

**SCRUTINY COMMENTS ON EXAMINATION OF DRAFT REVIEW AND UPDATION OF MINING PLAN IN RESPECT OF KAREKURCHI IRON ORE, MANGANESE ORE & RED OXIDE MINE (ML NO.2028) OVER AN AREA OF 16.19 HA (AS PER LEASE DEED), 15.99 HA (AS PER CEC SKETCH) IN KAREKURCHI VILLAGE, TIPTUR TALUK, TUMKURU DISTRICT, KARNATAKA STATE, SUBMITTED BY M/S. KARNATAKA LIMPO CEMENT INDUSTRIES, FOR APPROVAL UNDER RULE 17(1) OF MCR, 2016.**

**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 2<sup>nd</sup> 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 16/11/2021 and it is 14 days late from the date of said Notification. You are therefore advised to pay penalty @ Rs2,000/- per day X 14 days i.e. Rs.28,000/- (Rupees thirty eight 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. Soft copy of the Excel sheet/word format may be filled in & submitted while submitting the final copy.
4. If any relevant information pertaining to the ‘calculation’ or ‘supporting information’ or ‘clarification’ may be provided as foot note in the respective table/para.
5. Wherever additional information or supporting document is given in Annexure, Annexure no may be specified in respective paras.
6. Undertaking/Consent letter from the lessee may be digitally signed by the lessee.
7. 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.
8. **Cover page:** On the cover page all the relevant details including IBM registration Number needs to be given.

**Chapter-1: General Information:**

9. **Para 1.1: Lease details:** Under Name of Minerals Red Oxide also be given as per the Mining Lease Deed.
10. **1.3.4.4: Land Acquisition Details:** Under this para it is stated as “Not Applicable” It may also be mentioned as Government Revenue Land.
11. **Para 1.3.5.1:** The enclosed CEC approved sketch map (Plate IB) does not contain the lease boundary pillar co-ordinates. The lease boundary sketch along with boundary pillar co-ordinates authenticated by State Government should be provided.
12. **Para 1.3.6: Owner/ Nominated Owner Details:** (i) Mobile Number of the Legal Representative Smt. Mathura Bai may also be given along with the land Line number.
13. **Para 1.3.7:** The copy of the pan card of the Qualified Person should be enclosed and annexure reference be given.

## **CHAPTER-2-GEOLOGY AND EXPLORATION:**

14. **Para 2.1.2:** (i) The Names of all the 10 villages, Distance of Power transmission lines/ telephone lines from the Mining lease, details of grazing land/ burial ground or cremation ground, Forest area along with the distance needs to given. (ii) Mining leases within 5km distance from the lease boundary may be specified in others.
15. **Para 2.1.3:** (i) Regional Stratigraphy and regional geological map of the area may be provided as an Annexure and the Annexure number may be referred in the Text or this may also be provided by inserting table in word file.
16. **Para 2.1.4: Local Geology & Structure:** (i) Only manganese occurrence in the lease area is described in this para, iron ore occurrence may be explained in this para. (ii) Local geological setup/sequence may be provided.
17. **Para 2.1.4.3:** Nature of occurrence of float ore, iron ore band, Manganese ore and other lithologies along with foot wall and hanging wall rock may be described.
18. **Para 2.1.4.5: Extent of Weathering/ Alteration:** Thickness of float ore mentioned as 0.5m to 2m over ore zone and 3-4m over shale and phyllite however in Reserve/Resources calculation (**para 2.2.4.11 and 2.2.4.12**) thickness of float ore is mentioned as 2 to 8m. The same may be reviewed and suitably corrected at all places wherever it is applicable.
19. **Para 2.1.4.6: Nature/Form of Mineral:** The ratio of lumps to fines in ROM may be furnished under this para.
20. **Para 2.1.4.7 Extent of Mineralization:** The information given in this para may be supplemented with details on lateral and vertical extension of the ore bodies of Iron Ore and Manganese Ore i.e. Strike length and width (Range & Average) and lateral extent of float ore.
21. **Para 2.1.4.8:** Deposit type may be described as per Part III of MEMC Rule 2015. There are two types of deposits in the lease viz. float ore (Iron ore), bedded stratiform deposit of regular habit (iron ore & Mn ore). Both may be specified in this para.
22. **Para 2.2.1.3** Ground Geophysical Survey has been deleted, the same may be provided with No Proposal & Not carried out information. Further, where the particular exploration activity is not proposed in the plan period, the same may be specified as 'No proposal & Not carried out'.
23. **Para 2.2.1.5: Pitting:** The co-ordinates of the pit location may be provided in UTM-WGS84 datum. This comment is also applicable to Para 2.2.1.6 Trenching.
24. **Para 2.2.1.7 Exploratory Drilling:** Type of drilling RC/DTH may be specified in foot note of the table.
25. **Para 2.2.1.8:** The Mining is carried out for the purpose of production and not for the purpose of exploration and there were no exploratory mining proposals. Hence the given information in this para may be deleted and mentioned as 'No Proposals & Not carried out'.
26. **Para 2.2.1.9:** Details of Bore hole sample collected & analyzed may also be provided in this para.
27. **Para 2.2.2.10: Chemical Analysis:** 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	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	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 litholog details may be provided in plate.*

- 28. Para 2.2.1.12: Beneficiation Studies:** Details given in this para may be deleted and mentioned as 'No Proposal & not carried'. Beneficiation studies proposed may be explained in future program of exploration.
- 29. Para 2.2.2.5 Pitting:** (i) some of the rows & columns of the tabular format has been merged, the same may be unmerged and relevant information if available may be provided in each cell of the table. The details given in the merged cell may be given in foot note of the table. This comment also applicable to Para 2.2.1.7.1 Drilling (ii) co-ordinates of the pit may be provided in UTM-WGS 84 datum.
- 30. Para 2.2.2.8 to 2.2.2.12** may be mentioned as 'Not carried out'.
- 31. Para 2.2.2.14:** Area covered under exploration: In the second table Financial Year may be mentioned in the Year column.
- 32. Para 2.2.4.2: RESOURCE CALCULATION:** (i) Method used for calculation of resources float ore may also be specified in Methodology para. (ii) Some of the rows in the depth column, level of exploration etc are merged, the same may be unmerged. (iii) Recovery percentage applied for different type of ore may be mentioned at foot note of the Table. (iv) Recovery percentage is applied in Resource Quantity, however it is mentioned as Recovery percentage is applied in volume, the same may be corrected suitably. (v) Details given in Level of Exploration may be mentioned as G1 / G2 /G3 / G4 only. (vi) Type of land should be Forest/Non-Forest, accordingly given information may be corrected.(vii) For Mn ore recovery as 5%, which is very low, the recovery test study may be conducted for Mn ore in future programme of exploration.
- 33. Para 2.2.4.4:** Cut of parameter may also be mentioned along with Threshold value.
- 34. Para 2.2.4.7: Cost & Revenue Factors:** Feasibility report may be annexed and Annexure no. may be provided in this para.

35. **Para 2.2.4.10: Classification:** Details of UNFC codes applied while calculating the Reserves/Resources may be provided in this para.
36. **Para 2.2.4.11: Calculation of blocked Resources:** (i) section-wise/ore type-wise recovery percentage applied may be given in foot note. (ii) Type of land should be Forest/Non-forest. This comment also applies to para 2.2.4.12 Calculation of Reserves.
37. **Para 2.2.4.13:** Reserve/Resources of Hematitic Iron ore (float ore) & Hematitic Iron Ore (reef ore) may be given combined and Hematitic Siliceous Iron Ore (HSIO) may be provided separately. (ii) Reserves/ Resources should be given as on 01/04/2021. The Reserve/resources as on 01/11/2021 may be provided separately.
38. **Para 2.2.5.1: Geological Mapping:** all the five year proposals are combined, Year-wise proposal may be given. Since the Geological mapping is an updation based the mining pit information and exploratory data, Hence, in the foot note of the table it may be mentioned as 'updation of geological map based on mining pit information and exploration data.
39. **Para 2.2.6.5.1:** (i) Type of drilling core or non-core may be specified with proposed drilling depth. (ii) In the year column iron ore mentioned may be deleted. (iii) proposal of drilling given only for 2022-23, for the remaining years in the plan period, if there are no proposals, all the years may be mentioned and 'nil' information may given (iv) Proposed bore hole details (Bore hole ID, location, proposed depth, angle etc) may be given in Annexure and Annexure no. may be specified in this para. (v) from the graphical bore lithologs it is observed that the some of the bore holes are ended in the mineralized zone, the area is not vertically proved. Hence, the same may be examined additional bore holes may be proposed to prove the ore body 3-dimensionally.
40. **Para 2.2.5.7: SAMPLING:** (i) Type of sample should be soil/rock-chip/drill core accordingly the details given may be corrected. (ii) Samples proposed to be collected given only for pits, bore holes samples going to be generated may also be given in this para.
41. **Para 2.2.6.8:** Type of sample should be waste/mineral, if different type of samples proposed to be studied. The same may be given by adding the rows.

### **CHAPTER-3-MINERAL BENEFICIATION/PROCESSING:**

42. **Para 3.1: Mineralogy of the ROM Ore/ Mineral:** Details may also be provided for Hematitic siliceous ore.
43. **Para 3.2: Complete Chemical Analysis of the ROM Ore/Mineral:** Details may also be provided for Mn ore, Float ore and Hematitic siliceous Iron ore.

### **CHAPTER-4-MINING OPERATIONS:**

44. **Para 4.2.1.2.1: DUMP DETAILS:** (i) there are in-active stabilized dumps in the lease area, details of same also need to be provided in this para. (ii) This para refers Inventory of existing Pit & Dumps, details of only existing dumps may be provided, proposed dump information may be deleted. (iii) In location column, location of the existing dumps may be given in UTM grid.
45. **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) In type of dump column, lumps/fines/ROM details may be provided along with the grade.
46. **Para 4.2.2.1: Bench Parameters:** (i) 6m height and 6m width are not advisable in float ore. The maximum height of the bench should be 3m in the float ore and width of the bench should be more than height. Further, Maximum working depth in the float ore is mentioned as 2m, but bench height proposed in float ore is 6m. (ii) Benches in OB mentioned as zero, however, bench height & width

mentioned. (iii) The depth of working and depth of water table may be given in mRL. The entire Table under this para may be reviewed in detail and suitably corrected.

47. **Para 4.2.2.2: Year wise Opencast Development:** (i) ROM quantity, Recovery percentage and other details given are not tallying. The same may be reviewed and suitably corrected. ROM quantity proposed should not exceed the capping fixed by CEC. (ii) Number of benches proposed may be suitably corrected as per the comments given in para 4.2.2.1. Benches top mRL and bottom mRL in the proposed year may be given in Bench column. (iii) Bulk density of the different type of ore proposed to be mined during the plan period may be given at the foot note of the table.
48. **Para 4.3.2: INSITU MINING:** (i) The details given in this para may be corrected as per the comments given in para 4.2.2.2. (ii) Fe grade range may be provided along with Avg grade. (iii) OB to Ore Ratio given as Ore to OB, the same may be corrected and in the foot note OB to Ore ratio calculated ton/ton may be mentioned.
49. **Para 4.3.4: Calculation Summary:** The details given in this para may be corrected as per the comments given in para 4.2.2.2.
50. **Para 4.6.6: Material to be handled per Shift:** Only total quantity of material to be handled is to be given.
51. **Para 4.7.1: Existing Dump:** No information in this para. All the exiting dumps details in the lease area may e provided.
52. **Para 4.7.2: New Dump:** Some of the columns in the table are merged, the same may un-merged and nil information may be provided. The backfilling details given in the table may be mentioned at foot note of the table.
53. **Para 4.7.4:** New Stack locations proposed for the five year period combinedly, the same may be proposed year-wise.
54. **Para 4.8: Mineral Waste Handling To Utilize As Minor Mineral:** It may be mentioned as no proposals. Merged rows/columns may be unmerged and nil information may be provided.
55. **Para 4.9: Use of Minerals:** In the chemical analysis other radicals analyzed may also be provided. Under Proposed use of Mineral, It may also be specified in the foot note as direct selling through Auction process as per the procedure existing in the State of Karnataka.

#### **CHAPTER-5-SUSTAINABLE MINING:**

56. **Para 5.1:** (i) It should be specifically mentioned under this Para " Sustainable Mining and SDF implementations during the plan period will be carried out in accordance with Rule 35 of MCDR 2017".
57. **Para 5.2.1.1:** Area to be developed for Recreation: Under this para same details of providing furniture/ fixtures/Electricals for community Hall Budget Rs.15 lakhs is given for year 2023-24, 2024-25, 2025-26 & 2026-27 which may be verified for correctness or clearly mentioned for budgetary provision every year.
58. **Para 5.2.13:** It is advisable to give the proposal of green Energy consumption every year.

#### **CHAPTER-6- PROGRESSIVE MINE CLOSURE PLAN:**

59. **Para 6.1: Status of Land:** The extent of Virgin area under Green Belt in Hectares needs to be calculated and given.
60. **Para 6.2.1:** (i) Quantity of waste available for backfilling may be specified in this para. (ii) Float ore mentioned along with pit ID may be deleted and the same may be provided in the foot note.

61. **Para 6.2.2.1:** proposed fencing, location co-ordinates may be given in UTM grid.
62. **Para 6.2.2.2:** (i) Proposed retaining wall length may be mentioned, other information given in this column may be deleted. (ii) Proposed retaining wall location co-ordinates may be provided. This comment is also applicable to Para 6.2.2.3, garland drain.
63. **Para 6.2.3 Green Belt development**, some of the cells in the table are empty, details may be provided.
64. **Para 6.2.3.2:** Details given in area proposed to be covered in plantation may be deleted and may be mentioned as 'Nil'. The details of Gap plantation may be given in
65. **Para 6.2.7. Dump area Stabilization & Development** – Year-wise proposal may be given as per the format.
66. **Para 6.2.11:** Land use of lease area at the expiry of lease period (conceptual stage): (i) The details under this chapter may be rechecked and corrected keeping in view the proposed extent of concurrent back filling of the mined out pits and reclamation of the same. (ii) Details of Area covered under utility services may be mentioned at the foot note of the table. (iii) The degraded areas will be reclaimed and rehabilitated by suitable plantation as well as re-grassing so that the land is restored for future use may be mentioned in this para.

#### **CHAPTER-7- FINANCIAL ASSURANCE/PERFORMANCE SURETY:**

67. Area to be utilized should be provided separate for each year.
68. Revised bank guarantee as per the Mineral Conservation and Development (Amendment) Rules, 2021 needs to be submitted.

#### **CHAPTER-8- REVIEW OF PREVIOUS PROPOSALS:**

69. **Para 8.1.2:** Since the last approved document didn't have SDF proposals, accordingly it should be mentioned "Not applicable" under this para.
70. **Para 8.3:** Since there were no proposals in the last approved plan period under Socio-Economic Review, accordingly under para 8.3.1, 8.3.2, 8.3.3.1, 8.3.3.2, 8.3.3.3, 8.3.3.4 & 8.3.3.5 it should be mentioned "Not applicable".

#### **CHAPTER-9- IMPACT ASSESSEMENT:**

71. 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.

#### **PLANS & SECTIONS:**

72. List of all the plates should be submitted and indexed.
73. **Plate IB:** CEC sketch enclosed does not contain lease boundary pillar co-ordinates. The lease sketch should be with lease boundary co-ordinates authenticated by State Government.
74. **Plate III: Geological plan** – (i) Strike & Dip information of the ore body/lithologies may be provided in the plan. (ii) Manganiferous Clay area has not been explored by drilling. Bore holes may be proposed to explore the area. Accordingly area under different level of exploration & non-mineralized are information may be updated in text and in plates. (iii) In the Geological Index, different ore types given may be corrected as (a) Hematitic Iron Ore – Float, (b) Hematitic Iron Ore –

Reef and (c) (a) Hematitic Siliceous Iron Ore (HSIO). This comment is applicable to all the plates where different type of Iron is mentioned in the Index.

75. **Plate IVA:** In Geological Cross section E-E' and F-F', the reserves category (UNFC code 111) considered beyond the depth of drilling, the same may be reviewed and suitably corrected in Text and Plates.
76. **Plate IVC – Graphical lithologs:** In some of the logs, grade of the ore is not provided, the same may be provided.
77. **Plate V:** Previous Years pit advancement (layout) may be shown in Production & Development Plan of 2023-24, 2024-25, 2025-26.
78. Production and Development Section may be given separate for each Year
79. **Plate VIIA:** Section lines may be drawn on the Progressive Mine Closure Plan.
80. **Plate IX:** Section lines may be drawn on the conceptual plan for easy reference.
81. Financial Assurance Plan is not provided, the same may be provided.
82. All the plans & sections may also be updated in softcopy (.kml/.shp) as per the comments given above and in text.

**ANNEXURE:**

83. The numbering of annexure has not been sequentially maintained as per the format. Numbering of annexure to be specifically 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.
84. Undertaking/Consent letter from the lessee may be digitally signed by the lessee.
85. Copy of Valid Bank Guarantee for the entire plan period as per the amended MCDR Rule 2021 needs to be submitted.
86. 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.

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