SCRUNITY COMMENTS ON MODIFICATIONS TO THE APPROVED REVIEW AND UPDATATION OF MINING PLAN IN RESPECT OF NARAYANPUR MANGANESE AND IRON ORE MINE (ML NO. 1602) OF M/S NARAYAN MINES PVT. LTD., OVER AN AREA OF 107.54 Ha IN NARAYANPUR VILLAGE, SANDUR TALUK, BELLARY DISTRICT OF KARNATAKA STATE

DETAILS OF APPROVED MINING PLAN

1. Para 3.6: In reasons for modification of approved RMP, enhancement of reserve and resources in light of revised threshold value notification by IBM and proposal of change in working pit development are not mentioned.

PART-A

2. Para 1.0 (c): In geology of the lease area physical and chemical property the siliceous ore may be discussed with recovery% and quality of lumps and fines.
3. Para 1.0 (i): It is evident from the geological plan and sections that discontinuance of ore body has not been proved by the earlier exploration and ore body is persisting below the drilled boreholes. In view of the revised threshold value notification by IBM dated 25.04.2018 and in accordance the Rule 12(4A) (b) of the Mineral Conservation and Development (Amendment) Rules, 2018 suitable proposed exploration programme should be adopted for this ML area.
   Eastern extension of the manganese ore reef is remained unexplored (ref. section D-D', E-E'), suitable exploration proposal also to be given for this area.
4. Para 1.0 (j): In this chapter, justification of considering 295,534 tonnes of siliceous ore into proved reserve category (UNFC Cat. 111) are not furnished. Economic evaluation of siliceous ore, end use of such material, marketability and existing/proposed beneficiation or blending practice should be elaborated in details before placing siliceous ore into reserve category.
   Feasibility study report of the siliceous ore along with financial analysis for economic viability of the deposit as specified under the UNFC field guidelines is not enclosed with the document.
5. Para 1.0 (k): In estimation of reserve for siliceous iron ore, recovery factor is considered as 100% (Ref. table-20); the same should be duly substantiated by the recovery analysis report. As per the enclosed bulk density report, average bulk density for the haematitic iron ore is mentioned as 2.95, whereas in the reserve and resources estimation the Bulk density is incorrectly considered on higher side as 3.
   Reserve calculation for manganese ore along section no. A-A' should be placed under UNFC Cat. 122 as borehole spacing for this particular section is more than 100m.
6. Para 1.0 (l): Reserve of the deposit may be updated as on 31.05.2018 by depleting concurrent mine production.
7. Para 2.0 (a): (i)From the section it is evident that the working for manganese ore will be carried between section lines A-A'to E-E'.The same may be corrected at all the places in the text and plates.(ii) During the site visit there were two old waste dumps besides Manganese pit towards western side. These dumps have not been considered/ mentioned in the details of existing dump in Table No.29. The same may be included.
8. Para 2.0(b): (i)The tonnage conversion factor (TCF) or Bulk density and recovery factor of each of the material handled in the mines may be established on time series or substantiated by study report if available. (ii) Another table may be inserted after Table no.34 giving the dump

identification no., year wise handling, estimated recovery of saleable ore & quantity of reject likely to be generated in case of dump rehandling.

9. Para 2.0 (C): (i) Future Working & dumping proposals may be described in particular with respect to waste dump. (ii)The new area identified for dumping may be proved for non-mineralization before the dumping operation starts.
10. Para 5.0 (a): In requirement of end use industry use of siliceous iron ore (Fe 35 to 45%) is not discussed.
11. Para 5.0 (b) and (e): Statement is incorrect and inconsistent with the economic evaluation of reserve for low grade siliceous iron ore.
12. Para 5.0 (d): Chemical specification stipulated by the buyers should be given in respect of other constituents also viz. Al2 O3, SiO2, Mn etc.
13. Para 6.0 (a): No proposal/discussion is made on up-gradation and utilization of siliceous iron ore (Fe 35 to 45%), please clarify in this regard.
14. Para 8.1: The environmental monitoring stations in core & buffer zone may be given in a tabular column.
15. Para 8.2: The sources of air, water and noise pollution (considering all the possible sources of pollution in mining activities), existing mitigation method and proposed mitigation methods may be enumerated in a tabular form.
16. Para 8.3.1: Year wise proposal of proposed R & R work planned to be carried may be given in a separate table.
17. Para 8.3.5: Year wise details of plantation, no of saplings, area covered, survival rate and species proposed may be given in a tabular form. Accordingly year wise proposals may be given in the PMCP table.
18. Para 8.6: The Table No.51 may be cross checked for correctness.

PART-B

19. Para **10, Plates:**
    a) Surface Plan (Plate No.IIa): (i)12 No. of iron ore stocks & 04 Nos. of Manganese ore stock as mentioned in the text may be shown clearly.(ii) All the surface features indicated in the map like R5,R3 ,VBP 4 etc. may be shown in the index appropriately.
    b) Geological Plan (Plate no. II/b): Standard symbols should be used for drilled boreholes, Manganese float ore zone to be demarcated clearly. Boreholes ID nos. are not legible in the plan.
    c) Geological Sections (Plate no. IIc): Geological sections from section nos. L-L' to T-T' are not provided with the document. Boreholes should be proposed and demarcated in the sections where ore body is still continuing below the proven limit. Similarly suitable borehole proposals should be given in the manganese ore reef sections.
    d) Production & Development Plan (2018-19) (Plate No.III/a): Working of Manganese pit may be shown in a different colour.
    e) Financial Area Assurance Plan (Plate No.VII): Detailed breakup of the area to be marked on the plate with different colour.

Annexures: Any type of stamping should be avoided in the annexure**.** Following items are required to be annexed with the document:

a) Certificate of Lessee: The condition of CCOM circular No:-2/2010 should be incorporated.
b) Copy of the recovery analysis report for siliceous iron ore and manganese ore (size-wise, grade-wise).
c) Feasibility study report of the deposit with economic evaluation of considering 295,534 tonnes of siliceous ore into proved reserve category (UNFC Cat. 111).
d) Bulk density analysis report for siliceous iron ore.
e) Copy of chemical analysis report for BHQ and waste from NABL or similar accredited Lab.

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