भारत सरकार/ GOVERNMENT OF INDIA
खान मंत्रालय/ MINISTRY OF MINES
भारतीय खान ब्यूरो/ INDIAN BUREAU OF MINES
क्षेत्रीय खान नियंत्रक कार्यालय/
OFFICE OF REGIONAL CONTROLLER OF MINES

फैक्स: (080) 23371027 / 23373287
दूरभाष: 080-23371027 / 23375366/67
Email ID: ro. bangalore@ibm.gov.in

29, इंडस्ट्रियल सबर्ब II स्टेज, तुमकुर रोड,
गोरगुंटापाल्या येशवंतपुर,
बेंगलुरु -560022

सं/No.: 279/119/89/BNG - 759

दिनांक/Date: 01/06/2022

सेवा में/ To,
M/s. M. Hanumantha Rao,
H.No.37, W.No.17, Ground Floor,
Main Road, Near Park,
Patel Nagar, Ballari-583 101.

विषय/Sub: Approval of "Modifications to the approved Mining Plan" including PMCP in respect of your **S.M. Block Iron ore Mine (ML No. 2505)** over an area of **40.47 Ha** in Donimalai Forest Range, Narayanpur village, Sandur Taluk, Ballari District, Karnataka state, submitted for approval under rule 17(3) of MCR, 2016. **Cat- 'A'- Mechanized, Non-Captive, Forest, Private.**

संदर्भ/Ref:(1) Your e-mail dated 03/04/2022 & submitting therewith soft copy of draft modifications to the approved Mining Plan" including PMCP.
(2) This office letter of even no. Dated: 04/05/2022.
(3) Your letter No. Nil dated 19/05/2022 submitting therewith final bound copies of Modifications to the approved Mining Plan" including Progressive Mine Closure Plan.

महोदय/Sirs,

In exercise of the powers conferred by clause (b) of sub-section (2) of section 5 of the Mines and Minerals (Development & Regulation) Act, 1957 read with Govt. of India order No.S.O.445 (E) dated 28.04.1987 and S.O.1857 (E)dtd.18/05/2016. I hereby **approve the "Modifications to the approved Mining Plan" including Progressive Mine Closure Plan** in respect of your **S.M. Block Iron ore Mine (ML No. 2505)** over an area of **40.47 Ha** in Donimalai Forest Range, Narayanpur village, Sandur Taluk, Ballari District, Karnataka state. This approval is subject to the following conditions:

1. The Modification to the Approved Mining Plan along with Progressive Mine Closure Plan is approved without prejudice to any other laws applicable to the mine from time to time whether made by the Central Government, State Government, or any other authority and without prejudice to any order or direction from any court of competent jurisdiction.

2. The proposals shown on the plates and /or given in the document is based on the lease map/Sketch submitted by the applicant /lessee and is applicable from the date of approval.

3. It is clarified that the approval of your aforesaid Modification to the Approved Mining Plan along with Progressive Mine Closure Plan does not in any way imply the approval of the Government in terms of any other provisions of the Mines and Minerals (Development and Regulation) Act 1957 or the Mineral (Other than Atomic and Hydro-Carbon Energy Minerals) Concession Rules, 2016 and any other laws including Forest (Conservation) Act, 1980, Environment (Protection) Act,1986 or the rules made there under Mines Act, 1952 and Rules & Regulations made there under.

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4. Indian Bureau of Mines has not undertaken verification of the mining lease boundary on the ground and does not undertake any responsibility regarding correctness of the boundaries of the leasehold shown on the ground with reference to lease map & other plans furnished by the applicant/ lessee.

5. At any stage, if it is observed that the information furnished, data incorporated in the document are incorrect or misrepresent facts, the approval of the document shall be revoked with immediate effect.

6. Next Financial Assurance shall be due for submission on 01/04/2026.

7. The execution of Modification to the Approved Mining Plan along with Progressive Mine Closure Plan shall be subjected to vacation of prohibitory orders / notices, if any.

8. The Approval of Modification to the Approved Mining Plan along with Progressive Mine Closure Plan is strictly confined to the proposals contained within the mining leasehold demarcated as per lease sketch given by the joint survey team constituted by the CEC and duly authenticated by the State DMG. It does not convey approval to the proposals falling outside the Mining Lease boundary.

9. The Approval of Modification to the Approved Mining Plan along with Progressive Mine Closure Plan is without prejudice to the final order of the Hon'ble Supreme Court order dtd.18/04/2013 in W.P. No. 562/2009 and interim orders passed by the Hon'ble Supreme Court from time to time in the said W.P. Nos. 25910/2009 and 26083/2009.

10. A copy of Environment Impact Assessment and Environment Management Plan as approved by the MOEF, New Delhi shall be submitted to this office along with a copy of their approval letter, within one month of the date of such approval.

11. The Environmental Monitoring Cell of the company shall continue monitoring ambient air quality, dust fall rate, water quality, soil sample analysis and noise level measurements on various stations established for the purpose both in the core zone and buffer zone as per MOEF guidelines and keeping in view IBM's circular No.3/92, season wise every year or by engaging the services of an Environment Laboratory approved by MOEF/CPCB. The data so generated shall be maintained in a bound paged register kept for the purpose and the same shall be made available to the inspecting officer on demand.

12. In case the mining lease falls within a radius of 10 kms of National Park/ sanctuary, recommendations of NBWL have to be obtained as per the Order of Hon'ble Supreme Court in I A No. 460/2004.

13. A yearly report shall be submitted to this office before 1st July of every year setting forth the extent of protective and rehabilitative works carried out as envisaged in the approved mine closure plan.

14. The Modification to the Approved Mining Plan along with Progressive Mine Closure Plan is approved for proposals contained therein and as applicable from the date of approval of the document for the mining activities to be carried out within the mining lease hold. The earlier instances of irregular mining/illegal mining, if any, shall not be regularized with this approval.

15. If anything is found to be concealed as required by the Mines Act in the contents of this document and the proposal for rectification has not been made, the approval shall be deemed to have been withdrawn with immediate effect.

16. You shall maintain the boundary pillars as required under Rule 12 of Minerals (Other than Atomic & Hydrocarbons Energy Minerals) Concession Rules, 2016.

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17. As per the Hon'ble Supreme Court of India in Writ Petition No.114/2014 dated 08.01.2020, the mining Lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

18. The Modifications to the Approved Mining Plan along with Progressive Mine Closure Plan is approved for the period from **2022-2023 to 2025-2026** for total Mineral Reserves of **5.104 Million Tonnes of Hematitic Iron ore** (as on 01/04/2022) with Annual Production Capacity proposals valid for the following period with respective production capacity.

Year	Production Capacity in Tonnes (Iron Ore) #
2022-2023	226000
2023-2024	226000
2024-2025	226000
2025-2026	226000

Above approved production capacity is subject to periodical changes in permissible annual production capping by DMG, Karnataka.

19. The Bulk Density Study shall be carried as per M (EMC) Rules, 2016 and SOP of CGPB. If there are any changes in the bulk density study results, the document should be modified by incorporating the same.

20. The processed output [Digital Elevation Model (DEM) and Ortho mosaic] images obtained from drone survey of the mining lease area up to hundred meter outside the lease boundary to be submitted as per the provision of Rule 34(A)(3) of MCDR Amendment Rule, 2021 immediately.

भवदीय/Yours faithfully,

संलग्नक : अनुलग्नक/One copy of the Approved Modifications
To the Approved Mining Plan along with
Progressive Mine Closure Plan.

01/6/2022

(सुरेश प्रसाद/Suresh Prasad)
क्षेत्रीयखाननियंत्रक/Regional Controller of Mines
भारतीयखानब्यूरो/Indian Bureau of Mines

प्रतिलिपि सूचनार्थ'Copy for kind information to:

1. The Director of Mines & Geology, Govt. of Karnataka, Bangalore, along with a copy of the Approved Modifications to the Approved Mining Plan along with Progressive Mine Closure Plan.
2. The Director of Mines Safety, Directorate General of Mines Safety, Bellary Sub- Region, 31, Infantry Road, Cantonment, Bellary – 584104.
3. The Controller of Mines (SZ), Indian Bureau of Mines, Bangalore along with soft copy of the Approved Modifications to the Approved Mining Plan along with Progressive Mine Closure Plan in CD form.
4. Shri M.S.Raju, QP, M/s. Mineral Engineering Services, 25/XXV, Club Road, Bellary-583 103. for information.
5. Mine file / Guard file

Encl: As above.

(सुरेश प्रसाद/Suresh Prasad)
क्षेत्रीयखाननियंत्रक/Regional Controller of Mines
भारतीयखानब्यूरो/Indian Bureau of Mines

"MODIFICATION TO APPROVED MINING PLAN INCLUDING PROGRESSIVE MINE CLOSURE PLAN"

SUBMITTED UNDER RULE 17(3) OF MCR, 2016 & UNDER RULE 23 OF MCDR 2017.

APPROVED MINING SCHEME PERIOD: 2022-23 to 2025-26.
(Four Years)
(DATE OF GRANT & EXECUTION OF M.L. : 12.12.2005
VALID UPTO 11.12.2055)
OF

S.M.BLOCK IRON ORE MINE

(M.L. No. 2505)
DONIMALAI RESERVE FOREST

Over an extent of 40.47 Ha (Forest Area)
in
Narayanapur (V), Sandur (T), Ballari (Dist.,), Karnataka State

Cat : 'A' Mechanized
Regn. No. IBM/211/2011 & Mine Code : 30KAR03154.

OF

M/s. M.HANUMANTHA RAO

Prepared by
M.S. Raju, M. Tech., M.I.E.,
Qualified Person

March, 2022

APPROVED

PART : A

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Indian Bureau of Mines
भारतीय खान ब्यूरो
भारत सरकार
Govt. of India

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M/s. M. Hanumantha Rao

Head Office :
H.No. 37, W.No. 17, Ground Floor, Main Road,
Near Park, Patel Nagar, **BALLARI**-583101. Karnataka-India.
Ph : (08392) 260170, 260626. Fax : 260269
email : mhraomines@gmail.com

GST NO. 29AANFM1777H1ZR

Branch Office :
C/o. JC Chiparlu,
D.No. 268/A, K.H.B. Colony,
SANDUR - 583119, Karnataka-India.
Ph./Fax : (08395) 260156

भारतीय खान ब्यूरो Indian Bureau of Mines भारत सरकार Govt. of India

Ref. No. Date

CONSENT LETTER/ UNDERTAKING/ CERTIFICATE

1. The "Modifications to The Approved Review & Updation of Mining Plan including Progressive Mine Closure Plan" in respect of S.M.Block Iron Ore Mine (M.L. No. 2505) over an extent 40.47 hectares in Narayanapur village, Deogiri post, Sandur Taluk, Ballari district, Karnataka State, under Rule 17(3) of MCR 2016 has been prepared by Shri. M.S. Raju, (Qualified Person).

This is to request the Regional Controller of Mines, Indian Bureau of Mines, Bengaluru to make any further correspondence regarding any correction of the "Modifications to The Approved Review & Updation of Mining Plan including Progressive Mine Closure Plan" with the said qualified person at his address given below:

M.S. Raju,
Mineral Engineering Services, 25/XXV, Club Road
Ballari – 583103, Karnataka
Tel & Fax No. : 08392- 267421, e-mai : mes_msraju@yahoo.co.uk

We hereby undertake that all modifications / updating as made in the said "Modifications to The Approved Review & Updation of Mining Plan including Progressive Mine Closure Plan" by the said qualified person be deemed to have been made with our knowledge and consent and shall be acceptable on us and binding in all respects.

2. It is certified that the CCOM Circular No. 2/2010 is implemented and complied with and the DGPS survey sketch of lease area is authenticated by DMG, State Govt. of Karnataka.

3. It is certified that the Progressive Mine Closure Plan of S.M.Block Iron Ore Mine (M.L. No. 2505) of M/s. M. Hanumantha Rao, over an extent 40.47 hectares complies with all statutory rules, Regulations, Orders Made by the Central or State Government, Statutory organization, Court etc which have been taken into consideration and wherever any specific permission is required the lessee will approach the concerned authorities.

The information furnished in the Progressive Mine Closure Plan is true and correct to the best of our knowledge and records.

4. "The provisions of Mines Act, Rules and Regulations made there under have been observed in the "Modifications to The Approved Review & Updation of Mining Plan including Progressive Mine Closure Plan" over an area of 40.47 hectares in Ballari district, in Karnataka State belonging S.M.Block Iron Ore Mine (M.L. No. 2505) and where specific permissions are required, the applicant will approach the D.G.M.S. Further, standards prescribed by D.G.M.S. in respect of Miners' health will be strictly implemented".

For M/s. M. HANUMANTHA RAO

ARUN KUMAR CHIRANIA

Digitally signed by ARUN KUMAR CHIRANIA
DN: cn=ARUN KUMAR CHIRANIA c=IN o=Personal
Reason: I am the author of this document
Location:
Date: 2022-03-08 18:02+05:30

(Partner)

APPROVED

MINERAL ENGINEERING SERVICES

Consulting Mining & Environmental Engineers, 25/XXV, Club Road, BALLARI -583103.
Phone : 08392-267421/268365. Fax : 08392-267421, Mobile : 9448367421
PAN No. ACBPR9146B GST No. 29ACBPR9146B1ZI

M.S. Raju, M.Tech., M.I.E,
Consultant

भारत सरकार
Govt. of India
Indian Bureau of Mines

CERTIFICATE

This is to certify that the provisions of under rule 17(3) of Mineral Conservation and Development Rules, 2016, have been observed in the "Modification to Approved Review & Updation of Mining Plan including Progressive Mine Closure Plan" of S M Block Iron Ore Mine (ML No. 2505) of M/s. M. Hanumantha Rao over an area of 40.47 Ha. in Narayanpur Village, Sandur Taluk, Ballari District, Karnataka State and wherever specific permissions are required, the lessee will approach the concerned authorities of the Indian Bureau of Mines.

The information furnished in the "Modification to Approved Review & Updation of Mining Plan including Progressive Mine Closure Plan" is true and correct to the best of my knowledge.

MANDAPATI SATYANARAYANA RAJU

Digitally signed by MANDAPATI SATYANARAYANA RAJU
Date: 2022.03.14 16:58:22 +05'30'

(M.S. RAJU)
Qualified Person

Ballari,

Website : www.envtest.com Email : mes_msraju@yahoo.co.uk / mesbly25@gmail.com
BANGALORE : 948,2nd Cross, Kammanahalli Main Road, Behind Super Stores,
St. Thomas Town Post, Bangalore -560084. ☎ : 080-25432968, 080-25432969. Cell : 94480-24304.

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Chapter 1:

GENERAL INFORMATION

1.1 : Lease Details

IBM Registration Number:	IBM/211/2011		
Lease Code:	M.L. No. 2505		
Mine Code:	30KAR03154		
Name of Lessee:	M/s. M. Hanumanth Rao		
Address of Lessee:	H.No.37, W.No.17, Ground floor, Main Road, Near Park, Patel Nagar, Ballari – 583101		
Type of Lessee :	Private		
Name of Mining Lease:	S M Block Iron Ore Mine		
State:	Karnataka		
District:	Ballari		
Tehsil/ Taluk/ Mandal:	Sandur		
Village:	Narayanapur		
Lease Area (Ha):	40.47 Ha		
Forest Area (Ha):	40.47 Ha		
Name of Minerals:	Iron Ore		
Name of associated minerals:	----		
Type :	Existing Lease		
Five Year Block (Financial Year)	2021	TO	2026
Type of working:	Open Cast		
Nature of Use:	Non-Captive		
Category of Mine:	Category A - Mechanized		

1.1.1: Initial/subsequent Lease grant details

Grant	From	To	Lease deed execution date	Lease registration date
Initial Grant	12.12.2005	11.12.2025	12.12.2005	12.12.2005
1st Extension	25.04.2015	11.12.2055	04.11.2016	25.04.2015

01/6/2022
क्षेत्रीय खान नियंत्रक
Regional Controller of Mines
भारतीय खान ब्यूरो
Indian Bureau of Mines,
बेंगलूर / Bangalore - 560 022

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This Mining Plan is approved subject to the conditions / stipulations indicated in the Mining Plan approval letter No. 279/119/89/BNG
Date..01/06/2022

1.1.2: Mining Plan Submission Criteria Details

Type of document	Modification of mining plan
Reason/s for modification	Exploration on partly G2 level to G1 level and change of mining operations
Period for which modification is proposed	2022 - 2023 to 2025 - 2026
LOI Number:	Not Applicable
Date:	Not Applicable

भारतीय खान ब्यूरो Indian Bureau of Mines
भारत सरकार
Govt. of India

1.2: LAND OWNERSHIP DETAILS -

S. No.	Village	Taluka	Area (Ha)	Khasra No/ Compartment No.	Type of Land
1	Narayanapur	Sandur	40.47 Ha	--	Forest Land

1.3: EXISTING LEASE-

Date of Execution	**- 12.12.2005**

1.3.1: Approval of earlier Mining Plan & Its Subsequent Review in Chronological Order -

SL.No	Letter Number	Date	Period		Type Of Approved Document
			From	To	
1	279/119/89/BNG	03.01.1990	--	--	Mining plan (Annexure-18)
2	279/119/89/BNG/667	25.07.2002	2001-02	2006-07	Mining plan (Annexure-18)
3	MP/BLR/Fe-145-SZ	31.08.2006	2006-07	2010-11	Modification of mining plan(Annexure-18)
4	MP/BLR/Fe-145-SZ	10.01.2008	2007-08	2010-11	Modification of mining plan(Annexure-18)
5	KWT/BLR/MS/Fe-204/ SZ/554	06.03.2013	2011-12	2015-16	Scheme of mining(Annexure-18)
6	279/119/89/BNG/1111	18.06.2014	2014-15	2015-16	Modification of mining plan(Annexure-18)
7	279/119/89/BNG	03.03.2016	2016-17	2020-21	Scheme of mining(Annexure-18)
8	279/119/89/BNG/1579	7/8.09.2016	2016-17	2020-21	Modification of mining plan(Annexure-18)
9	279/119/89/BNG/454	16/20.02.2018.	2016-17	2020-21	Modification of mining plan(Annexure-18)
10	279/119/89/BNG/536	21.03.2018.	2017-18	2020-21	Modification of mining plan(Annexure-18)
11	279/179/89/BNG/306	13.08.2019.	2019-20	2020-21	Modification of mining plan(Annexure-18)
12	279/179/89/BNG/306	03.06.2020.	2020-21	2020-21	Modification of mining plan(Annexure-18)
13	279/119/89/BNG/118	20.01.2021	2020-21	2020-21	Modification of mining plan(Annexure-18)
14	279/119/89/BNG/173	03.02.2021	2021-22	2025-26	Review & Up-dation of mining plan(Annexure-18)

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1.3.2: Partial Surrendered Area during Stages of Operations in Chronological Order

Sl. No.	Date	Supplementary Surrender order Letter Number	Supplementary Lease Deed Date	Final Retained Area over which current Mining Plan is Prepared (ha)
01	NA	Not Applicable	Not Applicable	Not Applicable

1.3.3: Transfer of Lease Area Subsequent to Grant – Not Applicable

				Nature of block transferred	
Sl. No.	Transfer of lease deed Number	Date of execution of Transfer lease deed	Name of Transferor	Granted through auction	other than through auction for captive use
01	NA	Not Applicable	Not Applicable	NA	NA

1.3.4: Statutory Compliances –

1.3.4.1: Environment Clearance – Ref: Annexure-3

Applicable	Yes
Letter No	SEIAA165MIN2016
Date	05.10.2016
Validity	11.12.2055
ROM Mineral in tonnes	6,55,000 Metric Tonnes

1.3.4.2: SPCB Approvals - Ref: Annexure-3A

Letter No	AW-324421
Approval of	Consent to operate
Date	29.03.2021
Validity	30.06.2025
ROM Mineral in tonnes	2,26,000 Metric Tonnes

1.3.4.3: Forest Clearance – Ref: Annexure-3B

Applicable	Yes
Letter No	F(C) A/16.1/KAR/44/MIN
Date	17.02.2006
Validity	11.12.2055
Area (Ha)	17.40 Ha
Letter No	F(C)A/16.1/144/KAR/MIN/1850
Date	29.09.2016
Validity	11.12.2055
Area (Ha)	23.07 Ha

1.3.4.4: Land Acquisition Details -

Total Area acquired/purchased so far	40.47 Ha
Total Amount Paid (INR)	Not Applicable (as it is a Forest Land).

APPROVED

1.3.4.5 : CEC Approvals : Ref: Annexure-19

Letter No	2-61/CEC/SC/2012
Date	6.11.2012
Production	0.10 MMT
Letter No	2-75/CEC/SC/2018 Pt.V
Date	05.03.2018
Production	0.144 MMT
Letter No	2-61/CEC/SC/2017
Date	05.11.2020
Production	0.226 MMT

1.3.5: Mine Location Details–

Toposheet Number:	**57B/9**

1.3.5.1: Location of Boundary Pillars–(add additional Row for subsequent pillars)

Pillar No.	Pillar Latitude *(dd:mm:ss.ss)*	Pillar Longitude*(dd:mm:ss.ss)*
A	14° 59' 36.26648" N	76° 40' 25.02330" E
B	14° 59' 36.52156" N	76° 40' 45.42224" E
C	14° 59' 34.03633" N	76° 40' 46.01500" E
D	14° 59' 23.37878" N	76° 40' 52.27447" E
E	14° 59' 19.40283" N	76° 41' 00.18125" E
F	14° 59' 18.33488" N	76° 40' 26.02576" E

1.3.6: Owner/Nominated Owner Details -

Name	PAN of Nominated Owner	Address of Nominated Owner	Mobile Number	Email	Please attach Minutes of Board Resolution in case of Nominated Owner
Shri. Arun Kumar Chirania	ACKPA8645D	#23/3 2nd cross, Opposite Park, Patel Nagar, Ballari – 583101	9448074268	chirania.arun@gmail.com	**Annexure-4**

1.3.7: Qualified Person Details as per M(OAHCEM)CR, 2016 – Annexure No.8

Sl No	Prefix	Name	PAN of QP	Address	Mobile no.	Qualification	Experience in years as prescribed under the rule	Email
1	Mr.	M S RAJU	ACBPR9146B	25/XXV, Club road , Ballari-583103	9448367421	BE in Mining and M.tech in Mineral Engineering	51	mes_msraju@yahoo.co.uk

PAN card enclosed vide (Annexure-14)

APPROVED

Chapter 2

GEOLOGY & EXPLORATION

2.1: GEOLOGY

2.1.1: Topography –

Terrain	Undulating

RELIEF

Highest Level (m) from MSL	Lowest Level (m) from MSL	Average Level (m) from MSL
860	690	775

Drainage Pattern	Order of Stream	Minimum Distance of Stream from Lease Area (m)
Dendritic	Order 2	300 m

2.1.2: Details of Physiographic features and Infrastructures available in and around the lease/ block area -

Description	Location if existing Within the lease/block area.	Distance from boundary periphery in kms, if existing outside the lease/block area. (within 5.00Kms)	Remark if any
River/Nallah/Reservoir	None	2.3Kms	Dodda Halla (Seasonal nallah)
Public roads (Tar road, cart road)	None	1.9 Kms	Bandravi to Hanumangudda
Railway track	None	None	
Human settlements	None	1.2 Kms 2.5 Kms 3.7 Kms 4.0 Kms 4.5 Kms 4.5 Kms	Appayyanahalli (Naryanpura) (NWW) Gollalingammanahalli (SSW) Mothalakunta(SEE) Mallapura(NE) Tonisigeri (SWW) Rajapur (NNE)
Archaeological monuments/ places of worships/public utilities etc.	None	3.2 Kms	Hanuman Temple in Bandravi village
Wild life sanctuaries/ national parks	None	None	
Coastal Regulation Zone (CRZ)	None	None	
Power transmission lines/telephone lines	None	1.8 Kms	
Firing range	None	None	
Ordinance factory	None	None	
grazing land/ burial ground or cremation ground	None	None	
Any other specify (Leases within 5 kms)	None	Within 5 km outside the lease	JSW Steels Pvt Ltd (M/s. Narayana Mines Pvt Ltd (old ML.1062) Smt. K M Parvathamma (ML 2514) M/s. Tungabhadra Minerals Ltd.(ML. 2595) M/s. Tungabhadra Minerals Ltd(ML. 2594) M/s. Sandur Mn & Iron Ore ltd (ML 2678)

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Particulars	Distance from lease boundary in kms
Nearby village	1.2 Kms Appayyanahalli (Naryanpura)
Nearest Railway station	23 Kms Torangallu
Nearest Port	305 Kms Goa
Distance of SH/NH from lease area	4 Kms (SH-131) Rajapur- Toranagalu

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2.1.3: Regional Geology -

Regional Geology-

The Bellary – Hospet region forms a part of the 'Sandur Schist Belt', referable as, the "Dharwars", a group of Precambrian schistose rocks of Mysore. The lithological units include green stones which are the metamorphosed basic igneous rocks occupying the valley regions, with phyllite – quartzite's forming the canoe-shaped amphitheater of hills, trending NNW—SSE and enclosing Sandur. The phyllites are locally shaly and the quartzites are of the nature of banded hematite jaspers and banded hematite quartzite's, inter bedded with each other. The banded hematite jaspers, the important source rocks for the iron ores in the area are prominent in the northern and western part of the ranges, whereas the associated shales become prominent in the southern and eastern parts of the area. The iron ores form a capping over the quartzite's and shales and overlie a sequence of manganiferous phyllitic rocks. Lateritisation is widespread in most of the flat topped ridges. Structurally, the Sandur hills form a tightly folded synclinorium, plunging gently to NNW and the hill ranges broadly delineate the folded limbs of synclines, with close repetition of strata due to minor folds. The strike of the ore bodies is generally parallel to the trend of the hill ranges; the dips are often steep, being vertical at number of places. Opposing dips towards NE and SW are found as in the Ramandurg and NEB ranges respectively. The general sequence of rock formations found in the area are, as, given below:

-- Soil Cover
-- Laterite / Lateritised ore
-- Banded Ferruginous quatzites /Jaspers
-- Ferruginous shales and Phyllites and
-- Iron ore formation

2.1.4: Local Geology & Structure -

S.M.Block Iron Ore Mine exposed two main iron ore reefs called the western reef and the eastern reef. The western reef is divided into three sub reefs intruded by shales. All three sub-reefs have been worked. The Southern most sub reef is of length 245m and of average width about 14m. The middle sub reef located 25m north of sub reef is of length about 110m with an average width of about 15.5m. The northern most sub reef located about 16 m further north is of length about 190 m and width about 18m. The strike of ore body is from North North West (NNW) to South South East (SSE) with dips of about 74° to 78° towards North East. Towards further East, there are two very thin bands exposed parallel to the above two bands. From the present estimates it is expected to work the deposit up to 630m RL.

The eastern reef-1 about 250m East of western reef which is of length about 220 m and average width is about 15m with steep dips of more than 78° to 80° and eastern reef-2 located 20m south of eastern reef-1 the length about 350m with an average width of about 6m. The strike direction is parallel to the ore bodies exposed in the western block i.e., NNW to SSE. There is another Haematitic band exposed parallel to the existing eastern band about 40 m apart with the length of exposure of 180m which is also explored now with Drilling. There are five other bands parallel to these. All these reefs are presently explored. The entire ML area is covered with soil along with pebbles of Magnetitic iron ore. Exposures of Magnetite bands are mostly observed in the eastern and southeastern portion of the ML area.

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2.1.4.2: Structure -

The hill ranges of Sandur Schist Belt appear to be isoclinal synclines trending NNW – SSE with general northeasterly dip. The major valleys are in the 8 anticlinal regions. The Copper Mountain (Belagal), Thimmappanagudi, Ramandurg, Kumaraswamy and Donimalai ranges are located in the synclinal regions. The overall structure of the schist belt is synclinal and it is often called "Sandur Synclinorium". The eastern and western limbs of Sandur Syncline and Copper Mountain cross folded syncline show only iron ore enrichment. The en-echelon drag fold shows concentration of manganese ore along the troughs and the saddles.

2.1.4.3: Lithology, Petrographic & Mineralogical Description for Major, Associated & Indicator Minerals–

The formation found in ML area is of Iron ore stage of Dharwar System. The sequence of rock formation exposed within ML area are as shown below

a. Soil mixed with talus and iron ore float
b. Iron Ore formation
   - Haematitic Ore
   - Magnetitic Ore
c. Shale/Phllite
d. Banded Magnetite Quartzite (BMQ)

Soil Mixed with Talus/ Float Ore: Very little top soil is left now since the lease is already worked for quite some time. Any top soil encountered occasionally shall be utilized for afforestation purpose. The Iron Ore reefs occur in parallel bands. The top most band-1 is magnetitc. In the lower elevation there are another four bands namely Band-2, Band-3, Band-4 and Band-5 there exists parallel Haematitic ore covered by shale/ phyllitic formation as hanging wall and foot wall.

2.1.4.4: Mode of Occurrence& Controls of Mineralization-

Mode of occurrence of iron formation is of sedimentary nature which have been formed due to leaching of the original BHQ and BMQ formations. The Sandur Schist belt is characterized by metamorphic rocks of Green schist facies. The mineralization is controlled statgraphically and structurally.

2.1.4.5: Extent of Weathering/ Alteration–

The ore body exposed to surface is weathered due to rain and air circulation. The extent of weathering is observed to a depth of 10m from surface.

2.1.4.6: Nature/Form of Mineral –

Lump
Fines

2.1.4.7: Extent of Mineralization -

The lease area has 4 Nos iron ore bands (Hematite & Magnetite) and 5-nos of BHQ BANDS. The details are furnished vide item 2.1.4 & 2.2.3. The iron ore bands are separated by shale/ phyllite formations. All the dimensions of iron ore reefs located in western and eastern pits are depicted clearly in geological plan (plate no-3) and geological sections The iron reefs worked upto a depth of 90m in western pit. In the eastern pit maximum depth of ore body proved to a depth of 147m from surface.

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2.1.4.8: Deposit Type (as per MEMC Rule) -

Strike

Strike / Trend of the Ore Body: *

NNW		

TO

Strike / Trend of the Ore Body: *

SSE		

Amount of Dip of the Ore Body (degree) *

74

(from)

Amount of Dip of the Ore Body (degree) *

88

(to)

Dip Direction of the Ore Body *

NE		

Plunge of Mineral Body (degree) (if any) *

NA

Direction of Plunge *

	NA	

2.2: Exploration -

2.2.1: Summary of The Previous Exploration (for fresh grant) / During Last Plan Period (For existing leases) -

Name of the Agency –

Shri Pruthvi Electric & Bore wells

2.2.1.1: Geological Mapping – Not Applicable.

Sl. No.	Year	Scale	Area Covered (Hect/km^2)
01	NA	NA	NA

2.2.1.2: Airborne Geophysical Survey - Not Applicable.

Sl. No.	Type of Survey	Spacing (m)	Total line (km)	Area Covered (Ha/km^2)	Latitude		Longitude	
					To	From	To	From
01	NA	NA	NA	NA	NA	NA	NA	NA

2.2.1.4: Geochemical Survey -

Sl. No.	Type of Sample	No of Samples	Analysis report	Area Covered (Ha/km^2)
01	NA	NA	Attach analysis report in csv /excel format	NA

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2.2.1.5: Pitting –

No. of pits:

Sl. No.	Year	Pit ID	Length of Pit (m)	Width of Pit (m)	Depth of Pit (m)	Depth (from)	Depth (to)	Running meters	Litho units exposed	Name of the radical	Av. Grade (in %)	Latitude	Longitude
01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2.2.1.6: TRENCHING –

No. of trenches: Not Applicable

2.2.1.6.1: SPACING

		Min (m)				Max (m)					Avg (m)				
		0				0					0				
Sl. No.	Year	Trench ID	Length of Trench (m)	Width of Trench (m)	Depth of Trench (m)	Depth(from)	Depth(to)	Running meters	Litho units exposed	Name of the radical	Av. grade	Latitude (from)	Longitude (from)	Latitude (to)	Longitude (to)
01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2.2.1.7 Exploratory Drilling (Core / non-Core) –

			Core holes		Non-core (RC/DTH)		Grand total		
Sl. No	Year	Exploration agency	Number of boreholes drilled	Total meter	Number of boreholes drilled	Total meters	Total boreholes	Total meters	Attach log sheet of each borehole in csv/excel format.
01	2021 -22	Shri Pruthvi Electric & Bore wells	0	0	19	1061	19	1061	Enclosed vide Annexure - 11.

2.2.1.8: Exploratory Mining – Not Applicable.

Sl. No.	Pit/Adit ID	Length in Mtr	Width in Mtr	Depth in mtrs	Volume (m^3)
01	NA	NA	NA	NA	NA

2.2.1.9: SAMPLING –

Sl.No	Type of sample	No of samples collected	Number of samples analyzed	Location		Remark if any
				Latitude	Longitude	
01	Rock-Chip	169	169			The location details are enclosed vide Annexure-12.

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2.2.1.10: Chemical Analysis -

Sl.No.	Sample ID	Minerals	Radical with grade in %	Name of Agency	Type of agency	Attachment
01	169 samples from 20 DTH boreholes. Sample details attached as Annexure-12.	Iron Ore & Waste	Fe, FeO, SiO2, AL2O3	SGS	NABL Certified Lab	Chemical Analysis Report enclosed as Annexure-12

2.2.1.11: Petrology & Mineralogical Studies – Not Applicable.

Sl. No.	Type of Sample	Number of Sample Drawn	Number of Sample Analyzed	Petrographic Study Report
01	NA	NA	NA	NA

2.2.1.12: Beneficiation Studies –

Sl. No.	Type of Beneficiation	Number of Samples	Attach
01	Not Applicable	NA	Attach Beneficiation study report (pdf)

2.2.1.13: Bulk Density Study as per M (EMC) Rules, 2016 and SOP of CGPB–

Method adopted for calculating bulk density of ore and waste.

Bulk density studies have been conducted utilizing the services of IBM's Regional Mineral Processing laboratory's, Bangalore.
They have used pit method for collection sample and weighment of the material of known volume. The results of the iron ore bulk density are given as vide Annexure – 9.

Sl. No.	Nature of Ore/OB	Mineral	Number of samples	Bulk Density Established (t/m^3)
01	Iron Ore	Hametatic Ore	4	3.8
02	Iron Ore	Magnetitic Ore	21	3.0
03	Iron Ore	OB	1	2.0

Bulk density considered as per the previous approved document. However for future submission B.D. test shall be conducted by approved agency.

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2.2.1.14: Area Covered under Exploration -

Level of exploration	Area in Ha		Total area in Ha.
	Forest	Non-forest	
G-1	38.67	0	38.67
G-2	01.80	0	01.80
G-3	00	0	00
G-4	00	0	00
Area proved as Non-mineralized	00	0	00
Area to be explored	00	0	00
Total	40.47	0	40.47

* *Band 2,3,4 & 5 where G2 level exploration was conducted, additional 4 bore holes(DTH) upto 50 mtrs depth shall be done and measures updated to G1 Category. The locations of proposed boreholes are shown in geological plans (Plate No. 3)*

2.2.2: Summary of the Previous Exploration (Before Last Plan Period)–

Name of Agency: Central Province Drilling Co.

2.2.2.1: Geological Mapping – Not Applicable.

Sl. No.	Year	Scale	Area Covered (ha)
01	NA	NA	NA

2.2.2.2: Airborne Geophysical Survey - Not Applicable.

Sl. No.	Type of Survey	Spacing (m)	Total line (km)	Area Covered (ha)	Latitude	Longitude
01	NA	NA	NA	NA	NA	NA

2.2.2.3: Ground Geophysical Survey - Not Applicable.

Sl. No.	Type of Survey	Spacing (m)	Total line (km)	Area Covered (ha)	Latitude	Longitude
01	NA	NA	NA	NA	NA	NA

2.2.2.4: Geochemical Survey – Not Applicable.

Sl. No.	Type of Sample	No of Samples
01	NA	NA

2.2.2.5: Pitting – Not Applicable.

Sl. No.	Pit ID	Length of Pit (m)	Width of Pit (m)	Depth of Pit (m)	Litho Unit Exposed	Litho Unit From (m)	Litho Unit To (m)	Average Grade	Running Meters (m)	Latitude	Longitude
01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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2.2.2.6: TRENCHING–

Number of Trenches	SPACING		
	Min (m)	Max (m)	Avg (m)
NA	NA	NA	NA

Area Covered Under Trenching - Not Applicable.

Co-ordinates -

Latitude	Longitude
North – Not applicable	East – Not Applicable

Sl. No.	Trench ID	Length of Trench (m)	Width of Trench (m)	Depth of Trench (m)	Litho Unit Exposed	Average Grade (%)	Running Meters (m)	From Longitude	From Latitude	To Latitude	To Longitude
01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2.2.2.7: EXPLORATORY Drilling -

2.2.1.7.1:Core/Non-core Drilling -

			Core holes		Non-core (RC/DTH)		Grand total		Attach log sheet of each borehole in csv/excel format.
Sl.No	Year	Exploration agency	Number of boreholes drilled	Total meter	Number of boreholes drilled	Total mtrs	Total boreholes	Total mtrs	
01	2010-11	Central Province Drilling Co	4	236	0	0	4	236	Log sheet enclosed Annexure No.11
02	2011-12	Central Province Drilling Co	2	120.75	2	80	4	120.75	
03	2012-13	Sri Basavaraj	0	0	7	490	7	490	
04	2016-17	Sri Basavaraj	0	0	9	1175.72	9	1175.72	
05	2018-19	APC Drilling & Constructio n Pvt Ltd	0	0	11	787	11	787	
06	2021-22	Shri Pruthvi Electric & Bore wells	0	0	20	1142	20	1142	

2.2.2.8: Exploratory Mining – Not Applicable.

Sl. No.	Pit ID	Volume (m^3)
01	NA	NA

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2.2.2.9: SAMPLING -

S.N.	Type of Sample	Number of Samples	Area Covered (ha)	Latitude	Longitude
1	Drill core (BH-1)	5	1	N14°59'34.9"	E76°40'36.7"
2	Drill core (BH-2)	10	1	N14°59'31.5"	E76°40'38.2"
3	Drill core (BH-3)	15	1	N14°59'23.3"	E76°40'32.8"
4	Drill core (BH-4)	13	1	N14°59'31.2"	E76°40'26.8"
5	Drill core (BH-5)	16	1	N14°59'27.6"	E76°40'28.9"
6	Drill core (BH-6)	11	1	N14°59'29.1"	E76°40'40.1"
7	Rock-chip (DTH-3)	7	1	N14°59'28.7"	E76°40'28.9"
8	Rock-chip (DTH-4)	7	1	N14°59'25.8"	E76°40'30.7"
9	Rock-chip (DTH-5)	8	1	N14°59'24.4"	E76°40'31.3"
10	Rock-chip (DTH-6)	8	1	N14°59'22.2"	E76°40'34.3"
11	Rock-chip (DTH-7)	6	1	N14°59'30.5"	E76°40'38.2"
12	Rock-chip (DTH-8)	4	1	N14°59'34.0"	E76°40'37.0"
13	Rock-chip (DTH-9)	6	1	N14°59'36.3"	E76°40'35.3"
14	Rock-chip (DTH-10)	7	1	N14°59'33.2"	E76°40'26.4"
15	Rock-chip (DTH-11)	7	1	N14°59'30.1"	E76°40'28.7"
16	Rock-chip (DTH-12)	10	1	N14°59'28.6"	E76°40'29.8"
17	Rock-chip (DTH-13)	7	1	N14°59'26.1"	E76°40'31.4"
18	Rock-chip (DTH-14)	7	1	N14°59'24.4"	E76°40'32.6"
19	Rock-chip (DTH-15)	8	1	N14°59'23.4"	E76°40'33.6"
20	Rock-chip (DTH-16)	7	1	N14°59'35.8"	E76°40'35.9"
21	Rock-chip (DTH-17)	10	1	N14°59'34.6"	E76°40'36.5"
22	Rock-chip (DTH-18)	9	1	N14°59'32.7"	E76°40'38.1"
23	Rock-chip (DTH-19)	6	1	N14°59'29.6"	E76°40'39.7"
24	Rock-chip (RC-1)	16	2	N14°59'27.7"	E76°40'42.2"
25	Rock-chip (RC-2)	17	2	N14°59'32.4"	E76°40'36.0"
26	Rock-chip (RC-3)	9	2	N14°59'33.6"	E76°40'41.8"
27	Rock-chip (RC-4)	12	2	N14°59'33.7"	E76°40'42.8"
28	Rock-chip (RC-5)	9	2	N14°59'28.1"	E76°40'45.4"
29	Rock-chip (RC-6)	6	2	N14°59'28.7"	E76°40'46.3"
30	Rock-chip (RC-7)	6	2	N14°59'22.5"	E76°40'42.4"
31	Rock-chip (RC-8)	8	2	N14°59'22.2"	E76°40'51.3"
32	Rock-chip (RC-9)	11	2	N14°59'22.1"	E76°40'49.4"
33	Rock-chip (RC-10)	7	2	N14°59'21.8"	E76°40'47.7"
34	Rock-chip (DTH-20)	14	2	N14°59'36.1"	E76°40'34.2"

2.2.2.10: Chemical Analysis -

S.No.	Sample ID	Minerals	Radical Analysis
Nil	Nil	Nil	Nil
Nil	Nil	Nil	Nil

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2.2.2.11: Petrology & Mineralogical Studies- Not Applicable.

Sl. No.	Type of Sample	Number of Sample Drawn	Number of Sample Analyzed	Petrographic Study Report
01	NA	NA	NA	NA

2.2.2.12: Beneficiation Test – Not Applicable.

Sl. No.	Type of Beneficiation	Number of Samples
01	NA	NA

2.2.2.13: Bulk Density -

Sl. No.	Rock Types	Number of Samples	Minerals	Bulk Density Established (t/m³)
01	Hametatic Ore	4	IRON ORE	4.19
02	Magnetitic Ore	21	IRON ORE	3.37
03	OB	1	WASTE	2.00

* Bulk densities are taken lesser than actual values conservatively.

2.2.2.14: Area Covered under Exploration -

G1 (Ha)	**13.00**
G 2 (Ha)	**17.00**
G3 (Ha)	**03.00**
G4 (Ha)	**07.47**
G1+G2+G3+G4 (Ha)	**40.47**

Year	Area converted to G1 from G2, G3 & G4	% increase in G-1 Area	Remaining Area % in G2	Remaining Area % in G3	Remaining Area % in G4	Remaining Area in G2	Remaining Area in G3	Remaining Area in G4
Year 1	25.67	66	4.4	0	0	1.8	0	0
Year 2	1.8	4.4	-	-	-	-	-	-
Year 3	-	-	-	-	-	-	-	-
Year 4	-	-	-	-	-	-	-	-
Year 5	-	-	-	-	-	-	-	-
Potentially Mineralized area (Ha) –								

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2.2.3: ORE BODY GEOMETRY & GRADE -

Sl. No.	Name of the ore band	General Strike /	Dip Of Mineral Body	Average Strike	Average Width (m)	Chemical parameters				
						Average Depth (m)	Name of the radical	Min Grade (%)	Max Grade (%)	Avg. Grade (%)
01	**Western reef**									
	a. Southern sub-reef	NNW - SSE	74° to 78°	245	14	100	Heamatitic	50	67	62
	b. Middle sub-reef Parallel reef	NNW - SSE	74° to 78°	110	15.5	75	Heamatitic	45	65	58
	c. Northern sub-reef Parallel reef	NNW - SSE	74° to 78°	190	18	80	Heamatitic	48	63	58
02	**Eastern reef -1**	NNW - SSE	78° to 80°	220	15	90	Heamatitic	49	65	58
	Eastern reef -2	NNW - SSE	72° to 87°	350	6	60	Heamatitic	45	58	52
	Eastern reef parallel reef	NNW - SSE	78° to 80°	180	10	100	Heamatitic	43	64	50
03	Band No 1	NNW - SSE	71° to 74°	125	11	56	Magnetitic	-	-	-
04	Band No 2	NNW - SSE	72° to 87°	350	15	90	Magnetitic	35	38	36.5
05	Band No 3	NNW - SSE	78° to 88°	600	6	40	Magnetitic	25	36.4	33
06	Band No 4	NNW - SSE	74° to 88°	600	7	49	Magnetitic	31	37	35
07	Band No 5	NNW - SSE	81° to 88°	600	7	35	Magnetitic	-	-	-

2.2.4: Reserve / Resource Estimation Method –

2.2.4.1: Methodology -

Resource / Reserve Estimation Method	Section area/Block method/Software use
Cross Section method	Section area

Methodology -

In this method, cross sections of the ore body are drawn which are plotted the intersections or projections of mine workings and drill holes. The cross sections are vertical and parallel to each other and are spaced at equal distances apart. From this volumes are calculated and reserves are estimated using the average Bulk density determined for the ore.

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2.2.4.2: RESOURCE CALCULATION -

Sl. No.	Cross section/ Block	Sectional Area/Block area (sq mtr)	Influence (m)	Depth in mtr	Volume (m^3)	Bulk Density (t/m^3)	Resource Quantity (t)	Level of Exploration	Type of Land	Name of the radical	Grade (%)	Method used for resource estimation
1	A-A'	826	80	80	66080	3.8	251104	G1(111)	Forest land	Fe	+45	Cross section Method
2	B-B'	1970	100	100	197000	3.8	748600	G1(111)	Forest land	Fe	+45	Cross section Method
3	C-C'	1553	70	70	108710	3.8	413098	G1(111)	Forest land	Fe	+45	Cross section Method
4	D-D'	1553	40	40	62120	3.8	236056	G1(111)	Forest land	Fe	+45	Cross section Method
5	E-E'	1784	100	100	178400	3.8	677920	G1(111)	Forest land	Fe	+45	Cross section Method
6	F-F'	1280	100	100	128000	3.8	486400	G1(111)	Forest land	Fe	+45	Cross section Method
7	B-B'	2231	110	110	245410	3.8	932558	G1(111)	Forest land	Fe	+45	Cross section Method
8	C-C'	1792	110	110	197120	3.8	749056	G1(111)	Forest land	Fe	+45	Cross section Method
9	D-D'	667	65	65	43355	3.8	164749	G1(111)	Forest land	Fe	+45	Cross section Method
10	E-E'	790	100	100	79000	3.8	300200	G1(111)	Forest land	Fe	+45	Cross section Method
11	F-F'	380	100	100	38000	3.8	144400	G1(111)	Forest land	Fe	+45	Cross section Method
12	A-A'	239	90	90	21510	3.8	81738	G1(221)	Forest land	Fe	+45	Cross section Method
13	B-B'	2231	10	10	22310	3.8	84778	G1(221)	Forest land	Fe	+45	Cross section Method
14	F-F'	1280	10	10	12800	3.8	48640	G1(221)	Forest land	Fe	+45	Cross section Method
	Total				**1399815**		**5319297**					
1	B-B'	1040	30	30	31200	3	93600	G1(211)	Forest land	Fe	+15	Cross section Method
2	C-C'	1307	100	100	130700	3	392100	G1(211)	Forest land	Fe	+15	Cross section Method
3	D-D'	3874	100	100	387400	3	1162200	G1(211)	Forest land	Fe	+15	Cross section Method
4	E-E'	4505	100	100	450500	3	1351500	G1(211)	Forest land	Fe	+15	Cross section Method
5	F-F'	453	100	100	45300	3	135900	G1(211)	Forest land	Fe	+15	Cross section Method
6	G-G'	1424	100	100	142400	3	427200	G1(211)	Forest land	Fe	+15	Cross section Method
7	G-G'	500	60	60	30000	3	90000	G2(222)	Forest land	Fe	+15	Cross section Method
8	H-H'	237	40	40	9480	3	28440	G2(222)	Forest land	Fe	+15	Cross section Method
9	B-B'	1040	10	10	10400	3	31200	G1 & G2 (222)	Forest land	Fe	+15	Cross section Method
10	C-C'	151	100	100	15100	3	45300	G1 & G2 (222)	Forest land	Fe	+15	Cross section Method
11	D-D'	168	100	100	16800	3	50400	G1 & G2 (222)	Forest land	Fe	+15	Cross section Method
12	E-E'	472	100	100	47200	3	141600	G1 & G2 (222)	Forest land	Fe	+15	Cross section Method
13	G-G'	954	10	10	9540	3	28620	G1 & G2 (222)	Forest land	Fe	+15	Cross section Method
14	H-H'	1690	10	10	16900	3	50700	G1 & G2 (222)	Forest land	Fe	+15	Cross section Method
	Total				**1342920**		**4028760**					

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2.2.4.3: Mineral Resource Estimate for Conversion to Mineral Reserve –

5319297 Metric tonnes of +45%Fe Hematite ore & 4028760 Metric tonnes of Magnetic Ore +15%Fe, Total 9348057 Metric tonnes

Mineral Reserves are estimated from geological resources by considering the level of exploration deducting the blocked resources in safety zone and beyond UPL, economic factor

2.2.4.4: Threshold value & Cut off Parameters –

The threshold value is considered ≥45% Fe for Heamatitic ore and ≥15% Fe for Magnetitic ore. The magnetitic ore is not salable at present hence consider as mineral reject.

2.2.4.5: Mining Factors or Assumptions –

Entire ROM is saleable after size classification.

Pit slope 45^0, Bench slope - 60^0, Ultimate pit depth – 150m

2.2.4.6: Metallurgical Factors or Assumptions - .

About 1.5 Tonnes of Iron Ore is required to produce one ton of steel.

2.2.4.7: Cost & Revenue Factors -

Cost & Revenue factors. Pl refer prefeasibility report for this working mine in detail . The summary is given as in the annual report for the year 2020-21

Cost Benefit Analysis(Basis FY-2020-21)

	Cost/tonne(Rs)
Capital Cost ------- Rs. 56.9 Cr	63.22
Operational Cost ----------	520.00
Statutory payment (Royality, Taxes,SPV, DMF & NMET, MSTC) ----------	1182.0
Overhead cost ----------	150.00
Depreciation ----------	89.00
Interest ----------	32.00
Total	1973.00
Avg . Realisation ----------	3490.00
Profit Before taxes ----------	1517.00
Profit after taxes ----------	986.00

Summary of capital cost operational cost, statutory payments given vide in Annexure- 20.

2.2.4.8: Market Assessment –

There is a good demand for the quality of Iron Ore being produced (Avg Grade 60 % Fe) for steel and allied industries in the country. Buyers/ bidders

The potential buyers are

1. M/s. JSW Ltd., Toranagallu
2. M/s. S.S.E Steels (P) Ltd., Hanumanahalli
3. M/s. Janki Steels (P) Ltd., Hagari, Ballari Dist

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2.2.4.9: Other Modifying Factors–

None

2.2.4.10: Classification –

Classification

Totally 8666641tonnes of iron ore reserves are estimated as proved mineral resources under 111 UNFC codifications 681416Tonnes iron ore which are blocked in the ultimate benches, 7.5m safety barrier and below feasibility and are estimated as feasibility mineral resources under 221 & 222 UNFC condition . The detailed description of geologic, feasibility and economic viability axis as per UNFC is given below. The iron ore deposit of S.M.Block iron ore mine is bedded stratiform and tabular deposit of regular habit.

Geological parameter for G1 level of exploration

1. Aerial reconnaissance : Satellite imagery is obtained through google.
2. Topography & Geological Survey (Mapping) : The topographic survey and mapping is carried out on 1:2000 scale
3. Ground geophysical and geochemical curvey : It is not necessary
4. Technological : Totally 56 boreholes are drilled by Core/RC/DTH drilling for the length of 3951.47m with less than 100m x 100m grid pattern.
5. Sampling & Sub sampling : Totally 478 Core/RC/DTH samples are collected from the drilling.
6. Assay data & laboratory tests : Totally 478 samples were analysed for Fe, Feo, SiO2 & Al2O3.
7. Petrographic & Mineragraphic studies : It is not done.
8. Bulk density study: The bulk density study is conducted by IBM laboratory, Banaglore.
9. Bulk sampling for Beneficiations studies : Conducted by CSIR-IMMT Laboratory, Bhubaneswar.
10. Environmental setting : The lease falls in the Donimalai reserve forest.
11. Any other relevant data: The ground water is available at 610m AMSL.

Feasibility Axis(F1) The feasibility report is enclosed as Annexure-20

1. Geology : The geological mapping is completed and reserves are estimated.
2. Mining : The mining is under operation, Environmental: The EC is already obtained
3. Processing : Not proposed
4. Infrastructure, construction, etc: The necessary infrastructure is available at pit head.
5. Costing : The cost of production is 1973 Rs/T

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2.2.4.11: Calculation of blocked resources -

Sl. No.	Reserves blocked due to	Cross section / Block	Sectional area/ block area (in Sq mrt)	Influence (m)	Depth (m)	Volume (m^3)	Bulk Density (t/m^3)	Resource Quantity in tonnes	UNFC code	Type of Land	Name of the radical	Grade (%)	Method used for resource estimation
01	Ultimate Pit limit	**A-A'**	239	90	90	21510	3.8	81738	G1(221)		Fe	+45	
02	Ultimate Pit limit	**B-B'**	2231	10	10	22310	3.8	84778	G1(221)		Fe	+45	
03	Ultimate Pit limit	**F-F'**	1280	10	10	12800	3.8	48640	G1(221)		Fe	+45	
	Total					**56620**		**215156**					
01	Ultimate Pit limit	**B-B'**	1040	10	10	10400	3	31200	G1 & G2 (222)		Fe	+15	
02	Ultimate Pit limit	**C-C'**	151	100	100	15100	3	45300	G1 & G2 (222)	**Forest Land**	Fe	+15	**Cross section method**
03	Ultimate Pit limit	**D-D'**	168	100	100	16800	3	50400	G1 & G2 (222)		Fe	+15	
04	Ultimate Pit limit	**E-E'**	472	100	100	47200	3	141600	G1 & G2 (222)		Fe	+15	
05	Ultimate Pit limit	**G-G'**	954	10	10	9540	3	28620	G1 & G2 (222)		Fe	+15	
06	Ultimate Pit limit	**H-H'**	1690	10	10	16900	3	50700	G1 & G2 (222)		Fe	+15	
	Total					**115940**		**347820**					

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2.2.4.12: Calculation of Reserves –

Sl. No.	Cross Section / Block	Sectional area/ block area in Sq mtr	Influence (m)	Depth (m)	Volume (m^3)	Bulk Density (t/m^3)	Reserves Quantity (t)	UNFC Code	Type of Land	Name of the of radical	Grade (%)	Method used for resource estimation
01	A-A'	826	80	80	66080	3.8	251104	G1(111)	Forest land	Fe	+45	Cross section Method
02	B-B'	1970	100	100	197000	3.8	748600	G1(111)		Fe	+45	
03	C-C'	1553	70	70	108710	3.8	413098	G1(111)		Fe	+45	
04	D-D'	1553	40	40	62120	3.8	236056	G1(111)		Fe	+45	
05	E-E'	1784	100	100	178400	3.8	677920	G1(111)		Fe	+45	
06	F-F'	1280	100	100	128000	3.8	486400	G1(111)		Fe	+45	
07	B-B'	2231	110	110	245410	3.8	932558	G1(111)		Fe	+45	
08	C-C'	1792	110	110	197120	3.8	749056	G1(111)		Fe	+45	
09	D-D'	667	65	65	43355	3.8	164749	G1(111)		Fe	+45	
10	E-E'	790	100	100	79000	3.8	300200	G1(111)		Fe	+45	
11	F-F'	380	100	100	38000	3.8	144400	G1(111)		Fe	+45	
	Total				**1343195**		**5104141**					
01	B-B'	1040	30	30	31200	3	93600	G1(211)		Fe	+15	
02	C-C'	1307	100	100	130700	3	392100	G1(211)		Fe	+15	
03	D-D'	3874	100	100	387400	3	1162200	G1(211)		Fe	+15	
04	E-E'	4505	100	100	450500	3	1351500	G1(211)		Fe	+15	
05	F-F'	453	100	100	45300	3	135900	G1(211)		Fe	+15	
06	G-G'	1424	100	100	142400	3	427200	G1(211)		Fe	+15	
07	G-G'	500	60	60	30000	3	90000	G2(222)		Fe	+15	
08	H-H'	237	40	40	9480	3	28440	G2(222)		Fe	+15	
	Total				**1226980**		**3680940**					

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2.2.4.13

Mineral	Fe
Reserves/ Resources estimated as on	01.04.2022
UNIT of estimation	Tonnes

Classification	Code	Quantity			Grade	
		Forest	Non-Forest	Total	Forest	Non-Forest
A. Mineral Reserve						
1. Proved Mineral Reserve (A)	111	5104141	0	**5104141**	+45 Fe	0
2. Probable Mineral Reserve (A)	121	0	0	**0**	0	0
3. Probable Mineral Reserve (A)	122	0	0	**0**	0	0
B. Remaining Resources						
1. Feasibility Mineral Resource (B)	211	3562500	0	**3562500**	+15 Fe	0
2. Prefeasibility Mineral Resource (B)Haematitic	221	215156	0	**215156**	+45 Fe	0
3. Prefeasibility Mineral Resource (B)Magnetite	222	466260	0	**466260**	+15 Fe	0
4. Measured Mineral Resource (B)	331	0	0	**0**	0	0
5. Indicated Mineral Resource (B)	332	0	0	**0**	0	0
6. Inferred Mineral Resource (B)	333	0	0	**0**	0	0
7. Reconnaissance Mineral Resource (B)	334	0	0	**0**	0	0
Total Mineral Resources (A+B)				**9348057**		

*** Additional tables may be added for associated minerals.*

2.2.5: Future Exploration Proposal -

2.2.5.1: Geological Mapping -

Sl. No.	Year	Scale	Area Covered (ha)
01	2022-23	Not proposed	No Proposal

2.2.5.2: Ground Geophysical Survey – No proposal

Sl. No.	Type of Survey	Spacing (m)	Total line (km)	Area Covered (ha)	Latitude	Longitude
01	Nil	Nil	Nil	Nil	Nil	Nil

2.2.5.3: Pitting – No proposal

Number of pits	Nil

Sl. No.	Year	Land type	Pit ID	Length of Pit (m)	Width of Pit (m)	Depth of Pit (m)	Latitude	Longitude
01	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

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2.2.5.3: TRENCHING – Nil (Number of Trenches) : No proposal

2.2.5.4.1 –SPACING

SPACING		
Min (m)	Max (m)	Avg (m)
Nil	Nil	Nil

2.2.5.4.2 Area Covered Under Trenching - Co-ordinates – No proposal

Latitude	Longitude
Nil	Nil

Sl. No.	Trench ID	Length of Trench (m)	Width of Trench (m)	Depth of Trench (m)	Litho Unit Exposed	Average Grade (%)	Running Meters (m)	From Longitude	To Latitude	To Longitude
01	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

2.2.5.5: EXPLORATORY Drilling

2.2.5.5.1:Core/Non-core Drilling -

SNo	Year	In forest area				In Non-forest				Total borehole	Total Mtr	Attachment
		No. of boreholes	Total mtr	Type of borehole	Grid interval	No. of bore holes	Total mtr	Type of bore hole	Grid interval			
01	2022-23	4	200	DTH	100 m	0	0	Not applicable	Not applicable	4	200	Nil

2.2.5.6: Exploratory Mining –

Sl. No.	year	Pit ID	Length in mtrs	Width in mtrs	Depth in mtrs	Volume (m^3)
	Nil	Nil	Nil	Nil	Nil	Nil

2.2.5.7: SAMPLING -

Sl. No.	Type of Sample	Number of Samples proposed	Area Covered (ha)	Latitude	Longitude
01	Chip	40	1.8	N14°59'18.8" to N14°59'21.1"	E76°40'40.4" to E76°40'52.9"

2.2.6.8: Petrology & Mineralogical Studies–

Sl. No.	Type of Sample	Number of Sample proposed
01	Nil	Nil

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Chapter 3: MINERAL BENEFICIATION / PROCESSING

Name of The Ore / Mineral	Haematite and Magnatite

3.1: Mineralogy of the ROM ore/ Mineral:

Sl No.	Valuable Mineral Name	Approx. Mineral %	Gangue Mineral/s Name	Approx. Gangue Mineral %
1	Haematite	88.5	Alumina – 3% Silica – 5% P, S,MnO2 etc.,- 0.5%	8.5
2	Magnetite	Fe- 36.5 FeO- 9.0	Alumina – 2% Silica – 42% P, S,MnO2 etc.,- 0.5%	44.5

3.2: Complete Chemical Analysis of the ROM Ore/Mineral:

Sl.No.	Radicals	Wt %
1	Fe	58.60
2	FeO	0.43
3	SiO2	12.56
4	Al2O3	3.16

3.3: Crushing Section:

3.3.1: Primary Crushing

Sl. No.	Type of Crusher	Make	Capacity of Crusher (tph)	Feed Size (mm)	Product Size (mm)
01	Jaw Crusher	Sandvik	150	500	-40MM, -40 + 20mm, -20 +10mm & -10mm

3.3.2: Secondary Crushing:

Sl. No.	Type of Crusher	Make	Capacity of Crusher (tph)	Feed Size (mm)	Product Size (mm)
01	Cone	Sandvik	150	+40mm	-40 +20, -20 + 10mm -10mm

3.3.3: Tertiary Crushing: No Tertiary Crushing proposed

Sl. No.	Type of Crusher	Make	Capacity of Crusher (tph)	Feed Size (mm)	Product Size (mm)
01	NA	NA	NA	NA	NA

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3.4: Grinding Section:

3.4.1: Dry Grinding: Not Applicable

S.N	Type of Mill	Stages	Make of the mill	Feed Flow Rate (tph)	Feed Size(mm)	Product Size Mill Discharge(mm)	Type of screen
01	Nil	Nil	Nil	Nil	Nil	Nil	Nil

Table continued.....

S.N	Make	Aperture Size of Screen/Classifier(mm), if applicable	Classifier/ Screen under size(tph)	Classifier/ Screen oversize (tph)
01	Nil	Nil	Nil	Nil

3.4.2: Wet Grinding:

S.N	Type of Mill	Stages	Make of the mill	Feed Flow Rate (tph)	Feed Size (mm)	Product Size (mm)	Type of screen/ Classifier
01	Nil	Nil	Nil	Nil	Nil	Nil	Nil

Table continued.....

S. N.	Aperture Size of Screen / Classifier (mm), if applicable	Classifier/ Screen Under size (tph)	Classifier/ Screen Oversize (tph)	Water Requirement (l/h)	Fresh Water Requirement (l/h)	Recirculated Water (l/h)
01	Nil	Nil	Nil	Nil	Nil	Nil

3.5: Dry Processing:

3.5.1: Screening and Classification:

S.N	Type of screen / classifiers	Stages	Make	Capacity (tph)	Aperture Size of Screen / Classifier (mm), if applicable	Feed Size (mm)	Product Size (mm)	Product quality (if applicable)
01	Vibrating	3	Sandvick	150	40 20 10	-500	-40+20 -20+10 -10	54% 55% 53.7%

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3.5.2: Other Operations:

S.N.	Type of equipment /operation	Stages, if applicable	Make	Capacity (tph)	Feed Size (mm)	Product Size (mm)	Product Mid (tph), if available	Product -Tail (tph)
01	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

3.5.3: Product Quality: Not Applicable.

Products	Wt%	In tonnes	Size(range)mm	Complete chemical
Concentrate	NA	NA	NA	NA
Sub-grade	NA	NA	NA	NA
Rejects	NA	NA	NA	NA

3.6: Wet Processing:

3.6.1: Scrubbing / Washing: Not Applicable.

S.N.	Type of Scrubbers /washers	Stages, if applicable	Make	Capacity (tph)	Feed Size (mm)	Product Size (mm)	Product quality (if applicable)
	NA	NA	NA	NA	NA	NA	NA

table continued...

S.N.	Water Requirement (l/h)	Fresh Water Requirement (l/h)	Recirculated water (l/h)
	NA	NA	NA

3.6.2: Screening and Classification: Not Applicable.

S.N.	Type of screen / Classifiers	Stages, if applicable	Make	Capacity (tph)	Aperture Size of Screen/ Classifier(mm), if applicable	Feed Size (mm)	Product Size (mm)
	NA	NA	NA	NA	NA	NA	NA

Table continued.....

S.N.	Product quality (if applicable)	Water Requirement (l/h)	Fresh Water Requirement (l/h)	Recirculated water (l/h)
	NA	NA	NA	NA

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3.6.3: Gravity Separation: Not Applicable.

S.N.	Type of separators (jig, table, spiral,	Stages, if applicable	Make	Capacity(tph)	FeedSize(mm)	Product (Conc) (tph)	Product-Mid(tph),if available
	NA	NA	NA	NA	NA	NA	NA
	NA	NA	NA	NA	NA	NA	NA

table continued...

S.N.	Product-Tail (tph)	Water Requirement (l/h)	Fresh Water Requirement (l/h)	Recirculated water (l/h)
	NA	NA	NA	NA
	NA	NA	NA	NA

3.6.4: Magnetic Separation: Not Applicable.

Sl. No.	Type of magnetic separators (magnetic intensity)	Stages, ifapplicable	Make	Capacity (tph)	Feed Size (mm)	Product-Mag (tph)	Product-Mid (tph), if available
	NA	NA	NA	NA	NA	NA	NA

table continued....

Sl. No.	Productnon-Mag (tph)	Water Requirement (l/h)	Fresh Water Requirement (l/h)	Recirculated water (l/h)
	NA	NA	NA	NA

3.6.5: Flotation: Not Applicable.

S. N.	Type of flotation equipment (froth/ column)	Stages(roughe r/ cleaner, etc), if applicable	Make	Capacity (tph)	FeedSize (mm)	Product-Float (tph)	Product non-Float (tph)
	NA	NA	NA	NA	NA	NA	NA
	NA	NA	NA	NA	NA	NA	NA

table continued....

S.N.	Water Requirement (l/h)	Fresh Water Requirement (l/h)	Recirculated water(l/h)
	NA	NA	NA

3.6.6: Other Operations: Not Applicable.

S.N.	Type of equipment /operation	Stages, if applicable	Make	Capacity(tph)	Feed Size(mm)	Product-Conc (tph)	Product-Mid(tph),if available
	NA	NA	NA	NA	NA	NA	NA

table continued....

S.N.	Product-Tail (tph)	Water Requirement (l/h)	Fresh Water Requirement (l/h)	Recirculated water(l/h)
	NA	NA	NA	NA

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3.6.7: Product Quality (wet processing):

Products	Wt%	Intonnes	Size(range)mm	Complete chemical
Concentrate	NA	NA	NA	NA
Sub-grade	NA	NA	NA	NA
Rejects	NA	NA	NA	NA

3.7: Overall Product Quality (Dry cum Wet Processing)

Products	Wt %	In tonnes	Size (range) mm	Complete chemical analysis
Concentrate	NA	NA	NA	NA
Sub-grade	NA	NA	NA	NA
Rejects	NA	NA	NA	NA

3.8: Disposal Method for tailing/ rejects : Not Applicable.

a) Explain the disposal method for tailing or reject from processing plant with detail chemical / mineral analysis of tailing	**NA**
b) Size and capacity of tailing pond, toxic effect of such tailings, process adopted to neutralize its effect (if any)	**NA**
c) Any other data (if available)	**NA**

3.9: Overall water requirement of mining and mineral processing

Indicate quantity, source of supply, disposal of water and extent of recycling and chemical analysis of water	Water used for Dust suppression – 30 KLD, Plantation – 15 KLD, Domestic – 5 KLD total 50 KLD Source of Bore water- Own borewells outside ML area. Water balance chart enclosed vide **Annexure- 21**.

3.10: Flow sheets and charts

Material balance chart of mineral processing plant(s) (each stage of process)	**Annexure- 13**
Attach flow sheet of beneficiation of plant(s)	**Nil**
Any other data (if applicable)	**Nil**

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Chapter 4: MINING OPERATIONS

4.1: MINING METHOD (Opencast)

4.1.1: Existing Method of Mining– Mechanized/Manual

Specify in the space below:

Mechanized	HEMM with deephole drilling	Nil

4.1.2: Proposed Method of Mining-Mechanized/Manual

Specify in the space below:

Mechanized	HEMM with deephole drilling	Nil

Reasons for proposed changes –

4.2: Operational Parameters-

4.2.1: Inventory of Existing Pits & Dumps-

4.2.1.1: PITS

Sl.No.	Pit ID	Pit Status	Area Covered by Pit (Ha)	Pit Dimension (m x m x m)
01	Eastern Pit	Active	4.14	440 x 94 x 70
02	Western Pit	Active	5.36	220 x 244 x 90

Pits are non-geometrical. Pit area is measured from the plan with irregular dimension

4.2.1.2: DUMPS & STACK

4.2.1.2.1: DUMP DETAILS

S.No.	Dump ID	Dump Status	Type of Dump	Total Dump Quantity (t)	Area covered by Dump (Ha)	Height (m)	Location
01	Dump-1	Stabilised	Waste	132340	0.93	10	N1658170-N1658280 & E680310-E680438
02	Dump-2	Stabilised	Waste	2073181	1.9	16	N1657735-N1657880 & E680035-E680273
03	Dump-3	Dead	Waste	801590	4.71	20	N1658020-N1658275 & E679990-E680300
04	Dump-4	Active	Waste	470000	1.96	15	N1657750-N1657920 & E680235-E680405

4.2.1.2.2: STACK DETAILS

S.No.	Stack ID	Type of Stack	Total Stack Quantity (t)	Area covered by Stack (Ha)	Height (m)
01	S-1	Fines	3000	0.12	4
02	S-2	ROM	2500	0.08	4
03	S-3	Lumps	7000	0.11	5
04	S-4	Lumps	2000	0.13	4
05	S-5	Fines	6000	0.16	5

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06	S-6	Lumps	3500	0.14	4
07	S-7	Lumps	500	0.07	2
08	S-8	ROM	16000	0.22	7
09	S-9	Fines	4500	0.14	4
10	S-10	BMQ	25000	0.10	10
11	S-11	Lumps & Fines	16000	0.26	10
12	S-12	BMQ	37000	0.40	12

Out of the total waste quantity the BMQ part shall be separately dumped for any future utilization.

4.2.1.3: DETAILS OF STABILIZED DUMPS

Sl. No.	Dump ID	Number of Terraces	Average Height of Terraces (m)	Length of Toe Wall (m)	Length of Garland Drain (m)	Area Stabilized (ha)	Method of Stabilization
01	Dump-1	3	10	150	170	0.93	Plantation
02	Dump-2	5	13.5	370	270	1.9	Plantation

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4.2.2: Opencast Mining

4.2.2.1: Bench Parameters

Pit Id	Year	Max Height of the Benches in Over Burden (m)	Min Width of the Benches in Over Burden (m)	Slope of the Bench in Over Burden (degree)	Max Height of the Benches in Mineral (m)	Minimum Width of the Benches in Mineral (m)	Slope of the Bench in Mineral (degree)	Overall Slope of Pit (degree)	Number of Benches in Top Soil	Number of Benches in Over Burden	Number of Benches in Mineral	Max Depth of Workings (m)	Depth of Water Table (mRL)	Max Slope Angle of Haul Roads (1 in)	Year-Wise Development & Production Plan	Year-Wise Development & Production Section
Eastern Pit	2022 -23	10	10	60	10	10	60	45	0	11	11	110m from 785 - 675 mRL	610	1:16	Plate No. 5A	Plate No. 6A
Eastern Pit	2023 -24	10	10	60	10	10	60	45	0	13	13	130m from 785 - 655 mRL	610	1:16	Plate No. 5B	Plate No. 6B
Western Pit		10	10	60	10	10	60	45	0	10	1	90m from 825 - 735 mRL	610	1:16		
Eastern Pit	2024 -25	10	10	60	10	10	60	45	0	6	2	60m from 775 - 715 mRL	610	1:16	Plate No. 5C	Plate No. 6C
Western Pit		10	10	60	10	10	60	45	0	6	2	60m from 785 - 725 mRL	610	1:16		
Eastern Pit	2025 -26	10	10	60	10	10	60	45	0	10	6	70m from 775 - 705 mRL	610	1:16	Plate No. 5D	Plate No. 6D
Western Pit		10	10	60	10	10	60	45	0	8	1	80m from 795 - 715 mRL	610	1:16		

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4.2.2.2: Year wise Opencast Development

Sl. No	Year	Pit ID	Bench (mRL)	Direction	# Bulk Density of Overburden (BD1) (ton/m³)	Bulk Density of Mineral (BD2) (tonnes/m³)	Top Soil Volume (Length x Width x Height) (m³)	Over Burden Volume (Length x Width x Height) (m³)	Over Burden Quantity (t)	ROM Volume (Length x Width x Height) (m³)	ROM Quantity (t)	Recovery	Mineral Reject (t)	Production Main (t)	Production Associated (t)	Location of Advancement	*OB to Ore Ratio (ton/m³)
1	2022-23	Eastern Pit	785 - 675	NNW to SSE	2.22687	3.8	0	368760	821180	59474	226000	100%	0	226000	0	N1657750-N1658220 to E680250-E680550	3.63:1
2	2023-24	Eastern Pit	785 - 655	NNW to SSE	2.12746	3.8	0	516260	1098320	46020	174876	100%	0	174876	0	N1657760-N1658050 to E680360-E680560 & N1658150-N1658275 to E680250-E680360	6.5:1
	2023-24	Western Pit	825 - 735	NNW to SSE	1.71402	3.8	0	217190	372268	13454	51124	100%	0	51124	0	N1657750-N1657950 to E680060-E680340	
3	2024-25	Eastern Pit	775 - 715	SSE	2.0766	3.8	0	126110	261880	17974	68300	100%	0	68300	0	N1658000-N1658250 to E680250-E680425	2.58:1
	2024-25	Western Pit	785 - 725	NNW to SSE	1.8441	3.8	0	173700	320320	41500	157700	100%	0	157700	0	N1657750-N1657950 to E680125-E680350	
4	2025-26	Eastern Pit	775 - 705	NNW to SSE	2.17096	3.8	0	163780	355560	30374	115420	100%	0	115420	0	N1657990-N1658110 to E680370-E680440 & N1658100–N1658275 to E680220-E680390	3.23:1
	2025-26	Western Pit	795 - 715	NNW to SSE	1.90087	3.8	0	196500	373520	29100	110580	100%	0	110580	0	N1657750-N1657970 to E680110-E680360	

*** OB to ore ratio in tonnes : tonnes are given**

 # Average Bulk Density in Overburden mentioned above to considering BMQ is 3.0 ton/m³, Overburden is 2.0 ton/m³ and Dump rehandling is 1.6 ton/m³.

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Sl.No.	Pit ID	Total Topsoil Volume (m^3)	Total Over Burden Volume (m^3)	Total Over Burden Quantity (t)	Total ROM Volume (m^3)	Total ROM Quantity (t)
1	Eastern Pit	0	368760	821180	59474	226000
2	Eastern Pit	0	516260	1098320	46020	174876
	Western Pit	0	217190	372268	13454	51124
3	Eastern Pit	0	126110	261880	17974	68300
	Western Pit	0	173700	320320	41500	157700
4	Eastern Pit	0	163780	355560	30374	115420
	Western Pit	0	196500	373520	29100	110580

** Enclosing vide **Annexure – 23** page 22 & 23 of R& R plan prepared by ICFRE under Review of R& R wherein they have clearly stated that the magnetite resources of 5.1 million tonnes is not considered for computation of reserves at this stage and they will be considered as and when beneficiation facilities and market available. Hence the magnetite (BMQ) Iron ore obtained during the process of mining for haematitic ore is considered as waste for the purpose of calculation of ore to OB ratio. But these BMQ Quantities are separately stacked for future recovery.*

Average Bulk Density in Overburden mentioned above to considering BMQ is 3.0 ton/m^3, Overburden is 2.0 ton/m^3 and Dump rehandling is 1.6 ton/m^3.

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4.2.2.3: Transportation & Hauling Equipment

Sl.No.	Type	Make	Capacity (m^3)	No. of Equipments
1	Dumper	TATA	16	11
2	Dumper	TATA	14	3
3	Water Tanker	TATA	10	2

4.3: Material Handling Summary

Slope Stability Study Report	YES	Annexure-9
Recovery Study Report	NO	(If yes attach report as annexure)
Hydrological Study Report	NO	(If yes attach report as annexure)
Mineral Beneficiation Study Report	YES	Annexure-9
Underground Rock Displacement Study Report	NO	(If yes attach report as annexure)
Subsidence Study Report	NO	(If yes attach report as annexure)
Geotechnical Study Report	NO	(If yes attach report as annexure)
Any Other Study Report	NO	(If yes attach report as annexure)
Bulk Density Study Report	Yes	Annexure-9

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4.3.2: INSITU MINING

Sl. No.	Year	Total Handling (t)	Waste Quantity (t)	ROM Quantity (t)	ROM Quantity Saleable Mineral (t)	ROM Quantity Mineral Reject (t)	OB to Ore Ratio (Waste Quantity / ROM Quantity)	Grade Range (%
1	2022-23	1047180	821180	226000	226000	0	3.63:1	Avg 55% Fe
2	2023-24	1696588	1470588	226000	226000	0	6.50:1	Avg 55% Fe
3	2024-25	808200	582200	226000	226000	0	2.58:1	Avg 55% Fe
4	2025-26	955080	729080	226000	226000	0	3.23:1	Avg 55% Fe

4.3.3: Dump workings

Sl. No.	Year	Dump Id	Location Latitude	Location Longitude	Area (m^2)	Avg Height of Dump (m)	Volume (m^3)	Total Dump Quantity (t)	Propose d Dump Handling Quantity (t) (A)	Proposed Recovery of Saleable Mineral (t) (B)	Proposed Waste Quantity (t) (A-B)	Grade Range (%)	Justification
1	2022-23	--	--	--	0	0	0	0	0	0	0	0	Not Applicable
2	2023-24	2	14°59'20.21"N	76°40'32.05"E	2280	10	155280	248448	248448	0	248448	4.5 to 26.5%Fe	
3	2024-25	2	14°59'20.21"N	76°40'32.05"E	677	10	67700	108320	108320	0	108320	4.5 to 26.5%Fe	
4	2025-26	2	14°59'20.21"N	76°40'32.05"E	487	10	48700	77920	77920	0	77920	4.5 to 26.5%Fe	

** Temporary dumps re-handled for continuing mine operations such as development to expose the ore body only. There shall not be any useful ore recovery.*

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4.3.4: Calculation Summary					
Year	2022-23	2023-24	2024-25	2025-26	Total
(A) Total ROM quantity (t)	226000	226000	226000	226000	904000
(B) Saleable ore from ROM (t)	226000	226000	226000	226000	904000
(C) Proposed Dump Handling Quantity (t)	0	248448	108320	77920	434688
(D) Saleable Ore recovered from dump workings (t)	0	0	0	0	0
(E) Total Saleable Ore (t) (=B+D)	226000	226000	226000	226000	904000
(F) Total Quantity Handled (t) (=A+C)	226000	474448	334320	303920	1338688

** The ROM of Haematie are produced shall be limited to the production quantities sanctioned by CEC*

4.4: Machine Calculation

4.4.1: Machine Requirement Summary		
Number of Average Working Days in One Year (A)		275
Number of Shifts per Day (B)		1
Material Handling Required per Day (t) ((D)=Largest of (Q1,Q5)/(A))		6170
Material to be Handled per Shift (t) ((E)=(D)/(B))		6170
Handling Required per Hour (t) ((F)=(E)/8 hours)		771
Effective Shift Time	08 Hours	00 Mins

4.4.2: Shovel / Excavator Requirement

Effective Shift Time:	08 Hrs	00 min

01/6/2022
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Regional Controller of Mines
भारतीय खान ब्यूरो
Indian Bureau of Mines,
बेंगलूर / Bangalore - 560 022

This Mining Plan is approved subject to the conditions / stipulations indicated in the Mining Plan approval letter No. 279/119/89/BNG Date...01/06/2022

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Sl. No.	Type	Bucket Capacity (m^3)(A)	Bucket Fill Factor (B)	Swell Factor (C)	Tonnage Factor (m^3/t) (D)	Machine Utilization Factor (%) (U)	Efficiency (%) (E)	Cycle time (sec) (F)	(G) TPH =TPH (G) =((3600 x A x B x C x D x E x U) / F)/1000	Total Hours (H) =Number of working days x Number of shifts/day x Effective shift hours	Yearly handling by one Excavator (t) (I)=(G x H)	Maximum handling of the material by this machine during the block period (t) (J)	Number of excavator machines required (K) = (J / I)	Standby excavator (L)
1	Excavator (ROM)	1.2	0.8	0.8	3.8	80	90	35	216	2200	475200	226000	1	1
2	Excavator (OB)	1.9	0.8	0.8	2	80	90	35	180	2200	396000	396000	1	
3		1.4	0.8	0.8	2	80	90	35	133	2200	292600	585200	2	
4		1.2	0.8	0.8	2	80	90	35	114	2200	250800	501600	2	

4.4.3: Dumper Requirement

Sl. No.	Effective Shift Time:	08 Hrs				00 mins							
	Total Hours=Number of working days (W)x Number of shifts/day x Effective shift hours (Machine Requirement Summary) (A)	Capacity of Dumpers (t) (B)	Speed of the dumper (KMPH) (i)	Lead Distance (KM) (ii)	Time taken to cover distance in minutes(iii) =(ii/i) x 60	Queing, Loading Time at Shovel (min) (iv)	Queing, Unloading Time during unloading (min) (v)	Total Time to complete one trip(vi) = (iii + iv + v)	No. of Trips / hr = (60 / vi)	Total transportation per hour =(B X vii)	Yearly handling by one dumper (ix) = A x TPH	Maximum handling of the material by this machine during the block period (t) (x)	Number of dumpers will be (xi) =(x / ix)	Plus Standby dumper (xii)
1	2200	22	10	0.5	3	5	10	18	3.33	73.26	161172	1470588	10	1
2	2200	24	10	0.5	3	5	10	18	3.33	79.92	175824	2260000	2	1

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4.4.4: Drill Machine Requirement

Effective Shift Time:		08 hrs					00 mins							
Sl. No.	Type of Drill	Depth of Hole(including Sub-grade Drilling (m)	Spacing (m)	Burden (m)	Bulk Density of Waste (t/m^3)	Bulk Density of Mineral (t/m^3)	Yield per Hole (t)	Yield per Meter (t/m)	Annual Target Known (t)	Drilling Requirement per Day (m)	Drilling Requirement per Shif t(m)	Rate of Drilling per Hours (m/hr)	Required Number of Drills (m/c)	Stand by Drill
1	Hydraulic	11	3	3	2	3.8	180	18	848294 (50% of the Total Maximum Handling)	171	171	12	2	1

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4.4.5: Machine Deployment Details

4.4.5.1: Excavator & Loading Equipment

S.No.	Type	Make	Capacity (m^3)	No. of Equipments
1	Excavators	L & T Komatsu, PC 200 HP	0.9	1
2	Excavators	L & T Komatsu, PC 450 HP	1.9	1
3	Excavators	CAT-325 D	1.4	2
4	Excavators	CAT-323ED	1.2	2
5	Excavators	Front End loader, 133HP	2.5	3

4.4.5.2: Dozers Details

S.No.	Type	Make	Capacity (m^3)	No. of Equipments
01	Nil	Nil	Nil	Nil

4.4.5.3: Drilling Details

S.No.	Type	Make	Capacity (t)	Diameter of Hole (mm)
01	Hydraulic Drilling	LG-IR	12 M/Hr	100

4.5 Blasting Requirement:

4.5.1 Blasting & Explosive Requirement in Waste/Development

S. N.	Drill Pattern / Spacing of Holes (m)	Burden of Holes (m)	Number of Rows / Rings	Yield per Holes in Waste (m^3)	Frequency of Blasting in a Week	Maximum Number of Holes Blasted in a Round	Charge per Hole (kg)	Charge per Round (kg)	Explosive Requirement Per Month in Development (kg)	Powder Factor in Development / Waste (kg/t)	Depth Of Hole
01	3.5	3	2	116	<1	45	39	1755	1053	7	11

4.5.2 Blasting & Explosive Requirement in Mineral / Ore

Type of Explosive	Type of Explosives used / to be Used
Slurry	Permitted Slurry Explosives

S.N.	Total ROM proposed to be handled in CUM/annum	Total ROM proposed to be handled in CUM/ day	Spacing of Holes (m)	Burden of Holes (m)	Number of Rows	Yield per Holes in ROM Zone (m^3)	Frequency of Blasting in a Week	Maximum Number of Holes Blasted in a Round	No of Holes Required to be Blasted per Round	Charge per Hole (kg)
01	59474	217	3	3	2	99	<1	45	10	25

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Table continued....

S.N.	Charge per Round (kg)	Explosive Requirement Per Month for ROM Zone Blasting (kg)	Powder Factor in Ore (kg/t)	Pop Shooting (no of Boulders)	Plaster Shooting (no of Boulders)	Use of Rockbreaker	Capacity	Secondary Blasting Requirement	Depth Of Hole
01	250	1042	7	--	--	--	--	--	11

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4.6: Man Power Deployment

4.6.1: Managerial

Sr. No	Particulars	Number of Persons in Shift 1	Number of Persons in Shift 2	Number of Persons in Shift 3	Number of Persons in General Shift	Total No. of Persons per day
1	1st Class	0	0	0	1	1
2	Mining Engineer	0	0	0	1	1
3	Geologist	0	0	0	1	1
4	2nd Class Manager	0	0	0	1	1
5	Environmental Engineer	0	0	0	1	1

4.6.2: Supervisory

Sl. No.	Particulars	Number of Person in Shift 1	Number of Person in Shift 2	Number of Person in Shift 3	Number of Person in General Shift	Total Number of Person per Day
1	Foreman	0	0	0	2	2
2	Others	0	0	0	7	7

4.6.3: Skilled Workers / Operators

Sl No	Particulars	Number of Persons in Shift 1	Number of Persons in Shift 2	Number of Persons in Shift 3	Number of Persons in General Shift	Total No. of Persons per day
1	Excavator Operator	0	0	0	10	10
2	Wheel Loader Operator	0	0	0	3	3
3	Drilling operator	0	0	0	3	3
4	Operator Continuous Miners	0	0	0	0	0
5	Dumper Operator	0	0	0	17	17
6	Crusher & screening	0	0	0	4	4

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4.6.4: Semi-skilled Workers

S.No	Number of Persons in Shift 1	Number of Persons in Shift 2	Number of Persons in Shift 3	Number of Persons in General Shift	Total No. of Persons per day
01	0	0	0	10	10

4.6.5: Unskilled Workers

S.No	Number of Persons in Shift 1	Number of Persons in Shift 2	Number of Persons in Shift 3	Number of Persons in General Shift	Total No. of Persons per day
01	0	0	0	22	22

4.6.6: No of Persons Engaged Per Day

Number of Persons in Shift 1	Number of Persons in Shift 2	Number of Persons in Shift 3	Number of Persons in General Shift	Total No. of Persons per day
0	0	0	83	83

No of Shifts per Day ((A) = Machine Requirement Summary (B))	1
Average Daily Employment per Shift ((B) = (Total Number of Person per Day) / (A))	83
Material to be Handled per Shift ((C) = Machine Requirement Summary (E))	6170

4.6.7: Supervision

Sl. No.	Particulars	Qualification	Requirement / Proposed	In Position / Existing Strength	(-) Shortage / (+) Excess	Remarks
01	Foreman	Forman certification	0	2	0	
02	Mine Mate	certificate	0	4	0	

4.7: Waste Management

4.7.1: Existing Dump

Sl. No.	Year	Dump Id	Type of Dump	Proposed Area (ha)	Height (m)	Total Dump Quantity (m^3)	Existing Dump Location
1	2021-22	Dump-1	Waste	0.93	10	66170	N1658170-N1658280 & E680310-E680438
2	2021-22	Dump-2	Waste	1.9	16	1295738	N1657735-N1657880 & E680035-E680273
3	2021-22	Dump-3	Waste	4.71	20	1228775	N1658020-N1658275 & E679990-E680300
4	2021-22	Dump-4	Waste	1.96	15	293750	N1657750-N1657920 & E680235-E680405

Dump number 1 to 4 are old static dumps which are already consolidated by plantation and other protective measures.

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4.7.2: New Dump

Sl. No.	Year	Dump Id	Type of Dump	Proposed Area (ha)	Height (m)	Total Dump Quantity (m^3)	New Dump Location
1	2022-23	Dump-4	Waste	1.66	10	158700	N1657740-N1657940 & E680150-E680310
2	2022-23	Dump-5 (Stage 1&2)	Waste	1.40	20	126400	N1657885- N1658020 & E680565-E680720
3	2022-23	Dump-6	BMQ	1.06	10	83660	N16579755-N1658103 & E680158-E68028
4	2023-24	Dump-5 * (Stage 1&2)	Waste	3.1	15	667650	N1657780-N1657980 & E680415-E680640
5	2023-24	Dump-6	BMQ	0.94	15	65800	N1657995-N1658128 & E680110-E680235
6	2024-25	Dump-5 (Stage 3)	Waste	3.6	10	290150	N1657757-N1657992 & E680400-N680630
7	2024-25	Dump-3	BMQ	0.29	10	9660	N1658125-N1658200 & E679990-E680053
8	2025-26	Dump-5 (Stage 3&4)	Waste	4.18	20	332280	N1657775-N1658025 & N680370-N680700
9	2025-26	Dump-3	BMQ	0.78	10	28000	N1658070-N1658195 & E680005-E680095

** Proposed height of waste dump-5 shall be restricted to 30 m(max) which is a temporary dump. During year 2023-24 this dump height shall be maintained as 15m only*

4.7.3: Existing Stack

Sl. No.	Year	Stack ID	Type of Stack	Proposed Area (ha)	Height (m)	Total Stack Quantity (m^3)	Existing Stack Location
1	2021-22	S-1	Fines	0.12	4	789.47	N14°59'28.05" E76°40'32.47"
2	2021-22	S-2	ROM	0.08	4	657.89	N14°59'28.97" E76°40'33.01"
3	2021-22	S-3	Lumps	0.11	5	142.10	N14°59'29.70" E76°40'35.26"
4	2021-22	S-4	Lumps	0.13	4	526.32	N14°59'28.42" E76°40'35.04"
5	2021-22	S-5	Fines	0.16	5	1578.95	N14°59'27.44" E76°40'35.10"
6	2021-22	S-6	Lumps	0.14	6	921.05	N14°59'26.76" E76°40'35.32"
7	2021-22	S-7	Lumps	0.07	2	131.58	N14°59'27.95" E 6°40'37.22"
8	2021-22	S-8	ROM	0.22	7	4210.53	N14°59'30.51" E76°40'42.65"
9	2021-22	S-9	Fines	0.14	4	1184.21	N14°59'33.50" E76°40'39.75"
10	2021-22	S-10	BMQ	0.10	10	8333.33	N14°59'32.89" E76°40'41.94"
11	2021-22	S-11	Lumps & Fines	0.26	10	4210.53	N14°59'32.66" E76°40'44.90"
12	2021-22	S-12	BMQ	0.40	12	12333.33	N14°59'30.22" E76°40'44.80"

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4.7.4: New Stack

Sl. No.	Year	Stack ID	Type of Stack	Proposed Area (ha)	Height (m)	Total Stack Quantity (m^3)	New Stack Location
01	2022-23	Nil	Nil	Nil	Nil	Nil	Nil
02	2023-24	Nil	Nil	Nil	Nil	Nil	Nil
03	2024-25	Nil	Nil	Nil	Nil	Nil	Nil
04	2025-26	Nil	Nil	Nil	Nil	Nil	Nil
Total				Nil	Nil	Nil	Nil

4.8: Mineral Waste Handling to Utilize As Minor Mineral

Sl. No.	Year	Dump Id	Type of Dump	Proposed Area (ha)	Quantity Handled (t)	Quantity Recovered (t)	Name Of Minor Mineral	Alternative Waste Utilization (m^3)
01	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

4.9: Use of Minerals

Sl. No.	Proposed Use Of Mineral	Name Of Mineral	Relevant Use Of Mineral	Physical Specifications	Chemical Specifications
1	For ferrous industries in the vicinity	Iron Ore	Steel and allied industry	Lumps - -40 + 10mm Fines- -10mm	Lumps 55 % Fe Fines 55% Fe

*Direct Selling through e-auction

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Chapter 5: SUSTAINABLE MINING

5.1: Sustainable Mining and SDF Implementations in Compliance of Rule 35 of MCDR 2017-

Sustainable Mining and SDF Implementations in Compliance of Rule 35 of MCDR 2017-Sustainable Mining and SDF Implementations during the plan period 2022-23 to 2025 -26 will be carried out in accordance with Rule 35 of MCDR 2017. Community Engagement and Welfare activities will be organized to manage the socio-economic impacts due to mining.

Compliance of Vishakha Committee Guidelines for prevention of women harassment at workplace:

Not Applicable

5.2: CSR INITIATIVES

5.2.1: YEAR 2022-23 (Separate form for each year as below)	
Details of Work Proposed during the Year / Measures Planned for the Affected Segment	**Cumulative Work done / Measures Taken**
5.2.1.1: Area to be Developed for Recreation	
Area (Ha)	Area (Ha)
Nil	Nil
5.2.1.2: Area for Water Storage & Recharge Facility	
Area (Ha)	Area (Ha)
0.05	0.05
5.2.1.3: Efforts Made towards Housing for Local Communities	
Number of Houses	Number of Houses
Nil	Nil
5.2.1.4: Efforts Made towards Providing Transport to Local Communities	
Number of Beneficiaries	Number of Beneficiaries
50	50
5.2.1.5: Efforts Made towards Providing Healthcare to Local Communities	
Number of Beneficiaries	Number of Beneficiaries
Nil	Nil
5.2.1.6: Efforts Made towards Providing Hygiene & Sanitation to Local Communities	
Number of Beneficiaries	Number of Beneficiaries
Nil	Nil
5.2.1.7: Efforts Made towards Skill Development Programs to Local Communities	
Number of Beneficiaries	Number of Beneficiaries
Nil	Nil
5.2.1.8: Efforts Made to Promote Education & Knowledge Based Initiatives	
Number of Beneficiaries	Number of Beneficiaries
12	12

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5.2.1.9: Communication Facilities Provided to Local Communities		
Number of Beneficiaries		Number of Beneficiaries
Nil		Nil

5.2.1.10: Any Other Steps Taken for Improving the Socio-Economic Standard of Local Communities		
Number of Beneficiaries		Number of Beneficiaries
Nil	Nil	Nil

5.2.1.11: Adoption of ODF		
Number of Toilets Built inside the Lease Area:	Number of Toilets Built outside the Lease Area:	Number of Beneficiaries
Nil	Nil	Nil

5.2.1.12: Awareness Program among Mine Workers for Swatchata	
Number of Swatchata Programmes proposed:	Number of Swatchata Programmes Held:
02	06

5.2.1.13: Efforts for green energy	
Total energy consumption (KWh)	Green energy consumption (% of total)
350	5

5.2.1.14: Water & recycled use	
Total water consumption (KLD)	Water recycled (% of total)
50	0

5.2.1: YEAR 2023-2024 (Separate form for each year as below)	
Details of Work Proposed during the Year / Measures Planned for the Affected Segment	**Cumulative Work done / Measures Taken**
5.2.1.1: Area to be Developed for Recreation	
Area (Ha)	Area (Ha)
Nil	Nil
5.2.1.2: Area for Water Storage & Recharge Facility	
Area (Ha)	Area (Ha)
0.05	0.1
5.2.1.3: Efforts Made towards Housing for Local Communities	
Number of Houses	Number of Houses
Nil	Nil
5.2.1.4: Efforts Made towards Providing Transport to Local Communities	
Number of Beneficiaries	Number of Beneficiaries
50	100

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5.2.1.5: Efforts Made towards Providing Healthcare to Local Communities	
Number of Beneficiaries	Number of Beneficiaries
Nil	Nil

5.2.1.6: Efforts Made towards Providing Hygiene & Sanitation to Local Communities	
Number of Beneficiaries	Number of Beneficiaries
Nil	Nil

5.2.1.7: Efforts Made towards Skill Development Programs to Local Communities	
Number of Beneficiaries	Number of Beneficiaries
Nil	Nil

5.2.1.8: Efforts Made to Promote Education & Knowledge Based Initiatives	
Number of Beneficiaries	Number of Beneficiaries
12	24

5.2.1.9: Communication Facilities Provided to Local Communities	
Number of Beneficiaries	Number of Beneficiaries
Nil	Nil

5.2.1.10: Any Other Steps Taken for Improving the Socio-Economic Standard of Local Communities	
Number of Beneficiaries	Number of Beneficiaries
10	10

5.2.1.11: Adoption of ODF		
Number of Toilets Built inside the Lease Area:	Number of Toilets Built outside the Lease Area:	Number of Beneficiaries
Nil	Nil	Nil

5.2.1.12: Awareness Program among Mine Workers for Swatchata	
Number of Swatchata Programmes proposed:	Number of Swatchata Programmes Held:
02	08

5.2.1.13: Efforts for green energy	
Total energy consumption (KWh)	Green energy consumption (% of total)
350	5

5.2.1.14: Water & recycled use	
Total water consumption (KLD)	Water recycled (% of total)
50	0

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5.2.1: YEAR 2024-2025 (Separate form for each year as below)	
Details of Work Proposed during the Year / Measures Planned for the Affected Segment	**Cumulative Work done / Measures Taken**
5.2.1.1: Area to be Developed for Recreation	
Area (Ha) Nil	Area (Ha) Nil
5.2.1.2: Area for Water Storage & Recharge Facility	
Area (Ha) 0.05	Area (Ha) 0.15
5.2.1.3: Efforts Made towards Housing for Local Communities	
Number of Houses Nil	Number of Houses Nil
5.2.1.4: Efforts Made towards Providing Transport to Local Communities	
Number of Beneficiaries 50	Number of Beneficiaries 150
5.2.1.5: Efforts Made towards Providing Healthcare to Local Communities	
Number of Beneficiaries Nil	Number of Beneficiaries Nil
5.2.1.6: Efforts Made towards Providing Hygiene & Sanitation to Local Communities	
Number of Beneficiaries Nil	Number of Beneficiaries Nil
5.2.1.7: Efforts Made towards Skill Development Programs to Local Communities	
Number of Beneficiaries Nil	Number of Beneficiaries Nil
5.2.1.8: Efforts Made to Promote Education & Knowledge Based Initiatives	
Number of Beneficiaries 12	Number of Beneficiaries 36
5.2.1.9: Communication Facilities Provided to Local Communities	
Number of Beneficiaries Nil	Number of Beneficiaries Nil
5.2.1.10: Any Other Steps Taken for Improving the Socio-Economic Standard of Local Communities	
Number of Beneficiaries 10	Number of Beneficiaries 20
5.2.1.11: Adoption of ODF	
Number of Toilets Built inside the Lease Area: Nil	Number of Toilets Built outside the Lease Area: Nil
	Number of Beneficiaries Nil

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5.2.1.12: Awareness Program among Mine Workers for Swatchata	
Number of Swatchata Programmes proposed:	Number of Swatchata Programmes Held:
02	10

5.2.1.13: Efforts for green energy	
Total energy consumption (KWh)	Green energy consumption (% of total)
350	5

5.2.1.14: Water & recycled use	
Total water consumption (KLD)	Water recycled (% of total)
50	0

5.2.1: YEAR 2025-2026 (Separate form for each year as below)	
Details of Work Proposed during the Year / Measures Planned for the Affected Segment	**Cumulative Work done / Measures Taken**
5.2.1.1: Area to be Developed for Recreation	
Area (Ha)	Area (Ha)
Nil	Nil
5.2.1.2: Area for Water Storage & Recharge Facility	
Area (Ha)	Area (Ha)
0.05	0.2
5.2.1.3: Efforts Made towards Housing for Local Communities	
Number of Houses	Number of Houses
Nil	Nil
5.2.1.4: Efforts Made towards Providing Transport to Local Communities	
Number of Beneficiaries	Number of Beneficiaries
50	200
5.2.1.5: Efforts Made towards Providing Healthcare to Local Communities	
Number of Beneficiaries	Number of Beneficiaries
Nil	Nil
5.2.1.6: Efforts Made towards Providing Hygiene & Sanitation to Local Communities	
Number of Beneficiaries	Number of Beneficiaries
Nil	Nil
5.2.1.7: Efforts Made towards Skill Development Programs to Local Communities	
Number of Beneficiaries	Number of Beneficiaries
Nil	Nil

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5.2.1.8: Efforts Made to Promote Education & Knowledge Based Initiatives		
Number of Beneficiaries		Number of Beneficiaries
12	Nil	48

5.2.1.9: Communication Facilities Provided to Local Communities		
Number of Beneficiaries		Number of Beneficiaries
Nil		Nil

5.2.1.10: Any Other Steps Taken for Improving the Socio-Economic Standard of Local Communities		
Number of Beneficiaries		Number of Beneficiaries
10	Nil	30

5.2.1.11: Adoption of ODF		
Number of Toilets Built inside the Lease Area:	Number of Toilets Built outside the Lease Area:	Number of Beneficiaries
Nil	Nil	Nil

5.2.1.12: Awareness Program among Mine Workers for Swatchata	
Number of Swatchata Programmes proposed:	Number of Swatchata Programmes Held:
02	12

5.2.1.13: Efforts for green energy	
Total energy consumption (KWh)	Green energy consumption (% of total)
350	5

5.2.1.14: Water & recycled use	
Total water consumption (KLD)	Water recycled (% of total)
50	0

5.3: REHABILITATION & RESETTLEMENT OF AFFECTED PERSONS

Particular	2022-23	2023-24	2024-25	2025-26
Proposed Number of Project Affected Persons(PAP)	Nil	Nil	Nil	Nil
Proposed Number of Person for Alternate Arrangement for Sustainable Livelihood	Nil	Nil	Nil	Nil
Proposed Number of Person for Skill Training	Nil	Nil	Nil	Nil
Proposed Number of Person Likely to get Direct Employment	Nil	Nil	Nil	Nil
Proposed Number of Person Likely to get Indirect Employment	Nil	Nil	Nil	Nil
Proposed Project Affected Families Skilled and Absorbed	Nil	Nil	Nil	Nil
Proposed Number of Project Affected Families	Nil	Nil	Nil	Nil

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Chapter 6: PROGRESSIVE MINE CLOSURE PLAN

6.1: Status of Land

Total Area Degraded					Total mined out area Reclaimed and Rehabilitated			Other Areas Reclaimed and Rehabilitated	
Total area under excavation in the lease		Area under Dumps(in hect)	Area under utility services(in hect)	Area under Stack yards(in hect)	Mined out Area Reclaimed but not rehabilitated (in hect)	Mined out Area fully Rehabilitated from Reclaimed area (in hect)	Area under Water Reservoir considered Rehabilitated (in hect)	Stabililized Waste dump Rehabilitated (in hect)	Virgin area under Green Belt (in hect)
Area under mining operation	Mined Out area in the lease								
9.5	0	6.67	2.34	1.21	0	0	0	2.84	2.14

6.2: Progressive Reclamation and Rehabilitation Plan

6.2.1: Backfilling

Quantity of Waste / Fill Material Available at Site (m^3)	0
Availability of Top Soil for Spreading (m^3)	0
Spread Area (m^2)	0

Year Wise Proposal						
Sr No	Year	Pit ID	Area (m^2)	Top RL	Bottom RL	Estimated Expenditure (INR)
01	2022-23	Nil	Nil	Nil	Nil	Nil
02	2023-24	Nil	Nil	Nil	Nil	Nil
03	2024-25	Nil	Nil	Nil	Nil	Nil
04	2025-26	Nil	Nil	Nil	Nil	Nil

6.2.2: Water Reservoir

Average Rainfall of The Area (mm)	700
Proposed Area under Water Storage	Already we have constructed Silt Settling tank outside lease (10m x 20m x 3m)

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6.2.2.1: Preparations For Ground Water Recharging

6.2.2.1.1: Drilling Holes	
Year	**Proposed no of Holes to be Drilled**
Year 1	Nil
Year 2	Nil
Year 3	Nil
Year 4	Nil
Year 5	Nil

6.2.2.1.2:Preparation of Course Gravel Bed	
Year	**Proposed Area of Bed (LxW)**
Year 1	Nil
Year 2	Nil
Year 3	Nil
Year 4	Nil
Year 5	Nil

Please specify, if others-

6.2.2.2: Protective measures (Please specify running meter)

6.2.2.2.1: Fencing			
Year	**Proposed Fencing Length (m)**	**Co-ordinates from**	**Co-ordinates to**
Year 1	Nil	Nil	Nil
Year 2	Nil	Nil	Nil
Year 3	Nil	Nil	Nil
Year 4	Nil	Nil	Nil
Year 5	Nil	Nil	Nil

6.2.2.2.2: Retaining Wall			
Year	**Proposed Wall Length (m)**	**Co-ordinates from**	**Co-ordinates to**
2022-23	280	680720, 1657930	680670, 1658010
2023-24	Nil	Nil	Nil
2024-25	Nil	Nil	Nil
2025-26	Nil	Nil	Nil

6.2.2.2.3: Garland Drains			
Year	**Proposed Bund Length (m)**	**Co-ordinates from**	**Co-ordinates to**
2022-23	760	680365, 1657767	680730, 1657947
2023-24	Nil	Nil	Nil
2024-25	Nil	Nil	Nil
2025-26	118	680540, 1657987	680648, 1658022

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6.2.3: Green Belt Development

6.2.3.1: Cumulative work done (upto end of previous block of five years)				
Sr. No	Total Expenditure Incurred up to Last Year (INR)	Area Covered (Ha)	Number of Plants	Survival Rate (%)
1	11,51,000	2.8	7676	60

6.2.3.2: Year Wise Proposal						
Sr. No	Year	Green Belt Location (s)	Area Proposed to be Covered (Ha)	Number of Plants Proposed	Expected Survival Rate (%)	Estimated Expenditure (INR)
1	2022-23	Gap plantation	0	200	70	40000
2	2023-24	Gap plantation	0	200	70	40000
3	2024-25	Gap plantation	0	200	70	40000
4	2025-26	Gap plantation	0	200	70	40000

6.2.4: Use of shallow pits

6.2.4.1: Cumulative work done (upto end of previous block of five years)				
Sr. No	Pit ID	Work Done	Area covered (m^2)	Total Expenditure Incurred (up to last five year block) (INR)
1	Nil	Nil	Nil	Nil
2	Nil	Nil	Nil	Nil

6.2.4.2: Year Wise Proposal									
Sr. No	Year	Pit ID	Total Area (Ha)	Area Proposed for Crops (Ha)	Suitable Crops	Area Proposed for Grass (Ha)	Total Proposed Expenditure (INR)	Location (s)	Remarks
Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

6.2.5: PISCICULTURE

6.2.5.1: Total Expenditure incurred as on Date (INR)	Nil

6.2.5.2: Cumulative work done as on Date			
Sr. No	Pit ID	Area (m^2)	Expenditure (INR)
Nil	Nil	Nil	Nil

6.2.5.3: Year Wise Proposal				
Sr. No	Year	Pit ID	Area (m^2)	Estimated Expenditure (INR)
1	Nil	Nil	Nil	Nil

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6.2.5.4: Source of Water for Pisciculture	Nil
6.2.5.5: Whether the quality of water has been assessed & found to be suitable for Pisciculture	Nil

6.2.6: Recreational Facility-

6.2.6.1: Total Expenditure Incurred (up to last five year block) (INR)	Nil

6.2.6.2: Cumulative work done as on Date

Sr. No	Pit ID	Area (m^2)	Expenditure (INR)
1	Nil	Nil	Nil
2	Nil	Nil	Nil

6.2.6.3: Year Wise Proposal

Sr No	Year	Type of Recreational Facility	Area Covered (Ha)	Location	Estimated Expenditure (INR)
1	2022-23	Nil	Nil	Nil	Nil
2	2023-24	Nil	Nil	Nil	Nil
3	2024-25	Nil	Nil	Nil	Nil
4	2025-26	Nil	Nil	Nil	Nil

6.2.7: Dump Area Stabilization & Development

Sr. No	Year	Dump ID	No of Terraces	Average Height of Terraces (m)	Length of Toe Wall (m)	Length of Garland Drain (m)	Area Stabilized (Ha)	Method of Stabilization	Estimated Expenditure (INR)	No of Check Dams
1	2022-23	Dump-5	1	10	280	760	0.20	Grassing & Plantation	1500000	2
2	2023-24	Dump-5	1	10	0	0	0.15	Grassing & Plantation	72000	0
3	2024-25	Dump-5	1	10	0	0	0.05	Grassing & Plantation	24000	0
4	2025-26	Dump-5	1	10	0	118	0.33	Grassing & Plantation	158400	0

6.2.8: Other Form of Reclaiming the Area

6.2.8.1: Cumulative work done as on Date

Sr. No	Total Expenditure incurred as on Date (INR)	Work Done
01	45291731.00	Work done as per ICFRE R&R report

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6.2.8.2: Year Wise Proposal			
Sr. No	Year	Work Proposals	Estimated Expenditure (INR)
1	Year 1	Nil	Nil
2	Year 2	Nil	Nil
3	Year 3	Nil	Nil
4	Year 4	Nil	Nil
5	Year 5	Nil	Nil

6.2.9: TOPSOIL MANAGEMENT

6.2.9.1: Cumulative Work Done as on Date				
Sl. No.	Top Soil Generated (m^3)	Top Soil Utilized (m^3)	Topsoil Stored (m^3)	Total expenditure incurred as on date (₹)
01	Nil	Nil	Nil	Nil

6.2.9.2: Year Wise Proposal				
Year	Topsoil Generated (m^3) (A)	Topsoil Utilized (m^3) (B)	Topsoil Stored (m^3) (A-B)	Estimated Expenditure (INR)
2022-23	0	0	0	0
2023-24	0	0	0	0
2024-25	0	0	0	0
2025-26	0	0	0	0

6.2.10: TAILINGS DAM MANAGEMENT : Not applicable

Year	Yearly generation of Tailing (m^3) (A)	Total capacity of Tailing Pond (m^3)	Measures Proposed for Periodic Desilting	Yearly Utilization of Tailing (m^3) (B)	Disposal of Tailing to Tailing Pond (m^3) (A-B)	Tailing Dam Design	Structural Stability Studies
2022-23	0	0	0	0	0	0	0
2023-24	0	0	0	0	0	0	0
2024-25	0	0	0	0	0	0	0
2025-26	0	0	0	0	0	0	0

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6.2.11 LAND USE OF LEASE AREA AT THE EXPIRY OF LEASE PERIOD (CONCEPTUAL STAGE)

Total Area Degraded				Non Degraded area	Total mined out area Reclaimed and Rehabilitated			Other Areas Reclaimed and Rehabilitated			
Mined Out area in the lease	Area under Dumps (in hect)	Area under the Tailing Dam	Area under utility services (in hect)	Area undisturbed/virgin	Mined out Area Reclaimed but not rehabilitated (in hect)	Mined out Area fully Rehabilitated from Reclaimed area (in hect)	Area under Water Reservoir considered Rehabilitated (in hect)	Stabililized Waste dump Rehabilitated (in hect)	Virgin area under Green Belt (in hect)	Rehabilitated Area under utility services (in hect)	Rehabilitated Area under Tailing dam (in hect)
35.91	0.64	0	0	3.92	4.38	31.53	0	0.64	2.14	0	0

Foot Note: At conceptual stage the lessee will undertake fencing of mine pits, re-grassification of dumps and top OB benches and utility service area.

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Chapter 7: FINANCIAL ASSURANCE/ PERFORMANCE SURETY

(AREA PUT TO USE)

7.1 YEAR 2022-2023 (Separate form for each year as below)

Sl. No.	Particular	Area put to use at Start of Year (ha) (A)*	Additional Requirement (ha) (B)*	Total (ha)(C = A + B)
1	Area under Mining	9.50	2.10	*11.60*
2	Topsoil stacking	0.00	0.00	*0.00*
3	Overburden/Waste Dumping	9.51	1.32	*10.83*
4	Mineral Storage	1.21	0.33	*1.54*
5	Infrastructure (Workshop, Administrative Building etc.)	0.00	0.00	*0.00*
6	Roads	2.00	0.00	*2.00*
7	Railways	0.00	0.00	*0.00*
8	Tailing Pond	0.00	0.00	*0.00*
9	Effluent Treatment Plant	0.00	0.00	*0.00*
10	Mineral Separation Plant	0.34	0.16	*0.50*
11	Township Area	0.00	0.00	*0.00*
12	Others to Specify Retaining wall, garland drain, Check dam, Saftey Zone, Plantation	2.14	0.00	*2.14*
Total		**24.70**	**3.91**	***28.61***
Grand Total(year 1 to 5)				

7.1 YEAR 20232-2024 (Separate form for each year as below)

Sl. No.	Particular	Area put to use at Start of Year (ha) (A)*	Additional Requirement (ha) (B)*	Total (ha)(C = A + B)
1	Area under Mining	11.60	0.38	*11.98*
2	Topsoil stacking	0.00	0.00	*0.00*
3	Overburden/Waste Dumping	10.83	1.60	*12.43*
4	Mineral Storage	1.54	0.00	*1.54*
5	Infrastructure (Workshop, Administrative Building etc.)	0.00	0.00	*0.00*
6	Roads	2.00	0.00	*2.00*
7	Railways	0.00	0.00	*0.00*
8	Tailing Pond	0.00	0.00	*0.00*
9	Effluent Treatment Plant	0.00	0.00	*0.00*
10	Mineral Separation Plant	0.50	0.00	*0.50*
11	Township Area	0.00	0.00	*0.00*
12	Others to Specify Retaining wall, garland drain, Check dam, Saftey Zone, Plantation	2.14	0.00	*2.14*
Total		**28.61**	**1.98**	***30.59***
Grand Total(year 1 to 5)				

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7.1 YEAR 2024-2025 (Separate form for each year as below)

Sl. No.	Particular	Area put to use at Start of Year (ha) (A)*	Additional Requirement (ha) (B)*	Total (ha)(C= A + B)
1	Area under Mining	11.98	0.18	*12.16*
2	Topsoil stacking	0.00	0.00	*0.00*
3	Overburden/Waste Dumping	12.43	0.48	*12.91*
4	Mineral Storage	1.54	0.00	*1.54*
5	Infrastructure (Workshop, Administrative Building etc.)	0.00	0.00	*0.00*
6	Roads	2.00	0.00	*2.00*
7	Railways	0.00	0.00	*0.00*
8	Tailing Pond	0.00	0.00	*0.00*
9	Effluent Treatment Plant	0.00	0.00	*0.00*
10	Mineral Separation Plant	0.50	0.00	*0.50*
11	Township Area	0.00	0.00	*0.00*
12	Others to Specify Retaining wall, garland drain, Check dam, Saftey Zone, Plantation	2.14	0.00	*2.14*
Total		**30.59**	**0.66**	***31.25***
Grand Total(year 1 to 5)				

7.1 YEAR 2025-2026 (Separate form for each year as below)

Sl. No.	Particular	Area put to use at Start of Year (ha) (A)*	Additional Requirement (ha) (B)*	Total (ha) (C = A + B)
1	Area under Mining	12.16	0.43	*12.59*
2	Topsoil stacking	0.00	0.00	*0*
3	Overburden/Waste Dumping	12.91	0.32	*13.23*
4	Mineral Storage	1.54	0.00	*1.54*
5	Infrastructure (Workshop, Administrative Building etc.)	0.00	0.00	*0*
6	Roads	2.00	0.00	*2*
7	Railways	0.00	0.00	*0*
8	Tailing Pond	0.00	0.00	*0*
9	Effluent Treatment Plant	0.00	0.00	*0*
10	Mineral Separation Plant	0.50	0.00	*0.5*
11	Township Area	0.00	0.00	*0*
12	Others to Specify Retaining wall, garland drain, Check dam, Saftey Zone, Plantation	2.14	0.00	*2.14*
Total		**31.25**	**0.75**	***32.00***
Grand Total(year 1 to 5)				

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7.2 FINANCIAL ASSURANCE

Category-A Mining Lease

Total Area Proposed to be put to use in hect (Year 1 to 5)	Amount of Bank Guarantee (Lac INR)	Valid till (dd/mm/yyyy)	Upload copy of Bank Guarantee
32.00	160	31.03.2026	Copies enclosed as **Annexure-15**

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Chapter 8: Review of Previous Proposals

(Not applicable for fresh grant)

8.1: General:

8.1.1: LEASE AREA UTILISATION

Sl. No.	Type of land use (in ha)	Area at the beginning of the proposal period	Area proposed under activity	Actual Area utilized in the proposal period	Deviation	Reasons for deviation
1	Mining	9.45	12.33	9.5	-23%	Partly change of working
2	Mineral storage	0.06	2.48	1.21	-51%	Stock area still prepared
3	Mineral Beneficiation plant	0	0	0	0%	Nil
4	Township	0	0	0	0%	Nil
5	Tailing Pond	0	0	0	0%	Nil
6	Railways	0	0	0	0%	Nil
7	Roads	2	2	2	0%	Nil
8	Infrastructure (Workshop, administrative building etc.)	0	0	0	0%	Nil
9	OB/waste dump	7.34	5.2	9.51	83%	Partly change of working
10	Top soil preservation	0	0	0	0%	Nil
11	Others	2.48	2.54	2.48	-2.3%	Marginal
12	Total area put to use	0	0	0	0%	Nil
13	Excavated area reclaimed	0	0	0	0%	Nil
14	Waste dump area reclaimed	0	0	0	0%	Nil
15	Undisturbed Area	19.14	15.92	15.77	-1%	Marginal
	Total	**40.47**	**40.47**	**40.47**		None

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8.1.2: SDF and CSR Expenditures

Activity	Proposals		Achievement	Deviation	Reasons for deviation
Total expenditure incurred for implementation of SDF at mine level including - Environment Protection - CSR & other welfare activities in peripheral area *(Explanation: Expenditure is not over and above the statutory levies imposed by the Government; However, THIS EXCLUDES CONTRIBUTION TO DMF & NMET and is over and above the statutory levies imposed by the Government.)*	10% of Royalty (a) 722.1 lakhs	Total Expenditure for SDF implementation (b) 72.21 lakhs	48.5	-33%	Less production
CSR (Corporate Social Responsibility) spending at the mine level in Proposal Period (as per Companies Act, 2013 or otherwise)	8	--	9.93	+24	

8.2: Technical Details

8.2.1: Exploration

Particulars	Proposals	Achievement	Deviation	Reasons for deviation
Number of Boreholes/ Pits/ Trenches	0	20	There was no proposal, however bore holes drilled	Conversion of G2 to G1 level
Boreholes Meterage (If Boreholes selected in first row) (m)	0	1061		
Grid	0	100		
G Axis upgradation during Proposal Period as per guidelines of MEMC Rule 2015)	0	25.67		
Area converted under G1 from G2/G3				

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8.2.2: Mine Development (Opencast/ Dump Mining)

Particulars	Proposed	Actual	Deviation	Reasons for deviation
8.2.2.1: Generation of Ore/Waste While Development				
Ore	0	0	Nil	Due to change in location of working area
Waste	456824	599900	+31%	
Generated Waste while ROM recovery	0	0	Nil	
Dumping Site (For Surface)	0	0	Nil	
Removal of waste/ over burden in cubic meters	240398	302700	+26%	
Generated Waste while ROM recovery	0	0	Nil	
Dumping site of waste/ overburden	N1657750-N1657920, E680220-E680375	N1657750-N1657920, E680220-E680375	Nil	
8.2.2.2: Excavation				
Lateral extent	340m	435m	+28%	Change in location
Vertical extent	120m	90m	-33%	

8.2.3: Mining operation: Dump Mining : No dump mining proposed

Particulars	Proposals	Achievement	Deviation	Reasons for deviation
Handling of Material	Not applicable	Not applicable	Not applicable	Not applicable
Waste Generated post recovery	Not applicable	Not applicable	Not applicable	Not applicable
Dumping site for waste	Not applicable	Not applicable	Not applicable	Not applicable

8.2.4: Zero Waste Mining

Particulars	Proposals	Achievement	Deviation	Reasons for deviation
Alternative use / Disposal of Waste Generated (excluding top soil)	NA	NA	NA	NA

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8.2.5: Backfilling :- No proposal of Backfilling

Particulars	Proposals	Achievement	Deviation	Reasons for deviation
Site (Co-ordinates)	NA	NA	NA	NA
Area(Ha)	NA	NA	NA	NA
Depth(m)	NA	NA	NA	NA
Volume Backfilled (CuM)	NA	NA	NA	NA
Backfilled Area available for Reclamation and Rehabilitation	NA	NA	NA	NA
Backfilled Area Reclaimed and Rehabilitated	NA	NA	NA	NA
Balance Backfilled Area	NA	NA	NA	NA

8.2.6: Production of Mineral(s):

Particulars	Proposals	Achievement	Deviation	Reasons for deviation
8.2.6.1: ROM				
Opencast	226000	156150	31%	In ROM we proposed to produce including magnetic ore (65000 tonnes) analyzing +15%Fe. But did not have market present and hence treated as waste and separately stacked.
8.2.6.2: Cleaned Ore				
Opencast	0	0	0	
Dump Mining	0	0	0	
Recovery from Mineral Rejects or Tailings	0	0	0	
Total	0	0	0	

8.2.7: Handling of Mineral Rejects/ Sub-Grade

Particulars	Proposals	Achievement	Deviation	Reasons for deviation
Generation of mineral rejects				
Opencast	0	0	Nil	Nil
Dump mining	0	0	Nil	Nil
Other recovery	0	0	Nil	Nil
Stacking of mineral rejects/ sub-grade mineral	0	0	Nil	Nil
Blending of mineral reject / sub-grade	0	0	Nil	Nil

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8.2.8: Environment Compliances

Particulars	Proposals	Achievement	Deviation	Reasons for deviation
8.2.8.1: Top soil				
Generation	0	0	Nil	Nil
Utilization	0	0	Nil	Nil
Stacking (Dump Id)	0	0	Nil	Nil
Reclamation	0	0	Nil	Nil
Rehabilitation	0	0	Nil	Nil
8.2.8.2: Afforestation (Dumps/Benches/Backfilled Area etc.)				
2021-2022	0.5Ha	0.5Ha	Nil	Nil
8.2.8.3: Afforestation (Green Belt)				
2021-2022	0	0	Nil	Nil
Construction of check dams	0	01	+100%	Asper CEC R&R report
Construction of garland drains	241	284	+18%	Asper CEC R&R report
Construction of retaining walls	270	519	+92%	Asper CEC R&R report
8.2.8.4: Tailings				
Generation	0	0	Nil	Nil
Utilization (Autofill from production)	0	0	Nil	Nil
Disposal	0	0	Nil	Nil

8.3: Socio-Economic Review

8.3.1: Rehabilitation & Resettlement for Project Affected People

Particulars	Proposals	Actual	Deviation	Reasons for deviation
No. of Project Affected People (PAP)	0	0	Nil	Nil
%age of PAP for whom alternate arrangements made for sustained livelihood	0	0	Nil	Nil
% of project affected families given employment	0	0	Nil	Nil
% of project affected families who have been skilled by the lessee and absorbed (% of total employment given to affected families)	0	0	Nil	Nil
8.3.2: Grievance Redressal				
Grievances Received	Nil Nil	Nil	Nil	Nil
Grievances Redressed	Nil Nil	Nil	Nil	Nil

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8.3.3: Welfare and socio-economic development programs for local communities					
8.3.3.1: Support for Drinking Water & Agriculture Year 2021-22					
No. of Water Storage Tanks constructed	0	0	0	Nil	Nil
Drinking Water Facilities provided (Bore wells/ Pumps etc.)	Nil		Nil	Nil	Nil
Irrigation Support provided (Canals/ Pumps etc.)	Yes		Yes		Providing machinery's
No. of Water tanks De-silted	1		1	0	Nil
Water Treatment facilities provided (A/NA)	Nil		Nil	Nil	Nil
Amount of Water treated (in kL) (if selected A in above)	Nil		Nil	Nil	Nil
8.3.3.2: Support to Health & Medical Services					
No. of persons identified from Occupational health diseases	Nil		Nil	Nil	Nil
No. of Health Camps/ Medicine Camps Organized	Nil		Nil	Nil	Nil
8.3.3.3: Support to Skill development & Education					
Vocational Training Provided/ Support Provided					
No. of employees undergone Vocational training	15		19	+27%	
No. of other persons undergone Vocational training	Nil		Nil	Nil	Nil
Number of Literacy & Education Camps held/ Supported	Nil		Nil	Nil	Nil
8.3.3.4: Support to Transportation Services & Infrastructure					
Expenditure on Transportation Services & Infrastructure	1,00,000/-		1,00,000/-	0%	Nil
Road development (m) in the peripheral area (not lease area)	50,000/-		75,000/-	+50%	Positive development
No. of Public transport support provided (Ambulance/Buses/ School Vans etc)	1		1	0%	Nil
8.3.3.5: Swatchata Programs: Creating/providing sanitation and healthy condition in and around the mine area					
Adoption of ODF within mining lease area					
No. of Toilets built in the Lease Area	0		0	Nil	Nil
Adoption of ODF in nearby villages					
No. Of Toilets built in the villages	0		0	Nil	Nil
Provision for greenage recreational facility (Within Lease Area/ Outside)					
Recreational Area Type (Picnic Spot/ tracks/Park Etc)	Nil		Nil	Nil	Nil
Area covered (For within Lease Area only)	0.01		0.01	0%	Nil
Awareness program among Mine workers for Swatchata					
No. of Swatchchta Programmes held	02		02	0%	Nil

Indian Bureau of Mines
भारत सरकार
Govt. of India
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Chapter 9: IMPACT ASSESSMENT (for fresh grant) : *Not applicable*

9.1: BASELINE INFORMATION

Whether Area falls under Forest	(yes/No)
Whether Area falls under Wildlife Sanctuary	(yes/No)
Whether Area falls under Coastal Regulation Zone (CRZ)	(yes/No)
Whether Area falls under Defense Land	(yes/No)
Any Other Clearance (specify)	(yes/No)

Any Significant Objections from any Agency Involved in Stakeholder's Consultation -

9.2: Environment Parameters-

9.2.1: Environment Monitoring-

Monitoring Activity

9.2.1.1: Ambient Air Quality-

Core Zone (Quarterly Monitoring Planned)	NIL
Buffer Zone (Quarterly Monitoring Planned)	NIL

9.2.1.2: Water Quality-

Core Zone (Quarterly Monitoring Planned)	NIL
Buffer Zone (Quarterly Monitoring Planned)	NIL

9.2.1.3: Noise Level-

Core Zone (Quarterly Monitoring Planned)	NIL
Buffer Zone (Quarterly Monitoring Planned)	NIL

9.3: Impact Assessment

9.3.2: Land Environment

9.3.2.1: BASE / PRESENT STATUS	
Pre Mining Use	**AREA** (Ha)
Barren / Waste land with small bushes & shrubs	NIL
Land under Agriculture / Crops	NIL
Land covered with Plants	NIL
Land under Grass Cover	NIL
Land under Public Infrastructure / Utilities (water bodies, roads, railways, electric lines, telephone lines etc.)	NIL
Land under Habitation	NIL
Land under Monuments & places of Historical Importance	NIL

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Degraded by Pits & Excavation	NIL
Degraded by Dumps & Material Staking	NIL
Covered under Mine Infrastructure (plants, shades, buildings etc.)	NIL
Land under Forest	NIL
Historically, Culturally & Ecologically Important Places	NIL
Any Other, please specify below	NIL
Date of Observation	NIL

9.3.2.2: ANTICIPATED IMPACT	
Post Mining Use	**AREA** (Ha)
Degradation by Excavation	NIL
Degradation by Dumps & Material Staking	NIL
Covered under Plants, Shades & Buildings	NIL
Covered by Roads & Approaches	NIL
Any Other, please specify below	NIL

9.3.2.3: MITIGATION MEASURES

9.3.2.3.1: Backfilling –

9.3.2.3.2: Area proposed to be covered by Plantation in Backfilled Area –

9.3.2.3.3: Proposed Area under Agriculture -

9.3.2.3.4: Proposed Area to be converted to Grazing Land –

9.3.2.3.5: Ground Water Recharging –

9.3.2.3.6: Green Belt Development *

9.3.2.3.7: Agriculture *

9.3.3: Air Environment

9.3.3.1: Climate & Meteorology (Please provide average of 10 years)

Temperature (°C)		Relative Humidity (%)	Average Rainfall (mm)
Maximum	Minimum		
NIL	NIL	NIL	NIL

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9.3.3.2: Air Quality Details for Base line Information / Present Status

Sr. No.	Station Name	Season	PM10 (µg/m3)	PM10 Excess (µg/m3) 2	PM2.5 (µg/m3)	PM2.5 Excess (µg/m3) 2	SO_2 Value (µg/m3)	SO_2 Excess (µg/m3)	NO_x Value (µg/m3)	NO_x Excess (µg/m3)	Date of Observation	Action
NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL

9.3.3.3: Impact Assessment & Mitigation Measures

9.3.3.3.1: Anticipated Impact *(Give details on Prediction of fugitive dust emissions due to mining activities, crushing & cleaning plants, loading & unloading, transportation by rail, road or conveyor)*

9.3.3.3.2: Mitigation Measure Give details on measures to reduce the emissions of pollutants during mining, loading, unloading, transportation, drilling, blasting, crushing etc. to maintain the air quality

9.3.4: Water Environment-

9.3.4.1: RAIN WATER

9.3.4.1.1: Base / Present Status (Details of Rivers, Springs, Lakes, Reservoirs & Drains up to First Order in Study Area)

9.3.4.1.2: Anticipated Impact (Impact on Surface Water Bodies / Groundwater Table Regime / Streams / Lake / Springs due to Mining, to be Assessed from Hydro-geological StudyGive details about impact on vegetation)

9.3.4.1.3: Mitigation Measure (Possibilities of Rain Water Harvesting & Artificial Recharge with in the Mining Lease)

9.3.4.2: WATER BODY

9.3.4.2.1: Base / Present Status*(Water Bodies Existing & Water Bodies likely to be created due to Mining Activities & their Water Holding Capacity)

9.3.4.2.2: Anticipated Impact(Ingress of Sea Water, Particularly for Mining Projects in Coastal Areas)

9.3.4.2.3: Mitigation Measure (Steps to Minimize Impact on Water Table if Mining Intercepts Groundwater Regime)

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9.3.4.3: WATER BALANCE

9.3.4.3.1: Base / Present Status (Water Balance (Withdrawal of Surface Water & Release of Mine Drainage Water) Water Requirement & Waste Water Generation from various Activities of Mine, Including Beneficiation)

9.3.4.3.2: Anticipated Impact(Impact of Water Drawl on Surface & Groundwater Resources Impact on Surface & Groundwater Quality due to Discharges from Mining, Tailings Pond, Workshop, Township, & Leach ate from Solid Waste Dumps etc)

9.3.4.3.3: Mitigation Measure (Construction of Check Dams, Sedimentation Ponds, Settling Tanks, Retaining Walls etc. with Design & Site Features for Control of run-off Mine Water Treatment for Meeting the Prescribed Standard Waste Water Treatment for Township Sewage, Workshop(s), Tailing Pond Overflow etc)

9.3.5: NOISE

9.3.5.1: Critical Locations Identified within Lease Area *

9.3.5.2: Give Detail about Prediction of Noise Level by using Mathematical Modeling at Different Locations Identified *

9.3.5.3: Measures to Minimize the Impact on Receiving Environment *

9.3.5.4: Noise Details for Base / Present Status

Noise Standards			
Area Code	Category of Area	Limits in dB(A)Leq	
		Day Time	Night Time
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Area	50	40

Sl. No.	Station Name	Season	Type of Area	Noise At Day Time:	Excess Noise At Day	Noise At Night Time:	Excess Noise at Night	Date of Observation
NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL

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9.3.5.5: Impact Assessment & Mitigation Measures

9.3.5.5.1: Anticipated Impact (Give details on impact on ambient noise level due to rock excavation, transportation, processing equipment's & ancillaries)

9.3.5.5.2: Mitigation Measure (Give details on measures for noise abatement including point source & line source)

9.3.6: VIBRATION

9.3.6.1: Vibration Details for Base / Present Status

S.no	Station	Season	Distance from Blasting Site(m)	Peak Particle Velocity(mm/sec)	Air over Pressure(DB)	Frequency (Hz)	Date of Observation
NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL

9.3.6.2.1: Anticipated Impact (Give details on impact of vibrations including damage to materials/structures due to blasting)

9.3.6.2.2: Mitigation Measure (Give details on measures for noise abatement including point source & line source)

9.3.7: SOCIO-ECONOMIC ENVIRONMENT

9.3.7.1: Demographic Profile

Sl. No.	Type of Area	Name of Village	Total Population	Male to Female Ratio	Literacy Rate (%)	Employment Rate (%)
1	NIL	NIL	NIL	NIL	NIL	NIL
2	NIL	NIL	NIL	NIL	NIL	NIL
3	NIL	NIL	NIL	NIL	NIL	NIL
4	NIL	NIL	NIL	NIL	NIL	NIL

9.3.7.1.1: Anticipated Impact (Give details about impact on the cropping pattern & crop productivity in the core zone)

9.3.7.1.2: Mitigation Measure (Give details about compensation for loss of land & crops)

9.3.7.2: Traditional Skills & Source of Livelihood-

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9.3.7.2.1: Base / Present Status(Give details about present status on traditional skills & source of livelihood)

9.3.7.2.2: Anticipated Impact (Give details about positive & negative impacts on present status of livelihood in the area)

9.3.7.2.3: Mitigation Measure (Give details about training to locals for employment in the project training for making them self-employable or elsewhere)

9.3.7.3: Economic Profile of the Population in Core & Buffer Zone

9.3.7.3.1: Base / Present Status(Give details about economic profile of the population in core & buffer zone)

9.3.7.3.2: Anticipated Impact (Give details about impact on community resources such as grazing land)

9.3.7.3.3: Mitigation Measure (Give details about employment opportunities & access to other amenities such as education, health care facilities to be extended to locals, addressing local unemployment, tourism or recreation opportunities, efforts for sustainable development of the local community)

9.3.7.4: Human Settlement in Core & Buffer Zone

9.3.7.4.1: Base / Present Status*(Give details about human settlement in core & buffer zone)

9.3.7.4.2: Anticipated Impact *(Give details about any displacement of human settlements during the life of the mine)

9.3.7.4.3: Mitigation Measure *(Give details about rehabilitation & resettlement of land ousters & displaced people)

9.3.7.5: Health Profile of Population in Core & Buffer Zone

9.3.7.5.1: Base / Present Status*(Give details about health profile of population in core & buffer zone)

9.3.7.5.2: Anticipated Impact *(Give details about any adverse impact on the general health condition of the population in core & buffer zone)

9.3.7.5.3: Mitigation Measure *(Give details about avenues like dispensaries, hospitals, maternity homes if any to be created)

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9.3.7.6: Historically, Culturally & Ecologically Important Places in Core & Buffer Zone-

9.3.7.6.1: Base / Present Status*(Give details about historically, culturally & ecologically important places in core & buffer zone)

9.3.7.6.2: Anticipated Impact *(Give details about risk profiling)

9.3.7.6.3: Mitigation Measure *(Give details about public health benefits (e.g. clean water to an aboriginal community), measure for safeguard against damage etc.)

MANDAPATI SATYANARAYANA RAJU

M.S. Raju
Qualified Person

01/06/2022

क्षेत्रीय खान नियंत्रक
Regional Controller of Mines
भारतीय खान ब्यूरो
Indian Bureau of Mines,
बेंगलूर / Bangalore - 560 022

This Mining Plan is approved subject to the conditions / stipulations Indicated in the Mining Plan approval letter No. 27.9/119/89/BNG
Date. 01/06/2022

APPROVED

ANNEXURE No. 15

STATE BANK OF INDIA
COMMERCIAL BRANCH,
BELLARY
COMMERCIAL BRANCH,
BELLARY, KARNATAKA

Tel No. : 08392-277544
Fax No. : 08392-276846
SWIFT No. : SBININBB566
PIN Code : 583104

02-12-2020

To,
THE REGIONAL CONTROLLER OF MINES
INDIAN BUREAU OF MINES,
BENGALURU

DEAR SIRs,

ORIGINAL GUARANTEE NUMBER	:	0433017BG0000035
AMOUNT OF GUARANTEE	:	7,601,000.00
GUARANTEE COVER FROM	:	16-06-2017 to 31-03-2021
LAST DATE OF LODGEMENT CLAIM	:	31-03-2021
APPLICANT	:	M.HANUMANTHA RAO

1. We hereby inform you that at the request of the above applicant, the captioned Guarantee No. 0433017BG0000035 issued by us on 16-06-2017 and renewed till 31-03-2021 for an amount of INR 7,601,000.00 has now been extended for further period upto 30-03-2026 for an amount of INR 7,601,000.00

2. The last date for the receipt of claims under this extended guarantee will be 30-03-2026

3. All other terms and conditions as appearing in the Original Guarantee shall apply to this Extension guarantee and shall be read with the Original guarantee for STATE BANK OF INDIA

ಭಾರತೀಯ ಸ್ಟೇಟ್ ಬ್ಯಾಂಕ್ /भारतीय स्टेट बैंक
For STATE BANK OF INDIA

AUTHORISED SIGNATORY
Deputy Manager
SME Branch-4330, BALLARI.

ಭಾರತೀಯ ಸ್ಟೇಟ್ ಬ್ಯಾಂಕ್ /भारतीय स्टेट बैंक
STATE BANK OF INDIA

Manager
AUTHORISED SIGNATORY

PLEASE CONTACT BRANCH FOR eTradeSBI FACILITY-INTERNET ACCESS TO TRADE FINANCE

Dec 2, 2020 1:16 PM

APPROVED

सत्यमेव जयते

INDIA NON JUDICIAL

Government of Karnataka

e-Stamp

Certificate No.	:	IN-KA79829195955079S
Certificate Issued Date	:	01-Dec-2020 04:59 PM
Account Reference	:	NONACC (FI)/ kaksfcl08/ BELLARY6/ KA-BY
Unique Doc. Reference	:	SUBIN-KAKAKSFCL08502233865333333S
Purchased by	:	STATE BANK OF INDIA SME BRANCH BALLARI
Description of Document	:	Article 12 Bond
Description	:	BANK GUARANTEE
Consideration Price (Rs.)	:	0 (Zero)
First Party	:	STATE BANK OF INDIA SME BRANCH BALLARI
Second Party	:	THE REGIONAL CONTROLLER OF MINES IBM BANGALORE
Stamp Duty Paid By	:	STATE BANK OF INDIA SME BRANCH BALLARI
Stamp Duty Amount(Rs.)	:	200 (Two Hundred only)

AUTHORISED SIGNATORY
Kanishka

Please write or type below this line

This Stamp Paper forms part and parcel
of the Bank Guarantee
0433017B90000035
Dated 02/12/20 for Rs. 7601000/-
(Rupees Seventy Six Lac One Thousand)

भारतीय स्टेट बैंक / भारतीय स्टेट बैंक
For STATE BANK OF INDIA
Deputy Manager
SME Branch-4330, BALLARI.

भारतीय स्टेट बैंक / भारतीय स्टेट बैंक
For STATE BANK OF INDIA
Chief Manager
SME Branch, BALLARI.

Statutory Alert:
1. The authenticity of this Stamp certificate should be verified at 'www.shcilestamp.com' or using e-Stamp Mobile App of Stock Holding. Any discrepancy in the details on this Certificate and as available on the website / Mobile App renders it invalid.

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STATE BANK OF INDIA
COMMERCIAL
BRANCH, BELLARY
COMMERCIAL BRANCH,
BELLARY, KARNATAKA

Tel No. : 08392-277544
Fax No. : 08392-276846
SWIFT No. : SBININBB566
PIN Code : 583101

Indian Bureau of Mines
भारत सरकार
Govt. of India

DATE : 02-12-2020

TO,
M.HANUMANTHA RAO
H NO 37 W NO 17
MAIN ROAD, NEAR PARK,PATEL NAGAR
BELLARY

DEAR SIR(S),

WE HAVE DEBITED YOUR ACCOUNT NO. 00000030412936471 AS SHOWN BELOW ON ACCOUNT OF CHARGES FOR AMENDMENT OF GUARANTEE NO. 0433017BG0000035 .

YOUR REFERENCE NUMBER	:	NON REF
YOUR GSTIN NUMBER	:	
AMENDMENT CHARGES	:	INR 30404
P AND T CHARGES	:	INR 89
STAMP A/C	:	INR 0
CLAUSE AMENDMENT CHARGES	:	INR 0
GOODS AND SERVICE TAX [GST]	:	INR 5473
TOTAL DEBIT AMOUNT	:	INR 35966

ಭಾರತೀಯ ಸ್ಟೇಟ್ ಬ್ಯಾಂಕ್ / भारतीय स्टेट बैंक
FOR STATE BANK OF INDIA

Yours faithfully,

Chief Manager
CME Branch, BALLARI.

Authorised Signatory

PLEASE CONTACT BRANCH FOR eTradeSBI FACILITY-INTERNET ACCESS TO TRADE FINANCE

Dec 2, 2020 3:30 PM

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STATE BANK OF INDIA
COMMERCIAL BRANCH,
BELLARY
COMMERCIAL BRANCH,
BELLARY, KARNATAKA

Tel No. : 08392-277544
Fax No. : 08392-276846
SWIFT No. : SBININBB566
PIN Code : 583101

भारतीय खान ब्यूरो Indian Bureau of Mines
भारत सरकार
Govt. of India

To,
THE REGIONAL CONTROLLER OF MINES
INDIAN BUREAU OF MINES,
BENGALURU

Amendment Details

Date of Amendment	:	02-12-2020
Guarantee Reference Number	:	0433017BG0000035
Your Reference Number	:	
Amemdment Details	:	We hereby advise you of amendments made to the referenced Guarantee : Expiry Date changed to:30-03-2026 Date of Claim has changed to: 30-03-2026
Sender to Receiver Information	:	

Yours FaithFully,

For STATE BANK OF INDIA
Chief Manager
SME Branch, BALLARI.

Authorized Signature

PLEASE CONTACT BRANCH FOR eTradeSBI FACILITY-INTERNET ACCESS TO TRADE FINANCE

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STATE BANK OF INDIA
COMMERCIAL BRANCH,
BELLARY
COMMERCIAL BRANCH,
BELLARY, KARNATAKA

Tel No. : 08392-277544
Fax No. : 08392-276846
SWIFT No. : SBININBB566
PIN Code : 583101

02-12-2020

To,

THE REGIONAL CONTROLLER OF MINES
INDIAN BUREAU OF MINES,
BENGALURU

Dear Sir(s),

GUARANTEE NUMBER	:	0433017BG0000035
DATE OF ISSUE	:	16-06-2017
NEW GUARANTEE AMOUNT	:	INR 7,601,000.00
NEW DATE OF EXPIRY	:	30-03-2026
NEW DATE OF CLAIM	:	30-03-2026
APPLICANT NAME	:	M.HANUMANTHA RAO

We confirm having Issued / Extended the captioned Bank Guarantee in your favour on Behalf of our above named Constituent and the same signed by the officers of the Bank.

Yours Faithfully,

For STATE BANK OF INDIA

Chief Manager
SME Branch, BALLARI.

Authorized signature

The Beneficiaries are advised in their own interest to verify the genuineness of the Guarantee with the BG issuing Branch.

PLEASE CONTACT BRANCH FOR eTradeSBI FACILITY-INTERNET ACCESS TO TRADE FINANCE

Dec 2, 2020 1:16 PM

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STATE BANK OF INDIA
COMMERCIAL BRANCH,
BELLARY
COMMERCIAL BRANCH,
BELLARY, KARNATAKA

Tel No. : 08392-277544
Fax No. : 08392-276846
SWIFT No. : SBININBB566
PIN Code : 583101

भारतीय खान ब्यूरो Indian Bureau of Mines
भारत सरकार
Govt. of India

02-12-2020

To,
THE REGIONAL CONTROLLER OF MINES
INDIAN BUREAU OF MINES, 29, INDUSTRIAL COMPLEX,TUMKUR ROAD,
YESWANTHAPUR, BANGALORE

DEAR SIRs,

ORIGINAL GUARANTEE NUMBER	:	0433013BG0000011
AMOUNT OF GUARANTEE	:	1,012,000.00
GUARANTEE COVER FROM	:	19-02-2013 to 31-03-2021
LAST DATE OF LODGEMENT CLAIM	:	31-03-2021
APPLICANT	:	M.HANUMANTHA RAO

1. We hereby inform you that at the request of the above applicant, the captioned Guarantee No. 0433013BG0000011 issued by us on 19-02-2013 and renewed till 31-03-2021 for an amount of INR 1,012,000.00 has now been extended for further period upto 30-03-2026 for an amount of INR 1,012,000.00

2. The last date for the receipt of claims under this extended guarantee will be 30-03-2026

3. All other terms and conditions as appearing in the Original Guarantee shall apply to this Extension guarantee and shall be read with the Original guarantee for STATE BANK OF INDIA

For STATE BANK OF INDIA
AUTHORISED SIGNATORY
Deputy Manager
SME Branch-4330, BALLARI.

For STATE BANK OF INDIA
AUTHORISED SIGNATORY
Chief Manager
SME Branch, BALLARI

PLEASE CONTACT BRANCH FOR eTradeSBI FACILITY-INTERNET ACCESS TO TRADE FINANCE

Dec 2, 2020 1:12 PM

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सत्यमेव जयते

INDIA NON JUDICIAL

Government of Karnataka

Indian Bureau of Mines
भारत सरकार
Govt. of India

e-Stamp

Certificate No.	:	IN-KA79831778725487S
Certificate Issued Date	:	01-Dec-2020 05:01 PM
Account Reference	:	NONACC (FI)/ kaksfcl08/ BELLARY6/ KA-BY
Unique Doc. Reference	:	SUBIN-KAKAKSFCL08502252270265578S
Purchased by	:	STATE BANK OF INDIA SME BRANCH BALLARI
Description of Document	:	Article 12 Bond
Description	:	BANK GUARANTEE
Consideration Price (Rs.)	:	0 (Zero)
First Party	:	STATE BANK OF INDIA SME BRANCH BALLARI
Second Party	:	THE REGIONAL CONTROLLER OF MINES IBM BANGALORE
Stamp Duty Paid By	:	STATE BANK OF INDIA SME BRANCH BALLARI
Stamp Duty Amount(Rs.)	:	200 (Two Hundred only)

Kanishka

RS. 200

Please write or type below this line

This Stamp Paper forms part and parcel of the Bank Guarantee 0433013BG0000311

Dated 02-12-20 for Rs. 1012000/- (Rupees Ten lac Twelve Thousand only)

ಭಾರತೀಯ ಸ್ಟೇಟ್ ಬ್ಯಾಂಕ್ / भारतीय स्टेट बैंक
For STATE BANK OF INDIA

Deputy Manager
SME Branch-4330, BALLARI.

ಭಾರತೀಯ ಸ್ಟೇಟ್ ಬ್ಯಾಂಕ್ / भारतीय स्टेट बैंक
For STATE BANK OF INDIA

Chief Manager
SME Branch, BALLARI.

Statutory Alert:

1. The authenticity of this Stamp certificate should be verified at 'www.shcilestamp.com' or using e-Stamp Mobile App of Stock Holding. Any discrepancy in the details on this Certificate and as available on the website / Mobile App renders it invalid.

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STATE BANK OF INDIA
COMMERCIAL
BRANCH, BELLARY
COMMERCIAL BRANCH,
BELLARY, KARNATAKA

Tel No. : 08392-277544
Fax No. : 08392-276846
SWIFT No. : SBININBB566
PIN Code : 583101

Indian Bureau of Mines
भारत सरकार
Govt. of India

DATE : 02-12-2020

TO,
M.HANUMANTHA RAO
H NO 37 W NO 17
MAIN ROAD, NEAR PARK,PATEL NAGAR
BELLARY

DEAR SIR(S),

WE HAVE DEBITED YOUR ACCOUNT NO. 00000030412936471 AS SHOWN BELOW ON ACCOUNT OF CHARGES FOR AMENDMENT OF GUARANTEE NO. 0433013BG0000011 .

YOUR REFERENCE NUMBER	:	NON REF
YOUR GSTIN NUMBER	:	
AMENDMENT CHARGES	:	INR 4048
P AND T CHARGES	:	INR 89
STAMP A/C	:	INR 0
CLAUSE AMENDMENT CHARGES	:	INR 0
GOODS AND SERVICE TAX [GST]	:	INR 729
TOTAL DEBIT AMOUNT	:	INR 4866

Yours faithfully,

For STATE BANK OF INDIA
Chief Manager
SME Branch, BALLARI.

Authorised Signatory

PLEASE CONTACT BRANCH FOR eTradeSBI FACILITY-INTERNET ACCESS TO TRADE FINANCE

Dec 2, 2020 2:59 PM

APPROVED

STATE BANK OF INDIA
COMMERCIAL BRANCH,
BELLARY
COMMERCIAL BRANCH,
BELLARY, KARNATAKA

Tel No. : 08392-277544
Fax No. : 08392-276846
SWIFT No. : SBININBB566
PIN Code : 583101

Indian Bureau of Mines
भारत सरकार
Govt. of India

To,
THE REGIONAL CONTROLLER OF MINES
INDIAN BUREAU OF MINES, 29, INDUSTRIAL COMPLEX,TUMKUR ROAD,
YESWANTHAPUR, BANGALORE

Amendment Details

Date of Amendment	:	02-12-2020
Guarantee Reference Number	:	0433013BG0000011
Your Reference Number	:	
Amemdment Details	:	We hereby advise you of amendments made to the referenced Guarantee : Expiry Date changed to:30-03-2026 Date of Claim has changed to: 30-03-2026
Sender to Receiver Information	:	

Yours FaithFully,

FOR STATE BANK OF INDIA
Chief Manager
SME Branch, BALLARI.

Authorized Signature

PLEASE CONTACT BRANCH FOR eTradeSBI FACILITY-INTERNET ACCESS TO TRADE FINANCE

APPROVED

STATE BANK OF INDIA
COMMERCIAL BRANCH,
BELLARY
COMMERCIAL BRANCH,
BELLARY, KARNATAKA

Tel No. : 08392-277544
Fax No. : 08392-276846
SWIFT No. : SBININBB566
PIN Code : 583101

Indian Bureau of Mines
भारतीय खान ब्यूरो
भारत सरकार
Govt. of India

02-12-2020

To,

THE REGIONAL CONTROLLER OF MINES
INDIAN BUREAU OF MINES, 29, INDUSTRIAL COMPLEX,TUMKUR ROAD,
YESWANTHAPUR, BANGALORE

Dear Sir(s),

GUARANTEE NUMBER	:	0433013BG0000011
DATE OF ISSUE	:	19-02-2013
NEW GUARANTEE AMOUNT	:	INR 1,012,000.00
NEW DATE OF EXPIRY	:	30-03-2026
NEW DATE OF CLAIM	:	30-03-2026
APPLICANT NAME	:	M.HANUMANTHA RAO

We confirm having Issued / Extended the captioned Bank Guarantee in your favour on Behalf of our above named Constituent and the same signed by the officers of the Bank.

Yours Faithfully,

For STATE BANK OF INDIA

Authorized signatory

Manager
SME Branch, BALLARI.

The Beneficiaries are advised in their own interest to verify the genuineness of the Guarantee with the BG issuing Branch.

PLEASE CONTACT BRANCH FOR eTradeSBI FACILITY-INTERNET ACCESS TO TRADE FINANCE

Dec 2, 2020 1:12 PM

APPROVED

STATE BANK OF INDIA
COMMERCIAL BRANCH,
BELLARY
COMMERCIAL BRANCH,
BELLARY, KARNATAKA

Tel No. : 08392-277544
Fax No. : 08392-276846
SWIFT No. : SBININBB366
PIN Code : 583101

17-03-2022

TO,
M.HANUMANTHA RAO
H NO 37 W NO 17
MAIN ROAD, NEAR PARK,PATEL NAGAR
BELLARY

DEAR SIR(S),

WE HAVE DEBITED YOUR ACCOUNT NO. 00000030412936471 AS SHOWN BELOW ON ACCOUNT OF CHARGES.

FOR GUARANTEE NO	:	0433022BG0000082
YOUR REFERENCE NUMBER	:	NON REF
YOUR GSTIN NUMBER	:	
GUARANTEE COMMISSION	:	INR 472,768.00
P & T CHARGES	:	INR 89.00
STAMP A/C	:	INR 0.00
GOODS & SERVICE TAX [GST]-ESTAMP	:	
GOODS & SERVICES TAX [GST]	:	INR 85,098.00
TOTAL DEBIT AMOUNT	:	INR 557955.00

OFFICER IN CHARGES
STATE BANK OF INDIA

ಭಾರತೀಯ ಸ್ಟೇಟ್ ಬ್ಯಾಂಕ್ / भारतीय स्टेट बैंक
FOR STATE BANK OF INDIA

PLEASE CONTACT BRANCH FOR eTradeSBI FACILITY-INTERNET ACCESS TO TRADE FINANCE.

Chief Manager
SME Branch, BALLARI.

K. GOPINATH
S.S. No.9715

Mar 17, 2022 12:46 PM

APPROVED

STATE BANK OF INDIA
COMMERCIAL BRANCH,
BELLARY
COMMERCIAL BRANCH,
BELLARY, KARNATAKA

Tel No. : 08392-277544
Fax No. : 08392-276846
SWIFT No. : SBININBB566
PIN Code : 583101

भारतीय खान ब्यूरो Indian Bureau of Mines
भारत सरकार Govt. of India

17-03-2022

To,
THE REGIONAL CONTROLLER OF MINES INDIAN BUREAU OF MINES BANGALORE
BANGALORE

DEAR SIR(S),

Guarantee Number	:	0433022BG0000082
Date of Issue	:	17-03-2022
Guarantee Amount	:	INR 7,387,000.00
Date of Expiry	:	31-03-2026
Date of Claim	:	31-03-2027
Applicant Name	:	M.HANUMANTHA RAO
E Stamp Certificate No.	:	
E Stamp Issuance Date & Time	:	
State of Execution	:	
Stamp Duty Type/Article No.	:	
Bank Guarantee Amount	:	INR 7,387,000.00
Amount of Stamp duty Paid	:	0.00
Issuing Bank Branch	:	
Bank Guarantee Beneficiary	:	THE REGIONAL CONTROLLER OF MINES INDIAN BUREAU OF MINES BANGALORE

We confirm having Issued / Extended the captioned Bank Guarantee in your favour on behalf of our above named Constituent and the same signed by the officers of the Bank.

ಭಾರತೀಯ ಸ್ಟೇಟ್ ಬ್ಯಾಂಕ್/भारतीय स्टेट बैंक
For STATE BANK OF INDIA

YOURS FAITHFULLY,

Deputy Manager
SME Branch-4330, BALLARI.

AUTHORISED SIGNATORY - 1

ಭಾರತೀಯ ಸ್ಟೇಟ್ ಬ್ಯಾಂಕ್ / भारतीय स्टेट बैंक
For STATE BANK OF INDIA

Chief Manager
BALLARI

*AUTHORISED SIGNATORY - 2
(*2nd signatory required, if BG is for Rs. 50000/- and above)

K. GOPINATH
S.S. No. 9715

Komi. Poornachandra Rao
S.S. No. K-14323

The beneficiaries are advised in their own interest to verify the genuineness of the Guarantee with the BG issuing Branch and

Mar 17, 2022 12:46 PM

APPROVED

also verify that Bank Guarantee for Rs.50000/- (Rupees Fifty Thousand Only) & above is signed by two authorized officials of the Bank.

PLEASE CONTACT BRANCH FOR eTradeSBI FACILITY-INTERNET ACCESS TO TRADE FINANCE

भारतीय खान ब्यूरो Indian Bureau of Mines
भारत सरकार
Govt. of India

APPROVED

Mar 17, 2022 12:46 PM

सत्यमेव जयते

INDIA NON JUDICIAL

Government of Karnataka

e-Stamp

Certificate No.	:	IN-KA69097575857197U
Certificate Issued Date	:	17-Mar-2022 11:56 AM
Account Reference	:	NONACC (FI)/ kaksfcl08/ BELLARY6/ KA-BY
Unique Doc. Reference	:	SUBIN-KAKAKSFCL08722699374426395U
Purchased by	:	STATE BANK OF INDIA SME BRANCH BALLARI
Description of Document	:	Article 12 Bond
Description	:	GUARANTEE AGREEMENT
Consideration Price (Rs.)	:	0 (Zero)
First Party	:	THE REGIONAL CONTROLLER OF MINES BANGALORE
Second Party	:	STATE BANK OF INDIA SME BRANCH BALLARI
Stamp Duty Paid By	:	STATE BANK OF INDIA SME BRANCH BALLARI
Stamp Duty Amount(Rs.)	:	200 (Two Hundred only)

Please write or type below this line

This Stamp Paper forms part and parcel of the Deed Bank Guarantee

ಭಾರತೀಯ ಸ್ಟೇಟ್ ಬ್ಯಾಂಕ್/भारतीय स्टेट बैंक
For STATE BANK OF INDIA

Deputy Manager
SME Branch-4330, BALLARI.

ಭಾರತೀಯ ಸ್ಟೇಟ್ ಬ್ಯಾಂಕ್ /भारतीय स्टेट बैंक
For STATE BANK OF INDIA

Deputy Manager
SME Branch, BALLARI

Statutory Alert:
1. The authenticity of this Stamp certificate should be verified at 'www.shcilestamp.com' or using e-Stamp Mobile App of Stock Holding. Any discrepancy in the details on this Certificate and as available on the website / Mobile App renders it invalid.

APPROVED

Reg No: 04330220000

भारतीय खान ब्यूरो Indian Bureau of Mines
भारत सरकार
भारत सरकार
Govt. of India

BANK GUARANTEE

1) Agreement production of a Bank guarantee for Rs. 73,87,000/-(**Rupees Seventy-Three Lakhs Eighty-Seven Thousand only**) under rule 27(1) of Mineral Conservation and Development Rules, 2021 and 27 (2) MCDR, 2017

2) We, **State Bank of India, Commercial Branch, Bellary,** at the request of **M/s. M. Hanumantha Rao** (lessee) do hereby undertake to pay The Regional Controller of Mines, Indian Bureau of Mines, Bangalore or any other officer authority nominated by the Controller General, Indian Bureau of Mines an amount not exceeding Rs. 73,87,000/-(Rupees **Seventy Three Lakhs Eighty Seven Thousand only**) against any loss or damage caused to or suffered or would be caused to or suffered by the Government or towards noncompliance of provisions of rule 23A, B & 27(1) of MCDR, 2017 i.e. Mine closure plan/progressive mine closure plan approved in respect of the Mining Lease No 2505 for Iron Ore (ore/ores) over an area of **40.47** Hectares granted by State Government to M/s. M. Hanumantha Rao (lessee) over an extent of 40.47 Ha bearing Mining Lease 2505, of S.M. Block Iron Ore mine situated in Narayanpur village, Sandur Taluka Bellary District Karnataka State by reason of any breach of the said lessee of any of the terms of conditions contained in the Mine closure plan/progressive mine closure plan.

3) We, **State Bank of India, Commercial Branch, Bellary** do hereby undertake to pay the amount due and payable under this guarantee with out any demur, to the authority merely on a demand from The Regional Controller General, Indian Bureau of Mines, Bangalore or any other authorized by the Controller General, Indian Bureau of Mines stating that the amount claimed is due by way of loss or loss of damage caused to or would be caused to or suffered by the government by reason of breach by the said lessee or any of the terms or conditions contained in the mining plan/mining scheme or by reason of lessee's failure to perform the said mine closure plan/progressive mine closure plan. However, our liability under this guarantee shall be restricted to an amount not exceeding **Rs. 73,87,000/-(Rupees Seventy Three Lakhs Eighty Seven Thousand only).**

ಭಾರತೀಯ ಸ್ಟೇಟ್ ಬ್ಯಾಂಕ್/भारतीय स्टेट बैंक
For STATE BANK OF INDIA
Deputy Manager
SME Branch-4330, BALLARI.

K. GOPINATH
No.9715

ಭಾರತೀಯ ಸ್ಟೇಟ್ ಬ್ಯಾಂಕ್/भारतीय स्टेट बैंक
For STATE BANK OF INDIA
Dept. Manager
SME Branch, BALLARI.

Page No 1

Komi. Poornachandra Rao
S.S. No. K-14323

APPROVED

Ref No: 0433022L...

4) We, undertake to pay to the authority on demand from the Regional Controller of Mines, Indian Bureau of Mines, Bangalore or any other officer authorized by the Controller General, Indian Bureau of Mines or Govt. of India any money so demanded not withstanding any dispute or disputes raised by the lessee in any suit or proceedings pending before any court or tribunal relating thereto our liability under this present being absolute and unequivocal.

The payment so made by us under this bond shall be valid discharge of our liability for payments there under and lessee shall have no claim against us for making such payment.

5) **We State Bank of India, Commercial branch, Bellary** further agree that the guarantee herein contained shall remain in full force and effect during the period up to the end of the Mining Plan/Scheme of Mining period of five years and that would be taken for performance of the said Agreement and that shall continue to be enforceable till all the dues of the Govt. under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged till Regional Controller of Mines, Indian Bureau of Mines Bangalore or any other officer authorized by the Controller General, Indian Bureau of Mines certifies that the terms and conditions of the said progressive mine closure plan/final mine closure plan have been fully and properly carried out by the said lessee and accordingly discharge this guarantee. Unless a demand or claim under this guarantee is made on us in writing on or before 31.03.2026. We shall be discharged from all liability under this guarantee thereafter.

6) We further agree that Regional Controller of Mines, Indian Bureau of Mines Bangalore or any other officer authorized by the Controller General, Indian Bureau of Mines shall have fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said lessee from time to time or to postpone for any time or from time to time any powers exercisable by Regional Controller of Mines, Bangalore against the said lessee and to forbear or enforce any of the terms and conditions relating to the said agreement, we **State Bank of India, Commercial branch, Bellary** shall not be relieved from our liability by reason of any such variation or extension being granted to the said lessee or for any forbearance, act or omission on the part of Regional Controller of Mines, Indian Bureau of Mines, Bangalore or any indulgence by Regional Controller of Mines, Indian Bureau of Mines, Bangalore to the said lessee or any manner or thing whatsoever which under the law relating to sureties, would but this provisions have effect of so relieving us.

For STATE BANK OF INDIA
Manager
SME Branch, BALLARI
K. GOPINATH
No.9715

For STATE BANK OF INDIA
Dept Manager
SME Branch, BALLARI
Kotni Poornachandra Rao
No. K-14323

APPROVED

Reg No: 0433002216

7) This guarantee will not be discharged due to the change in the constitution of the Bank or lessee.

8) We, **State Bank of India, Commercial Branch, Bellary** lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Regional Controller of Mines, Indian Bureau of Mines, Bangalore in writing.

9) If the bank guarantee is to be en-cashed through the court, in that case the (city where Regional Office, IBM is located) court will have jurisdiction.

10) Not withstanding anything contained herein ;

a. Our liability under this Bank Guarantee shall not exceed Rs. 73,87,000/- (Rupees **Seventy Three Lakhs Eighty Seven Thousand only**).
b. The bank guarantee shall be valid up to **31.03.2026.**
c. The period of bank guarantee submitted is valid for the period of the proposals given in the mining plan/scheme of mining/PMCP etc (Mining Plan / Scheme of Mining valid from 01.03.2022 to 31.03.2026). We are liable to pay the guarantee amount or any part thereof under this Bank guarantee and only if served upon us a written claim or demand on or before 31.03.2026.

11) In witness whereof, the bank through it authorized officer has set its hand and stamp on this 17th day of March 2022 at Bellary.

For STATE BANK OF INDIA
Authorised Signatory
Deputy Manager
SME Branch-4330, BALLARI.

K. GOPINATH
S.S. No.9715

Branch Manager
STATE BANK OF INDIA
Dy. Manager
Comml. Branch, BALLARI
Koini. Poornachandra Rao
S.S. No. K-14323

APPROVED

Form No.....

The Regional Controller of Mines,
Indian Bureau of Mines,
BANGALORE

Dear Sirs,

Guarantee No. 0433022BG0000082
Amount of Guarantee Rs.73,87,000/-
Guarantee Period from 01.11.2021 to 31.03.2026.
Last date for lodgment of claim 31.03.2027

This Deed of guarantee executed on 17th Day of March, 2022 by State Bank of India (bank name) constituted under its Act having its Central office at Mumbai and amongst other places, a Branch at SME,Ballari (hereinafter referred to as the bank) in favour of the Regional Controller of Mines, Indian Bureau of Mines, Bangalore(hereinafter referred to As the Beneficiary) for an amount not exceeding Rs..73,87,000/-(Rs.Seventy Three Lac Eighty Seven Thousand) at the request of M Hanumantha Rao (hereinafter referred to as the Contractor/s)

This guarantee is issued subject to the condition that the liability of the bank under this Guarantee is limited to maximum of Rs.73,87,000/- (Rs.Seventy Three Lac Eighty Seven Thousand nly) and the guarantee shall remain in full force up to 31.03.2026 (date of expiry) and cannot be revoked on or before 31.03.2027 (last date Of claim) by the Bank or applicant.

SUBJECT TO AS AFORESAID
(Main guarantee matter may be typed hereafter

For STATE BANK OF INDIA
Deputy Manager
SME Branch-4330, BALLARI.
K. GOPINATH
S.S. No.9715

For (Bank)
Seal
Branch Manager
(Branch)
For STATE BANK OF INDIA
Deputy Manager
SME Branch, BALLARI
Kotni. Poornachandra Rao
S.S. No. K-14323

APPROVED