

Scrutiny Comments on Examination of Draft Review and Updation of Mining Plan in respect of Doddabyladakere Iron & Mn ore Mine (ML No. 2526/2639) over an area of 40.47 Ha as per lease deed (40.07 Ha as per CEC sketch) located in Doddabyladakere & Chikkabyladakere Villages, Hosadurga Taluk, Chitradurga District, Karnataka State, Submitted by M/s. SJMP Holding LLP for Approval Under Rule 17(1) of MCR, 2016 & Rule 23 of MCDR 2021.

GENERAL

1. Refer Minerals (Other than Atomic and Hydro Carbons Energy Mineral) Concession (Fourth Amendment) Rules, 2021 published vide Ministry of Mines, Gazette Notification G.S.R. 775(E) dated 2nd November 2021. In accordance with Sub-Rule (2) of Rule 17 of MCR, 2021 lessee has to submit the Draft RUMP 180 days before expiry of the plan period. The document has not been submitted in stipulated time. Hence, lessee needs to pay Rs.2,000/- per day penalty for late submission.
-In the instant case, the soft copy along with the processing fee is submitted to this office online on 30/12/2021 and it is 58 days late from the date of said Notification. You are therefore advised to pay penalty @ Rs2,000/- per day X 58 days i.e. **Rs.1,16,000/- (Rupees One Lakh Sixteen Thousand Only)**. The penalty may be paid by Demand Draft drawn in favour of Drawing & Disbursing Officer, Indian Bureau of Mines, Bangalore.
2. No cells may be left blank. Either “Nil” or “Not applicable” may be furnished.
3. If any relevant information pertaining to the ‘calculation’ or ‘supporting information’ or ‘clarification’ may be provided as foot note in the respective table/para.
4. Wherever additional information or supporting document is given in Annexure, Annexure no may be specified in respective paras.
5. Undertaking/Consent letter from the lessee may be digitally signed by the lessee.
6. Serial Numbers of all the chapters and sub paras should be as per the prescribed format. This may be verified and maintained as per the formats issued on FAQ on New Mining Plan format vide letter No.R-11011/1/IBM-M-A-MP/2012-CCOM-Vol-II dated 08/09/2021.
7. On the cover page details of Mine Code. Registration no., Type of land, Category of Mine, Type of use of mineral may be provided.

Chapter 1: GENERAL INFORMATION

8. **Para 1.1: (i)** As per lease deed, there are two ML nos. for the lease, both the ML no. may be specified as ML No. 2626/2639. (ii) Name of the associated mineral given as Limestone & Dolomite, the same may be deleted since there is no associated Mineral in the lease deeds. (iii) In the Lease Area, area as per lease deed may also be specified bracket.
9. **Para 1.1.1: Initial/subsequent Lease grant details:** (i) As per the lease deed, the lease is valid up to 14/04/2021, which is expired. The lease deed may be renewed and supplementary lease deed copy may be submitted to this office.
10. **Para 1.2: LAND OWNERSHIP DETAILS:** Nature of land column is deleted, the same may be provided with details.
11. **Para 1.3.3:** Supporting document for Transfer of Lease Area Subsequent to Grant may be annexed and Annexure no. may be provided in this para.
12. **Para 1.3.4.1:** As per enclosed Environment Clearance copy (Annexure 3), Production of Mn ore is 0.13 LTPA, however in this para it is mentioned as 0.3LTPA, the same may be reviewed and corrected.
13. **Para 1.3.4.2:** SPCB approval is no more valid, lessee has to get SPCB approvals and copy of the SPCB approval may be submitted to this office.
14. **Para 1.3.4.5:** CEC Permissible Annual Production should be mentioned for both Iron ore and Mn ore which may be given in a separate row.
15. **Para 1.3.5.1:** Pillar no. of Inner boundary and outer boundary may be provided in foot note of the table.

Chapter 2 - GEOLOGY & EXPLORATION:

16. **Para 2.1.2:** Details of Physiographic features and Infrastructures available in and around the lease/ block area: (i) Name of adjacent mines within 5kms from lease boundary periphery may be provided in others. (ii) In the Human settlement within 5km range only one village mentioned, however in the key plan it is observed that there are some more villages present within 5km range, details of all the villages may be provided in Human Settlement. (iii) Along with distance, name of the Port, Railways Station and Village may be provided in the 2nd Table of this para.
17. **Para 2.1.3:** In the Regional Stratigraphy Table, Group and formations may be separated.
18. **Para 2.1.4.3:** Petrological and field characteristics of all the lithologies available in the lease may be briefly explained in this para.
19. **Para 2.1.4.4: Mode of Occurrence & Controls of Mineralization** – (i) Details given in this para may be simplified by deleting the irrelevant information. (ii) If Lateritic soil contains float ore, the same may be combined in float ore. (iii) Carbonates details may be deleted and same may be given in Para 2.1.4.3.
20. **Para 2.1.4.6:** (i) Nature/Form of Mineral of Iron ore and Mn ore mineral may be given separately. (ii) Ratio of lumps and fines for Iron ore and Mn ore may be provided.
21. **Para 2.1.4.7: Extent of Mineralization:** Based on the exploration data, Lateral and vertical extent of Iron ore and Mn ore may be clearly specified.
22. **Para 2.1.4.8: Deposit Type (as per MEMC Rule):** (i) there is float ore in the lease, float ore deposit type may also be given. (ii) Iron ore deposit is having a regular habit and Mn ore deposit is having an irregular habit, hence Iron ore and Mn ore deposit type details may be given separately.
23. **Para 2.2.1.1:** (i) Geological Mapping by QP is mentioned, the same may be deleted. (ii) Details about pitting/trenching and FORM-I given at the foot note may be deleted, only details about Geological mapping may be mentioned.
24. **Para 2.2.1.2 to 2.2.1.4:** If there was no exploration proposal, No Proposal & Not carried out may be specified.
25. **Para 2.2.1.3:** Ground Geophysical Survey is deleted, the same may be provided.
26. **Para 2.2.1.5: Pitting:** Some of the rows in column Litho units exposed, Average grade and location of the pit are merged, the same may be unmerged and relevant details may be provided in all the cells. This comment is also applicable to Para 2.2.1.6 Trenching.
27. **Para 2.2.1.7: Exploratory Drilling:** Not carried out may be specified in this para. Details given in the foot note of the Table may be deleted and the same may be provided in Future programme of exploration.
28. **Para 2.2.1.10:** Chemical Analysis details of Pit and Trench samples may also be included in Annexure 21.
29. **Para 2.2.1.13: Bulk Density Study:** No. of samples reported in this para are not tallying with the Bulk Density Study Report. The same may be reviewed and corrected.
30. **Para 2.2.1.14: Area Covered under Exploration:** The details given in this para may be reviewed and updated as per the exploration carried out during the plan period.
31. **Para 2.2.2.1 to 2.2.2.6 and Para 2.2.2.8:** It may be mentioned as 'No Proposal & Not Carried Out'.
32. **Para 2.2.1.7.1: Core/Non-core Drilling:** In the enclosed Annexure 23, location details of the bore holes are not available, the co-ordinates of the bore hole location may be provided.
33. **Para 2.2.2.9: SAMPLING:** Samples generated are from pit/bore holes may be specified in the foot note.
34. **Para 2.2.2.10: Chemical Analysis:** Total no. of samples analysed and radical analysed may be mentioned in this para. (ii) The bore hole samples information may be provided in CSV/excel file which shall normally include Five files namely (a) collar file, (b) survey file and (c) Geology log file, (d) Assay file and (e) RQD File. The file formats are given below. All the bore hole data may be submitted in the below given format.

(a) Collar
file

Hole_id*	Latitude	Longitude	Altitude	Max_depth	Hole_path (linear/angular)	Date of drilling

(b) Survey file for drill holes

Hole_id	Depth	Dip	Azimuth

(c) Assay
file

radicals analysed							
(specify name of radical as an example given below)							
Hole_id	Depth_from	Depth_to	Fe	SiO2	Al2O3	LOI	P

(d) Geology file

Hole_id	Depth_from	Depth_to	Lithological Description

(e) Rock Quality Designation (RQD) File

Hole_id	Depth_from	Depth_to	RQD%

**Hole ID should tally with the surface geological plan as available in the latest approved mining plan.*

Along with the above information, graphical litho log details may be provided in plate.

35. Para 2.2.2.14: Area Covered under Exploration: (i) the details given in the first table in this para may be reviewed and updated as per the exploration carried out before plan period. (ii) The details given in the second Table may be updated as per the exploration carried out during the plan period.

36. Para 2.2.3: ORE BODY GEOMETRY & GRADE: Name of the iron ore band may be corrected as Hematitic Iron Ore reef (HIO) and Hematitic Siliceous Iron Ore (HSIO).

37. Para 2.2.4.1: Reserve / Resource Estimation Methodology: (i) The recovery percentage mentioned for different type of ores is not clear, the same may clearly mentioned with Type of ore available/considered for Resources estimation and Recovery percentage considered for estimation. (ii) Mineral reject is mentioned about 50% for float ore, however same has not been considered in Mining. The details given in this para may be reviewed in detail and suitably corrected in this para also in para 2.2.4.2.

- 38. Para 2.2.4.4: Threshold value & Cut off Parameters:** (i) The type of ore mentioned as Hematitic Ore and Hematitic siliceous ore may be corrected as Hematitic iron Ore and Hematitic siliceous Iron ore respectively. (ii) Details given in this para may be simplified, only threshold value of IBM and cut of parameters (grade) considered for Iron ore and Mn Ore may be specified.
- 39. Para 2.2.4.5: Mining Factors or Assumptions:** some of the statements in this para looks contradictory, which are as follows: (i) *All Statutory clearances have been obtained by the lessee for execution of mining operation* – Still some Statutory clearances are pending. (ii) *As ore body is more homogeneous, recovery factor of 100% has been considered* – Not correct statement as per the details provided in Resources calculation methodology. This para may be reviewed and suitably corrected.
- 40. Para 2.2.4.6: Metallurgical Factors or Assumptions:** Threshold value details given in this para may be deleted.
- 41. Para 2.2.4.10: Classification:** This para may be simplified, relevant information on the parameters considered for Reserves/Resources classification as per UNFC as Proved Mineral Reserves (111), Probable Mineral Reserves (122) and Feasibility Mineral Resources (211) etc., may be provided in this para.
- 42. Para 2.2.4.11 and 2.2.4.12:** (i) The quantity of Reserve/Resources is not matching with the Resources calculated in para 2.2.4.2, the calculation should tally with each other. (ii) Recovery percentage considered for calculation of Reserves/Resources for different type of ore Hematitic Iron Ore, Hematitic Iron Ore – (float ore), Hematitic Siliceous Iron Ore and Mn Ore) may be provided at the foot note of the table
- 43. Para 2.2.4.13:** The grade range may be provided for both Iron ore and Mn Ore.
- 44. Para 2.2.5.1:** Geological Mapping may be proposed for the period 2022-25 and in the foot note it may be mentioned as updation of Geological Map based on exploration data and information from the Working Mining Pit & Development.
- 45. Para 2.2.6.5.1:Core/Non-core Drilling:** (i) Both Core/RC drilling proposed, only one type may be proposed, preferably core drilling. (ii) Details of proposed bore hole location (UTM grid), tentative depth, type of drilling, Angle of borehole etc may be provided in Annexure and Annexure no. may be specified in the Attachment column.

Chapter 3: MINERAL BENEFICIATION / PROCESSING:

- 46. Para 3.1: Mineralogy of the ROM ore/ Mineral:** Range of approximate Mineral percentage may be provided.
- 47. Para 3.2: Complete Chemical Analysis of the ROM Ore/Mineral:** Details is provided for iron ore only, details may also be provided for Manganese ore.
- 48. Para 3.3: Crushing Section :** (i) Flow chart showing different stages of crushing and screening and different output sizes may be given as Annexure and Annexure no. may be specified in this para. (ii) There is no clarity on whether the crushing and screening proposed for both iron ore and Mn ore. Crushing proposed minerals may be mentioned in the foot note of the Table.
- 49. Para 3.5.1:** Details given in this para may be reviewed in respect of product size range and given details may be suitably modified.
- 50. Para 3.7: Overall Product Quality:** This para is not applicable, hence given in this para may be deleted.
- 51. Para 3.9: Overall water requirement of mining and mineral processing:** No information is provided in this para. The quantity of water required in KLD for mining & allied activities like dust suppression, drilling, plantation, domestic purpose, drinking etc. may be given under this Para. The details regarding source of supply of water, disposal of water, extent of recycling, chemical analysis of water should also be furnished in this Para. The Water balance charts to be prepared accordingly and may be added in annexure and reference to be given under this Para. The water requirement should be within the EC & CFO permissible limits.

52. **Para 3.10:** Flow chart showing different stages of crushing and screening and different output sizes may be given as Annexure and Annexure no. may be specified in 'Any other data'.

Chapter 4: MINING OPERATIONS

53. **Para 4.1.2:** In Reasons for proposed changes it may be mentioned as 'No Change'
54. **Para 4.2.1.1: PITS:** The dimension and area details given for Pit No. 2 may be reviewed, the pit area falling only within Mining lease may be considered for calculation of the extent.
55. **Para 4.2.1.2.1: DUMP DETAILS:** The details of Inactive dump (ID1) shown in Plans is not provided in text. Details of the all the existing dumps (Active/In-active) within the mining lease needs to be provided.
56. **Para 4.2.1.2.2: STACK DETAILS:** (i) The details old Mineral stack given here may be supported with the Mahazar report by DMG or any other Government Agencies involved in the process. (ii) Type of Stack may be specified as fines/lumps/ROM/sub-grade etc.
57. **Para 4.2.1.3: DETAILS OF STABILIZED DUMPS:** It is observed that details of dumps falling outside lease boundary are given in this para. The same may be deleted, only details of dumps within the lease may be provided.
58. **Para 4.2.2.1: Bench Parameters:** (i) For the year 2021-22 and 2022-23, in Pit no. 3, the no. of benches in mineral is given as 2 benches, however, in the Production & Development plan and section there are 03 working benches for the said year. The same may be reviewed and suitably corrected.
59. **Para 4.2.2.2: Year wise Opencast Development:** (i) Float Ore – Pit ID given as Block A and B are not shown on the plans and sections. (ii) In Manganese Ore, Pit ID given as PPIT is not shown on Plans and Section. (iii) OB to Ore ratio given as Ore to OB ratio, the same may be corrected and the unit ton/ton may be specified in the foot note. (iv) The second Table given separately for Iron ore –reef and float may be combined. (vi) The proposed ROM quantity of iron ore and Manganese ore should not cross the Annual Production capping fixed capping.
60. **Para 4.3 : (i)** Bulk Density Study may be carried out as per M(EMC) Rules, 2016 and SOP of CGPB from the NABL accredited laboratory and report may be furnished. (ii) Hydrological Study may be conducted and report may be submitted.
61. **Para 4.3.2: INSITU MINING:** (i) Details provided separately for Iron ore – reef and Iron ore – float may be combined. (ii) Comments given in para 4.2.2.2 may also be considered while providing the information in this para. (iii) Grade of the ore may be provided in range. (iv) Details given for Manganese ore may also be updated as per the given comments.
62. **Para 4.3.3:** Dump workings is proposed in this para, however there is no recovery of saleable mineral and it is proposed to use the material for R & R work and Road. The details given in this para is not appropriate, this may be given in para 4.8 Mineral Waste Handling To Utilize as Minor Mineral subject to clearance from State Government. Further dump ED3 proposed is outside Mining lease area, mining and allied activities proposed should be restricted only to lease area.
63. **Para 4.3.4: Calculation Summary:** This para may be updated as per the comments given in para 4.2.2.2 and 4.3.2
64. **Para 4.7.4: New Stack:** For Iron ore and Mn ore stack same location given, different location may be proposed accordingly UTM grid location may be updated.
65. **Para 4.4.2: Shovel / Excavator Requirement:** Bucket fill factor may be proposed 0.7 accordingly details given in this para may be updated.
66. **Para 4.6: Man Power Deployment:** Since there is only one shift, the man power may be proposed in General shift, accordingly details given under all sub-paras may be modified.
67. **Para 4.6.4: Semi-skilled Workers** – Particulars 04 nos. of Semi-skilled Workers may be specified.

68. **Para 4.6.6: Others Specify:** Computer assistant proposed in this para comes under skilled worker; hence details given in this para may be reviewed and suitably modified. In this para security guard, gardeners etc may be proposed.

Chapter 5: SUSTAINABLE MINING

69. **Para 5.2:** CSR initiatives may be proposed in line with the EC condition no. 35.
70. **Para 5.2.1.11: Adoption of ODF** – It is proposed for building the toilets inside the lease area every year during the plan period, the same may be verified for its correctness.
71. **Para 5.2.1.13: Efforts for Green Energy** – Total energy consumption 10 lakh (KWH) and 5% of it proposed for green energy consumption may be checked for its correctness.
72. **Para 5.2.1.14: Water & recycled use:** Total water consumption 43KLD and parentage of water recycled should inline with EC condition.

Chapter 6: PROGRESSIVE MINE CLOSURE PLAN

73. **Para 6.2.1: Backfilling** – No proposals given in this para; however concurrent backfilling proposed in Production & Development Plan and PMCP Plan. The same may reviewed and suitably corrected.
74. **Para 6.2.2 and 6.2.2.1:** Proposals under these two paragraphs may be given in line with EC conditions on water management/harvesting.
75. **Para 6.2.2.2.2: Retaining Wall:** (i) only northing UTM co-ordinates given in (from) column and easting co-ordinate given at (to) columns, both easting and northing UTM co-ordinates may be provided from (beginning point) and to (ending point) of Retailing wall. This comment is also applicable to Garland Drains proposal para 6.2.2.2.3 and Fencing proposal para 6.2.2.2.1. (ii) Retaining wall & Garland drain proposed at two locations i.e. northern and southern part of toe of dumps, both locations information may be provided.
76. **Para 6.2.3:** Cumulative work carried out on Green Belt Development may be provided in this para, if any.
77. **Para 6.2.11: Land Use of Lease Area at the Expiry of Lease Period:** Note given for area in this may be reviewed, it may be proposed to undertake fencing of mine pits, regrassification of dumps and top OB benches, utility service area etc. In line with FMCP. Details may also be updated in Plate – Conceptual Plan and section.

Chapter 7: FINANCIAL ASSURANCE/ PERFORMANCE SURETY:

78. **Para 7.2:** The Bank guarantee amount needs to be calculated as per the Mineral Conservation and Development (Amendment) Rules, 2021 and Revised bank guarantee needs to be submitted along with the final copies of the document.

Chapter 8: REVIEW OF PREVIOUS PROPOSALS

79. **Para 8.1:** Reasons for non-working in the previous plan period and deviations from the proposals may be given in detail may be given in this para.

CHAPTER-9- IMPACT ASSESSEMENT

80. This chapter may be furnished as a part of the text document. Though this chapter is applicable only for fresh grant, all the headings & sub headings may be furnished with “Not Applicable” against each of the same as given in the format.

Plates – Hard Copy

81. All the plans should be updated as per the scrutiny comments wherever applicable.

82. (i) In all the plans, geological hatching given looks prominent which has subdued the other information. Hence, geological feature hatching thickness may be reduced with light color and other features viz. Pit, dump, UPL, Production and Development areas may be drawn little bold line to look prominently with ID details. (ii) Thickness of Grid lines may be reduced and may be shown as broken lines. (iii) Pit ID, Dump ID and other features ID should be clearly visible on plans; accordingly font size may be increased and may be placed without overlapping. This comment is applicable to all the plans. (iv) Lease Boundary Pillar co-ordinates (in Deg Min Sec format) may be provided on all the plans.
83. The features on Plans outside lease area (encroached area) may be shown in light grey colour for easy identification of the lease boundary and other features within the lease.
84. In all the plates it is mentioned as proposed crushing, screening and washing plant, however in the text, there is no proposal for wet processing of the mineral. The same may be reviewed and suitably corrected in all the plates.
85. Financial Assurance Plan is not provided, the same needs to be provided.
86. **Plate No. 03:** (i) Strike and Dip of the formations may be shown on the Surface Geological Plan. Before plan period drilled bore holes are not shown on the plan, the same may be provided. (ii) The boundary of the area explored under G1/G2/G3 level is not clear; the same may be shown with different colour line/polygon.
87. **Plate no. 5C and 5D:** For the year 2023-24 and 2024-25 concurrent backfilling is proposed in Plans, however no exploration carried out in the area nor any mining pit exist in the proposed area. Further, there is no backing proposal in the text Para 6.2.1. The same may be reviewed and suitably corrected.
88. Section-wise calculation details of Production & Development may be provided on Year-wise Production & Development Plan
89. **Plate No 6:** Production and Development sections may be given separately for each Year.

Plates soft copy (kml file)

90. Plates provided in .kml file format are not in order. Each map (**Geological Plan, Surface Plan, Production & Development Plan, Progressive Mine Closure Plan etc**) should contain lease boundary, surface feature information etc details. All the features should contain basic attribute data which is required to identify the layer/proposal etc. The .kml files submitted should be corrected suitably and submitted with all layer information as per legend given in hard copy in shape file / kml file format.
91. All the plans & sections may also be updated in softcopy (.kml/.shp) as per the comments given in Plates (Hardcopy) and in text.

Annexure:

92. The numbering of annexure should be sequentially maintained as per the format. Any additional annexure enclosed may be followed after annexure no 18 with corresponding details. All the annexure as mentioned in above scrutiny comments of different chapters to be enclosed. Also, corrections in the annexure, as mentioned above in scrutiny comments of different chapters to be incorporated and corrected annexure to be enclosed.
93. Undertaking/Consent letter from the lessee may be digitally signed by the lessee.
94. Copy of Valid Bank Guarantee for the entire plan period as per the amended MCDR Rule 2021 needs to be submitted.
95. All the annexure to be properly numbered/ paged and relevant annexure to be signed by QP. The Page no range should be accordingly given in list of Annexure. All the annexure should be legible
