

INDIAN BUREAU OF MINES MINERAL DEVELOPMENT AND REGULATION DIVISION MCDR INSPECTION REPORT Chennai Regional Office		
Mine file No.RP/GRP-1-MDS-Vol-II		Mine code – 28TMN10001
(i)	Name of the inspecting officer & Designation	KUMERESH A Senior Assistant Controller of Mines
(ii)	Accompanied mine official and designation	Shri. T.JEYASEHAR / FACTORY MANAGER Shri S. John Bright, Mines Manager
(iii)	Date of inspection	15.12.2024
PART-I: General Information		
1.	Mine Name	Sivaganga Graphite Mine
(b)	Registration Number	IBM/5661/2011
(c)	Category	A
(d)	Type of Working	Opencast
(e)	Postal Address State District Village Taluka Post Office Pin Code FAX No. E-mail Phone	T.Jeyasehar , B.E., Tamilnadu Minerals Limited (TAMIN), No .14, Shopping Complex, Maruthupandiyar Nagar, Sivaganga -630561. Date of Appointment 18.12.2022 Phone no 9488254348
(f)	Police Station	Sivaganga town police station
(g)	First opening date	25.09.1982
(h)	Weekly day of rest	Sunday
2.	Address for correspondence	T.Jeyasehar , B.E., Tamilnadu Minerals Limited (TAMIN), No .14, Shopping Complex, Maruthupandiyar Nagar, Sivaganga -630561. Date of Appointment 18.12.2022 Phone no 9488254348
3.	Lease Number	TMN0195
	Lease Area	236.85 Ha
	Period of lease	20 years
	Date of expiry	31.03.2030

4.	Mineral worked	Graphite
5.	Name and address of the Lessee: Owner: Agent: Manager: Engineer: Geologist:	M/S Tamilnadu Minerals Limited Thiru. ANIL MESHRAM, I.A.S Managing Director M/S Tamilnadu Minerals Limited, No 31, Kamarajar Salai, TWAD House, Ground Floor, Chepauk, Chennai -05. Phone No 044-29862018. Dt:19.12.2023 T.Jeyasehar , B.E., Tamilnadu Minerals Limited (TAMIN), No .14, Shopping Complex, Maruthupandiyar Nagar, Sivaganga -630561. Date of Appointment 18.12.2022 Phone no 9488254348 S.John Bright Tamilnadu Minerals Limited (TAMIN), No .14, Shopping Complex, Maruthupandiyar Nagar, Sivaganga -630561. Date of Appointment :28.12.2022 Phone no 9047990537 Nil Nil
6	Date of Approval of Mining Plan/Modified Mining Plan with five – year period and specific condition in approval letter, if any. Date of Approval of Scheme of Mining/Modified Scheme of Mining with five – year period and specific condition in approval letter, if any.	Mining Scheme rule 12 MCDR 1988: 20.07.2000 Mining Scheme rule 12 MCDR 1988: 24.12.2004 Renewal under Rule 24 MCR 1960: 20.17.2012 Mining Scheme rule 12 MCDR 1988: 03.09.2014 Mp review under 17(1) MCR 2016: 22.03.2019

**PART-II : OBSERVATION / COMMENTS OF INSPECTING OFFICER
EXPLORATION**

S. No.	Item	Proposals	Actual Work	Remarks
1a	Backlog of previous year	18	Nil	18 numbers of exploratory drills were proposed for the

				period 2019-20 to 2023-24 and were not drilled so far. Violation letter is issued
1b	Exploration over lease area for Geological axis 1 or 2.	G1	G1	Nil
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Nil	Nil	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	Nil
1e	Balance reserves as on 01.04.2024 (111 Category)			
1f	General comments of inspecting officer on geology, exploration etc.	-	-	Violation letter is issued

DEVELOPMENT

S. No.	Item	Proposals	Actual Work	Remarks
2a	Location of development w.r.t. lease area	PIT no 1. 200N to 300N 200E to 500E	PIT no 1.	Within the proposed area
2b	Separate benches in topsoil, overburden and minerals (Rule 13 of MCDR-2017)	Top Soil – 1 No Overburden -3 Nos Mineral – 2 Nos	Top Soil – 1 No Overburden -3 Nos Mineral – 2 Nos	As per proposal
2c	Stripping ratio or ore to OB ratio	1:2.86	1:2.67	Nil
2d	Quantity of topsoil generation in m3	Nil	Nil	Nil
2e	Quantity of overburden generation in m3	1,09,236	36,267	Lithological variation of the formation and mine working in opened up area and topsoil removed instead of overburden
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc.	--	--	Violation letter is issued for less excavation of OB and ROM

EXPLOITATION

S. No.	Item	Proposals	Actual Work	Remarks
3a	Number of Pit proposed for production	one	one	Only one pit, as proposed.
3b	Quantity of ROM mineral production proposed	1,04,250 Te	54,216 Te	Violation letter for deviation of Rule (11) is issued
3c	Recovery of salable/usable mineral from ROM production	100%	100%	Nil

3d	Quantity of mineral reject generation	Nil	Nil	Nil
3e	Grade of mineral rejects generation and threshold value declared.	NA.	NA.	Nil
3f	Quantity of sub grade mineral generation.	Nil	Nil	Nil
3g	Grade of sub grade mineral generation	NA	N A	No mineral is categorised as Sub grade
3h	Manual / Mechanized 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.	Yes	Done at plant owned by Lessee	Nil
3j	Provision of drilling and blasting in mineral benches	Drill Dia 110 mm Depth 6 m	Permission obtained from DGMS under 106(2)(b) for carrying out blasting operation	Nil
3k	Provision of mining machineries in mineral benches	Air Compressor: 1 Back Hoe: 3 Explosive Van: 1 Generator: 1 Jeep/Tractor: 1 Dumper: 5 Water Tanker: 1 Rock Drill: 1 Pumps: 3	Air Compressor: 1 Back Hoe: 3 Explosive Van: 1 Generator: 1 Jeep/Tractor: 1 Dumper: 5 Water Tanker: 1 Rock Drill: 1 Pumps: 3	As per proposal
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in RoMP	5 M Bench height	5 M Bench height was being maintained in Mineral	Suitable for method of mining
3m	Total area covered under excavation/pits	34.03.5 Ha	34.03.5 Ha	Within proposed limits
3n	Ore to OB ratio for the pit/mine during the year.	1:2.86	1:2.67	Within proposed limits
3o	Total area put in use under different heads at the end of year	52.860	52.860	Within proposed limits
3p	Production of ROM mineral during the last five-year period as applicable	2019-20=1,03,540 Ts 2020-21=4,57,770 Ts 2021-22=1,03,955 Ts 2022-23=1,04,250 Ts 2023-24=1,04,550 Ts	2019-20= Nil 2020-21=10,026Ts 2021-22=36,214Ts 2022-23=54,216Ts 2023-24=79263Ts	Violation letter for deviation of Rule (11) is issued
3q	General remarks of inspecting officers on method of mining etc.	-	-	The method of mining was found satisfactory.

SOLID WASTE MANAGEMENT-DUMPING

S. No.	Item	Proposals	Actual Work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 36,37)	Separate Dumps for Top Soil, Overburden & Mineral Reject	Yes maintained	Nil
4b	Location of topsoil, OB and mineral reject dumps	1600W to 2800W 0W to 1600W 0E to 1600E 1600E to 2800E	1250W to 1500 W	Nil
4c	Number of dumps within lease area and outside of lease area	Three dumps within Lease	Three dumps within Lease	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	UPL	Out side UPL	Nil
4e	Number of active and alive dumps.	01	01	Nil
4f	Number of dead dumps.	04	04	Nil
4g	Number of dumps established.	Nil	Nil	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Garland drain	Provided	Nil
4i	Length of Retaining wall or garland drain all along dumps	No proposal	200 meters Garland Drain and 150m retaining wall	Nil
4j	Number of settling ponds	3 Nos	3 nos	Nil
4k	Specific comments of inspecting officer on waste dump management	--	--	Waste dump management was found satisfactory.

SOLID WASTE MANAGEMENT-BACKFILLING

S. No.	Item	Proposals	Actual Work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	N.A	N.A	Pit has not yet reached ultimate/final depth
5b	Area under backfilling of mined out area	N.A	N.A	Due to less generation of waste
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Proposal	Provided	
5d	Total area fully reclaimed and rehabilitated	N.A	Part of the area	
5e	General remarks of inspecting officers on backfilling and reclamation etc	--	--	No backfilling was proposed

PROGRESSIVE MINE CLOSURE PLAN

S. No.	Item	Proposals	Actual Work	Remarks
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6a	Whether Annual report on PMCP submitted on time and correctly. Rule 26 (2)	Submitted	Followed as per the PMCP	Nil
6b	Area available for rehabilitation (ha).	Nil	Nil	Nil
6c	Afforestation done (ha).	Nil	Nil	Nil
6d	No. of saplings planted during the year	170	170	Nil
6e	Cumulative no. of plants	585	585	---
6f	Any other method of rehabilitation	Nil	Nil	Nil
6g	Cost incurred on watch and care during the year	Nil	Nil	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D)	Nil	Nil	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Nil	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation backfilled area	Nil	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Nil	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Nil	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Nil	Nil	Nil
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	0.10.5 Hect plantation of 170 saplings	0.10.5 Hect plantation of 170 saplings	Nil
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	Nil	Nil	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Periodical	Periodically done	Nil
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	--	--	PMCP Compliance & progressive closure operations were being carried out.

Nil_Nil_Nil_Nil_Nil **PMINERAL CONSERVATION**

S. No.	Item	Proposals	Actual Work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	FC above 3%	Graphite ore is extracted	Reported average feed for concentrate is 14 % FC
7b	Method of grade wise mineral sorting i.e. manual or mechanical.	Mechanized	Mechanized	Nil
7c	Different grade of mineral sorted out at mines.	Only one grade	0-20% Fixed Carbon	
7d	Any beneficiation process at mines	Nil	Nil	Nil
7e	General remarks of inspecting officer on Mineral Conservation & beneficiation issues	Entire Graphite ore is transported to company's beneficiation plant. The plant is designed to process 200 TPD to yield 27.1 Te of Graphite concentrate +96% (FC). Graphite which has average fixed carbon (FC) of 14% will be beneficiated to Graphite concentrate of +96%(FC)		

ENVIRONMENT

S. No.	Item	Proposals	Actual Work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Separate removal and dumping is proposed	Separately removed and dumped	Nil
8b	Concurrent use or storage of topsoil	Storage	Storage	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes	Yes	Nil
8d	Use of overburden, waste rock, rejects and fines dump for restoring the land to its original use	NIL	NIL	The mine has not yet reached the final depth and the OB is dumped separately
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	NIL	NIL	NIL
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	No particulars	More than 2000 plants	Nil
8g	Survival rate	80%	70%	Nil
8h	Water sprinkling on roads to control airborne dust	Proposed	Water tanker deployed as sprinklers	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	--	--	Plantation carried out along the lease boundaries and green belt developed on old dumps

COMPLIANCE UNDER RULE-45

S. No.	Item	Proposals	Actual Work	Remarks
9a	Status of submission of Monthly and Annual returns	Submitted		Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mine Manager: Shri S .John Bright	Provided in part-I	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	(i) Already Exploited and abandoned by Opencast mining = 0.000Ha (ii) Covered under (O-C) workings=39.00 Ha (iii) Reclaimed-rehabilitated= 0.000 Ha (iv) Used for waste disposal = 16.00 Ha (v) Occupied by plant ,buildings, residential, welfare building and roads = 8.0 Ha (vi) Used for any other purpose (Specify) Green belt & Peripheral bund = 0.000 Ha (vii) work done under progressive mine closure plan during the year = 0.000	Provided in part-I, Sl.No-12 (i) Already Exploited and abandoned by Opencast mining = 0.000Ha (ii) Covered under (O-C) workings = 39.00Ha (iii) Reclaimed-rehabilitated = 0.000Ha (iv) Used for waste disposal = 16.00 Ha (v) Occupied by plant ,buildings, residential, welfare building and roads = 8.0 Ha (vi) Used for any other purpose (Specify) Green belt & Peripheral bund = 9.590 Ha (vii) work done under progressive mine closure plan during the year = 0.000	
9d	Scrutiny of Annual return on afforestation	Number of trees planted during the year-170	Nos-170 Provided in part-V, Para-5	Total no of trees at the end of trees at the end of the year-585
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	NIL	NIL	NIL
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Furnished in part-VI, Sl No 1 & 2		
9g	Scrutiny of Annual return on	Furnished in part-VII, Sl No 1, 2 & 3		

	sale value, Ex. Mine price and production cost			
9h	Scrutiny of Annual return on fixed assets	1292173040	1292173040	Provided in part -II (A).
9i	Scrutiny of Annual return on mining machineries	Air Compressor: 1 Back Hoe: 3 Explosive Van: 1 Generator: 1 Jeep/Tractor: 1 Dumper: 5 Water Tanker: 1 Rock Drill: 1 Pumps: 3	Mentioned in part -V, Sec- 5/6/8/9. Air Compressor: 1 Back Hoe: 3 Explosive Van: 1 Generator: 1 Jeep/Tractor: 1 Dumper: 5 Water Tanker: 1 Rock Drill: 1 Pumps: 3	

Details of violations observed during current inspection and compliance position of violations pointed out					
Violation observed			Show cause position		
Rule No.	Issued on	Compliance on	Rule No.	Issued on	Compliance on
11(1)	07.01.2025				

Date:

KUMERESH A
SrAsst Controller of Mines
Indian Bureau of Mines