

SCRUNITY COMMENTS ON FINAL MINE CLOSURE PLAN IN RESPECT OF JAMBUNATHANAHALLI IRON ORE MINE (ML NO. 1893) OF SRI ALLUM BASAVRAJ, EXTENT 31.67 HA.(AS PER NEW JOINT SKETCH), JAMBUNATHANAHALLI VILLAGE, HOSAPETE TALUK, BELLARY DISTRICT OF KARNATAKA STATE.

All the headings, subheadings should be replicated as per the standard guidelines as given in “*IBM Manual for Appraisal of Final Mine Closure Plan July 2018*”

Cover Page

1. Lease Period & date of Expiry of Lease, Address of the mine lease holder, Mine-code, Period of proposals, Lease period and date of expiry of lease, Qualification of QP who prepared the document should also be mentioned on the cover page.

Chapter-I(Introduction and General Information)

2. Para 1.0-**Part-A-(Introduction):-** i)The text mentions IBM letter no 279/731/2002/BNG/789 whereas annexure shows “279/731/2002/BNG/784. This should be corrected accordingly in text.
ii)The till date status of the Forest clearance for 4.25 ha should be given in detail in this para and all the supporting documents related to Forest Clearance should be attached as Annexure and references to be given in this para.
iii) The mining lease grant order dated 22/8/1951 for a period of 30 years over an area of 140.23 acres is attached as Annexure-1. But no lease deed for the first Lease grant is attached. The Lease deed for the first Lease grant should be furnished and reference to be given in this para.
iv)The Lease deed for first renewal was executed on 24.6.1983 granting renewal for 20 years w.e.f. 8.3.1982 and is attached as Annexure-2. However, for second renewal only a notification/order from Government of Karnataka dated 14/2/2006 mentioning the lessee has been accorded sanction for second renewal for a period of 20 years w.e.f. 8.3.2002 is attached as Annexure-3. No Lease deed has been submitted for the second renewal and the lease has completed 50 years as on 7.3.2002, accordingly the lease validity will be governed by Section 8(A)(6) of MMDR Act 1957.The Lease deed for the 2nd renewal should also be furnished and reference to be given in this para
3. Para 1.2-**Part-C-(Location and accessibility of mine)-i)** The Sl. No of the items in the table should be corrected as per the IBM Manual for FMCP 2018.
ii)Item 1.2.3 & 1.2.4- The date of execution of lease deed for second renewal should be mentioned in section (1.2.3) of this para.and the second renewal lease deed should be attached as annexure and reference to be given in this section. The period of lease should be mentioned accordingly in item 1.2.4.
iii) The CEC sketch is shown as Plate No-1d. In the text it is mentioned as Pate No-1c. This should be corrected. The annexure reference of survey sketch by Joint team/CEC and Mahazar report reference to be given in this para.
iv) Item 1.2.9- Sri Jambunatheswara temple is a protected monument under Ancient Monument and Archaeological site Remains Act 1958 as mentioned in the text and is at 1 KM radius from the lease area. The details of the same should be included accordingly in this item.
4. Para 1.3-**Part-D-(Details of last approved mining plan)- i)** The Sl. No of this para should be corrected as per the IBM manual for FMCP 2018.
ii) All the mining plan approval letters as attached in annexure, reference to be given in this para. The period for proposal for the last RMP and subsequent modification to approved RMP should be mentioned as 2017-18 to 2021-22(up to 07/03/2022) & 2019-20 to 2021-22(up to 07/03/2022) respectively. The portion “ Details of last modifications.....reason for modification” and the related text should be deleted from this para.
5. Para 1.4-**Part-E-(Review of Earlier Approved proposals given in the MP/MMP)-i)** The Sl. No of this para and items of the table should be corrected as per the IBM manual for FMCP 2018. Since the last modified mining plan was approved for the period 2019-20 to 2021-2022 dated 18/2/20, the review of the actual work done w.r.t the approved proposals for the year 2019-20 should be further detailed in this para as per the prescribed format.
i)1.4.1(Exploration for Geological axis 1 or 2), 1.4.2(Number of pits proposed for production), 1.4.3 (Location of Excavation) ,1.4.5(Quantity of Overburden/Waste (m3))-The Actual work done w.r.t the approved proposal for the particular year should be given and if no work has been done then the column should specifically mention “NIL” and the reasons for deviation should be mentioned.
iii)1.4.6- **Production of ROM and Graded ore (Tonnes)**– The annual ROM tonnage is mentioned as 19,554 tons whereas as the annual ROM production capacity is 16,000 tonnes as per the last approved modified mining plan. This should be corrected. The Actual work done w.r.t the approved proposal for the particular year should be given and if no work has been done then the column should specifically mention “NIL” and the reasons for deviation should be given.
iv)1.4.9& 1.4.10-There are no details of 1.4.9(**Total Quantity of Fines/Iron ore stocks**), 1.4.10(**Total Quantity of Tailings/slimes**) as per the FMCP format. The last approved modified mining plan document mentions 71,203 tonnes of Iron ore stock, the details of the same should be given in section 1.4.9. Item 1.4.10 should be added as per the prescribed FMCP format.
v) 1.4.11-**(Height of benches in overburden and in ore(meter))**-Since it is a float ore there is no height of benches, the area in Square meters and depth in meters proposed for the excavation as per the last approved modified mining plan. The details should be given in this section accordingly. The Actual work done w.r.t the approved proposal for the particular year should be given and if no work has been done then the column should specifically mention “NIL” and the reasons for deviation should be given.

vi) 1.4.13- (Location of OB)-The Actual work done w.r.t the approved proposal for the particular year should be given and if no work has been done then the column should specifically mention "NIL" and the reasons for deviation should be given.

vii) 1.4.14, 1.4.15, 1.4.16- There are no details given for 1.4.14 (Location of Mineral Rejects stacks), 1.4.15 (Location of Fines stacks) and 1.4.16 (Location of Tailings/slimes stacks) as per the FMCP format. The same should be included with all details as per the format. The location of all the mineral stocks in the mine lease area should be detailed in sec 1.4.15. The last approved modified mining plan document mentions 71,203 tonnes of Iron ore stock, the details of the same should be given in section 1.4.15.

viii) 1.4.17- (Length of Retaining wall & garland drain all along dumps)- The reference for the approved Reclamation & Rehabilitation plan should be given in this section and to be enclosed as Annexure. The total Engineering measures proposed for the particular year, for dump management and surface water management as per the last approved modified mining plan should be mentioned. The actual work done w.r.t the approved proposals should be given and the reasons for deviation should be mentioned.

ix) 1.4.18 & 1.4.19- There are no details given for 1.4.18 (Fencing of Lease Area/Mineralized area/Mineralized dumps/Underground workings) & 1.4.19 (Conversion of Mined out area into water reservoir/pisciculture (in ha)) as per the FMCP format. The same should be included as per the prescribed format and details should be given.

x) 1.4.20- (Backfilling of mined out area)- The detail in this section should be given as per the last approved modified mining plan. The Actual work done w.r.t the approved proposal for the particular year should be given and if no work has been done then the column should specifically mention "NIL" and the reasons for deviation should be given.

xi) 1.4.21- (Afforestation along with survival rate)- The afforestation figures given w.r.t the virgin area, dumps, backfilled area and ultimate benches are not as per the last approved modified mining plan. For the year 2019-20, 425 nos. of plants are proposed in safety zone in 0.17 ha with 80 % survival rate as per the last approved MMP. This should be checked and the afforestation details for the particular year under virgin area, dump, backfilled area and ultimate benches should be specifically given as per the last approved modified mining plan. The Actual work done w.r.t the approved proposal for the particular year should be given and if no work has been done then the column should specifically mention "NIL" and the reasons for deviation should be given.

xiii) 1.4.22- (Number of settling ponds with location)-Details for the particular year should be given as per the approved MMP. The actual work done should be elaborated along with the reasons for deviation.

xiv) 1.4.23- (Number of Rainwater Harvesting pits with location)- There are no details given for sec 1.4.23 as per the prescribed FMCP format. The proposal for the same as per the approved modified mining plan to be provided and the actual work done should be elaborated along with reasons for deviation.

xv)- 1.4.24 (Measures for control of dust)/1.4.25 (Measures for control of noise and ground vibration)/1.4.26 (Quality of air)/1.4.27 (Quality of Water)-The measures under different section should be given as proposed in the Environment Impact assessment, PMCP chapter of last approved modified mining plan. The actual work done should be elaborated along with the reasons for deviation.

xvi)- 1.4.28- (Area proposed to be put to use in last approved MP/SOM/RMP/MMP/FMCP)- The Actual area (ha) for Forest, non-forest & total area for different items to be given w.r.t the proposed area (ha) as per the last approved modified mining plan.

xvii)- 1.4.29- (Give status of compliance of violations pointed out by IBM)- The details of IBM violation letter no KNT/BLR/FE/44/BNG/153 dated 27/1/2020 should also be included and compliance status to be given. The compliance letter should be enclosed as annexure and reference to be given.

xviii)- 1.4.31- (Indicate and give details of any suspension/closure/prohibitory order issued by any Government agency (other than IBM) under any rule or Court of law during the last five years period)- The Hon'ble Supreme court, under SLP no. 201080/2010(C) dated 1.07.2013 directing all mining activity to be stopped within the core zone of 1 km of Sri Jambunatheswara temple should also be detailed here. Hon'ble Supreme Court order should be added in Annexure and the annexure reference to be given here.

xix)- 1.4.32- (Details of revocations order if any)- The details regarding further activities after Hon'ble Supreme Court order dated 1.07.2013 should be detailed here. The Joint survey conducted by the State Government authorities and all related activities to be detailed here. The Joint survey report annexure reference should be given here.

In this section it is also mentioned " *The lease has been deemed to be renewed up to 2022 and the letter of DMG asking all statutory documents to start the mine operation*". There is no related State Govt. order and documents furnished with the document, mentioning the above. Accordingly, the portion should be checked and removed from the section.

xx)- Table No 1.4.33- "Implementation of..... below"- Table 11 & "Photographs of R&R measures.....Annexure-19". This is not as per the prescribed FMCP format and should be deleted.

Chapter-II(Geology and Exploration)

6. Para 2.1- (Local Geology)- Name of Exploration agency- It is mentioned "Exploration & sampling.....which is accredited by NABL". The complete sentence needs to be reframed properly mentioning exploration agency as Sri AllumBasavaraj and analysis done by M/s Chaithanya Geo chem (NABL accredited).

7. Para 2.2- (Details of prospecting/exploration carried out in the lease area): All the headings, subheadings in this para should be corrected as per the IBM manual for FMCP 2018

i) 2.2.1-The details of trial pits should be specifically given as per the prescribed tabular format.

S. No.	Year of exploration	Number of Pits/Trenches	Explored Depth(m)	Spacing/ Grid Interval	Total Area Covered (ha)	Scale of Exploration (G1/G2/G3)
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The trials pits should be clearly marked on Geological plan & sections and reference should be given in this section.

ii) 2.2.3- The details of sample analysis as analysed from NABL accredited laboratory in the last approved modified mining plan should be given as per the below mentioned prescribed format.

Type of Sample(Grab sample, Bulk sample,Core drill sample, DTH sample etc).	Total samples collected	Total samples analysed
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iii) 2.2.5- (Total Lease area explored under various categories)- Table no 15 as mentioned in the text is not as per the prescribed format. The area for G-1 & non mineralized area shown in table no-15 is not as per the last approved modified mining plan. As per the last approved modified mining plan the area under G-1 category is 19.31 ha and non-mineralized area is 12.36 ha. The average depth is 1.66 m for forest area and 0.66 m for non-forest area. This should be checked and details should be given accordingly, as per the below mentioned table.

G-Axis	Area(ha)			Depth(meter)
	F	NF	Total	
G-1				
G-2				
G-3				
G-4				
Area unexplored #				
Non-Mineralized area				
Total				\$

#-Reasons to be furnished \$ Maximum Explored depth

iv)2.2.6- (Blocked Resources under various Modifying factors in terms of Item no. 14 of Part-I(Definitions) of MEMC Rules 2015)- The sl.no and heading should be corrected as per the IBM manual for FMCP 2018. Table no 16 which mentions blocked resources of 7783 tons under "technical factors", should be corrected and it should be mentioned under "Statutory factors". It should also be mentioned under brief details column " Some portion of the ore is not mineable as it is blocked outside the pit limit along the lease boundary in 7.5 m safety zone and these are classified as Feasibility Mineral Resource (211)".

8. Para 2.3: (Balance estimated mineral reserve/resources in different categories of UNFC are given below:-(To be indicated separately for Forest and Non-Forest area) As on.....) The heading should be corrected as per the prescribed format. The Reserve and Resources quantity as mentioned in this para should be furnished in accordance with the last approved Modified Mining plan. The "as on date" should mentioned as per the format. The break up for the Reserve/Resource figure in the Forest and Non forest area should be given as per the below mentioned format.

	UNFC Code	Quantity(T)			Grade
		F	NF	Total	

9. Para 2.4 (Broadly indicate the future programme/proposals for compliance of Rule 63 of MCDR' 2017 in regard to "Preservation of Cores, etc.'- i) Thedetails of 4 nos. of DTH boreholes as proposed in the last approved modified mining plan should be given in this para. The proposed borehole should be marked on the Geological plan & sections and the plate reference to be given here.

ii)Brief details regarding preservation& maintenance of samples obtained from the trial pits/boreholes etc. in accordance with the rule 63 of MCDR, 2017should be mentioned here; few photographs of the previous generated and preservedsamples should be enclosed.

iii) Status of submission of the Geological Study Report by the lessee in accordance with the rule 12(4A) (b) of MCDR (amendment) 2018 also to be mentioned in this para.

Chapter-III (Mining)

10. Para 3.1(Year wise excavation proposals)-i)Year-wise excavation proposals should be mentioned for 2020-21 & 2021-22 only, since2019-20 is already completed. The corrections to be made in all relevant portion of the document, annexures and plates.

ii) (a)- Year wise development & production- The year-wise development & production should be specifically given as per the below mentioned table. Table no 20 should be corrected accordingly. The other details as given in the text in this item " A(M-Mechanized)open cast mining.....sent for backfilling" is not required as per the prescribed format and should be deleted. Also, Table no 20 should mention only proposals for 2020-21 & 2021-22 as mentioned above. The total ROM figures in Table no 20,are not as per the last approved modified mining

plan. All the figures in Table no -20 should be as per the last approved modified mining plan. IBM-FMCP 2018 format to be referred and all details to be given as per the format.

Year	Total ROM (Tonnes)	Total overburden/ Waste(m3)	Ore to OB Ratio (T/m3)
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The reference of year wise development & production plans & section should be given in this item.

iii) (b)- Year wise Mineral Rejects, fines & Tailings/slimes generation- Year wise ROM, Clean/saleable ore, Mineral Rejects, Fines, Tailings/slimes quantity should be given in prescribed tabular format as per the last approved modified mining plan. No figures are given in Table no 21. This should be checked and corrected. IBM-FMCP 2018 format to be referred and all details to be given as per the format.

Year	Total ROM (T)	Clean/saleable Ore(T)	Mineral Rejects(T)	Fines (T)	Tailings/ Slimes(T)
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11. Para 3.2(Dump working)-The details should be added in tabular format. IBM-FMCP 2018 format to be referred and all details to be given as per the format.

Year	Dump No/Dump Identification no	Year-wise Handling(m3)	Estimated Recovery Of saleable ROM	Mineral Rejects
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Since there was no dump re-handling proposal as per the last approved modified mining plan, "NIL" should be mentioned in the aforementioned table in each column.

12. Para 3.3(Year wise production)- i)As already mentioned above, the year-wise production proposals should be given for 2020-21 & 2021 -22 only. Table no 22 should be corrected accordingly. The details should be specifically given as per the last approved modified mining plan.

ii) The portion "The salient feature of method....." and Table No-23 should be deleted from this para as it is not required as per the prescribed format".

iii) The reference for Production and development plans & sections for the year 2020-21 & 2021-22 should be given and the text in this para should be corrected accordingly.

Chapter-IV (Stacking of Top soil, Mineral Rejects, Fines, Tailings/slimes and their disposal)

13. All the headings, subheadings in this para should be corrected as per the IBM manual for FMCP 2018. "Top soil, waste, Table no-24, Mineral Reject, subgrade, Fines" is not required as per the prescribed format and should be deleted from this para.

14. Para 4.1-(Details of Dumps/Stacks available at the mine site) - The details should be furnished as per the below mentioned table. IBM-FMCP 2018 format to be referred and all details to be given as per the format

Particulars Of dump	Top Soil			OB/Waste			Mineral Rejects			Fines/ ore stock			Tailings/Slimes		
	Location	Area (ha)	Quantity (cuM)	Location	Area	Quantity (CuM)	Location	Area (ha)	Quantity (T)	Location	Area (ha)	Quantity (T)	Location	Area (ha)	Quantity (T)

The details of all the old iron ore mineral stocks (71,203 tons) should be given in Fines/ore stock column in the aforementioned table. The location, area and Quantity should be as demarcated in the surface plan of the last approved modified mining plan.

15. Para 4.2-(Details of Top soil, Waste/OB, Mineral Rejects, Fines & Tailings/Slimes generation during the closure period of two years.)- As already mentioned above, the year should be corrected as 2020-21&2021-22 and details should be given accordingly as per the last approved modified mining plan. Table no 25 to be corrected accordingly.

16. Para 4.3-(Details of Top soil and waste/OB disposal/management during the closure period of two years)- The details for the proposal period 2020-21 & 2021-22 should only be given. Table no 26 should be corrected accordingly. The waste generated during the float ore mining will be concurrently backfilled in the same working pit as proposed in the last approved modified mining plan. However, no backfilling is mentioned in Table no 26. This should be checked and corrected.

17. Para 4.4-(Details of Mineral Rejects, Fines & tailings/Slimes disposal/management during the closure period of two years) - The details for the proposal period 2020-21 & 2021-22 should only be given. Table no 27 should be corrected accordingly

Chapter-V(Final Mine Closure Plan)

18. The complete heading, subheadings should be corrected as per the IBM manual for FMCP 2018. The Environment base line information should be deleted from this para as this is not required as per the prescribed format.

19. Para 5.1.1-(Mined out land)-Table no 32 should be checked. a)The undisturbed area in the proposed area (Non-Forest) column needs to be checked. It is mentioned as 3.525 ha which is not correct. This should be checked and corrected.

b) The details of the year wise Reclamation & Rehabilitation measures should be mentioned here for the proposal period, 2020-21 & 2021-22. All Engineering measures, etc. for Dump management and surface water management as per the approved R&R plan should be completed within the proposal period. The copy of approved R&R plan should be attached in Annexure and reference to be given in this para.

The approved R& R as attached in last modified mining plan mentions.

Dump Management Plan

- i) Inactive dump-Toe Wall No-I- Length (260 m), Garland drain-I- Length (280 m), Silt settling Tank- 1 No
- ii) Toe Wall Number-II- Length (150 m), Garland Drain-II-Length (160m), Silt settling tank-1 No.

*All Dimensions as per the approved R&R.

Surface Water management Plan

- i) Stone masonry check dam (SMCD-I)- 23 m(Length)
- ii)Loose boulder check dam (LBCD)- 10 m (Length)
- iii) Stone pitching in channel on sides (2.5 m) and bottom (3m) with 25 cm thickness- 400 m (Length)
- iv)Gabion/wire crate check dam (GCD-1(10 m length) & GCD-2(20 m length).

*All Dimensions as per the approved R&R.

All the above Engineering measures should be described in details in this para and the balance R&R measures should be proposed for the proposal period (2020-21 & 2021-22) as per the below mentioned table.

Year	Name of the EngineeringStructure	No's/Units	Dimensions (LXWXH)	Location (Coordinates)
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The proposals may be supported with yearly plans & sections depicting yearly progress in the activities for land restoration/reclamation/rehabilitation, afforestation etc. in the Reclamation plan. All the aforementioned details should also be incorporated in the Reclamation plan along with index and the reference of the plan to be given in this para.

b) The text mentioning “As per the conceptual plan.....will be carried out after mining the float ore” and Table no-33 are not relevant to this para and should be deleted.

20. Para 5.1.2(Safety and Security)-The fencing should be proposed for the entire Mining excavation area to prevent endangering fall of persons/cattle etc. in terms of Rule 26 of MCDR 2017. The Grid reference for the fencing to be mentioned in this para. Also, the same should be demarcated on the Reclamation plan with index.

21. Para 5.1.3(Afforestation)- The existing afforestation details should be furnished along-with proposals on virgin area, backfilled area, Dump plantation and plantation on ultimate benches indicating area and number of saplings. The afforestation proposals to be given accordingly for 2020-21 & 2021-22. As per the last approved modified Mining plan the afforestation details are as follows

- i) Backfilling area- 0.856 ha- 2138 nos. of plants with 80 % survival rate
- ii) Virgin area (Safety zone)- 0.51 ha- 1277 nos. of plants with 80 % survival rate
- iii) Virgin area (Grassing)- 0.50 ha
- iv) Also, Enrichment plantation over waste dump area- 1.70 ha as per the approved R&R plan. The afforestation proposals for the proposal period (2020-21 & 2021-22) should be given accordingly. The Grid reference should also be mentioned for all the above.

Year	Area(ha)	No of plants	Location	Grid references (Northing Easting)	Species	SurvivalRate
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22. Para 5.1.5(Water Quality Management)-i)It should be specifically mentioned “There is no proposal for conversion of mined out pit into a water reservoir/Pisciculture purpose in this para.It should also be mentioned “All the parameters of water quality will be monitored as per MOEF/KSPCB norms”.The details of all the water monitoring stations should be given in this para as per the below mentioned tabular format. The reference of the Environmental Management plan should be given which would be showing all the water quality monitoring stations.

S.I. no.	Location	Code
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ii) The Engineering measures for surface water management should be elaborated in this para as per the approved R&R plan as already mentioned in aforementioned scrutiny comment no 19. The Engineering measures that are completed and the balance which are not completed are to be proposed in the proposal period (2020-21 & 2021-22). All the surface water Engineering measures that are completed and further proposed should be clearly demarcated on the Reclamation plan and reference to be given in this para.

23. Para 5.1.6 (Air Quality Management)-i)The text as mentioned in this para “ The air..... Plate No-Ib” is not described correctly as per the last approved modified mining plan. The complete text should be deleted. It should be mentioned in this para “*Lessee has deployed effective dust suppression measures like sprinkling through water tankers, covering mineral processing plants with G.I hoods, transportation road is watered with tankers.*”

Employees are provided with dust mask. During the proposal period efforts will be made to develop thick green belt”.

ii) It should be mentioned “The Ambient air quality monitoring will be carried out as per the MOEF/KSPCB norms. The details of all Air monitoring stations are to be given as per the below-mentioned format. The reference of the Environmental Management plan should be given which would be showing all the Air monitoring stations in Buffer and core zone.

S.I. no.	Location	Zone	Code
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24. Para 5.1.7(Waste management)-i) The backfilling details should be given for the proposal period (2020-21 & 2021-22) as per the below mentioned tabular format.

Year	Area in ha	Level in mRL.	Location Co-ordinates	
			Northing	Easting

ii) The Engineering measures for Dump management should be elaborated in this para as per the approved R&R plan as already mentioned in aforementioned scrutiny comment no 19. The Engineering measures that are completed and the balance which are not completed are to be proposed in the proposal period (2020-21 & 2021-22). All the Dump management Engineering measures that are completed and further proposed should be clearly demarcated on the Reclamation plan and reference to be given in this para.

25. Para 5.1.9(Surface Subsidence mitigation measures)- The text” This is opencast mine..... envisaged” to be deleted. It should be corrected as ” Not applicable since float ore mining with shallow depth will be carried out” as mentioned in last approved modified mining plan.

26. Para 5.1.11(Infrastructure details)-An account of infrastructural facilities available in the ML area should be specifically given in tabular format indicating its details.

Sl.No.	Infrastructure details	Decommissioning details
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The text as mentioned in this para “ The mine..... 6 months after mine closure i.e.07.03.22” should be deleted. Mobile crushing and screening plant don’t come under infrastructure, it comes under mining machinery. The decommissioning of infrastructure shall be completed before the commencement of last Quarter (i.e. before 8.12.21) of expiry of lease so that site inspection for FMCP compliances by the concerned statutory authorities may be done in the last quarter of expiry of lease. The time schedule for decommissioning of infrastructure should be proposed accordingly.

27. Para 5.1.12- (Disposal of Mining Machinery)- The details of the mining machinery should be specifically given in tabular format as per the Extent of Mechanization given in the Mining chapter of last approved modified mining plan.

Sl. No.	Machinery	Make	HP	Nos.	Capacity	Motive power
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The disposal of all mining machineries shall be completed before the commencement of last Quarter(i.e. before 8.12.21) of expiry of lease so that site inspection for FMCP compliances by the concerned statutory authorities may be done in the last quarter of expiry of lease. The time schedule for disposal of mining machineries should be proposed accordingly. The decommissioning of mining machineries and their possible post mining utilization if any to be described in this para.

28. Para 5.1.13(Disaster Management and Risk Assessment)- The text mentions drilling & blasting, storage of explosives etc, which is not relevant. The entire text in this para”The aim.....accidents”, Name of the Mines Manager, contact no, address to be deleted. The details in this para should be given exactly as given in “disaster management and risk assessment section of PMCP chapter of last approved modified mining plan. The Contact no & address of the lessee should be given.

29. Para 5.1.14(Economic Repercussions of closure of mine and manpower retrenchments)- The manpower details should be given as per “Others” chapter(Employment potential) of last approved modified mining plan. The economic repercussions of closure of mine for manpower employed directly and through contractual and remedial measures consequent to the closure of the mines, manpower retrenchments, compensation etc. should be described in detail in this para.

30. Para 5.1.15(Time scheduling for Closure)-The heading of this para. should be corrected as per the prescribed format. Time schedule for closure of mines should include all the activities as proposed in chapter-V (Final Mine Closure Plan). The activities should include all Reclamation & Rehabilitation measures for Dump Management and surface water management, safety and security (fencing of mining excavation area etc.), Afforestation, Environmental protective measures & management(water & air quality management), Waste management(backfilling),decommissioning of infrastructure, disposal of mining machineries, manpower retrenchment etc. and should be supplemented by PERT(Programme Evaluation Review Technique)/Bar chart and these activities should be clearly shown on Reclamation plan.All the closure activities proposal should be started

from 2020-21 and shall be completed before the commencement of last Quarter (i.e. before 8.12.21) of expiry of lease so that site inspection for FMCP compliances by the concerned statutory authorities may be done in the last quarter of expiry of lease. The time schedule for all closure activities should be proposed accordingly.

31. Para 5.1.16(Closure cost)-The para should be added in the text as per the prescribed format. Table no 36 should be added in this para. Table no 36 is not complete as it doesn't include activities required for Reclamation & Rehabilitation engineering measures including maintenance, Environmental measures & monitoring etc. This should be checked w.r.t all the proposals as proposed in Chapter V (Final Mine Closure plan) and corresponding cost to be estimated based on activities required for implementing the protective and rehabilitation measures including maintenance and monitoring programme. The back up calculation of closure cost mentioned under this para should be enclosed as annexure and reference to be given.
32. Para 5.1.17(Post closure Monitoring schedule as envisaged and Estimated cost)- Table 37 should be checked w.r.t the scrutiny comment for Chapter V(Final Mine Closure plan) and corresponding cost to be estimated based on activities.
33. Para 5.2(The information on protective measures for reclamation and rehabilitation works year wise may be provided as per the following table): Table no 38 is not as per the prescribed format. IBM manual for FMCP 2018 should be referred and details should be given specifically as per the table mentioned in para-5.2. All the proposals should be as per the aforementioned scrutiny comment for chapter V(Final mine closure plan).

Items	Details	Proposals					
		2020-21			2021-22		
		F	NF	T	F	NF	T

34. Para 5.3(Financial Assurance)- Table no 39 should be corrected as per the prescribed format.The financial assurance table should be in accordance with the last approved modified mining plan dated 18.02.2020.

S.I. no.	Items	Area put to Use at start Of FMCP Period(ha)			Additional Area Requirement During FMCP Period(ha)			Total area Put to use (ha)			Area Considered as Fully Reclaimed & Rehabilitated as on start of FMCP period (ha)			Net area considered for Calculation(ha)
(a)	(b)	(c)			(d)			(e) = (c +d)			f			(g)=(e-f)
		F	NF	T	F	NF	T	F	NF	T	F	NF	T	

35. Para 5.4(Financial Assurance details)- This para should be included in the text and Financial Assurance details to be included in this para.

36. **Consent letter/undertaking/Certificate**

- a) Para 01: It should be corrected as "The Final Mine Closure plan in respect of Jambunathanahalli iron ore mine over an area of 31.67 ha (as per new joint sketch) in Jambunathanahalli village.....". 54.92 Ha(as per CEC) should be removed from text.
- b) Para 04: It should be corrected as "The provisions of Mines Act, Rules and Regulations made there under have been observed in the Final Mine Closure Plan over an area of 31.67ha(as per New joint sketch) in Jambunathanahalli village, Hosapete Taluk, Ballari district in Karnataka belonging to Jambunathanahalli Iron ore Mine, and wherever any specific permissions are required, the applicant will approach the appropriate authorities.
- c) Para 06: It should be corrected as "The fact that the lease is going to expire on 7.03.2022 with balance reserves in the lease area shall not cause any distraction in Mineral Conservation, Systematic, Scientific and Sustainable development of the Mine".
- d) Certificate from QP- The spelling of "Jambunathanahalli" should be corrected. "54.92 Ha(as per CEC) to be removed from the text.
- e) The Consent letter/undertaking/certificate & Certificate from QP should be specifically as per FMCP 2018 format.

37. **Plans and Sections to be enclosed:**

- a) In all the plates, in the index for M.L area, it should be mentioned "31.67 ha (as per new joint sketch) and the others detail should be corrected as" 56.75 Ha(as per lease renewal notification), 54.92 Ha (as per CEC).
- b) The date of survey in all plates is given as 05.12.2019 and the plans & sections prepared accordingly. As per Rule 31(4) of MCDR 2017 "the plans and sections required under these rules shall be maintained up to date within three months in case of category 'A' mines as referred to in clause (a) of sub-rule (2) of rule 55. Accordingly, all the plates should be prepared and furnished.
- c) It should be ensured that all attached plates are prepared as per the content & scale specifications, of Rule 31 & 32 of MCDR 2017. All plans and sections should be signed with date by certified surveyor, Qualified person, Mining Engineer and Mining Geologist as per Rule 34 of MCDR 2017.

- d) All the plates should mention details for the Final Mine closure plan proposal period 2020-21 & 2021-22 .2019-20 has already completed and accordingly no proposals for 2019-20 should be mentioned on plates. All the plates should be corrected accordingly.
 - e) Key Plan-(Plate-I/b)- The 1.0 Km circle from Jambunatha temple should be clearly demarcated and to be added in index. The Jambunatha temple should be shown on the key plan. The text mentioning and legend mentioning "Approach road from main road to mine 0.63 km and Jambunatha temple 0.588 km from mining lease boundary should be deleted".
 - f) Surface plan-(Plate-II/a)-The Final mine closure plan is prepared for 31.67 Ha. Accordingly, the table indicating Type of land should give details only for the land outside the core zone from JN temple. Other details to be deleted and in the Grand total it should be mentioned "31.67 ha is for Final mine closure plan proposal period". The table should be corrected accordingly.
 - a) Geological plan and cross sections- (Plate-II/b and II/c)-The plates should be checked and all corrections to be specifically incorporated w.r.t aforementioned scrutiny comment related to Geology and Exploration chapter-II. The entire mineralized area which is under G-1 level of exploration should be clearly demarcated on plan with distinct colour & the area details under different categorization should be given in tabular format as mentioned in aforementioned scrutiny comment no 7(iii). The future exploration program for the proposal period(proposed boreholes) should be demarcated on Geological plan & section as per aforementioned scrutiny comment no 9(i) and added in index.
 - g) Production and development plan-(Plate-III/a to III/c)-The production and development plan should only be given for the final mine closure plan proposal period i.e.2020-21 & 2021-22. All corrections to be incorporated as per the aforementioned scrutiny comment of Mining (Chapter-III). The production and development plan for 2020-21 & 2021-22 should be as per the last approved modified mining plan. The proposed afforestation table should be updated w.r.t the aforementioned scrutiny-comment no 21(Para 5.1.3).
 - h) Production and development sections- Individual Year wise section should be prepared accordingly as per aforementioned scrutiny comment for the proposal period(2020-21 & 2021-22) and to be submitted separately for each year.
 - i) Reclamation Plan-(Plate-IV)- The reclamation plan should be corrected as per the aforementioned scrutiny comments for Mining (Chapter-III) & Final Mine Closure Plan (Chapter-V).All the proposed features in FMCP(Chapter-V) like Reclamation and rehabilitation measures for Dump management and surface water management, safety and security, Afforestation, Water quality management, Air quality management, waste management etc. to be depicted year-wise for the proposal period (2020-21 & 2021-22) in the plan. The colour code of the existing and proposed feature should be different. The year wise proposal for reclamation & rehabilitation measures as per the approved R&R plan should be shown and indexed. Accordingly, the Reclamation plan is to be corrected and all the proposals to be given in tabulated form on plan.
 - j) Environmental Plan-(Plate-V)-The plan should be prepared in accordance with rule 32(5) b of MCDR 2017. The proposals for the period 2020-21 and 2021-22 should only be mentioned on the plan as already mentioned above. The Environmental plan should be corrected as per the aforementioned scrutiny comments for Mining (Chapter-III) & Final Mine Closure Plan (Chapter-V).
 - k) Financial Area Assurance plan-(Plate-VI)-The Financial Area Assurance plan should be corrected as per the aforementioned scrutiny comments for Mining (Chapter-III) & Final Mine Closure Plan (Chapter-V). The table in the plate should be as per para 5.3(Financial Assurance chapter).
 - l) DGPS surveyed cadastral plan as per CCOM Circular No-2/2010 should be enclosed.
38. **List of documents to be Annexed.** -
- a) All the annexures should be legible. Some of the annexures like mining lease initial grant order dated 22/8/1951, Photo identity card of the lessee with address proof, Experience certificate of QP etc. are not legible. Legible copies of the same should be enclosed.
 - b) Hon'ble Supreme court order directing all mining activity to be stopped within the core zone of 1 km(temple)
 - c) Copy of Lease deed for first lease grant and copy of lease deed for Second Renewal should be furnished.
 - d) Copy of valid EC, FC clearances from MOEF and valid Consent to operate from SPCB should be enclosed.
 - e) Few good quality photographs showing land use of the lease area, environmental status of the area, Ground control points and Lease boundary pillars should be enclosed.
 - f) The copy of approved "Reclamation & Rehabilitation plan" should be enclosed.
 - g) Compliance letter for IBM violation no KNT/BLR/FE/44/BNG dated 27/01/2020 should be enclosed. The current letter annexed is not complete as it does not have lessee signature and covering letter.
 - h) Copy of Form I & J as per MCDR 2017 to be enclosed for the exploration carried out inside lease area for ready and future reference as per rule 47 & 48 of MCDR 2017.
 - i) Feasibility report is not required in FMCP and should be removed from Annexure.
 - j) All the annexure to be properly numbered/ paged and relevant annexure to be signed by QP.