

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

MCDR INSPECTION REPORT

Ajmer regional office

Mine file No : RAJ/JSL-14/LST-2

Mine code : 38RAJ14001

- (i) Name of the Inspecting : **DJ03**) **DILIP JAIN**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Sh. Mahipal Jugtawat, Mine Manger, Sh. Ashish Parihar
Official with
Designation
- (iv) Date of Inspection : 03-OCT-22
- (v) Prev.inspection date : 02-MAR-21

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **SANU (998.40 HA)**
- (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. : 02992-52135
- E-mail : menaria
- Phone : 02992-51607
- (f) Police Station : Sanu
- (g) First opening date : 18-OCT-93
- (h) Weekly day of rest : MON
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 : 50
- (d) Date of Expiry : 31-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 : Rajendra Manaria
 Khaniz Bhawan, Near B P
 Tank Jaiselmer JAISALMER
 RAJASTHAN
 Phone: 02992251607
 FAX :

Mining Engineer

Name : Ashish Parihar, Full Time
 Qualification : BE (Mining),
 Appointment/ : 27-JAN-22
 Termination date

Geologist

Name : Shri Rajesh Samar, Geologist, 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	:	Fresh under rule 22 MCR1960	27-JAN-93
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	17-JUL-98
		Mining Scheme rule 12 MCDR1988	25-JUL-13
		MP review under 17(1) MCR 2016	01-DEC-17

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal of exploration during the previous year 2020-21.	Not applicable as no proposal.	NIL.
1b	Exploration over lease area for geological axis 1 or 2	No proposal of exploration for reporting year (RY) 2021-22.	No exploration during the reporting year (RY) 2021-22.	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 01/12/2017, the position of reserve of SMS grade limestone as on 01.04.2018 was 17.621 mT.	The reserve position of SMS grade limestone as on 01/04/2022 was 9.42 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
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2a	Location of development w.r.t.lease area	Near boundary pillar N, I and northeast of the RSMM crusher and Screen plant	Mine development has not been carried out over proposed location	Violation of MCDR issued vide letter dated 14/11/2022.
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 T/T	1:0 T/T	Surface deposit no OB/Waste.
2d	Quantity of topsoil generation in m3	No top soil.	Not applicable as no top soil generation.	NIL.
2e	Quantity of overburden generation in m3	No overburden, deposit is outcrop on surface.	Not applicable.	NIL.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Development has been proposed through opencast method.	Development is being carried out through opencast method.	Violation of rule 11(1) of MCDR, 2017 issued vide letetr dated 14/11/2022 for deviation in development location.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Two Blocks (Sosity and departmental).	Two Blocks (Society and departmental).	Violation of rule 11(1) of MCDR, 2017 issued vide letetr dated 14/11/2022 for deviation in development location.
3b	Quantity of ROM mineral production proposed	2719000.00 MT	2681733.00 MT (including product of screening)	NIL.
3c	Recovery of sailable/usable mineral from ROM production	Recovery of Finished product i.e. 30mm to 80mm size is about 44.60% .	Actual Recovery of Finished product i.e. 30-80mm size was 45.21%	NIL.

3d	Quantity of mineral reject generation	1029000 MT	811671 MT	Low grade fines having size less than 10mm.
3e	Grade of mineral rejects generation and threshold value declared.	CaO = 41.25 % SiO2 = 14.30 %	CaO = 44.25 % SiO2 = 12.49 %	NIL.
3f	Quantity of sub grade mineral generation.	422000 MT	657616 MT	10 to 30 mm size.
3g	Grade of sub grade mineral generation	CaO = 53.65 % SiO2 = 1.58 %	CaO = 51.38 % SiO2 = 1.62 %	NIL.
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 by 4" dia drill machine and Blasting with ANFO using controlled blasting techniques DTH & TLD.	Drilling by 4" dia drill machine and Blasting with ANFO 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.	As per proposal.	Vary from 3.5 to 6.0 meter.
3m	Total area covered under excavation/pits	Total of 670.00 hectare area including reclaimed and rehabilitated area.	Total of 533.68 hectare area including reclaimed and rehabilitated area.	NIL.
3n	Ore to OB ratio for the pit/mine during the year.	1:0 T/T	1:0 T/T	NIL.

3o	Total area put in use under different heads at the end of year	Total of 718.73 hectare area including reclaimed and rehabilitated area.	Total of 573.41 hectare area including reclaimed and rehabilitated area.	Figures as per AR 2021-22.
3p	Production of ROM mineral during the last five year period as applicable	2017-18: 2779778 2018-19: 2726000 2019-20: 2714000 2020-21: 2718000 2021-22: 2719000	2017-18: 2717463 2018-19: 2633643 2019-20: 2504113 2020-21: 946698 2021-22: 2681733	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.

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 dumps within and outside lease area.	No waste dumps 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	Proposed during the RY: 36.50 Hectare	Actual during the RY: 23.21 Hectare	Mined out area is concurrently backfilled with mineral reject or size 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 the RY: 36.50 Hectare	Actual during the RY: 23.21 Hectare	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.	Mined out area is concurrently backfilled with mineral reject or size reject.

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 report before 1st day of July every year.	PMCP report for the year 2021-22 has been submitted.	NIL.
6b	Area available for rehabilitation (ha) .	20 Hectare during the RY.	21.25 Hectare.	NIL.
6c	afforestation done (ha).	20 Hectare during the RY.	21.25 Hectare.	NIL.
6d	No. of saplings planted during the year	5000 nos.	8000 nos.	NIL.
6e	Cumulative no .of plants	No specific proposal.	60,389 nos.	Total as on 31.03.2022
6f	Any other method of rehabilitation	No proposal.	Not applicable.	NIL.
6g	Cost incurred on watch and care during the year	No proposal.	12.80 lacs as informed during mine inspection.	NIL.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	36.50 hectare	23.21 hectare	NIL.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Mineral Reject having size - 10mm.	Mineral Reject having size -10mm.	NIL.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	20.00 Hect	21.25 Hect	NIL.

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	5000 nos of saplings.	8000 nos of saplings.	NIL.
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	20.00 Hectare.	21.25 Hectare.	NIL.
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)	Regularly monitoring of environment parameters.	Periodic compliance report is regularly submitted to concerned authorities.	NIL.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	An area of 20.0 hectare with 5000 nos of saplings has been proposed to plant.	An area of 21.23 hectare with 8000 nos of saplings has been planted.	NIL.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	No grade wise sorting. Size wise sorting has been proposed; 30-80mm, 10-30 mm and -10 mm.)	As per proposal.	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.	30-80mm size gitty 10-30mm sizegitty. -10 mm size.	As per proposal.	NIL.
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.

Environment:

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 mining plants.

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Backfilling of mineral reject in mine out area.	As per proposal.	NIL.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Land affected by mining has been proposed to reclaim by the way of backfilling.	Backfilling has been carried out for the purpose of reclamation.	NIL.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	5000 Nos. of saplings.	8000 Nos. of saplings.	NIL.
8g	Survival rate	70%	72.64 as per AR 2020-21.	NIL.
8h	Water sprinkling on roads to control airborne dust	Water sprinkling to control airborne dust.	Water sprinkling observed through water tanker.	NIL.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	A total of 5000 numbers of saplings proposed to plant during 2021-22.	A total of 8000 numbers of saplings have been planted during 2021-22.	The area is arid and lessee has made efforts to reclaim and rehabilitate the mine out area.

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, Mining Engineer and geologist has been furnished.	Mining Engineer, Geologist and Manager has been appointed in the mine.	Scrutiny of AR 2021-22.

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Total Land Area Status as on 01.04.2022 Area for Mining = 508.68 Backfilling = 363.95 Plantation = 196.14 Road, building= 2.10 C&S plant , storage= 37.63	The information of land use found in order.	NIL.
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 811671.00 tonnes.	Low grade rejects having size less than 10 mm.	NIL.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Closing: NIL Total Graded Closing: 26738.57 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 has been furnished.	Calculation error has been observed in Cost of production.	Violation of rule 45(7) of MCDR, 2017 issued for variation in cost of production.
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Asset: Rs. 83394811 /-	Information furnished appears to be in order.	NIL.
9k	Scrutiny of Annual return on mining machineries	Back Hoe, Blast Hole Drill, Air Compressor, Dumper, Front end Loader, Jeep/Tractor, Crusher, Explosive Van, Water Tanker.	Back Hoe, Blast Hole Drill, Air Compressor, Dumper, Front end Loader, Jeep/Tractor, Crusher, Explosive Van, Water Tanker.	NIL.

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)	15-NOV-22	23-DEC-22			
MCDR17	Rule 45(7) (a)	15-NOV-22	23-DEC-22			

Date :

(DILIP JAIN)

Indian Bureau of Mines