<br>However advancement of benches were observed taking than the approved one.  | Advise extended during inspection to the concerned about advancement of benches with respect to subsequent bench as per approved proposal and Head of mining operation and Mining Engineer both, gave their words to keep the advancement of benches as per proposal. |
| 3m | Total area covered under excavation/pits   | Not specified   | 3.5 ha  |   |
| 3n | Ore to OB ratio for the pit/mine during the year.  | 1:0.45  | 1:0.48  |   |
| 3o | Total area put in use under different heads at the end of year                                       | 4.81 hect   | Almost as considered<br>4.80 hect.  |   |
| 3p | Production of ROM mineral during the last five year period as applicable                             | 2018-19-228960<br>2019-20-227511<br>2020-21-145570<br>2021-22-99050<br>2022-23-166904 | 2018-19-201659<br>2019-20-226030<br>2020-21-145422<br>2021-22-99029<br>2022-23-133518   |   |

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3q General remarks of inspecting officers on method of mining etc.

Pit has reached upto 60-64m depth. There is no scope for further advancement of pit towards north and south . Advancement of pit is only possible towards North West with following the statutory boundary limit of Nort and South. Advise extended during inspection to the concerned about advanement of benches with respect to subsequent bench as per approved proposal and Head of mining operation and Mining Engineer both, gave their words to keep the advancement of benches as per proposal.

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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) | Separate generation of top soil and OB proposed. In place of separate dumping simultaneous utilisation of both proposed. | As per approved proposal OB utilised for backfilling followed by topping by generated top soil from the mine. |  |
| 4b     | Location of topsoil, OB and mineral reject dumps                 | Not proposed   | NA  | As per proposal Backfilling carried out. |
| 4c     | Number of dumps within lease area and outside of lease area      | -  | One dump  |  |

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|----|--|---------------|--|
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16)              | -             | On western part of the lease area.   |
| 4e | Number of active and alive dumps.                                  | -             | Nil  |
| 4f | Number of dead dumps.  | -             | One  |
| 4g | Number of dumps established.                                       | Not proposed  | None   |
| 4h | Whether Retaining wall or garland drain all along dumps are there. | Not specified | Garland drain-200 meters   |
| 4i | Length of Retaining wall or garland drain all along dumps          | Not specified | Garland drain-200 meters   |
| 4j | Number of settling ponds   | 01            | 01   |
| 4k | Specific comments of inspecting officer on waste dump management   |               | Waste dump management was carried out in line with the approved mining plan. |

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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. | Backfilling of mined out area of 0.15hect area proposed | As per approved proposal progressive backfilling were seen in the mine.            |         |
| 5b     | Area under backfilling of mined out area  | 0.15  | As per proposal  |         |
| 5c     | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)     | 18540m3   | about 21000m3  |         |
| 5d     | Total area fully reclaimed and rehabilitated  | Not specified   | Reclamation work of mined out area as per approved proposal were seen in progress. |         |



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| 5e | General remarks of inspecting officers on backfilling and reclamation etc. | Backfilling followed by reclamation and rehabilitation work were seen as per approved proposals. |
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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           | PMCP report attached with AR,2022-23 | Efforts made for opening of PMCP report but failed.           |
| 6b     | Area available for rehabilitation (ha) .   | 0.15hect      | 0.15hect                             |   |
| 6c     | afforestation done (ha).   |               | 0.15ha.                              |   |
| 6d     | No. of saplings planted during the year  | Not specified | 150                                  |   |
| 6e     | Cumulative no .of plants   |               | 705                                  |   |
| 6f     | Any other method of rehabilitation   | Not proposed  | Not adopted.                         |   |
| 6g     | Cost incurred on watch and care during the year  | Not specified | Not maitained.                       |   |
| 6h     | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D | 0.15ha        | 0.15ha                               |   |
| 6i     | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings          | 0.15ha        | 0.15ha                               | Backfilling by genrated OB & followed by topping by top soil. |

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|----|---|---------------|--|--|
| 6j | Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area         | Not specified | plantation of 150saplings over 0.15ha backfilled area.   |  |
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir | Not proposed  | NA   | Rehabilitation by converting pit as a water reservoir not done.  |
| 6l | Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.                  | Not proposed  | NA   |  |
| 6m | Compliance of rehabilitation of waste land within lease (i)afforestation                                  | Not specified | Not done   |  |
| 6n | Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)                      | Not specified | Not done   | Only statutory barrier zone after reclamation are available for plantation which is in practice as per approved proposals. |
| 6o | Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation                     | Not proposed  | NA   |  |
| 6p | Compliance of environmental monitoring (core zone and buffer zone)  | Proposed      | As per proposal carried out. Record of peroodical monitoring data checked and observed that records are maaintained. |  |

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|----|---|--|
| 6q | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc. | PMCP compliance considered however PMCP report attached with the AR,2022-23 was not opened.Efforts towards reclamation and rehabilitation of mined out pit are evidenced and observed as per proposal. |
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Mineral Conservation:

| Sl.No. | Item   | Propasals   | Actual work                                   | Remarks   |
|--------|--|---|---|---|
| 7a     | ROM Mineral dispatch or grade-wise sorting within lease area                           | ROM Mineral 193899tonne Salable Mineral 133523tonne | ROM mineral -NA Salable Mineral- 133518tonne. |   |
| 7b     | Method of grade-wise mineral sorting i.e. manual or mechanical.                        | Manual  | Manual  | Entire mineral produced from the mine have a market as BF grade.  |
| 7c     | Different grade of mineral sorted out at mines.  | Not specified                                       | BF grade                                      |   |
| 7d     | Any beneficiation process at mines .   | Not proposed  | Not done                                      |   |
| 7e     | General remarks of inspecting officer on Mineral conservation and beneficiation issues |   |   | Salaeble mineral is being dispatched from the lease area as per records .Mineral is reportedly being dispatched directly from the ML area to different users. In list of users there is name of tata Steel Ltd and other 16 individual / firm/ companies. |

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Environment:

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| Sl.No. | Item  | Propasals  | Actual work  | Remarks |
|--------|---|--|--|---------|
| 8a     | Separate removal and utilization of topsoil (Rule 32)   | Proposed   | As per approved proposal.  |         |
| 8b     | Concurrent use or storage of topsoil  | Concurrent use of top soil proposed for topping over backfilled area.                    | As per approved proposal.  |         |
| 8c     | Separate dumps for overburden, waste rock, rejects and fines (Rule 33)                                      | Not proposed as simultaneous reclamation proposed.                                       | As per approved proposals.   |         |
| 8d     | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use           | Proposed   | Utilised as per proposal.  |         |
| 8e     | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | Brokenout statutory barrier zone including part of pit covered under phased restoration. | As per approved proposal.  |         |
| 8f     | Baseline information on existence of plantation and additional plantation done (Rule 41)                    | Proposed   | <p>Within<br/>lease area      Outside<br/>leasearea</p> <p>(i) Number of trees planted during the year<br/>150                      0</p> <p>(ii) Survival rate in percentage<br/>70                      NA</p> |         |
| 8g     | Survival rate   | Not specified  | 70%  |         |
| 8h     | Water sprinkling on roads to control airborne dust  | Yes.   | Water sprinkling on roads to control airborne dust done  |         |

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8i General remarks of inspecting officer on aesthetic beauty in and around mines area

Aesthetic beauty in and around mine area needs improvement.

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Compliance of Rule 45:

| Sl.No. | Item  | Propasals | Actual work  | Remarks  |
|--------|---|-----------|--|--|
| 9a     | Status of submission of Monthly and Annual returns  | Given     | MR & AR online submitted.  |  |
| 9b     | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager           | Given     | Manager SHRI R.K. TIWARI<br>Mining Engineer in charge SH. R.K. TIWARI<br>Geologist in charge SHRI AJAY PANDEY  |  |
| 9c     | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | Given     | (i) Already exploited and abandoned by opencast (O-C) mining<br>0.000 0.000<br>(ii) Covered under current (O-C) Workings<br>3.890 3.890<br>(iii) Used for waste disposal 1.180<br>1.180<br>(iv) Used for any other purpose (specify) Dump area & Green Belt<br>0.950 0.950 | Statutory barrier zone affected by mining had been backfilled and utilised for plantation after reclamation. |
| 9d     | Scrutiny of Annual return on afforestation  | Given     | Description Within lease area Outside lease area<br>i) Number of trees planted during the year<br>150 0<br>ii) Survival rate in percentage 70 0<br>iii) Total no. of trees at the end of the year<br>705 60  |  |
| 9e     | Scrutiny of Annual return on mineral reject generation (Grade and quantity)                   | Given.    | Nil  | Envisaged generation of reject is also nil.  |

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|----|---|--|---|--|
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore                    | ROM-<br>166904tonne<br>Saleable Mineral<br>133523tonne | ROM-<br>-<br>Graded min. Opening stock Production Despatches<br>Closing stock<br>(i) BF 4302.565<br>133518.310<br>125884.235 11936.640                          | Although BF grade and cement grade generation of mineral envisaged . In AR dispatch of only BF grade limestone furnished. It is in favour of conservation of mineral if entire mineral produced from the mine have market as a BF grade.   |
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | Given  | Av.Sale value Rs. 435/- per tonne<br>Ex Mine Price Rs. 454/- per tonne<br>Production cost Rs.224/24 per tonne   | Production cost appears on lower side as only Rs.0.6 per tonne had taken as depreciation cost against two excavator and 9 dumpers.At the time of issue of violation letter i.e on 27/06/2023 AR for 2022-23 not received under the circumstances AR for 2021-22 was scrutinised and accordingly violation of rule 45(7) was pointed out. |
| 9h | Scrutiny of Annual return on fixed assets                                   | Given  | Rs.1032585/-  | Value of fixed assets appears on lower side.   |
| 9k | Scrutiny of Annual return on mining machineries                             | Given  | Type of machinery<br>Capacity of machinery<br>No. of Mech.<br>BACK HOE 1.2 cum<br><br>3<br>DUMPER 22tonner<br><br>9<br>AIR COMPRESSOR<br>110cum/minute<br><br>1 | As per approved MPLN only 2 no. of excavator envisaged.  |

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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 |
| Rule 11(1)         | 27-JUN-23 |               |                     |           |               |
| Rule 12(4)         | 27-JUN-23 |               |                     |           |               |
| Rule 45(7)         | 27-JUN-23 |               |                     |           |               |

**Date :****(RAGHUBIR SHARAN GARG)**

Indian Bureau of Mines