

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

**MCDR INSPECTION REPORT**

**Ajmer regional office**

**Mine file No :** RAJ/JSL-13/LST-1

**Mine code :** 38RAJ14002

- (i) Name of the Inspecting : **DJ03** ) **DILIP JAIN**  
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Sri Ashish Parihar, Mine Manger, Sri D.S. Acharya, G  
Official with  
Designation
- (iv) Date of Inspection : 10-FEB-22
- (v) Prev.inspection date : 05-FEB-21

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **SANU (1000HECT.)**
- (b) **Registration NO.** : **IBM/5158/2011**
- (c) **Category** : **A Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **RAJASTHAN**
- District : **JAISALMER**
- Village : **JOGA**
- Taluka : **JAISALMER**
- Post office : **SANU**
- Pin Code : **345001**
- FAX No. : **02992-251394**
- E-mail : **sanumines@yahoo.co.in**
- Phone : **02992-270283**
- (f) **Police Station** :
- (g) **First opening date** : **19-MAR-87**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **P.BOX NO.56,**  
**correspondance** **KHANIJ BHAWAN**  
**JAISALMER**
3. (a) **Lease Number** : **RAJ1485**
- (b) **Lease area** : **998.4**
- (c) **Period of lease** : **30**
- (d) **Date of Expiry** : **30-MAR-47**
4. **Mineral worked** : **LIMESHELL** **Associated**  
**LIMESTONE** **Main**

## 5. Name and Address of the

Lessee : RAJASTHAN STATE MINES & MINERALS LTD.  
 RSMM LTD., GYPSUM DIVN.  
 SADUL CLUB BUILDING,  
 BIKANER BIKANER RAJASTHAN  
 Phone:0151-2523295, 2544178, 2542291, 2542133  
 FAX :0151-2523519

Owner : Vikas Sitaramji Bhale  
 Rajasthan State Mines &  
 Mineral Ltd 4 Meera Marg,  
 Udaipur, Rajasthan UDAIPUR  
 RAJASTHAN  
 Phone: 9414320130  
 FAX :

Agent : D D SHRIPAT  
 8 WEST PATEL NAGAR, JODHPUR  
 JODHPUR RAJASTHAN  
 Phone:  
 FAX :

## Mining Engineer

Name : Sh. Mayank Rao, Full Time  
 Qualification : BE (Mining)  
 Appointment/ : 12-MAY-21  
 Termination date

## Geologist

Name : Sh. D. S. Acharya, Full Time  
 Qualification : M.Sc. Geology  
 Appointment/ : 22-DEC-21  
 Termination date

## Manager

Name : Sh. Mahipal Jugtawat  
 Qualification : BE Mining  
 Appointment/ : 24-SEP-21  
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Existing rule 11 MCDR1988	14-JUN-91
		Mining Scheme rule 12 MCDR1988	20-AUG-97
		Mining Scheme rule 12 MCDR1988	04-FEB-02
		Mining Scheme rule 12 MCDR1988	17-JUN-03
		Mining Scheme rule 12 MCDR1988	04-SEP-06
		Mining Scheme rule 12 MCDR1988	27-MAY-08
		Mining Scheme rule 12 MCDR1988	13-SEP-12
		MP review under 17(1) MCR 2016	13-DEC-16
		MP modif under 17(3) MCR 2016	05-DEC-18

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal.	Not applicable as no proposal.	NIL.
1b	Exploration over lease area for geological axis 1 or 2	No proposal.	Not applicable as no proposal.	NIL.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not applicable as no proposal of exploration.	Not applicable.	NIL.
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal of exploration.	Not applicable.	As per approved document entire SMS grade limestone has been explored under G1 level of exploration.
1e	Balance reserve as on 01/04/20	As per approved document dated 05/12/2018, the position of reserve of SMS grade limestone as on 01.04.2018 was 19.84 mT.	The position of SMS grade limestone as on 01/04/2021 was 12.383 mT.	NIL.
1f	General remarks of inspecting officers on geology, exploration etc	No proposal of exploration.	As per approved document entire SMS grade limestone has been explored under G1 level of exploration.	Geologically the deposit is of regular habit. The SMS grade limestone occurs around 5-6 mts from surface.

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	North and South block.	North and South block.	NIL.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No top Soil and OB in lease area. Single bench in mineral.	Only single bench mining. SMS grade limestone occurs at up to a depth of around 6 mtrs from surface.	NIL.

2c	Stripping ratio or ore to OB ratio	1:0	1:0	Surface deposit no OB/Waste.
2d	Quantity of topsoil generation in m3	No top soil.	No top soil has been generated.	Overlain by Alluvium at few places.
2e	Quantity of overburden generation in m3	No proposal of OB/waste generation.	No OB/waste has been generated during reporting year (RY) 2020-21.	NIL.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Opencast method of development.	Opencast method of development is in practice.	The method proposed and in practice for development is best suited method for type of deposit.

#### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Two (North block and South block)	Two (North block and South block)	NIL.
3b	Quantity of ROM mineral production proposed	3304000 MT	20,99,686 MT	Less production in account of low demand and COVID-19 pandemic.
3c	Recovery of sailable/usable mineral from ROM production	Recovery of Finished product i.e. 30mm to 80mm size is about 47% .	Actual Recovery of Finished product i.e. 30-80mm size was 45.80%	NIL.
3d	Quantity of mineral reject generation	1277000 MT	929866 MT	Low grade rejects having size less than 8 mm.
3e	Grade of mineral rejects generation and threshold value declared.	CaO = 45 to 46 % SiO2 = 14 to 15 %	CaO = 44.25 % SiO2 = 12.49 %	Threshold value of Limestone is CaO>34% and MgO <= 5%
3f	Quantity of sub grade mineral generation.	413000 MT	2,19,909 MT	Subgrade mineral is having size between 10 mm to 30mm size gitty.
3g	Grade of sub grade mineral generation	No specific proposal on garde.	CaO = 51.38 % SiO2 = 1.62 %	Subgrade mineral is having size between 10 mm to 30mm size gitty.

3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized (crushing and screening).	Mechanized (crushing and screening).	NIL.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal.	Not applicable.	NIL.
3j	Provision of drilling and blasting in mineral benches	Drilling is done with help of 4" dia drill machine and Blasting is done with ANFO by using controlled blasting techniques DTH & TLD.	Drilling is done with help of 4" dia drill machine and Blasting is done with ANFO by using controlled blasting techniques DTH & TLD.	NIL.
3k	Provision of mining machineries in mineral benches	Dumper and Shovel Combination (HEMM).	Dumper and Shovel Combination (HEMM).	NIL.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Up to the depth of the SMS grade limestone (around 3.5 to 5.5mts).	As per proposal.	Vary from 3.5 to 5.5 meter.
3m	Total area covered under excavation/pits	Total of 660.80 hectare area including reclaimed and rehabilitated area.	Total of 578.33 hectare area including reclaimed and rehabilitated area.	Less area degradation in account of less production due to low demand and COVID-19 pandemic.
3n	Ore to OB ratio for the pit/mine during the year.	1:0	1:0	Surface deposit no OB/Waste.
3o	Total area put in use under different heads at the end of year	Total of 674.99 hectare area including reclaimed and rehabilitated area.	The information of land use at the end of the year 2020-21 has not been furnished properly in annual return.	Violation of rule 45(7) of MCDR, 2017 issued vide letter dated 04/03/2022.

3p	Production of ROM mineral during the last five year period as applicable	2016-17: 2700000 2017-18: 2700000 2018-19: 3304000 2019-20: 3304000 2020-21: 3304000	2016-17: 2084683 2017-18: 2685196 2018-19: 2725921 2019-20: 2631526 2020-21: 2099686	All figures in tonnes.
3q	General remarks of inspecting officers on method of mining etc.	Opencast method of mining has been proposed.	Opencast method of mining is being practiced.	Opencast method of mining is best suited method for the type of deposit. No issue related to method of mining.

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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)	No proposal of top soil and OB generation. Mineral reject proposed to backfill.	No top soil and OB generation during RY. Mineral Reject disposed as per proposal.	Surface deposit. NO OB and Top Soil.
4b	Location of topsoil, OB and mineral reject dumps	No proposal of top soil and OB generation. Mineral reject and SG proposed to backfilling in excavated area.	No top soil and OB generation during RY. Mineral Reject and SG disposed as per proposal.	Surface deposit. NO OB and Top Soil.
4c	Number of dumps within lease area and outside of lease area	No waste dump within and outside lease area.	No waste dump within and outside lease area.	NIL.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not applicable as no proposal of waste dumping.	Not applicable.	NIL.
4e	Number of active and alive dumps.	No proposal of active & alive dumping.	Not applicable.	NIL.
4f	Number of dead dumps.	No proposal.	Not applicable.	NIL.
4g	Number of dumps established.	No proposal.	Not applicable.	NIL.

4h	Whether Retaining wall or garland drain all along dumps are there.	Not applicable as no waste dumping.	Not applicable.	NIL.
4i	Length of Retaining wall or garland drain all along dumps	No proposal.	Not applicable.	NIL.
4j	Number of settling ponds	No proposal.	Not applicable.	NIL.
4k	Specific comments of inspecting officer on waste dump management	No proposal of waste generation.	No waste has been generated during RY.	No issue related waste management as no waste generation.

#### 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 proposed after full extraction of SMS Grade Limestone.	Yes, Full extraction of SMS Grade Limestone before starting backfilling.	NIL.
5b	Area under backfilling of mined out area	28.69 Hectare	14.31 Hectare (Less area of backfilling due to low production resulting less generation of Mineral Reject).	Mined out area is concurrently backfilled with low grade reject.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal of top soil generation.	Not applicable.	NIL.
5d	Total area fully reclaimed and rehabilitated	Proposed during FY 2020-21: Backfilling= 28.69 Hect. Plantation=25.00 Hect.	Actual during FY 2020-21: Backfilling= 14.31 Hect. Plantation=20.85 Hect.	NIL.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Backfilling proposed after full extraction of SMS Grade Limestone.	Full extraction of SMS Grade Limestone before starting backfilling.	A total of 292.50 Hect area is reclaimed & 198.67Hect area was planted on backfilled area including road side plantation.

## 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).	As per rule 26 of MCDR, 2017 holder of mining lease shall submit PMCP before 1st day of July every year.	PMCP report for the year 2020-21 has been submitted.	NIL.
6b	Area available for rehabilitation (ha) .	25 Hect.	20.85 Hect.	Violation of rule 11(1) of MCDR,2017 issued on 04/03/2022 for shortfall in afforestation area.
6c	afforestation done (ha).	25 Hect.	20.85 Hect.	Violation of rule 11(1) of MCDR,2017 issued on 04/03/2022 for shortfall in afforestation area.
6d	No. of saplings planted during the year	6500 nos of saplings.	5000 nos of saplings.	Violation of rule 11(1) of MCDR,2017 issued on 04/03/2022 for shortfall in number of saplings.
6e	Cumulative no .of plants	No specific proposal.	76,106 nos.	Total number of plantation on mined out, backfilled and virgin area as on 31.03.2021
6f	Any other method of rehabilitation	No proposal.	Not applicable.	NIL.
6g	Cost incurred on watch and care during the year	No specific proposal.	13.80 lacs	Cost incurred in deploying water tanker &labour in care, watch & ward though contractors.



6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	28.69 Hect.	14.31 Hect.	Less area of backfilling due to low production resulting less generation of Mineral Reject.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	13.77 Lakh Tonnes.	9.29 Lakh Tonnes.	NIL.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	25 Hect.	20.85 Hect.	Violation of rule 11(1) of MCDR,2017 issued on 04/03/2022 for shortfall in afforestation area.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No Proposal.	Not applicable.	NIL.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No any other specific proposal.	Not applicable.	NIL.
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Total 6000 numbers during the RY.	Total 5000 numbers during the RY.	Violation of rule 11(1) of MCDR,2017 issued on 04/03/2022 for shortfall in number of saplings.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	28.69 Hect. (backfilling).	14.31 Hect (backfilling)	Less area of backfilling due to low production resulting less generation of Mineral Reject.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Plantation.	Plantation.	NIL.

6p	Compliance of environmental monitoring (core zone and buffer zone)	Provision for monitoring of environment parameter has been given.	Environment monitoring is being carried out in core and buffer zone. Parameters are found to be within permissible limit.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	An area of 25.0 Ha has been proposed for plantation with 6000 numbers of saplings.	An area of 20.85 Ha. has been planted with 5000 number of saplings.	Violation of rule 11(1) of MCDR,2017 issued on 04/03/2022 for shortfall in afforestation area and number of saplings planted.

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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	No grade wise sorting. However, size wise sorting of the mineral has been proposed.	No grade wise sorting. Mineral having size 30 to 80 mm, 10 to 30 mm and -10 mm is being sorted out.	NIL.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical (crushing and screening).	Mechanical (crushing and screening).	NIL.
7c	Different grade of mineral sorted out at mines.	40-80mm size gitty 30-60mm size gitty 30-50mm size gitty 10-30mm sizegitty.	40-80mm size gitty 30-60mm size gitty 30-50mm size gitty 10-30mm sizegitty.	No grade wise sorting. However, size wise sorting of the mineral is being carried out.
7d	Any beneficiation process at mines .	No proposal.	No beneficiation process other than crushing and screening.	NIL.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Dry processing by crushing and screening.	Mineral processing is carried out by dry processing as per proposal.	No issue observed related to mineral conservation.

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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)	No proposal of top soil generation.	No top soil have been generated.	No top soil, surface deposit.
8b	Concurrent use or storage of topsoil	No proposal of top soil generation.	No top soil have been generated.	No top soil, surface deposit.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Low grade rejects generated during the crushing & screening process and backfilled in mined out pits.	Low grade rejects generated during the crushing & screening process and backfilled in mined out pits.	These low grade reject may be used in future for cement plants.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Mineral rejects & fine is dumped in mined out area.	Mineral rejects & fine has been disposed in mined out area.	NIL.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Land affected by mining has been proposed to reclaimed by the way of backfilling.	Backfilling has been carried out for reclamation.	NIL.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	6500 Nos. of saplings.	5000 Nos. of saplings.	Violation of rule 11(1) of MCDR, 2017 has been issued vide letter dated 07/03/2022.
8g	Survival rate	No proposal on survival rate.	78.36 as per AR 2020-21.	NIL.
8h	Water sprinkling on roads to control airborne dust	Water sprinkling to control airborne dust.	Water sprinkling observed.	NIL.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	A total of 6000 numbers of saplings proposed to plant during 2020-21.	A total of 5000 numbers of saplings have been planted during 2020-21.	Violation of rule 11(1) of MCDR, 2017 has been issued vide letter dated 07/03/2022.

## Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	As per rule 45 of MCDR, 2017 monthly and annual return to be submitted to competent authority.	Monthly and annual returns have been submitted for the RY.	NIL.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information on Mining Manager, Engineer and geologist has been furnished.	Mining Engineer, Geologist and Manager has been appointed in the mine.	NIL.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area for Mining = 578.33 Covered under current O/c working: 16.95 Reclaimed/Rehabilitated= 292.50 Used for waste disposal: 292.50 Infrastructure : 14.19 Plantation:198.67  Plantation = 198.67 Road, building= 9.69 C&S plant, storage= 4.50	The information furnished in respect of land use found incorrect.	Show-cause notice under rule 45(7) of MCDR issued vide letter dated 07/03/2022.
9d	Scrutiny of Annual return on afforestation	Inside Lease: 5000 and Outside Lease: NIL.	Found in order.	NIL.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral Rejct of 929866.00 tonnes.	Low grade rejects fines generated.	NIL.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Closing: NIL Total Graded Closing: 607744.36 tonnes.	Found in order.	NIL.

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Information on sale value, Ex. Mine Price and cost of production have been furnished.	Information furnished appears to be in order.	NIL.
9k	Scrutiny of Annual return on mining machineries	Back Hoe, Blast Hole Drill, Dumper, Front end Loader, Jeep/Tractor, Crusher, Explosive Van, Water Tanker.	Back Hoe, Blast Hole Drill, Dumper, Front end Loader, Jeep/Tractor, Crusher, Explosive Van, Water Tanker.	NIL.

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**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 11(1)	07-MAR-22			
MCDR17	Rule 45(7)(a)	07-MAR-22			

**Date :**

**(DILIP JAIN)**

Indian Bureau of Mines