

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

**MCDR inspection REPORT
Jabalpur regional office**

Mine file No : MP/KTN/LST-7

Mine code : 38MPR18013

- (i) Name of the Inspecting : **G005**) **SANJAY M. GIRHE**
Officer and ID No.
- (ii) Designation : Regional Mining Geologist
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 16-JAN-20
- (v) Prev.inspection date : 01-FEB-19

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **BADARI (5.04 HECT.)**
- (b) **Registration NO.** :
- (c) Category : A Other than Fully Mech.
- (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. : N. A.
E-mail : snsktm@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 : 20
(d) Date of Expiry : 01-MAY-17
4. Mineral worked : LIMESTONE Main

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

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No exploration was proposed during approved plan period 2017-18 to 2021-22	Nil	
1b	Exploration over lease area for geological axis 1 or 2	No exploration was proposed during approved plan period 2017-18 to 2021-22	Nil	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Exploration was not proposed during the year 2018-19	No exploration carried out	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not Proposed	4.77Ha marked as G1 level of exploration & G2 level as 0.27Ha as per approved MMP dtd 21.04.2017	
1e	Balance reserve as on 01/04/20	Reserves in Tonnes Proved(111) - 1333068 Probable (122)- 5472 Resources in tonnes Feasibility(211): 1065652 Pre-Feasibility(222): 150640 Reserves positions as per approved MMP dtd 21.04.2017	Reserves in Tonnes Proved(111) - 922578 Resources in tonnes- Nil Reserves positions as per AR for the year 2018-19	

1f	General remarks of inspecting officers on geology, exploration etc	NA	NA	Entire 4.07 ha area has been explored by means of working pits and mineralisation proved up to 40mts (From 391.90RL to 351.50RL)
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	It was proposed to work in between 455400E to 455600 & 2657630 to N2657800 with bench RL from 380 to 347 earmarked on 4 Plate for the year 2018-19.	Mine working was carried out as per the proposed locations during the year 2018-19	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Bench -387 for top soil, Dolomite as OB bench-380 to 372 & benches from 372 to 347 for limestone proposed	Working carried out as per the proposals	
2c	Stripping ratio or ore to OB ratio	Proposed as 1:0.49 Tonne/CuM	NA	No overburden generated during the year
2d	Quantity of topsoil generation in m3	Proposed as 15382 CuM	NA	
2e	Quantity of overburden generation in m3	Proposed as 47958 CuM	No overburden generated during the year	

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	NA	NA	There is single centralised pit with dimensions as Length-300m (Max) x Width 140m(Max) x 53m (Max). Limestone very well exposed in pit
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Excavation were proposed in Pit-1 from 363.5RL to 347.5mRL as marked in Plate-8	Mine working were carried out as per the proposals	
3b	Quantity of ROM mineral production proposed	228960 tonnes proposed in 2018-19	201659 tonnes proposed in 2018-19	Acheived production within proposed limit
3c	Recovery of sailable/usable mineral from ROM production	Proposed as 80% during the year 2018-19	Acheived about 80% during the year	20% is interburden
3d	Quantity of mineral reject generation	Not Proposed	Nil	No mineral rejects generation in the mine
3e	Grade of mineral rejects generation and threshold value declared.	Not Proposed	Nil	
3f	Quantity of sub grade mineral generation.	Not Proposed	Nil	
3g	Grade of sub grade mineral generation	Not proposed	No sub-grade generation proposed during the year	
3h	Manual / Mechanised method adopted for segregating from ROM	Manual sizing & sorting proposed	Carried out as per the proposals	

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Proposed	Nil	Beneficiation is not required
3j	Provision of drilling and blasting in mineral benches	Small dia 32mm shallow depth drilling & blasting is proposed by Jack hammer/rock drilled	Drilling & blasting using jack hammer carried out Small dia 32mm shallow depth.	
3k	Provision of mining machineries in mineral benches	Atlas Copco-110CFM Rock drill-48mm L&T Excavator-1.2CuM, TATA Dumper model 2515, 10 T capacity Tractor mounted Air Compressor Jack Hammer with Drill rods Mahindra Tractor with Water Tank on trolley Water pump with Diesel engine	Atlas Copco-110CFM Rock drill-48mm L&T Excavator-1.2CuM, TATA Dumper model 2515, 10 T capacity Tractor mounted Air Compressor Jack Hammer with Drill rods Mahindra Tractor with Water Tank on trolley	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Suitable height of benches in OB & mineral proposed	Working carried out as per the proposals	
3m	Total area covered under excavation/pits	4.70 Ha area was proposed in approved MP period i.e. 2017-18 to 2021-22	1.94Ha as on 01.04.2019 as per the online annual return	

3n	Ore to OB ratio for the pit/mine during the year.	Proposed as 1:0.49 tonnes/CuM	NA	No OB generated during the year
3o	Total area put in use under different heads at the end of year	As per the previous approved MP proposals Pits-4.70 Ha OB dumps- 1.04Ha Infrastructure -0.050Ha Backfilled area-0.80Ha	Pits-1.94 Ha OB dumps- 0.65 Ha Reclaimed/Reahabilitated -0.80 Ha Infrastructure-0.50Ha As per annual return for the year 2018-19	
3p	Production of ROM mineral during the last five year period as applicable	2014-15-: 105780 tonnes 2015-16-: 90660 2016-17-: 73560 2017-18-: 225600 2018-19-: 228960 2019-20-: 227511	2014-15-: Nil 2015-16-: 49112 tonnes 2016-17-: 37816 2017-18-: 208830 2018-19-: 201659 2019-20-: 226030	
3q	General remarks of inspecting officers on method of mining etc.	NA	NA	Fully/Semi-Mechanised open cast working proposed by using Excavator & dumper combination with drilling & blasting using wagon drill/jack hammer.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No separate dumping of top soil & OB proposed	Concurrent use of top soil & OB for backfilling purpose proposed	Less quantity of OB & top soil generation proposed during 2018-19

4b	Location of topsoil, OB and mineral reject dumps	Not proposed	Concurrent use of OB for backfilling was proposed	
4c	Number of dumps within lease area and outside of lease area	Not Proposed	Single dump towards western part of ML area	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not Proposed	Single dump towards western part of ML area existing.	
4e	Number of active and alive dumps.	Not Proposed	Single active dump located towards western part of lease area.	
4f	Number of dead dumps.	Not Proposed	Nil	No dead dumps in the lease area
4g	Number of dumps established.	Not Proposed	Nil	No dumps stabilised
4h	Whether Retaining wall or garland drain all along dumps are there.	Not Proposed	Nil	
4i	Length of Retaining wall or garland drain all along dumps	Not Proposed	Nil	
4j	Number of settling ponds	Not Proposed	Nil	
4k	Specific comments of inspecting officer on waste dump management	NA	NA	Less amount of OB generated during mining operations

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.	During the year 10 SqM area proposed for backfilling	During the year 47958 tonnes backfilled	

5b	Area under backfilling of mined out area	During the year 10 SqM area proposed for backfilling	During the year 47958 tonnes backfilled	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Concurrent use proposed	Top soil used concurrently	
5d	Total area fully reclaimed and rehabilitated	NA	NA	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	NA	NA	Limestone at the verge of exhaustion in pit-1, hence scope of backfilling for reclamation/rehabilitation very well existed.

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).	To be submitted before 1st July of every year	Not submitted.	Violation under rule 26(2) of MCDR,17 was issued.
6b	Area available for rehabilitation (ha) .	10000 SqM area proposed under reclamation & rehabilitation	Reclamation carried out as per the proposals	
6c	afforestation done (ha).	Not Proposed	260 sapling planted during the year	
6d	No. of saplings planted during the year	Not Proposed	260 sapling planted during the year	
6e	Cumulative no .of plants	NA	NA	
6f	Any other method of rehabilitation	NA	NA	

6g	Cost incurred on watch and care during the year	NA	NA	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D	10 SqM area proposed for backfilling	Backfilling carried out as per the proposals	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	10 SqM area proposed for backfilling	Backfilling carried out as per the proposals	
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	Not Proposed	NA	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not Proposed	Nil	Rehabilitation by water reservoir not proposed
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 Proposed	Nil	

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not Proposed	Nil	No waste land encountered in the ML area
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not Proposed	Nil	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Periodical Air, Water, Noise monitoring Proposed	Carried out as per the proposals	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	NA	NA	Scope of backfilling/reclamation & rehabilitation very well exist as limestone is exhusting in the pits. Periodic monitoring is being carried out by outsourced consultant.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	228960 tonnes limestone proposed as total ROM production for despatch.	274945 tonne limestone despatched during the year	Grade wise sorting proposed
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual grade wise sizing & sorting proposed	Carried out as per the proposals	

7c	Different grade of mineral sorted out at mines.	Cement grade & BF grade limestone sorting proposed	Carried out as per the proposals	
7d	Any beneficiation process at mines .	Not Proposed	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	NA	NA	There is no mineral rejects/subgrade generation. Entire 80% from ROM utilised by proper sizing, sorting & blending as per buyer requirements.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Separate removal & concurrent use for backfilling proposed	Carried out as per the proposals	
8b	Concurrent use or storage of topsoil	Concurrent use for plantation over backfilling area proposed	Carried out as per the proposals	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Not Proposed	Concurrent use for backfilling proposed	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Concurrent use for reclamation & rehabilitation proposed	Work carried out as per the proposals	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Phased wise reclamation & rehabilitation proposed	Carried out as per the proposals	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Not Proposed	260 nos. of saplings planted in ML & outside ML area	
8g	Survival rate	Not Proposed	80% achieved during the year	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling is proposed by water tanker	Regular water sprinkling is done by water tanker	Water tanker of 5KL capacity is provided for the purpose
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	NA	NA	Aesthetic beauty in and around mine area is not much satisfactory as plantation not done up to that extent.

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. not submitted upto- Jan-2020 A.R. submitted upto- 2018-19	Annual Return for the year 2018-19 was submitted within time limit.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Given	Shri R.K. Tiwari appointed as Mining Eng. & Shri Ajay Pandey as Geologist	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Given	Working pits- 1.94 Ha OB dumps - 0.65 Ha Reclaimed/Rehabilitated- 0.80 Ha Infrastructure-0.50 Ha	
9d	Scrutiny of Annual return on afforestation	Give	260 saplings planted in ML & outside ML area	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Not Give	Mineral rejects not generated	Limestone recovery of 80% from ROM & 20% as interburden waste
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Given	BF Grade Limestone: O/S-163382 Tonnes Despatch-274945 Tonnes C/S-90095Tonnes	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Given	Ex-mine price: BF Grade -Rs 266/MT	Violation under rule 45(5) (c) pointed out for low Ex-mine price compare to the ASP published by IBM
9h	Scrutiny of Annual return on fixed assets	Given	Nil	
9k	Scrutiny of Annual return on mining machineries	Given	Nil	

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
MCDR17	Rule 11(1)	13-FEB-20	07-AUG-20				
MCDR17	Rule 26(2)	13-FEB-20	07-AUG-20				
MCDR17	Rule 31(4)	13-FEB-20	07-AUG-20				
MCDR17	Rule 45(5) (k	13-FEB-20	07-AUG-20				

Date :

(SANJAY M. GIRHE)

Indian Bureau of Mines