

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

MCDR INSPECTION REPORT

Gandhinagar regional office

Mine file No : RAJ/UDP/R.Ph.-1

Mine code : 46RAJ26003

- (i) Name of the Inspecting : **K018**) **DR A Z KHAN**
Officer and ID No.
- (ii) Designation : Regional Mining Geologist
- (iii) Accompanying mine : Sh. Yogesh vyas, Mine Manager
Official with
Designation
- (iv) Date of Inspection : 22-NOV-23
- (v) Prev.inspection date : 11-OCT-22

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **JHAMARKOTRA**
- (b) **Registration NO.** : **5158**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :
State : RAJASTHAN
District : UDAIPUR
Village : JHAMARKOTRA
Taluka : GIRWA
Post office : JHAMARKOTRA MINES
Pin Code : 313015
FAX No. : 0294-2342444
E-mail : jkt.rsmml@rajasthan.gov.in
Phone : 0294-2428741-43,9414163346
- (f) Police Station : JHAMARKOTRA
- (g) First opening date : 01-JUN-68
- (h) Weekly day of rest : MON
2. Address for : Jhamarkotra Rock phosphate Mine
correspondance : village-jamarkotra,tehsil-girwa
UDAIPUR(RAJ)
3. (a) Lease Number : RAJ0626
- (b) Lease area : 1370.37
- (c) Period of lease : 50
- (d) Date of Expiry : 31-MAR-38
4. Mineral worked : DOLOMITE Associated
ROCK PHOSPHATE Main

5. Name and Address of the

Lessee : RSMM Ltd.
 4-Meera Marg Udaipur
 UDAIPUR RAJASTHAN
 Phone:
 FAX :

Owner : Somnath Sharma, IAS
 M/S RSMM Ltd. 4- Meera
 Marg, Udaipur UDAIPUR
 RAJASTHAN
 Phone:
 FAX :

Agent : Mukesh Chaturvedi
 M/S RSMM Ltd., Jhammerkotra
 Mine, Village-
 Jhammarkotra, Tehsil-Girwa
 Udaipur UDAIPUR RAJASTHAN
 Phone:
 FAX :

Geologist

Name : Rajesh Samar, Full Time
 Qualification : M.Sc(Geology)
 Appointment/ : 01-JUL-16
 Termination date

Manager

Name : Yogesh Vyas
 Qualification : B. E. Mining
 Appointment/ : 26-DEC-18
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	12-SEP-03
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	01-SEP-08
		Mining Scheme rule 12 MCDR1988	10-SEP-13
		MP review under 17(1) MCR 2016	06-JUL-18
		MP review under 17(1) MCR 2016	22-MAR-23

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal	Entire mineralised area of the lease has been explored on G1 Axis upto depth of 254Mr1.	None
1b	Exploration over lease area for geological axis 1 or 2	There was no exploration proposal because the entire mineralised area has been explored on G1 Axis upto depth of 254 mRL	22783mtrs. with 90 no. of boreholes has been drilled to confirm the mineralisation below 254 mRL	None
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	The exploration agency was MECL & expenditure was Rs. 167.4 Lac .	None
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal because entire mineralised area has been explored to G1 level upto 254mRL	Further Exploratory drilling will be done to explore the continuity of ore body in depth below 254mRL.	Nil
1e	Balance reserve as on 01/04/20	No yearwise specific proposal	As on 1.04.2023 Balance - Reserve - 16.52 Mill. Tonne Resource- 21.51 Mill. Tonne	Nil
1f	General remarks of inspecting officers on geology, exploration etc	No proposal		Entire mineralised area of the lease has been explored on G1 Axis upto depth of 254Mr1. The geology of the area has already been established. Few more boreholes has been drilled to confirm the mineralisation below 254 mRL

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	Western Pit (A-Ext, AB Blocks) in between the grid line 2970E to 7030E & 3750 N to 5980N from 530-520 to 390-400mRL Central Pit (CDE Blocks) in between the grid line 2970E to 7030E & 3750N to 5980N from 530-520 to 390-400 mRL	Western & Central pits have not developed as per the proposal.	Violation of rule 11(1) of MCDR,2017 has been pointed out
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Top Soil does not exist. Proposal for OB & Ore	Separate benches has been observed for OB & Ore	None
2c	Stripping ratio or ore to OB ratio	1:15.61	1:9.8	Due to less excavation
2d	Quantity of topsoil generation in m3	No proposal	Not applicable	Nil
2e	Quantity of overburden generation in m3	10480769.23 m3	4349030 m3	Violation has been pointed out for less OB
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Development has not been carried out as per approved proposal and there is shortfall in the total development also for which violation of rule 11(1) of MCDR,2017 has been pointed out.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	3 pits	3 pits(Eastern, Central and western)	Nil

3b	Quantity of ROM mineral production proposed	17.62 Lac MT	12.1 Lac MT	Nil
3c	Recovery of sailable/usable mineral from ROM production	No specific proposal	HGO is 100% saleable, LGO is beneficiated and weight recovery is around 37%	Nil
3d	Quantity of mineral reject generation	No proposal	No generation of mineral reject	Nil
3e	Grade of mineral rejects generation and threshold value declared.	No Proposal	Not applicable	Nil
3f	Quantity of sub grade mineral generation.	2.5 Lac Mt	0.6 Lac MT	Nil
3g	Grade of sub grade mineral generation	Not specified	5 To 15%	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No fresh Proposal	Benification process is already invouge	Nil
3j	Provision of drilling and blasting in mineral benches	Propsal is given	Drilling & blasting has been carried out as per proposal	Nil
3k	Provision of mining machineries in mineral benches	Yes	Mining machineries has been used as per proposal	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes it is suitable & carried out as per proposal	Nil
3m	Total area covered under excavation/pits	338.35 ha	336.0 ha	Nil

3n	Ore to OB ratio for the pit/mine during the year.	1:15.61	1:9.8		Due to less excavation
3o	Total area put in use under different heads at the end of year	Covered under current (O-C) Workings- 338.35 ha Used for waste disposal- 333.47	Covered under current (O-C) Workings- 338.35 ha Used for waste disposal- 333.47		
3p	Production of ROM mineral during the last five year period as applicable	18-19 - 15.80 Lac MT 19-20 - 17.26 Lac MT 20-21 - 17.38 Lac MT 21-22 - 17.60 Lac MT 22-23 - 17.62 Lac MT	2018-19 - 10.31 Lac MT 2019-20- 11.50 Lac MT 2020-21- 10.85 Lac MT 2021-22- 9.46 Lac MT 2022-23- 12.1 Lac MT		None
3q	General remarks of inspecting officers on method of mining etc.				Open cast method with use of HEMM is being used for carrying out mining operations in the lease area which is suitable for optimum extraction of ore.

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 for Top soil and Mineral reject . Separate dumping of OB is Proposed on footwall side of the deposits	Top soil and Mineral reject does not exist. Separate dumping of overburden is being done as proposed on footwall side of the deposits.	None

4b	Location of topsoil, OB and mineral reject dumps	No Proposal of top soil and Mineral Reject. Location of proposed OB dumps in western pit is from 1380E to 2580E & 4290N to 5530N and in central pit from 3010E to 6500E and 2900N to 5100N and in eastern pit from 5500E to 6500E & 3000N to 3800N.	Dumping of OB is being done as per proposal.	None
4c	Number of dumps within lease area and outside of lease area	4 Dumps	4 Dumps	None
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Footwall side of the Pits	Footwall side of the Pits	None
4e	Number of active and alive dumps.	4 Dumps	4 Dumps	None
4f	Number of dead dumps.	No proposal	No dead dump. All four dumps are active	None
4g	Number of dumps established.	No proposal	All the 04 dumps are active	None
4h	Whether Retaining wall or garland drain all along dumps are there.	Construction of 400 meter of Parapet/Retaining Wall at the toe of dumps	Parapet/Retaining Wall at the toe of dumps not constructed during the year 2022-23	Violation of rule 11(1) of MCDR,2017 has been pointed out
4i	Length of Retaining wall or garland drain all along dumps	Construction of 400 meter of Parapet/Retaining Wall at the toe of dumps	Parapet/Retaining Wall at the toe of dumps not constructed during the year 2022-23	Violation of rule 11(1) of MCDR,2017 has been pointed out
4j	Number of settling ponds	No proposal	Not applicable as there was no proposal	None

4k	Specific comments of inspecting officer on waste dump management	Waste dump management is being carried out as per proposal. Parapet/Retaining Wall at the toe of dumps not constructed during the year 2022-23 for which violation of rule 11(1) of MCDR,2017 has been pointed out.
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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.	Not proposed	The pits are active hence there was no proposal for back filling	None
5b	Area under backfilling of mined out area	No Proposal	The pits are active hence there was no proposal for back filling	None
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	There is no top soil	None
5d	Total area fully reclaimed and rehabilitated	No proposal	The pits are active hence there was no proposal for back filling	None
5e	General remarks of inspecting officers on backfilling and reclamation etc.			The pits are active hence there was no proposal for back filling & reclamation

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).	As per rule 26(2) of MCDR, 2017, PMCP report to be submitted for previous year by 1st July	Annual PMCP report for reporting year i.e., 2022-23 has been submitted	None
6b	Area available for rehabilitation (ha) .	No proposal	Not applicable	
6c	afforestation done (ha).	5000 plants over 5.0 ha on Eastern Pit OB Dump & 3000 plants over 3.0 ha on dumps	No plantation on Eastern Pit OB Dump. 1000 saplings planted covering 1.0 ha on waste dumps.	Violation of rule 11(1) of MCDR, 2017 has been pointed out
6d	No. of saplings planted during the year	5000 plants on Eastern Pit OB Dump & 3000 plants over on dumps	1000 plants planted on dumps	Violation of rule 11(1) of MCDR, 2017 has been pointed out
6e	Cumulative no .of plants	No specific proposal	207945 Nos.	None
6f	Any other method of rehabilitation	No proposal	None	None
6g	Cost incurred on watch and care during the year	Rs. 500000	Rs. 200000	Plantation was less than the proposal. Violation of rule 11(1) has been pointed out
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D	No proposal	Not applicable	None
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	Not applicable	None
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No proposal	There is no backfilled area.	None

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	There is no backfilled area.	None
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	There is no backfilled area.	None
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No proposal	Not applicable	None
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	Not applicable	None
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	Not applicable	None
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed 4 stations for ambient air quality, 11 locations for water quality, 11 location for noise level survey.	As Per Proposal Compliance of Environmental Monitoring (Core & Buffer Zone) is being done regularly	None
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Against the proposed 5000 plants on Eastern Pit OB Dump & 3000 plants over on dumps only 1000 sapling planted over dump covering 1.0 ha area for which violation of rule 11(1) of MCDR, 2017 has been pointed out

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Proposal for grade wise mineral is given	The ROM mineral dispatch grade wise sorting within the lease area for the year 2022-23 is as given below : HGO- 5.9 Lac MT LGO- 6.1 Lac MT	None
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical method of grade-wise mineral sorting is proposed .	Mechanical method of grade-wise mineral sorting is being practice .	None
7c	Different grade of mineral sorted out at mines.	HGO- +25% LGO - -25%	HGO- +25% LGO - -25%	None
7d	Any beneficiation process at mines .	Yes	Yes, LGO is processed at Industrial Beneficiation Plant with an annual capacity of 900000Te	None
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			No issues related to mineral conservation and beneficiation observed.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not Proposed	Top soil does not exist	None
8b	Concurrent use or storage of topsoil	No proposal	Top soil does not exist	None
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumps for overburden and subgrade mineral is proposed. No proposal for rejects & fines	Separate dumps for overburden & sub grade is being maintained as per proposal	None

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Not applicable	None
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Proposed 5000 plants covering 5.0 ha area on Eastern Pit OB Dump & 3000 plants covering 3.0 ha area over on dumps.	Against the proposed 5000 plants covering 5.0 ha area on Eastern Pit OB Dump & 3000 plants covering 3.0 ha area over on dumps only 1000 sapling planted over dump covering 1.0 ha area.	Violation of rule 11(1) of MCDR, 2017 has been pointed out
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Existing - 206245 Additional Plantation - 3000 on dumps & 5000 on on Eastern Pit OB Dump	Existing - 206945 Additional Plantation - 1000 done during the year	Violation of rule 11(1) of MCDR, 2017 has been pointed out
8g	Survival rate	70%	70%	None
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on roads to control airborn dust is proposed	Water sprinkler and sprinkling system is being used at mine	None
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			No issues related to Aesthetic beauty in and around mine is observed.

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, monthly and annual returns to be submitted.	Monthly & Annul returns have been submitted for the reporting year.	None

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information on Mining Enginner, Geologist & Manager to be given by the lessee in Annual return	Information on Mining Enginner, Geologist & Manager to be given by the lessee in Annual return	None
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under OC-336.0 ha Reclaimed-Rehabilitated- 26.720 Used for waste disposal- 338.85 Occupied by plant/buildings etc.- 70.0 Green belt- 175.0	The land use details are as given in Annual Return	None
9d	Scrutiny of Annual return on afforestation	Information is not given in Part V(5) of Annual return	Show Cause under rule 45(7) has been issued.	None
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Information of subgrad-Mineral reject given	Information about subgrad-Mineral reject is given in Part V(3).	None
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Information is given under Part-VI of Annual return	Found in Order	None
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Information given	Given in Part VI(3)(ii) and Part VII of Annual return	None
9h	Scrutiny of Annual return on fixed assets	The information on fixed asset has been given	Details of fixed assets submitted in Annual Return . The Value of Fixed Assets: Rs. 2357963056/-	None
9k	Scrutiny of Annual return on mining machineries	The detail information on mining machineries is given in Part V(6) of Annula Return	The information furnished on mining machineries appears to be in order.	

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)	14-DEC-23			
	Rule 45(7)	14-DEC-23			

Date :

(DR A Z KHAN)

Indian Bureau of Mines