

**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 : **P022**) **PANKAJ KULSHRESTHA**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Shri Ashish Parihar, Manager
Official with
Designation
- (iv) Date of Inspection : 14/10/2023
- (v) Prev.inspection date : 04/10/2022

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** : **19/03/1987**
- (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** : **50**
- (d) **Date of Expiry** : **31/03/2047**
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/ : 12/05/2021
 Termination date

Geologist

Name : Sh. D. S. Acharya, Full Time
 Qualification : M.Sc. Geology
 Appointment/ : 22/12/2021
 Termination date

Manager

Name : Sh. Mahipal Jugtawat
 Qualification : BE Mining
 Appointment/ : 24/09/2021
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	14/06/1991
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	20/08/1997
		Mining Scheme rule 12 MCDR1988	04/02/2002
		Mining Scheme rule 12 MCDR1988	17/06/2003
		Mining Scheme rule 12 MCDR1988	04/09/2006
		Mining Scheme rule 12 MCDR1988	27/05/2008
		Mining Scheme rule 12 MCDR1988	13/09/2012
		MP review under 17(1) MCR 2016	13/12/2016
		MP modif under 17(3) MCR 2016	05/12/2018
		MP review under 17(1) MCR 2016	29/03/2022

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NA	NA	
1b	Exploration over lease area for geological axis 1 or 2	No such proposal	Entire lease area has been explored and falls under G1 axis.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NA	NA	
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL	Entire area has been explored.	
1e	Balance reserve as on 01/04/20	NA	16.081 million MT	
1f	General remarks of inspecting officers on geology, exploration etc	NA	May be considered as satisfactory.	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	South Pit-1 30222,11N to 3023r 654722 E - 6s5261 3019242 N to 3022 654722E 65655")48 N E 883 N E	South Pit-1 3022241N to 3023048 N 654'122E-655262E 3019242 N to 3022883 N 654722E-656557 E	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Only single bench mining. SMS grade limestone found at maximum depth of 5 meters from surface	As above	
2c	Stripping ratio or ore to OB ratio	1:0, No overburden, Surface deposit.	1:0	

2d	Quantity of topsoil generation in m3	Nil	Not applicable
2e	Quantity of overburden generation in m3	No such proposal	Not applicable
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	NA	May be considered as satisfactory.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2 pits	2 pits	
3b	Quantity of ROM mineral production proposed	3253140 t	3026902 t	
3c	Recovery of sailable/usable mineral from ROM production	Recovery of Finished product i.e. 30mm to 80 mm size is 46% Chemical Composition CaO : 54.26 % SiOz : 1.15 %	Actual Recovery of Finished product i.e. (30-80mm size is 45.9t% Chemical Composition CaO : 54.05 % SiOz : 1.19 %	
3d	Quantity of mineral reject generation	1268725 t	1085018 t , low grade reject having size less than 10 mm pre crushing process.	
3e	Grade of mineral rejects generation and threshold value declared.	CaO : 41 .25 % SiO2 : 14.30 %	CaO : 44.25 % SiOz :12.49% Threshold value of SMS Gr Limestone is CaO >34 % MgO<5%	
3f	Quantity of sub grade mineral generation.	4,87.971 T	5,52,355 t	
3g	Grade of sub grade mineral generation	CaO = 53.65 % SiO2 = 1.58 %	CaO: 51.38 % SiOz : 1.62 % Subgrade mineral is generated as by-product and having size between 10 mm to 30mm size gitty,	

3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	None	Not applicable
3j	Provision of drilling and blasting in mineral benches	Drilling 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. (4" dia large DTH drills are used for drilling)
3k	Provision of mining machineries in mineral benches	HEMM	HEMM, with Excavator with dumper combination
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes,
3m	Total area covered under excavation/pits	41.36 hecets.	38.74 hecets.
3n	Ore to OB ratio for the pit/mine during the year.	1:0	1:0, No overburden
3o	Total area put in use under different heads at the end of year	Area for Mining : 41.36 ha Backfilling : 25.97 ha Plantation : 40.00 ha Road, Building : 9.69 ha C&S plant, storage : 4.50	Area for Mining : 38.74 ha Backfilling : 31.58 ha Plantation : 20.33 ha Road, Building : 9.69 ha C&S plant, storage : 4.50

3p	Production of ROM mineral during the last five year period as applicable	2018-19 : 3304000 t 2019-20 : 3304000t 2020-21 : 3304000 t 2021-22 : 3304000 t 2022-23 : 3253140 t	2018-19 : 2725921 t 2019-20 : 2631526 t 2020-21 : 2099686 t 2021-22 : 3109865 t 2022-23 : 3026902 t
3q	General remarks of inspecting officers on method of mining etc.	NA	The overall status may be considered satisfactory.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	NA	NA	
4b	Location of topsoil, OB and mineral reject dumps	NA	Nil	
4c	Number of dumps within lease area and outside of lease area	NA	No waste dump in the lease area.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	NA	Not application	
4e	Number of active and alive dumps.	NA	None, no waste dump.	
4f	Number of dead dumps.	NA	None	
4g	Number of dumps established.	NA	Not applicable	
4h	Whether Retaining wall or garland drain all along dumps are there.	NA	Not applicable	
4i	Length of Retaining wall or garland drain all along dumps	NA	Not applicable	
4j	Number of settling ponds	NA	None	

4k	Specific comments of inspecting officer on waste dump management	NA	May be considered as satisfactory.
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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.	Full extraction of SMS Grade Mineral from mined out area before starting backfilling.	Yes, Full extraction of SMS Grade Mineral from mined out area before starting backfilling.	
5b	Area under backfilling of mined out area	25.97 ha	31.58 ha	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NA	Not applicable	
5d	Total area fully reclaimed and rehabilitated	Reclaimed area as on 07.04.2023 is 494.08 Ha. Rehabilitated with Plantation over backfilled=313.50 Ha Proposed during FY 2022-23 Backfilling=25.97 Plantation=40.00	Actual carried out d,wingFY 2022-23 Backfilling=31.5 B Plantation=20.33	As on 31.03.23 total 494.08 Ha area is reclaimed & 313.50 Ha area rehabilitated with planlation on backfilled area & on remaining area seeds were spreaded.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	NA	The overall status of backfilling and reclamation may be considered as satisfactory.	

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
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6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Yes as per rules.	Submitted in time
6b	Area available for rehabilitation (ha) .	41.36 ha	3 8.74 Hect
6c	afforestation done (ha).	NA	NA
6d	No. of saplings planted during the year	35000 Nos.	14000 Nos.
6e	Cumulative no .of plants	NA	92,067 Nos.
6f	Any other method of rehabilitation	NA	None
6g	Cost incurred on watch and care during the year	39 lacs	28.80 lacs
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	41.36 ha	38.74 Ha
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NA	NA
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	40 ha.	20.33 Ha
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NA	Not applicable

6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NA	None
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	NA	Not applicable
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	NA	NA
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	NA	NA
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes	Yes, is being done.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	NA	The overall status of PMCP compliance and progressive closure operations may be considered as satisfactory.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Production Proposal:- 1496444 (30-80mmJ 487971 (10-30 mm) Likely to Despatch:- 1500000 (30-80mm) 500000 (10-30 mm)	Actual Production:- 1389528 [30-80 mm) 552355 [10-30 mml Actual Despatchr 1403970 (30-80 mm) 525201 f10-30 mm')	

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical
7c	Different grade of mineral sorted out at mines.	Yes, different grade separated by screening at plant was as under:- 40-80mm size gitty 30-60mm size gitty 30-50mm size gitty 10-30mm size gitty.	Yes, different grade separated by screening at plant was as under:- 40-80mm size gitty 30-60mm size gitty 30-50mm size gitty 10-30mm size gitty.
7d	Any beneficiation process at mines	NA	NA
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	NA	The overall status of mineral conservation and beneficiation issues may be considered as satisfactory.

Environment:

Sl.No.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	NA	Not applicable	
8b	Concurrent use or storage of topsoil	NA	Not applicable	
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.	

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Mineral rejects & fine to be dumped in mined out area for backfilling.	Mineral rejects & fine is dumped in mined out area for backfilling.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Area proposed for Plantation (firewood plant), for natural water reservoirs & backfilled by clayey soil of low grade fines.	Area used for Plantation (firewood plant), for natural water reservoirs & backfilled by clayey soil of low grade fines.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	35000 Nos.	14,000 Nos.
8g	Survival rate	NA	30%
8h	Water sprinkling on roads to control airborne dust	Yes	Yes, water sprinkling is being done on roads to control airborne dust.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	NA	The overall status of aesthetic beauty in and around mines area may be considered as satisfactory.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Yes, As per rule	Yes, as per rule submitted.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager : Shri Mahipal Jugtawat Mining Engineer : Shri Mayank Kumar Rao Geologist : Shri Devi Shankar Acharya	Manager : Shri Ashish Parihar Mining Engineer : Shri Mayank Rao Geologist : Shri Devi Shankar Acharya	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Already exploited and abandoned by opencast (O-C) mining : 629.12 ha Covered under current workings (O/C) : 38.74 ha Reclaimed- rehabilitated : 494.08 ha Occupied by plant, buildings, residential, welfare buildings and roads : 16.88 ha Used for plantation : 313.5 ha Work done under progressive mine closure plan during the year : 20.33 ha	Already exploited and abandoned by opencast (O-C) mining : 629.12 ha Covered under current workings (O/C) : 38.74 ha Reclaimed- rehabilitated : 494.08 ha Occupied by plant, buildings, residential, welfare buildings and roads : 16.88 ha Used for plantation : 313.5 ha Work done under progressive mine closure plan during the year : 20.33 ha
9d	Scrutiny of Annual return on afforestation	Number of trees planted during the year: 14000 (WML) Survival : 71.23 % Total no. of trees at the end of year 92067 Nos.	Number of trees planted during the year: 14000 Nos. (WML) Survival : 71.23 % Total no. of trees at the end of year 92067 Nos.

9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Generation of subgrade-mineral reject (in tones) from unprocessed ore : 1085018 T during the year 2022-23 with average grade of 34. Generation of subgrade-mineral reject (in tones) from processed ore : 552355.35T during the year 2022-23 with average grade of 50.	Generation of subgrade-mineral reject (in tones) from unprocessed ore : 1085018 T during the year 2022-23 with average grade of 34. Generation of subgrade-mineral reject (in tones) from processed ore : 552355.35T during the year 2022-23 with average grade of 50. Total 525201.05 t of reject disposed during the year 2022-23.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Production and Stocks of ROM ore at Mine-head : 3026902.00 T with closing stock 0.0 Production of SMS Grade : 1389528.490 T with despatch from mine head : 1403970.490 T and Closing Stock is 61237.00T Production of Cement Grade : 552355.350 T with despatch from mine head : 525201.050 T and closing stock 349450.480 T	Production and Stocks of ROM ore at Mine-head : 3026902.00 T with closing stock 0.0 Production of SMS Grade : 1389528.490 T with despatch from mine head : 1403970.490 T and Closing Stock is 61237.00T Production of Cement Grade : 552355.350 T with despatch from mine head : 525201.050 T and closing stock 349450.480 T

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex mine price of SMS Grade : Rs. 640.51 Ex mine price of Cement Grade : Rs. 417.25 Cost of transportation of limestone through trucks from mines to Railway siding, Sanu which is 12.50 km (aprox.) reported as Rs. 119.04, Cost of production reported as Rs. 382.86.	Ex mine price of SMS Grade : Rs. 640.51 Ex mine price of Cement Grade : Rs. 417.25 Cost of transportation of limestone through trucks from mines to Railway siding, Sanu which is 12.50 km (aprox.) reported as Rs. 119.04. Cost of production reported as Rs. 382.86.
9h	Scrutiny of Annual return on fixed assets	No addition reported during the year 2022-23. However depreciation of 11526595 reported under various heads i.e. Land, Buildings (Industrial, residential) and Plant and Machinery including transport equipment.	No addition reported during the year 2022-23. However depreciation of 11526595 reported under various heads i.e. Land, Buildings (Industrial, residential) and Plant and Machinery including transport equipment. Estimated market value reported as Rs. 70614350.
9k	Scrutiny of Annual return on mining machineries	BACK HOE -2 Nos., BLAST HOST DRILL- 2 Nos., AIR COMPRESSOR- 2 Nos., DUMPER - 11 Nos., FRONT END LOADER- 2 Nos., JEEP/TRACTOR- 3 Nos. CRUSHER-2 Nos., EXPLOSIVE VAN -1 and WATER TANKER- 2 Nos.	BACK HOE -2 Nos., BLAST HOST DRILL- 2 Nos., AIR COMPRESSOR- 2 Nos., DUMPER - 11 Nos., FRONT END LOADER- 2 Nos., JEEP/TRACTOR- 3 Nos. CRUSHER-2 Nos., EXPLOSIVE VAN -1 and WATER TANKER- 2 Nos.

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

Date :

(PANKAJ KULSHRESTHA)

Indian Bureau of Mines