

**INDIAN BUREAU OF MINES
MINERALS DEVELOPEMMENT AND REGULATION DIVISION
MCDR Inspection Report
Chennai Regional Office**

Mine file No: TN/SLM/MG-13.MDS

Mine code: 39TMN11001

- (i) Name of the Inspecting Officer and ID No. : **(K08) G.SORNADURAI KANNAN**
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine Official with Designation : Thiru.V.Ramesh, Mines Manager
- (iv) Date of Inspection : 06/12/2024
- (v) Prev. Inspection date : 26/10/2023

PART-I: GENERAL INFORMATION

1. (a) **Mine Name** : **ARASU**
- (b) Registration No. : **IBM/10727/2011**
- (C) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :
- State : TAMIL NADU
- District : SALEM
- Village : THATHIRNGARPATTI
- Taluka : SALEM
- Post office : KARUPPUR
- Pin Code : 636012
- FAX No. : 0427-2346341
- E-mail : tanmagcmd17@gmail.com
- Phone : 0427-2346342
- (f) Police Station : SALEM
- (g) First opening date : 10.02.1979
- (h) Weekly day of rest : SUN
2. Address for correspondence : Thiru.E.Saravanel Raj, IAS,
M/s. Tamilnadu Magnesite Limited,
5/53, Omalur Main Road,
Jagir Ammapalyam, Salem-636302
3. (a) Lease Number : TMN0387
- (b) Lease area : 96.34 Hectares
- (C) Period of lease : 50 Years
- (d) Date of Expiry : 31.03.2030
4. Mineral Worked : Magnesite Main
Dunite Associated

5. Name and Address of the

Lessee : Thiru.E.Saravanel Raj, IAS,
M/s. Tamilnadu Magnesite Limited,
5/53, Omalur Main Road,
Jagir Ammapalyam, Salem-636302
Phone: 0427 - 2346342
FAX :

Owner : Thiru.E.Saravanel Raj, IAS,
M/s. Tamilnadu Magnesite Limited,
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Agent : Thiru.V.Ramesh, Mines Agent,
M/s. Tamilnadu Magnesite Limited,
5/53, Omalur Main Road,
Jagir Ammapalyam, Salem-636302
Phone: 0427 - 2346342
FAX :

Mining Engineer

Name : V.Rajesh, Full Time
Qualification : B.E., (Mining Engineering)
Appointment/
Termination date : 14.06.2022

Geologist

Name : D.Ganesh, Full Time
Qualification : M.Sc, (Geology)
Appointment/
Termination date : 05.11.2015

Manager

Name : V.Rajesh, Full Time
Qualification : B.E., (Mining Engineering)
Appointment/
Termination date : 14.06.2022

5. Date of approval of Mining : Renewal under rule 22 MCR1960 29/06/2001
Plan/Scheme of Mining Mining Scheme rule 12 MCDR1988 25/08/2005
Renewal under rule 24 MCR1960 05/10/2012
Mining Scheme rule 12 MCDR1988 16/12/2013
MP review under 17(1) MCR 2016 04/05/2018

PART - II: OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Sl. No	Item	Proposals	Actual Work	Remarks
A. EXPLORATION:-				
1a	Backlog of Previous Year	125 Boreholes has been proposed during 2023-2024.	No Boreholes has drilled during 2023-2024.	Violation has been issued under Rule 11(1)
1b	Exploration Over Lease area for Geological Axis 1 or 2	125 additional explorations were proposed during 2023-2024 in the lease area for Geological axis - 1.	No additional explorations were carried out in the lease area during 2023-2024.	Entire lease area 96.34 hectares are under G-3/G-2 & G-1 category.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	85 Lakhs has proposed for exploration during 2023-2024.	No Boreholes has drilled during 2023-2024.	So far 11 boreholes have been drilled with 597 meterage in the lease upto 2023-24
1d	Balance area to be explored to bring Geological axis 1 or 2	Entire area is under G-1	Entire area is under G-3, G-2 & G-1	Entire area has been explored under G-1 category with 400m X 400m grid interval.
1e	Balance reserves as on 01/04/2023	Magnesite as on 01.04.2024 Proved Mineral Reserves (111) = 2180755 tons Pre-Feasibility Mineral Resources (221) = 770540 tons Dunite as on 01.04.2024 Proved Mineral Reserves (111) = 1999457 tons Pre-Feasibility Mineral Resources (221) = 713462 tons	Magnesite as on 01.04.2024 Proved Mineral Reserves (111) = 2261237 tons Pre-Feasibility Mineral Resources (221) = 770540 tons Dunite as on 01.04.2024 Proved Mineral Reserves (111) = 2067468 tons Pre-Feasibility Mineral Resources (221) = 713462 tons	The available grade of Magnesite in this lease area is Refractory Grade.
1f	General remarks of inspecting officer on geology, exploration etc.	Located at the foothills of Shevaroy. Due to weathering, Magnesite outcrop looks like Chalk hills.	The belt comprises of intrusive Dunite, Peridotite, Pyroxenite & Magnesite ore.	Magnesite deposit has emplaced as veins in the ultrabasic rocks

Sl. No	Item	Proposals	Actual Work	Remarks
B. DEVELOPMENT:-				
2a	Location of development w.r.t. lease area	During 2023-2024, there is no proposal in development	Development is not carried out as per proposal.	There is no Topsoil & OB proposal during 2023-2024

2b	Separate benches in topsoil, overburden and mineral	Minerals – 8 Benches proposed in Lease.	6 Mineral benches are formed.	When the vein deposit has removed from benches, after that it is considered as Overburden benches.
2c	Stripping ratio or ore to OB ratio	1 : 11.26	1 : 16.67	Due to less production quantity the Stripping Ratio is increased. Violation has been issued.
2d	Quantity of topsoil generation in m3	There is no proposal of Topsoil generation during 2023-2024	No topsoil has generated during 2023-2024.	There is no Topsoil & OB proposal during 2023-2024
2e	Quantity of overburden generation in m3	There is no proposal of OB generation during 2023-2024	No OB has been generated during 2023-2024.	There is no Topsoil & OB proposal during 2023-2024
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	Due to less production quantity the Stripping Ratio is increased.	There is no Topsoil & OB proposal during 2023-2024	When the vein deposit has removed from benches, after that it is considered as Overburden benches.

Sl. No	Item	Proposals	Actual Work	Remarks
C. EXPLOITATION:-				
3a	Number of Pit Proposed for Production	During 2023-2024, it is proposed to work in existing Pit-1.	Productions are not carried out as per proposal in Lease area.	Violation has been issued under Rule 11(1)
3b	Quantity of ROM mineral production proposed	The total target of ROM production proposed was 1728025 tons during 2023-2024.	Achieved ROM Production is 760799 tons during 2023-2024.	Violation has been issued under Rule 11(1)
3c	Recovery of Sailable/ Usable Mineral from ROM Production	7.65% Recovery for Magnesite	4.80% Recovery for Magnesite	Nil
3d	Quantity of mineral reject generation	There is proposal of Mineral Reject generation during 2023- 2024 is 1489097 tons.	622458 tons of Mineral Reject generated during 2023- 2024.	Violation has been issued under Rule 11(1)
3e	Grade of mineral reject generation and threshold value declared	Peridotite, dunite is considered as mineral rejects.	Peridotite, dunite is considered as mineral rejects.	Nil
3f	Quantity of sub-grade mineral generation	No Sub Grade Generation	No Sub Grade Generation	Nil

3g	Grade of sub-grade mineral generation	There is No Generation of Subgrade Mineral	There is No Generation of Subgrade Mineral	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Manual sorting of Magnetite is proposed.	As per proposal Manual sorting of Magnetite is done.	Nil
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	No Beneficiation Study is Proposed	Only Manual Picking of Ore from Intercalated Waste	Rock Breaker is used for breaking the strata as medium hard in nature.
3j	Provision of drilling & blasting in mineral benches	Drilling & Blasting are proposal.	Drilling & Blasting are done as per proposal.	Rock breakers are used for production.
3k	Provision of mining machineries in mineral benches	Excavators Tippers Rock Breakers Dozer Air Compressor Dumper Water Tanker	As per proposal the machineries are there during inspection.	Available machinery are shown in Annual Returns
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	In 2023-2024, Bench height of 5m was proposed in Mineral.	As per proposal benches height are formed.	Nil
3m	Total area covered under excavation/pits	69.87 hect area is proposed for Pit during 2023-2024	66.52 hect areas are under Pit only.	Due to less production the proposed area is not achieved.
3n	Ore to OB ratio for the pit/mine during the year	1 : 11.26	1 : 16.67	Due to less production quantity the Stripping Ratio is increased. Violation has been issued.
3o	Total area put in use under different heads at the end of year	Land use Pattern as on 01.04.2024. Mines = 69.87 hect Dump = 6.14 hect	Land use Pattern as on 01.04.2024. Mines = 66.52 hect Dump = 6.14 hect	Nil
3p	Production of ROM mineral during last five-year period, as applicable	2023-2024 = 1728025 tons 2022-2023 = 2102138 tons 2021-2022 = 2181538 tons 2020-2021 = 1964738 tons	2023-2024 = 760799 tons 2022-2023 = 735800 tons 2021-2022 = 1095254 tons 2020-2021 = 389580 tons	Violation has been issued under Rule 11(1)
3q	General remarks of inspecting officer on method of mining etc.	During 2023-2024, it is proposed to work in existing Pit-1.	Achieved ROM Production is 760799 tons during 2023-2024 against proposal of 1728025 tons.	Violation has been issued under Rule 11(1)

Sl. No	Item	Proposals	Actual Work	Remarks
D. SOLID WASTE MANAGEMENT - DUMPING:-				
4a	Separate Dumping of Topsoil, OB and Mineral Rejects	There is proposal for dumping of Mineral Reject in existing New dump during 2023-2024.	As per proposal the dumping was not carried out during 2023-2024.	Violation has been issued under Rule 11(1)
4b	Location of Topsoil, OB and Mineral Rejects Dumps	There is proposal for dumping of Mineral Reject in existing dump 1 to 7 during 2023-2024.	As per proposal the dumping was not carried out during 2023-2024 in existing dumps-3.	Violation has been issued under Rule 11(1)
4c	Number of Dumps within Lease & Outside Lease area	Lease area = 4 Non Lease area = Nil	Lease area = 3 Non Lease area = Nil	Violation has been issued under Rule 11(1)
4d	Location of Dumps, within Ultimate Pit Limit (Rule-16)	Outside UPL	Outside UPL	Nil
4e	Number of Active & Alive Dumps	Active Dump= 4 Alive Dump = Nil	Active Dump= 3 Alive Dump = Nil	Nil
4f	No of Dead Dumps	No Proposal	Nil	Nil
4g	No of Dumps Established	No Dumps have been established.	No Dumps have been established.	Nil
4h	Whether Retaining Wall or Garland drain along Dumps are there	No Proposal	Nil	Nil
4i	Length of Retaining Wall or Garland drain along Dumps	No Proposal	Nil	Nil
4j	No of Settling tanks	No proposal	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management	There is proposal for dumping of Mineral Reject in existing New dump during 2023-2024.	As per proposal the dumping was not carried out during 2023-2024.	Violation has been issued under Rule 11(1)

Sl. No	Item	Proposals	Actual Work	Remarks
E. SOLID WASTE MANAGEMENT - BACKFILLING:-				
5a	Status of part or full extraction of mineral from mined out area before starting backfilling	No Proposal for backfilling during 2023-2024.	Backfilling has been done on eastern side	Violation has been issued under Rule 11(1)

5b	Area under backfilling of mined out area	No Proposal during 2023-2024.	Backfilling has been done on eastern side	Violation has been issued under Rule 11(1)
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	No Proposal during 2023-2024.	Nil	Nil
5d	Total area fully reclaimed and rehabilitated	No Proposal during 2023-2024.	Backfilling has been done on eastern side	Violation has been issued under Rule 11(1)
5e	General remarks of inspecting officer on backfilling, reclamation etc	No backfilling has been proposed during 2023-24	Backfilling has been done on eastern side	Violation has been issued under Rule 11(1)

Sl. No	Item	Proposals	Actual Work	Remarks
F. PROGRESSIVE MINE CLOSURE PLAN:-				
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 23E(2). Details should be given in the format as given in Annexure-20.	It should be on or before 1 st July every year.	Submitted for the year 2023-2024.	Nil
6b	Management of worked/ mined out benches i) Area available for rehabilitation (ha) ii) Afforestation done (ha) iii) No. of saplings planted during the year iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on watch & care during the year	i) No Proposal ii) No Proposal iii) No Proposal iv) No Proposal v) No Proposal vi) No Proposal	i) Nil ii) Nil iii) Nil iv) Nil v) Nil vi) Nil	Nil
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D) ii) Void filled by waste/ tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means	i) No Proposal ii) No Proposal iii) No Proposal iv) No Proposal v) No Proposal	i) Nil ii) Nil iii) Nil iv) Nil v) Nil	Nil

6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	i) 625 saplings proposed in safety zone 2023-2024. ii) Proposed 0.250 hect in safety zone for 2023-2024. iii) Green Belt development proposed on safety barrier for 2023-2024.	i) Total 625 saplings has achieved during 2023-2024 along safety zone. ii) 0.25 hect achieved in safety zone area during 2023-2024. iii) Plantation has been done as per proposal along the safety barrier for 2023-2024.	Nil
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Bi-Annually Survey	Environment monitoring is carried out through Government as well as private agency.	Lessee is conducting Environmental monitoring and all are within permissible limit
6f	General remarks of inspecting officer on PMCP compliance & progressive closure operations	625 saplings proposed in 0.25 hectares along the safety zone for 2023-2024.	Total 625 saplings has achieved in 0.25 hectares of safety zone during 2023-2024.	Nil

Sl. No	Item	Proposals	Actual Work	Remarks
G. MINERAL CONSERVATION:-				
7a	ROM mineral dispatch or grade wise sorting within lease area	1728025 ROM	760799 ROM	Violation has been issued under Rule 11(1)
7b	Method of Grade-wise mineral sorting i.e. manual or mechanical	Manual sorting of Magnetite is proposed.	As per proposal Manual sorting of Magnetite is done.	The available grade of Magnesite in this lease area is Refractory Grade.
7c	Different grade of mineral sorted out at mines	MgO = 35 – 495% CaO = 0.5 – 2.5%	MgO = 35 – 495% CaO = 0.5 – 2.5%	Magnesite which is more than 35% MgO is Suited for Refractory Industries
7d	Any beneficiation process at mines	Manually sorting and sizing proposed	Manually sorting and sizing is being done	No Beneficiation process is Proposed
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	No Beneficiation process is Proposed	Manually sorting and sizing is being done	The available grade of Magnesite in this lease area is Refractory Grade.

Sl. No	Item	Proposals	Actual Work	Remarks
H. ENVIRONMENT:-				
8a	Separate removal and utilization of topsoil	There is no proposal of Topsoil generation during 2023-2024	No topsoil has generated during 2023-2024.	There is no Topsoil & OB proposal during 2023-2024
8b	Concurrent use or storage of topsoil	No Proposal	Nil	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines	There is proposal for dumping of Mineral Reject in New dump during 2023-2024.	As per proposal the dumping was not carried out during 2023-2024 in existing dumps.	Violation has been issued under Rule 11(1)
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No Proposal for backfilling during 2023-2024.	Backfilling has been done on eastern side	Violation has been issued under Rule 11(1)
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No Proposal for backfilling during 2023-2024.	Backfilling has been done on eastern side	Violation has been issued under Rule 11(1)
8f	Baseline information on existence of plantation & additional plantation done	625 saplings proposed in safety zone for 2023-2024.	Total 625 saplings has achieved during 2023-2024 along safety zone.	Plantation has been done as per proposal along the safety barrier.
8g	Survival rate	70% Proposed in the document.	50%	Plantation has been done as per proposal along the safety barrier.
8h	Water sprinkling on roads to control airborne dust	Yes, it is proposed for water sprinkling on haul roads.	Daily Water tanker is spraying water on mines roads side to control airborne dust.	During Inspection, water sprinkling on mines roads has been noticed.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Scanty vegetation, bushes, neem are observed in lease area	There is no prominent river or stream running in this area.	Surrounding area beyond lease area is greenery

Sl. No	Item	Comments	Remarks
I. COMPLIANCE OF RULE-45:-			
9a	Status of Submission of Monthly & Annual Returns	MR Submitted up to = October 2024 AR Submitted up to = 2023-2024.	Returns are submitted within time limit. Both Annual & Monthly returns are submitted in online.

Sl. No	Item	Details Given in A.R	Observation of I/Officer	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer, Geologist & Manager has shown.	During inspection Mining Engineer, Geologist is present.	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Land use Pattern as on 01.04.2024. Mines = 66.52 hect Dump = 6.14 hect	Landuse Pattern is filled as per approved Mining Plan	Nil
9d	Scrutiny of Annual return on afforestation	Lessee has planted 625 saplings during 2023-24.	Plantation has been done as per proposal along the safety zone.	50% Survival rate
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Mineral Reject is included in the waste quantity	Nil	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Achieved ROM Production of Magnesite is 31768 & Dunite is 63460 tons during 2023-24.	Mine has dispatches 37176 tons of Magnesite during 2023-24 and 185 tons as closing stock.	Mine has dispatches 101670 tons of Dunite during 2023-24 and 154 tons as closing stock.
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Cost of Production & Ex. Mine Price has shown	Some invoice has been checked	Nil
9h	Scrutiny of Annual return on fixed assets	Fixed Assets is given	Fixed Assets is filled	Nil
9k	Scrutiny of Annual return on mining machineries	Machineries details given	As available in field	Nil

Details of violations observed during current inspection and compliance position of violation pointed out:-

Violation has been issued under Rule 11(1) on 18.12.2024

G.S.Kannan
Senior Mining Geologist