

**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 : **DJ03**) **DILIP JAIN**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Sh. Durgesh Chandra Joshi, Mine Manager and Shri Sure
Official with
Designation
- (iv) Date of Inspection : 13-DEC-24
- (v) Prev.inspection date : 07-NOV-19

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 : 30
- (d) Date of Expiry : 24-JUN-31
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 : Sh. Bhagwati Prasad Kalal, IAS & Managing Director
 4, Meera Marg, Udaipur
 UDAIPUR RAJASTHAN
 Phone:
 FAX :

Agent : Sh. Yogesh Vyas,
 Jhamarkotra Rock Phosphate
 Mines, udaipur UDAIPUR
 RAJASTHAN
 Phone:
 FAX :

Mining Engineer

Name : Sh. Durgesh Chandra Joshi, Full Time
 Qualification : BE Mining
 Appointment/ : 10-SEP-24
 Termination date

Geologist

Name : Shri Surendra Pratap Singh Jhala, Full Ti
 Qualification : M.Sc. Geology
 Appointment/ : 09-NOV-24
 Termination date

Manager

Name : Sh. Durgesh Chandra Joshi,
 Qualification : BE Mining
 Appointment/ : 16-AUG-24
 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

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal.	During previous year 2022-23, a total of 92 BHs with 22783 meters of drilling was carried out.	Nil
1b	Exploration over lease area for geological axis 1 or 2	During reporting year (RY) 2023-24, a total of 17 BHs with 6500 meters of drilling was proposed.	During reporting year (RY) 2023-24, a total of 10 BHs with 3426 meters of drilling was carried out.	Violation of rule 11(1) of MCDR, 2017 issued for shortfall in exploration vide letter dated 03/02/2025.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal of exploration agency and Expenditure.	Agency: MECL and Expenditure: Rs 41817400.00	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	As per approved document dated 22/03/2023, entire lease area explored under G1 level of exploration.	Not applicable as entire lease area explored under G1 level of exploration.	Nil
1e	Balance reserve as on 01/04/20	As per approved document dated 22/03/2023, the position of reserve and resource as on 01/04/2022 was 17.67 and 21.51 Million tons respectively.	As per approved document dated 20/05/2024, the position of reserve and resource as on 01/04/2024 was 15.26 and 21.51 Million tons respectively.	Nil

1f	General remarks of inspecting officers on geology, exploration etc	Jhamarkotra area is a part of the Aravalli synclinorium, which experienced several phases of folding. Shortfall in exploration has been observed, for which violation of rule 11(1) of MCDR, 2017 issued for shortfall in exploration vide letter dated 03/12/2025.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Development has been proposed at three locations namely Eastern pit, Central Pit and Western Pit.	Development has been carried out as per proposal i.e. at three locations namely Eastern pit, Central Pit and Western Pit.	Nil
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No proposal of top soil generation. Separate benches in OB and Mineral.	No top soil generation during RY. Separate benches have been form in OB and Mineral.	Nil
2c	Stripping ratio or ore to OB ratio	1:0.1625 T/CuM	1:0.36 T/CuM	Violation of rule 11(1) of MCDR, 2017 issued for variation in stripping ratio vide letter dated 03/02/2025
2d	Quantity of topsoil generation in m3	No proposal of top soil generation.	No top soil generation during RY.	Nil
2e	Quantity of overburden generation in m3	10153846.16 CuM	4317568 CuM	Violation of rule 11(1) of MCDR, 2017 issued for less waste generation vide letter dated 03/02/2025.

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	The deposit is sub-vertical and development is being carried out thorough open pit mining which is best suitable method for the type of the deposit.
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Exploitation:

Sl.No.	Item	Proposals	Actual work	Remarks
3a	Number of pit proposed for production	Three pits namely Eastern pit, Central Pit and Western Pit.	Production has been carried form the proposed three pits namely Eastern pit, Central Pit and Western Pit.	Nil
3b	Quantity of ROM mineral production proposed	1650000.00 MT	1552011.00 MT	Nil
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	Nil
3d	Quantity of mineral reject generation	No proposals of mineral reject generation.	Mineral Reject has not been generated during RY.	Nil
3e	Grade of mineral rejects generation and threshold value declared.	No proposal.	Not applicable.	Nil
3f	Quantity of sub grade mineral generation.	No proposal.	Not applicable.	Nil
3g	Grade of sub grade mineral generation	No proposal.	Not applicable.	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized.	Mechanized.	Nil

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal of any fresh beneficiation study.	Not applicable.	Nil
3j	Provision of drilling and blasting in mineral benches	Drilling spacing of 3.5 meter with 3 meter burden has been proposed.	Drilling & blasting has been carried out as per proposal.	Nil
3k	Provision of mining machineries in mineral benches	Shovel and dumper combination.	Mining is being done through mechanized means using shovel and dumper combination.	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height of the benches has been proposed to 10 meters.	Yes it is suitable & carried out as per proposal.	Maintaining as per approved Mining Plan
3m	Total area covered under excavation/pits	360.00 Hectare.	345.46 Hectare.	Less due to less development.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.1625 T/CuM	1:0.36 T/CuM	Violation of rule 11(1) of MCDR, 2017 issued for variation in stripping ratio vide letter dated 03/02/2025.
3o	Total area put in use under different heads at the end of year	836.82 Hectare at the end of RY.	816.43 Hectare at the end of the RY.	Nil
3p	Production of ROM mineral during the last five year period as applicable	2018-19: 15.80 2019-20:17.26 2020-21: 17.38 2021-22: 17.60 2022-23: 17.62 2023-24: 16.50	2018-19: 10.31 2019-20:11.50 2020-21: 10.85 2021-22: 9.46 2022-23: 12.10 2023-24: 15.52	All figures in lac tons.

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 best suitable for type of the deposit for optimum extraction of ore.
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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 mineral reject generation. Separate dumping of OB is proposed on footwall side of the deposit.	Top soil and Mineral reject does not generated during the RY. Separate dumping of waste is being done as per proposal.	Nil
4b	Location of topsoil, OB and mineral reject dumps	The duping of the waste has been proposed over and in extension of the existing waste dumps namely Dump-1(A-Ext.), Dump-2(AB), Dump-3(central), Dump-4A , Dump-4B and Dump-5 (G1), mostly lying in the footwall side of the deposit.	The dumping of the waste has been observed as per proposal.	Nil
4c	Number of dumps within lease area and outside of lease area	Within Lease area: Six dumps and Outside lease area: NIL.	Within Lease area: Six dumps and Outside lease area: NIL.	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Footwall side of the pit.	Footwall side of the pit.	Nil

4e	Number of active and alive dumps.	5 dumps.	5 dumps.	Nil
4f	Number of dead dumps.	No proposal.	Not applicable.	Nil
4g	Number of dumps established.	1 dump (Dump-4A).	1 dump (Dump-4A).	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Proposal of retaining wall and garland drain has been given.	Retaining wall and garland drain has been observed.	Nil
4i	Length of Retaining wall or garland drain all along dumps	RW: 300 Mts and GD: 300 Mts.	RW: 300 Mts and GD: 300 Mts.	Nil
4j	Number of settling ponds	No proposal.	Not applicable.	Nil
4k	Specific comments of inspecting officer on waste dump management			Due to high stripping ratio, huge quantity of waste has been generated, which has been accommodated in the lease area. Permission under rule 12(1)(k) of MCR, 2016 has also been granted in the interest of zero waste mining. Waste dump management is being carried out as per proposal.

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.	No proposal of part or full extraction.	The pits are active hence there was no proposal for back filling.	Nil
5b	Area under backfilling of mined out area	No proposal of backfilling.	The pits are active hence there was no proposal for back filling.	Nil

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal of top soil generation.	Top soil has not been generated during the RY.	Nil
5d	Total area fully reclaimed and rehabilitated	No proposal of reclamation and rehabilitation during RY.	None of the pit area matured for reclamation and rehabilitation during RY.	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.			None of the pit area matured for reclamation and rehabilitation, hence, no proposal of backfilling and rehabilitation.

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(2) of MCDR, 2017, PMCP report to be submitted for previous year by 1st July	Annual PMCP report for reporting year i.e., 2023-24 has been submitted	Nil
6b	Area available for rehabilitation (ha) .	No proposal.	Not applicable.	Nil
6c	afforestation done (ha).	5.0 hectare area.	5.0 hectare area.	Nil
6d	No. of saplings planted during the year	5000 number of plants within lease area.	5010 number of plants within lease area.	Nil
6e	Cumulative no .of plants	No specific proposal on cumulative number of plants.	As per PMCP report 171163 numbers of plants at the end of year 2023-24.	Nil
6f	Any other method of rehabilitation	No proposal.	Not applicable.	Nil
6g	Cost incurred on watch and care during the year	No proposal.	Rs. 2000000.00	Nil

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal.	Not applicable.	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal.	Not applicable.	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	No proposal.	Not applicable.	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 proposal.	Not applicable.	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	5000 number of plants within lease area.	5010 number of plants within lease area.	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	5.0 hectare area.	5.0 hectare area.	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)	Proposal has been given for environment monitoring.	The Environmental Monitoring (Core & Buffer Zone) is being done regularly. Few reports have been checked and parameters are found within permissible limit.	Nil
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			The PMCP compliance is satisfactory.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Proposal of Low Grade Ore (LGO) and High Grade Ore (HGO) sorting has been given.	Low Grade Ore (LGO) and High Grade Ore (HGO) are being sorted as per proposal.	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical.	Mechanical.	Nil
7c	Different grade of mineral sorted out at mines.	HGO: +25% and LGO: -25%	HGO: +25% and LGO: -25%	Nil
7d	Any beneficiation process at mines .	Yes.	Yes, Industrial Beneficiation Plant is installed with an annual capacity of around 900000 tons per annum.	Nil
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
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8a	Separate removal and utilization of topsoil (Rule 32)	No proposal of top soil generation.	Top soil has not been generated during RY.	Nil
8b	Concurrent use or storage of topsoil	Not applicable as no proposal of top soil generation during RY.	Not applicable.	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumps for overburden and sub-grade mineral is proposed. No proposal for rejects & fines generation.	Separate dumps for overburden & sub grade is being maintained as per proposal.	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal.	Not applicable.	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	An area of 5.0 hectare with 5000 number of saplings has been proposed to plant during RY.	An area of 5.0 hectare with 5010 number of saplings have been planted during RY.	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	As per PMCP report 171163 numbers of plants at the end of year 2023-24 and 5000 number of plants are proposed to plant during RY.	A total 5010 number of plants have been planted during the RY.	As per PMCP report, cumulatively 171163 numbers of plants have been planted at the end of year 2023-24.
8g	Survival rate	70%	70%	Nil
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on haul roads to control air born dust is proposed.	Water sprinkler and sprinkling system is being used at mine.	Nil

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	The aesthetic beauty in and around mine is moderate due to massive excavation and waste dumping.
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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R Submitted upto Nov, 2024 A.R. Submitted upto F.Y 2023-24	Monthly and Annual return of RY has been submitted.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager:- Sh. Yogesh Vyash Mining Engineer:- Sh. Yogesh Vyash Geologist:- Sh. Surendra Praptap Sing Jhala	Mining Engineer, Mine Manager and Geologist has been appointed in the Mine.	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit :- 345.46 ha Reclaimed : 41.12 ha Waste dump: 343.26 ha Infra & Road: 50.62 ha Other purpose: 76.95	The information on land use furnished appears in order.	Nil
9d	Scrutiny of Annual return on afforestation	Plantation within lease area 5010 number and outside lease area 990 number.	The information of plantation is found in order.	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	MR generation from un processed ore: 282811.00 tons and MR (tailing) generation from processed ore: 397873.90 tons	The information of MR generation furnished appears in order.	Nil

9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Stack: 128981.000 tons and total Graded Ore Stack: 2236547.22 tons.	Appears in order.	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex- mine price of Rock-phosphate above 30% P2O5: Rs 14143.45, Above 25% to 30% P2O5: Rs 13289.14 and Upto 20% P2O5: Rs 728.84. The Cost of production furnished is RS 3302.77 per tons.	Appears in order.	Nil
9h	Scrutiny of Annual return on fixed assets	Fixed Asset value: Rs. 2320322280.00	The value of fixed asset furnished appears in order.	Nil
9k	Scrutiny of Annual return on mining machineries	Back Hoe, Wheel Loader, Motor Grader, Dozer, Blat Hole Drill, Tipper, Water Tanker, Explosive Van, Crusher, Pumps, Jeep etc.	The information of mining machinery furnished appears in order.	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)	03-FEB-25			

Date :

(DILIP JAIN)

Indian Bureau of Mines