ANNEXURE

SCRUTINY COMMENTS ON DRAFT MINING PLAN OF NARASIMHA IRON ORE MINE (AUCTIONED BLOCK, M. L. NO. 2148) OF M/s MSPL PRIVATE LIMITED.,(PREFERRED BIDDER), (FORMERLY THE LESSEE/ COMPANY IS SWAMYMALAI IRON ORE MINE OF M/s H.G. RANGAN GOUD), OVER AN AREA OF 60.66 HA., IN VILLAGE DHARMAPUR, SANDUR TALUK OF BALLARI-DISTRICT, IN STATE KARNATAKA. SUBMITTED FOR APPROVAL, UNDER RULE 16(1) OF MCR, 2016. SWAMYMALAI/ KUMARASWAMY RESERVED FOREST, CATEGORY OF THE MINE IS A-FM (FULLY MECHANIZED). CAPTIVE, FOREST. FOR FIVE YEARS PERIOD.

COVER PAGE

1. The auctioned block mining lease expiry date is not given. The forest is given as Swamymalai block, but in the introduction part it is given as Kumaraswamy reserves forest. In the light of the above remarks, the para need to be attended and corrected and other places of the text wherever applicable.

2. The list of annexures given, which must be added with number of pages in each annexure by adding with another column for clarity. (ii). The annexure-iv, the qualification certificate is not appropriate. Original certificate may be replaced. (iii). The core bore holes logs enclosed drilled by MECL, found to be not authenticated and there is signature of the MECL authority. (iv). The photographs enclosed are not adequate, pit no-1, pit-no.2 & etc., are required to be enclosed in color photographs along with waste dumps, stacks, infrastructures.

3. Introduction: On the cover page it is given as Swamymalai reserve forest, but in this it is mentioned Kumaraswamy reserves forest. Care should be taken to furnish the correct statement & datas.

4. In table no.1, page no.6, given that the lessee applied for FC in form-A…without any date & further details for reference. (ii). In the same table, forest land is indicated without giving full details of RF.

5. Para 2(a), the name of the preferred bidders is given as M/s MSPL, but who is the nominated owner for this company may be given. (ii). The para 2d, it is mentioned Sandur reserve forest, but in other paras it is given as swamy malai/ Kumaraswamy reserve forest. Therefore, it is expected to give correct name in this respect in the text paras and also in the plates.

Part-A

6. Para 1(c): it is given the deposits occur as a reef at 45%Fe cut-off, and recovery of iron ore is 90% & 10% constitutes intercalated waste such as shale, BHQ etc., but how about the presence of +35%Fe siliceous ore as per the thresh hold limit of IBM not discussed.

7. Para 2(i), table no.9, the future exploration programme, given with 08 nos. of RC drills, of bore holes for 1st three years found to be very less, which needs to be increased suitably for all the five years period by proposing some more to 25 nos., of bore holes. By increasing the bore holes, we can re-assess the reserves/ resources including the siliceous ores; will help in better planning, scientific mining operations.

8. In para 2(L), under reserves/ resources, it is indicated that the mineral resources may be estimated purely based on level of exploration, with reference to the threshold value of minerals declared by IBM, if it is so, as per the table no.10, reserves/ resources are as per the cut off grade of +45% Fe only and not as per the latest threshold value of +35% Fe. The justification for not calculated/ assessed +35% Fe may be explained.

9. Para 2A (a), the exiting waste dumps, stacks and other infrastructures are not discussed in this para. (ii). The proposals drawn to work between co-ordinates E 664000 to 664850 N 1663400 to 1664500 for five-year plan period, but the proposal to work from top to bottom by slicing method is not indicated. Similarly, the dumping/ stacks also not discussed. (iii). Table no.13, the proposals for pit number is indicated with co-ordinates E 664000 to 664850 N 1663400 to 1664500, instead of pit number.

10. Para 2A(c), it is proposed to dump the siliceous ores also in the proposed dump yard PTD1, along with other waste materials is not a appropriate proposals, better the siliceous ores may be segregated and kept separately in the beginning of the mining operation, instead of later period to

collect from the main waste dump PTD1. Care should be taken in the proposals in the text para/ plates. (ii). The proposals in the 1st year working, the bench height is proposed for 9m with the width of the bench is 9 to 10m, but in para 2(d), 10m bench height & width of bench will be 10m and above. In the light of the above remarks, the text para need to be checked and corrected appropriately without any difference. (iii). Under recovery factor, it is given 90% of ore & 10% of mining loss & processing loss, but the processing loss is not appropriate.

11. In page no.33, the bulk density considered by MECL is 3.47354t/cum is found to be higher side, when compared to the other mine which is 3t/cum, i.e, vyasanakere iron ore mine of M/s MSPL. The reserves/ resources calculated based on this bulk density in para 1(L) need to be reconciled.

12. Para 2(f), under conceptual mining plan, the back filling is given in page no.34, i.e. PTD1 + Back filling =7.229 Million Cu.m, when actually the proposed back filling will be undertaken and the location may be mentioned. (ii) The quantity of generation of waste during conceptual period and their location disposal has not been discussed. (iii). Incorporated Table of Implementation Schedule of mitigation /engineering measures should be as per approved R & R plan. (iv) The standard table of existing land.

13. Table no.20, under the details of land use existing, it is given 0.96 ha of land in the existing, but in the 1st five years as 00 ha, similarly in the conceptual stage also as 00 ha, how this existing road of 0.96 ha area getting zero may be explained. The waste dump ID-1 & ID-2 of 6.34 ha is reduced to 4.27/ subsequently to 3.29 ha, in the 1st five years/ conceptual period may be explained.

14. The sub grade ore dump, in page no.37, assessed by state DMG need to be given through color photographs in the annexure side for future reference.

15. Para 5(a), the chemical composition of processed ore is at 45% Fe cut off grade, for five years period, if it is so, how about the siliceous ore of +35%Fe, what is the effort that is going to be taken for the siliceous ores may be dealt in this chapter for future reference.

16. Para 7, it is given transportation of ore from mine to pellet plant, how the loading at railway siding will come may be explained.

17. Para 8.3.1, under mined out land, the details of reclamation / rehabilitation may be dealt in specific, what type of reclamation will be undertaken.

18. Table no.32, need to be attended and checked at serial number, 3, 6, & 12(ii).

Part-B

Annexures:

19. A copy of MECL report (text part) should also be appended in support.

20. Feasibility study report :--(i) The feasibility report submitted reveals different ore to OB ratio, compared to the one submitted text para.

21. Annexure-XVII, about the mine workings photographs, which must be also with name of the mine & lessee/ previous & the present preferred bidders.

Plates:

22. Plate No.II (Key Plan): The approach road to the ML area with distance from the known place needs to be marked.

23. Surface Plan: (Plate No. III):The three Ground control points should be given in the main plate itself / plan, instead of giving separately. (ii). The existing bore holes either core drills or the RC drills need to be shown with red color in a standard notation as per the MMR 1961, (iii). The proposed bore holes for the future periods may be given in other than red color year wise separately. (iv). The boundary of pit No.1 & 2 must be demarcated suitably for reference. Mining old pits need to be shown legibly with number or names for reference. (v). The pits, dumps, stacks are must be depicted in the index/ plan as per the standard notation given in the MMR 1961. (vi). All the proposals given in the text and the plates must be given based on the valid lease area, instead of giving outside areas. In the light of the above remarks, the text and all the other plates may be attended.

24. Plate No -IV (Geological Plan): (i) The plan may be as per rule 32 (1) (b) of MCDR 2017. (ii). All the proposed bore holes may be given with other than red color, both in the index and in the plan & section as standard notation practice. (iii) Proposed BHs may be specified with, core bore holes/ RC drill holes, better to attend correctly, without any difference and confusions. (iv). Ultimate pit limit in the plan and the ultimate pit slope in the sections must be attended appropriately, instead of ultimate pit limit in both the cases. (v). The geological notations used in the index in this plate and in other plates must be same without any changes/ difference to avoid confusions. (Example in plate no.VIIA, the friable ore of +45%Fe & 55%Fe, reveals different.). (vi). The lateritic cover indicated on the southern side of the ML area, where the present temporary dumps proposed may not be correct, as per the observation in the field during the site inspection, there is all the possibility of occurrence of ore body of +45 to 55%Fe beneath that level. (vii). The future planning for development & production must be in such a way for scientific & systematic mining will prevail.

25. Plate No V (Geological Cross sections): (i).The remarks given in the geological plan may be considered for geological sections.

26. **Plate No –VII-A** (Year-wise Production and developments Plan**):** (i). The proposal should be drawn to work from top RL to the bottom RL and the direction of advancement of faces should be depicted accordingly on the plan. (ii). The working faces shown for 1st year development & production plan without revealing the approach road & exit roads from the working faces and also the waste dump faces. (iii). The approved production proposals of 0.77 million Metric tons from CEC need to be maintained for the five years period, till further changes from the CEC, New Delhi.(iv). The proposed infrastructure location may be used for continuation of waste dump location from ID2 and the ID1 adjacent location area may be used for infrastructure. (v). the PTD1 area/ location may be used in the development and production advancement from towards the boundary end, will be advantage on the mineral conservation point of view.(vi). The remaining four years workings should be carried out considering the 1st year development/ production plate remarks for better planning.

27. **Plate No.** (Production section**):** This sections should be attended in line with the remarks furnished in para 2A and above production plan.

28. **Plate Nos. 09 (**Conceptual plan & sections**)**: (i). From which RL the back filling is undertaken and the method of back filling undertaken and sources utilized for the same may be revealed in the sections for the clarity. Besides, the plan and sections should be such that, what would be position of workings at the time of conceptual stage must be visualized and brought out accordingly. (ii). During the conceptual stage, the back filling undertaken using the waste dumps in the worked out area and in some areas bench plantations are undertaken without using waste some areas are need to be depicted accordingly showing the difference. (iii). In the sections, even though in working pit no.1 area plantations only shown without undertaking back filling with waste, if it is so, than the existing profile must be brought out, instead of showing original topography. (iv). If there is a chance for water reservoir, it should be undertaken and brought out accordingly.

29. Plate No-X (Reclamation Plan): (i) Proposed environmental monitoring station at core-zone should be properly reflected. (ii). Water monitoring station at water discharge point of ML area should also be proposed. (iii) The proposed year-wise afforestation and other environmental protective measures at toe of dumps should properly highlighted in plan. (iv). Proposing back filling from 2nd five years need to be sure for exhaustion of ore body from the location selected/ proposed, without which no back filling should be commenced. (v). This plan should be prepared similar to conceptual plan/ sections, considering the back filling i.e. reclamation & rehabilitations.