

**SCRUTINY COMMENTS ON THE REVIEW AND UPDATION OF MINING PLAN IN RESPECT OF VEDANTA IRON ORE MINE, OVER AN EXTENT OF 160.59 HA, SUBMITTED BY M/S VEDANTA LIMITED, SITUATED INMEGHALAHALLI, BOMMAVVANAGATHIHALLI, MADAKERIPURA, CHOWDENAHALLY, TANIGEHALLI, HIREKANDAVADIVILLAGESCHITRADURGA AND HOLALKERE TALUKS, CHITRADURGA DISTRICT OF KARNATAKA STATE**

***The final submission of Text, Annexures and Plates both in soft and hard copies are to be done specifically in accordance with IBM Circular no. 1/2021 and FAQ on the Mining plan template published at IBM website following both in toto. The final copies submitted should be digitally signed by the Qualified person and the Nominated owner.***

1. It has been observed while examination of the submitted draft document that the production proposals have been given for 7.2 MMTPA. (Million Metric Tonne per annum) with a reason mentioning, Lessee is proposing expansion of production from this mine to 7.2 MTPA and for EC enhancement the current RMP document is required. The Hon'ble Supreme Court of India Vide order dated 14.12.2017 in W.P No. 562/2009 has fixed the production cap of 7.00 MMT for Chitradurga and Tumakuru districts. The CEC vide letter no F-275/CEC/SC/2018-Pt VII dated 4th March-2020 have fixed permissible Annual production limit of 5.89 MMT with a condition that the State Government will ensure the sum total of annual production from all the lessees does not exceed 7 MMT in Chitradurga and Tumkur. Further The State Government vide order no DMG/MLS/PE/16/20020-21 dated 22nd Feb 2021 have fixed the Maximum Permissible Annual Production to 5.597 MMT for Vedanta iron ore Mine. The EAC committee, in its meeting held from 16th to 19th Aug, 2021 have also observed and pointed out the same, for the EC proposal for expansion of iron ore production from 6 MTPA to 7.2 MTPA advising project proponent to withdraw the application.

***The above production proposal of 7.2 MTPA is not acceptable due to reasons mentioned above.***

**COVER PAGE**

2. Rule 17(3) to be corrected as 17(2). Village name "Bommanagattihally" to be corrected as "Bommavvanagathihalli".

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3. i) Page No details to be mentioned for Part-A. Part-B with heading "**Annexures**" should be added and the specific annexure details and page no to be provided. Part-C with heading "**Plans & Sections**" to be also added and the specific plate no details to be provided.

**CHAPTER-1-GENERAL INFORMATION(Pg. 1-5)**

4. i) Para 1.1.1-Initial/ Subsequent lease grant details-(Pg. no 3)- All the lease deeds from initial grant to be enclosed as mentioned in the table. The Lease Registration date under the row 4<sup>th</sup> extension to be corrected as "13/2/2015 as mentioned in Annexure-2a. The Annexure-1 & 2 reference which is given under this Para have not been found in List of annexures. The same should be checked and corrected.  
ii) Para 1.2-Land Ownership details-(Pg-4)- The survey number has been mentioned in the attached Lease Deed-Annexure 2a. The same may be mentioned under Khasra no/compartments no column. The village name to be corrected as mentioned above in scrutiny comment no 2.  
iii) Para 1.3.1- Approval of earlier mining plan & its subsequent review (Pg-4)- All IBM approval letters for Mining plan to be enclosed as Annexure and reference to be given under the Para.  
iv) Para 1.3.4-Statutory clearances- The Environmental Clearance letter no to be corrected as "J-11015/1167/2007-IA. II(M).  
v) Para 1.3.5- Mine Location Details- (Pg. no 6)- Topo sheet no is mentioned as 57 B/3, 57 B/4, 57 B/7 & 57 B/8 in the Key plan (Plate-1b). It may be checked and corrected accordingly in this para.  
vi) Para 1.3.5.1- The pillar co-ordinates are not matching with the DGPS cadastral plan (Plate-Id) & the co-ordinates as given in surface plan. The pillar co-ordinates as given in DGPS cadastral plan in WGS-84 datum and approved by the State Govt to be given under this Para.  
vii) Para-1.3.6- Owner/Nominated Owner Details-(Pg. 6)- The Board Resolution nominating the Owner attached with the document is of 28<sup>th</sup> October 2016. Also, it was understood from the Lessee that the current designation of Mr. Sauvick Majumdar is CEO Iron and Steel Sector whereas enclosed Annexure-4 mentions Chief Operating Officer. The latest copy of the minutes of Board Resolution nominating the Owner under the Mines Act 1952 /The Occupational safety, health and working conditions code 2020 and Mines and Minerals (development and Regulation) Act 1957 and rules made there in should be enclosed and details in this section should be given accordingly. The copy of PAN of Nominated owner to be also enclosed as annexure and reference to be given under the Para.  
viii) Para-1.3.7-Qualified Persons Details-(Pg-6)- The PAN of QP's to be also enclosed as annexure and reference to be given under this Para

**CHAPTER-2-GEOLOGY AND EXPLORATION (Pg. 7-25)**

5. i) It was observed during examination of the Geology Chapter that the authentic Geological data have not been provided. The Lessee has reported 15 nos. of boreholes drilled with total meterage of 5276 m in AR 2019-20 and "**NIL**" drilling for the year 2020-21 in AR 2020-21 and also same was reported by Lessee during inspection. The last approved document also mentions 5276 m drilling with 15 nos. of boreholes for the year 2019-20. However, in the current submitted document 7482m drilling with 22 nos. of boreholes have been mentioned. Such type of errors is not expected. The extra boreholes have been shown on the Geological plan/section (Sec 3-3') for example ANDD-368 which absolutely has no record thereby leading to misinterpretation in quantum of drilling

requirement of deeper boreholes for upgrading G-3 resources to G-1. Similar case with Sec 6-6' & Sec 8-8' for borehole ANDD-364 & ANDD-363 respectively. Since there is no exploratory drilling reported/carried out after the last approved document, all the Geological parameters to remain same as per the last approved document.

ii) There is mismatch in the Lithology as given in the Borehole Database-Annexure-12(Geology file) and as shown in the Geological sections(Plate-2c). For e.g., in Sec-12-12' for borehole ANDD-351 the borehole database shows manganese clay whereas in Geological section it shows Ferruginous shale/phyllite. At sec 8A-A' borehole ANDD - 249 the borehole database shows major siliceous ore in the log whereas in Section only Haematic ore and BHQ is shown. Sec 9-9' for Borehole 291 mentions Manganese clay whereas in Geological section it is shown Ferruginous shale/phyllite. Likewise for borehole ANDD-255 at Sec 9A-A' shows Siliceous ore till 133 m in borehole database whereas Geological section depicts BHQ below 50 m. Likewise for ANDD-299(Sec 9A-A') showing Manganese Clay & Siliceous ore in borehole database and Geological section showing Ferruginous shale/phyllite. Similar errors are found at Sec 13A-A', 14A-A', 15-15', 16A-A', 17-17', 18-18', 18A-A', 19-19', 20-20' for boreholes ANDD-258, ANDD-287, ANDD-356, ANRC-128, ANDD-349/343, ANDD-360, ANDD-231, ANDD-332, ANDD-326 respectively. The Lithology as depicted in plan/sections are Iron ore (+45 %), Siliceous ore (+35 % to 45 %), Banded Haematite Quartzite (+25 % to -35 % Fe), Ferruginous Shale/Phyllite & Igneous intrusion whereas in borehole database Manganese clay, Phyllite clay etc lithology have been mentioned. The Lithology as mentioned in the sections should be similar as per the bore hole log. If the other major/minor minerals are found in the borehole log then the Reserve/resource estimation of the same should be also done.

iii) The Chemical analysis data of boreholes as given in Annexure-13 is not relatable with the respective boreholes, except boreholes ANDD-315,317,318,320,321,322,325,326,327,330 which is at the starting part of annexure. The sampling analysis reports are in random with no mention of the boreholes and other details. The complete borehole details have not been recorded as per Form-J with metre-wise Lithologs and chemical analysis in accordance with Form-J of MCDR 2017. The borehole database at annexure-12 and the sampling analysis of the respective boreholes is not relatable and further the lithology depicted at the section.

iv) In the last approved document, Sec-1A-A', 2A-A', 3-3', 3A-A', 11-11', 13A-A', 14A-A', 18A-A', 19-19', 20-20' mentions resources under 333 UNFC category. It was communicated during inspection that the borehole assessment at these sections to be carried out thoroughly so as to convert these resources into G-1 category at depth also. The same has not been assessed correctly. At some of the sections like 3A-A', Resources under 333 UNFC category shown in the last approved document, has been changed to 331 category along with change in UPL. Sec 14A-A' Resources under 333 has been changed to 111 category. Further boreholes that are proposed also are not sufficient to upgrade G-3 resources to G-1 at depth. For e.g., at Sec 18A-A' only one borehole is proposed (PBH-4) which may not be sufficient for upgrading entire G-3 area at depth to G-1. Likewise for other sections also as mentioned above, either the boreholes are not proposed or are not sufficient to upgrade G-3 resources in the earlier approved document to G-1.

v) **It has been also observed that backfilling proposals are proposed from Sec 7A-A' to Sec 10 A-A'. There are major errors in the Geology as mentioned above which also includes these sections. As per the last approved plan, it was proposed that workings will be carried out between section 8-8' to 14-14' to exhaust ore present there, but it was observed during site inspection that lateral and vertical development of benches of Southern block from Sec-10-10' to Sec-15-15' were not carried out as per the approved proposal. Accordingly in the current plan period backfilling proposals cannot be proposed. In the current plan period, exploratory drilling to be proposed at the relevant section where deeper holes are required to prove the haematic siliceous ore/haematitic ore at depth. Complete extraction of iron ore equal to and more than 35 % Fe to be carried out between section 7A-A' to 14A-A' before backfilling so that sufficient space/width is available for carrying backfilling stage wise systematically and avoiding any ore & waste dilution.**

6. i) Para 2.14.2- Structure-(Pg.8)- The last approved document mentions ore body depth as 300 m from surface (Pg-9 of the approved document). Since there is no exploratory drilling carried out after the approval of the document, the parameters to remain same as per the last approved document.

ii) Para 2.1.4.3-Lithology-(Pg-9)- Corrections to be incorporated as per above scrutiny comment no 5.

iii) Para 2.1.4.6-Nature/Form of Mineral (Pg-9)- "Lump" to be also included under the Para.

iv) Para 2.1.4.7-Extent of Mineralization (Pg-9)-The last approved document mentions 20-25 % lumps (+10 mm) and 75-80% fines (- 10 mm) and ore body depth 300 m from the surface. The relevant details under the para to be corrected accordingly as per the last approved document(Pg-19). The average depth may be corrected as per above scrutiny comment.

7. i) Para 2.2.1.7-Exploratory Drilling (Core/ Non- Core)- (Pg-11)- a) For the year 2019-20, authentic exploratory drilling figures to be given as reported in AR-2019-20 as per above scrutiny comment no 5(i). Also, for the year 2020-21 & 2021-22(till Sep-21), specifically 'NIL' may be mentioned, under no of boreholes and meterage column.

b) **The log-sheet of each borehole as per FORM-J format under Rule 48(1) of MCDR 2017 recording particulars in respect of each borehole, duly certified by the Geologist to be enclosed incorporating all corrections as mentioned above in scrutiny comment no 5. Annexure-12 to be corrected accordingly.**

- ii) Para- 2.2.1.9-Sampling-(Pg-11)- Location of sample in Latitude and Longitude (**Borehole extent location**) to be given in the table. The reference of Form -J to be given under this Para. The borehole database enclosed as Annexure-12 to be also corrected as per above scrutiny comment
- iii) Para-2.2.1.10-Chemical Analysis-(Pg-12) The chemical analysis report enclosed as Annexure-13 is not proper as mentioned above in scrutiny comment no 5(iii). The corrections to be incorporated in Annexure-13 accordingly. All the radicals for which analysis have been done like Fe, SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub> to be mentioned. The NABL accreditation certificate of the lab to be also enclosed and reference to be given under this Para.
- iv) Para- 2.2.1.13- Bulk density-(Pg. 12)- The NABL certification of the laboratory along with the scope of test works for the lab, which includes Bulk density testing has to be enclosed as Annexure and reference to be given under this Para. Under the nature of Ore/OB column "In-situ ore/Waste" to be mentioned instead of "Powdery". "Hematite" mentioned may be corrected as "Hematitic ore" & "Siliceous Hematite" as "Hematitic Siliceous ore". The bulk density testing of waste (BHQ & waste for which B.D is considered as 2.2 & 1.7 respectively at latter part of the text) may also be carried out and details to be added in the table and supporting reports to be enclosed in annexure.
- v) Para- 2.2.1.14- Area Covered under Exploration-(Pg-12)- The area under different exploration limits should be as per the last approved plan since no exploratory drilling is carried out after the approval of the last document. G-1-99.16 ha & non-mineralized area-61.43 ha (Pg-22 of last approved document). The corrections to be incorporated under this Para and related annexures and plates.
8. i) Para-2.2.2.7-Exploratory drilling-(Pg-14)- The Litho-log and chemical analysis details of the previous drilled boreholes as per Form-J format of MCDR 2017 may be enclosed. Corrections to be incorporated in Annexure-12 as per above scrutiny comment no 5.
- ii) Para-2.2.2.9-Sampling-(Pg-14)- The corrections to be incorporated as mentioned above in scrutiny comment no 7(ii).
- iii) Para-2.2.2.10-Chemical analysis-(Pg-14)- The corrections to be incorporated as mentioned above in scrutiny comment no 7(iii).
- iv) Para-2.2.2.13-Bulk density-(Pg-15)- The corrections to be incorporated as mentioned above in scrutiny comment no 7(iv).
- v) Para- 2.2.2.14- Area Covered under Exploration-(Pg-15)-a) The corrections to be incorporated as mentioned above in scrutiny comment no 7(v).
- b) Under second table of this para also area converted to G-1 from G-2, G-3 & G-4 and related figures have not been given correctly. The details to be given for the year 2020-21 and 2021-22 (till Sep-21) only as per the area mentioned in the Last approved document. Since no exploration carried out after the approval of the last document, under all columns it will be "NIL". Further area to be upgraded from G-3 to G-1 at depth, for upgrading 3.882 million tonnes Hematitic ore and 1.391 million tonnes Hematitic siliceous ore to G-1 category to be specifically calculated and same should be mentioned under Remaining area in G-3 along with the calculated average depth.
9. i) Para-2.2.4.2- Resource calculation- (Pg-17-18)- No exploration is carried out after approval of the last document; The last approved document mentions 102.679 million tonnes under G-1 and 3.882 million tonnes under G-3 for Haematitic ore with average grade 51.67 % Fe and 42.464 million tonnes under G-1 and 1.391 million tonnes under G-3 for Haematitic Siliceous ore with average grade 38.02 % Fe as on 31.01.2020. (Pg.-(29) of the last approved document may be referred). The Production figures of Feb-20, March-20 as reported in corresponding Monthly returns and of Year 2020-21 as reported in AR 2020-21 may be depleted. Accordingly, the total resource figure as on 1.04.2021 to be calculated separately for Haematitic ore & Haematitic Siliceous ore. **The total Resource figure including Haematitic ore & Haematitic siliceous ore comes to be approximately (150,386,738-5,715,660=144,671,078 million tonnes)** The complete table under this Para along with calculations to be corrected accordingly and given in Landscape format for better clarity.
- ii) Para-2.2.4.3- Mineral Resource estimate for conversion to Mineral Reserve- (Pg-19)- The details as given in this Para is not related and may be deleted. It is to be specifically mentioned "**The Mineral reserve are estimated from the geological resources by deducting the blocked resources**".
- iii) Para 2.2.4.4- Threshold value & cut off parameters-(Pg-19)- Under this Para it is to be specifically mentioned "Threshold value for Hematic ore is 45 % Fe (Min) and Hematitic Siliceous ore is 35% Fe (Min)" as per IBM notification no. C-284/3/CMG/2017 dated 25<sup>th</sup> April, 2018 and Cut-off grade for Hematitic ore and Hematitic siliceous ore is same as the above threshold value. This should be supported with detailed calculation in the feasibility report as per the Minerals (Evidence of Minerals Contents) Rules 2015. The reference of the feasibility report to be mentioned under the para.
- iv) Para 2.2.4.7- Cost & Revenue factors (Pg-19)- The cost of production has not been calculated correctly in the feasibility study (Annexure-10). Royalty has not been included. The same was pointed during inspection also for making corrections in Part-VII of AR 2020-21. The corrections to be incorporated under this Para and feasibility study report accordingly.

v) Para 2.2.4.11- Calculation of blocked resources (Pg-20)- The details under the table have not been given correctly. Only the quantity estimated under UNFC category 211 to be given. The quantity will be as per the last approved document (Pg-27) which mentions 982,950 tonnes for Hematic ore and 9,537,953 tonnes for Hematitic Siliceous ore. The calculation of blocked resource under this para to be corrected accordingly.

vi) Para 2.2.4.12- Calculation of Reserves (Pg-21)- The Reserves have not been calculated correctly. As per the last approved document (Pg.-26 & 31), 101,663,925 tonnes of Haematitic ore with average grade 51.67 % Fe and 27,142,425 tonnes of Haematitic siliceous ore with average grade 38.02 % Fe, are under reserves under UNFC code 111. Total including Haematitic ore & Haematitic Siliceous ore is 128,806,350 tonnes as on 31.01.2020. Further depleting the production as reported in Feb-20 & March-20 & Year 2020-21 as reported in monthly and Annual returns, the reserves as on 1.04.2021 is, 128,806,350-5,715,660=123,090,690 tons and accordingly it is also reported in AR 2020-21. In the current submitted document, total reserves are mentioned as 122,772,866 tons including Hematitic ore & Hematitic siliceous ore with average grade +45 % Fe for Haematitic ore & +35-45 % for Hematitic siliceous ore as on 1.04.2021 which is not correct.

**\*The mine being a highly mechanized mine with annual production of 5.89 million metric tonnes, the Reserve/Resource estimation may also be done parallelly in Slice plan method and details may be added in Annexure along with the slice plans in list of plates and the variance may be calculated between output of sectional method and slice plan method.**

vii) Para 2.2.4.13- (Pg-23)- All the corrections to be incorporated under tables in this Para as mentioned above. In above tables it should be specifically mentioned Hematitic ore & Hematitic siliceous ore. The Quantity under different UNFC code, avg grade etc. to be corrected as mentioned in above scrutiny comments. The total resource figure in the submitted document is calculated as 139,266,577 tonnes including Hematitic ore & Hematitic siliceous ore whereas it is arrived as **144,671,078** million tonnes approximately as mentioned above in scrutiny comment no 9(i). The total Reserve & Resource figure in this para should match with the total resource figure given above in para 2.2.4.2. The corrections to be incorporated in related text, annexures, and plates accordingly.

10. i) Para 2.2.5.- Future Exploration Proposal (Pg-24-25)- a) The Sl. No under heading Trenching to be corrected as 2.2.5.4 and subsequent subheadings as 2.2.5.4.1, 2.2.5.4.2. The Sl. no under heading Exploratory drilling to be corrected as 2.2.5.5 and subsequent subheadings as 2.2.5.5.1.

b) Under para 2.2.5.5.1- Core/Non-core drilling-(Pg-25) As detailed above in scrutiny comment no 5, Exploratory proposals have not been worked out correctly. In the last approved document, Sec-1A-A', 2A-A', 3-3', 3A-A', 4-4', 11-11', 13A-A', 14A-A', 18A-A', 19-19', 20-20' mentions resources under 333 UNFC category. The deeper exploratory boreholes along all these sections to be assessed and proposed so as to upgrade G-3 area at depth to G-1 as mentioned above in scrutiny comment no 8(v).

c) It is observed that exploratory boreholes have been proposed only in the year 2024-25. As already mentioned above exploratory boreholes to be reassessed and should be initiated right from the First year of plan period and attempt to be made for completion within the plan period at the earliest. The exploratory proposal is to be calculated accordingly and re-distributed for the year 2022-23, 2023-24, 2024-25, 2025-26 & 2026-27. Also, since the ore body is dipping at 50-60 degrees, inclined hole may be worked out rather than vertical holes to target the orebody intersection at required depth. The borehole assessment may be done accordingly.

d) Tables under Para 2.2.5.5.1 should be corrected accordingly. The corrections to be also incorporated in all related plates and annexures.

ii) The Sl. No under heading Exploratory mining to be corrected as 2.2.5.6.

iii) Para 2.2.5.7-Sampling- (Pg. 25)- The Sl. No of this para to be corrected as 2.2.5.7. The type of sample, no of sample, area covered details year wise have not been given. The sampling details for each year as per the proposed exploratory boreholes in accordance with Minerals (evidence of Mineral contents) Rules 2015 to be calculated and given here after incorporating corrections as mentioned above. The sample location extent may also be given under Latitude and Longitude column of the table.

iv) The Sl. No under heading Petrology & Mineralogical studies to be corrected as 2.2.5.8.

### **CHAPTER-3-MINERAL BENEFICIATION/PROCESSING (Pg. 26-30)**

11. i) Para 3.3.1& 3.3.2- Primary Crushing-& Secondary crushing (Pg-26)- a) The details as given in this Para and the flowsheet for C&S as attached in Annexure-15 is not matching.

b) The Annexure-15 shows +70 mm feed for the primary crusher with product size -70 mm which further goes to screens and cone crusher. The feed for cone crusher is 40-70 mm and ultimately the product size after screening is -10mm & 10-40 mm. The lumps & fines generation ratio may be kept as mentioned above in scrutiny comment no 6(iv). The complete details under this para and Annexure-15 to be corrected accordingly.

ii) Para 3.5.1- Screening and Classification-a) The screen details under this para to be also corrected as per the above scrutiny comment. The feed size and the product size (-10 mm & 10-40mm) and the screen aperture size to be mentioned correctly as per the flow sheet.

b) The flowsheet for 1000 TPH Dry Crushing & screening plant to be only kept in the annexure-15 and all corrections to be incorporated in flowsheet as mentioned above. The other flow sheet attached for mobile Crushing & screening plant is not relevant and may be removed from annexure-15.

iii) Para-3.9-Overall water requirement-(Pg-30)-The quantity of water required in Cum/day for mining & allied activities process like dust suppression, drilling, plantation, domestic purpose like washing, drinking etc. details to be given under this Para. The details regarding source of supply of water, disposal of water, extent of recycling, chemical analysis of water should be given under this Para. The Water balance chart 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 CFO permissible limits.

iv) Para 3.10- Flow sheets and charts-(Pg-30)- The corrections to be incorporated in Annexure-15 as mentioned above.

#### **CHAPTER-4-MINING OPERATIONS (Pg. 31-42)**

12. i) Para 4.2.1.2.1-Dump details-(Pg-31)-i) The height of D-4 waste dump arrives almost 75 m taking the top avg. mRL as 905 mRL and bottom avg. mRL as 830 mRL as shown in the surface plan. The details for dump D-4 should be checked and corrected accordingly.

ii) Para 4.2.1.2.2-Stack details-(Pg-31)- The stack ID as mentioned in the surface plan (Plate-2a) and as mentioned under this Para are not matching. All the Stack-Id as demarcated in the surface plan should also be mentioned under this para with other relevant details stack id wise, like Total stack qty, Area covered&Height. Corrections to be incorporated accordingly in text and all related plates.

iii) Para 4.2.1.3- Details of Stabilized dumps-(Pg-31)-The length of toe-wall and garland drain construction carried out w.r.t Dump D-1 & D-2 to be only given.

iv) Para 4.2.2.1- Bench Parameters-(Pg-32)-a) The complete mine production and development proposals to be reworked for 5.89 MMTPA(Million metric tonne per annum) as mentioned above in scrutiny comment no 1.

**b) The integrated slope stability report for mine pit and waste dump to be enclosed based on which the mine design parameters (Bench height, Bench slope angle, overall slope angle etc.) are mentioned.** If the slope stability study for the mine has not been conducted then the same should be initiated from Govt. agencies to assess the overall Geotechnical stability condition for the mine and dump. In the text it should be mentioned accordingly in remarks that the slope stability study will be conducted at the earliest and the report will be submitted to IBM once the study is complete. The supporting documents in such case regarding initiating of slope stability may also be attached as annexure and reference to be given under the para. Also, the bench height, width, Slope angle of haul roads etc. should be checked w.r.t 106(2)(b) permission of DGMS. The 106(2)(b) permission of DGMS to be also enclosed and reference to be given under this para.

c) Overall slope of Pit(degree) to be given year-wise as per the year-wise development & production sections.

d) The no of benches in OB & mineral year-wise to be checked as per the above scrutiny comment and corrections to be incorporated in the table.

e) The max depth of working year-wise should be reassessed as per above scrutiny comment. Also, the depth of water table to be given in metre.

f) The above- mentioned corrections to be incorporated in individual Year-wise development& production plan. The individual year-wise separate development & production sections have not been prepared. The same should be prepared and plate reference to be given under this para.

v) Para 4.2.2.2- Year wise opencast development-(Pg-33)-a) ***The production proposals to be specifically worked within the CEC permissible Limit of 5.89 million Metric Tonne per Annum (MMTPA) as mentioned above.*** The corrections to be incorporated in all relevant portion of text, annexure (20) and Plates.

b) The top Bench mRL and Bottom bench mRL for the respective working year as per the respective year development & production plan & section under the column "Benches" to be mentioned.

c) The individual year-wise production quantity of Hematic ore & Hematitic siliceous ore to be given separately for both south & North block. The Haematitic siliceous ore may be included in the "**Production Associated**" column of the table with inserting the heading "Haematitic Siliceous ore".

d) Under the bulk density of overburden both BHQ and waste Bulk density to be mentioned, since total quantity of OB is arrived including BHQ & waste quantity as per annexure-20.

e) The stripping ratio have not been calculated correctly. The ratio to be calculated" in tons". Under foot Note it may be specifically mentioned that stripping ratio have been calculated "in tons".

f) All the mining and allied activities should be proposed within the ML area as per the statutory norms. No mining or allied activities should be proposed in 7.5 m safety zone except greenbelt plantation. As discussed during site visit the portion between pillar LBC-5A & LBC-6A where the common boundary of ore extraction doesn't require excavation, in such portion 7.5 m safety zone to be maintained and distinctly demarcated. The same to be reviewed between pillar LBC-7A, LBC-8A, LBC-9 & LBC-10. The reference of the common boundary working permission from DGMS to be given. Also, the surface plan as approved by DGMS along with Common boundary permission may be enclosed and reference to be given under the para. The workings along the common boundary for the plan period to be proposed accordingly following all the statutory conditions.

13. i) Para 4.3-Material Handling Summary-(Pg-34)-Para-4.3.1-a) The integrated Slope stability report of the mines have not been enclosed, only the dump slope stability report has been enclosed (Annexure-9a). Accordingly, it should be mentioned under this para as per above scrutiny comment no 12(b).
- b) The corrections to be incorporated in Bulk density study report as mentioned above in scrutiny comment no 7(iv).
- c) The 106 (2) (b) permission from DGMS as per MMR 1961 should also be enclosed as Annexure and details & annexure reference to be given under "Any other Study Report".
- ii) Para 4.3.2-Insitu Mining-(Pg-34)- The corrections to be incorporated in the table under this Para as per the above scrutiny comment no 12(v) for Para 4.2.2.2 & scrutiny comment no 1. The corrections to be also made in all year-wise production & development plans & sections & Year wise production & development calculation sheet (Annex-20). The note mentioned below the table is to be deleted.
- iv) Para 4.3.4-Calculation Summary-(Pg-35)- The corrections to be made in the table as mentioned above.
14. Para 4.4-Machine Calculation (Pg-35-38)- i) Para 4.4.1-Machine requirement Summary (Pg-35)- The material handling per day have not been calculated correctly as only max ROM quantity have been considered in calculation. Calculations are to be done taking the maximum handling quantity per annum including both ore & waste (Total handling column) as per Para 4.3.2.
- ii) Para 4.4.2- Shovel/Excavator Requirement (Pg-36)- The calculations have not been done correctly. First of all, the shovel bucket capacity to be selected as per the machinery reported in AR 2020-21. For each bucket capacity of shovel, the no of shovels required as per the specific handling material (Hematic ore/Hematitic siliceous ore/BHQ/OB) and quantity requirement are to be calculated. Since tonnage factor for Haematitic ore, Haematitic siliceous ore, OB & BHQ are different, the maximum handling quantity accordingly for the year as per the corrected development & production sheet (annexure-20) under each to be given, and no of shovels for each capacity to be calculated. The effective shift time is mentioned as 6 hrs. 30 min whereas in the previous para it is mentioned 6.30 hrs. The correct effective shift time to be given under this para. The yearly handling & maximum handling to be calculated incorporating all corrections as mentioned above and no of excavators to be calculated accordingly. The Stand by excavator (L) should be calculated mentioning the availability percentage.
- iii) Para 4.4.3- Dumper Requirement (Pg-37)- The calculations have not been done correctly. The Effective shift time to be checked as mentioned above. The "*time taken to cover the distance in minutes*" have not been calculated correctly as per the mentioned formula. Further the Lead distance to be calculated properly taking the average lead distance from both South block & north block to the Waste dump. The column "no of trips /hr. (vii)=(60/vi) and calculation to be done accordingly. The column "Total transportation per hour (TPH)=(B\*vii)" and calculation to be done accordingly. The Stand by dumper (xii) is to be calculated mentioning the availability percentage. The maximum handling quantity per annum including ore and waste to be considered from Para 4.3.2 as mentioned above.
- iv) Para 4.4.4-Drill Machine Requirement(Pg-37)- The calculations under the table have not been done correctly. The no of drills to be calculated separately for Haematitic ore/Hematitic siliceous ore/OB/BHQ as the bulk density is different. Depth of hole and subgrade drilling break up to be given. The yield per hole to be calculated correctly (Spacing\*Burden\*Depth of hole\* Bulk density). The yield per meter is to be calculated correctly excluding the subgrade drilling meterage i.e., taking the depth of hole only. Annual target to be assumed mentioning the percentage of tonnage of material requiring drilling & blasting per annum as per the maximum handling requirement of Para 4.3.2. As per the nature of deposit the last approved document mentions 20 % (Pg-42) requirement for drilling & blasting. The rate of drilling per hours to be corrected and number of drills required to be calculated accordingly. The Stand by drill should be calculated mentioning the availability percentage.
- v) Para 4.4.5-Machine Deployment details (Pg-38)- The details of the machinery (nos. & capacity) given under Para 4.4.5.1; 4.4.5.2 & 4.4.5.3 should match with the details of machineries as reported in AR 2020-21. "Tire-Lifter", Screen doesn't come under the category of excavator & loading equipment and may be removed from para 4.4.5.1 The dozer capacity and drill capacity and diameter have not been mentioned as reported in AR 2020-21. The corrections to be incorporated in Para 4.4.5.2 & 4.4.5.3 accordingly.
15. Para 4.5-Blasting Requirement(Pg-38-39)- i) Para 4.5.1(Pg-38)- The spacing and burden of holes in this para and as mention in previous para (Para 4.4.4) are not uniform. The same should be corrected as per the field drilling condition and requirement for waste. The other parameters in table to be checked and corrected accordingly.
- ii) Para 4.5.2-(Pg-42)- Under the column "Total ROM proposed to be handled in Cum/annum" – to be considered, as same as it has been considered for drilling in previous Para 4.4.4. The other parameters like spacing, burden etc. yield/hole(cum) etc. to be calculated correctly accordingly as mentioned above and in previous paras.
16. Para 4.6- Manpower deployment (Pg-39-40): -i) After Para 4.6.5, Para 4.6.6-(Others Specify) to be added as heading. Accordingly, S.I. no of Para 4.6.6 & 4.6.7 to be corrected as 4.6.7 & 4.6.8. The excel template as published in FAQ may be referred. The "Mining Engineer" as per provision of MCDR 2017 may also be included in

Para 4.6.1-Managerial. "Electrician" have not been included in Para 4.6.3. The manpower related to "Security" etc. may also be included in Para 4.6.6-Others.

ii) The no of person engaged per day in Para 4.6.7 to be recalculated accordingly. The Material handled per shift to be corrected as per previous para 4.4(Scrutiny comment 14).

iii)Para 4.6.8-(Pg-41)- The corrections to be incorporated as mentioned above.

17. Para 4.7-Waste Management (Pg-42)- i) Para 4.7.1-Existing Dump (Pg-44)- The details of all the existing dumps inside the Lease area(D-1,D-2, D-3 & D-4) as per the previous para 4.2.1.2.1 and above scrutiny comment no 12(i) to be given. The waste dump proposals are not required under this Para and to be deleted.

ii) Para 4.7.2-New Dump(Pg.- 42)- The waste dumping proposals for the plan period to be given under this para. The backfilling proposals are not acceptable during the current plan period as mentioned above in scrutiny comment no 5(v). Also, as per the dump stability study by NIRM enclosed as Annexure-9A it is recommended to restrict the dump height to maximum of 930 mRL with an ultimate slope angle of 26 degrees for both Dump D-3 & D-4. The production and development proposals to be worked out accordingly so that the proposed waste dumping is restricted within 930 MRL with overall slope of 26 degrees for both Dump-D3 & D-4 and also incorporating all correction as mentioned above in scrutiny comment no 12. The corrections to be incorporated in the table and related Annexures & Plates accordingly.

iii)Para 4.7.3-Existing Stack (Pg-42)- The details of the existing stacks inside the Lease area as per the previous para 4.2.1.2.1 and above scrutiny comment no 12(ii) to be given.

#### **CHAPTER-5-SUSTAINABLE MINING (Pg. 47-52)**

18. Para 5.1- Sustainable Mining and SDF Implementations in compliance of Rule 35 of MCDR 2017(Pg-47)-i)It should be specifically mentioned under this Para " *Sustainable Mining and SDF implementations during the plan period 2022-23 to 2026-27 will be carried out in accordance with Rule 35 of MCDR 2017*".

ii)Compliance of Vishakha Committee Guidelines- The Company guidelines for prevention of women harassment at work place to be detailed here and supporting document may be added in annexure and reference to be given under the para.

iii)Para 5.2.1.10-Any other steps taken- (Pg-44-49)-Only number of beneficiaries are mentioned. The steps taken for improving the Socio-Economic standard of local communities to be also mentioned. The additional information may be enclosed as annexure and reference to be given under the para.

iv)Para 5.2.1.12-Awareness Program- (Pg-44-49)- The Swachatta program to be proposed for the mine workers year on year in the plan period.

v) **Para 5.4- (Proposed welfare & socio-economic development programs)- (Pg-50-51) and sub-para are not there as per the format and should be deleted.** The drinking water and agriculture details may be added under Para5.2.1.10.Further Support to health & Medical services may be added under Para 5.2.1.5, Support to skill development & Education may be added under Para 5.2.1.8, Support to transportation services & infrastructure under Para 5.2.1.4. The additional information may be provided in Annexure mentioning reference of annexure in relevant para.

#### **CHAPTER-6- PROGRESSIVE MINE CLOSURE PLAN (Pg. 52-55)**

19. i)Para 6.1-Status of Land-(Pg.52)- i) The Area under Dumps should be corrected as "66.34 ha" as per the previous Para 4.2.1.2.1-Dump details. Under the column "stabilized waste dump Rehabilitated "Nil" should be mentioned as partial reclamation & rehabilitation has been done as mentioned above in scrutiny comment no 12(iii).

ii)Para 6.2.1- Backfilling-(Pg-52)- Under the Backfilling proposals "Nil" may be mentioned as detailed above in scrutiny comment no 5(v) and 17(ii).

iii) Para 6.2.2.2-Protective Measures-(Pg-53)-The Retaining wall and Garland drain all along active Dump-D-3 & D-4 to be reviewed between section 1A-A' to section 15-15' and the entire balance portion which have not been constructed are to be proposed within the plan period. The location co-ordinates may be given in UTM for correlating it with UTM grid on respective plan. All the plan period- years (2022-23 to 2026-27) to be mentioned under the table as per format.All the Protective measures should be also reviewed w.r.t the R&R plan and incomplete portion to be proposed. The above PMCP measures to be demarcated distinctly on the PMCP plan& also on year-wise production and development plan.

iv)Para 6.2.3.1-Cumulative work done-(Pg-53)- The cumulative figures to be as per the figures reported in Annual PMCP report 2020-21. A copy of the report may be enclosed as Annexure and reference to be given under para.

v)Para 6.2.3.2-Year wise Proposal (Pg-53)- No plantation proposals are given in the entire plan period, which is not acceptable. The Specific condition (A)(xxvi) mentions adequate plantation shall be raised in the ML area, haul roads, OB dump sites & Green belt development. The density of trees is 2500 per hectare as per EC condition. Such areas as mentioned above to be identified and plantation to be proposed for each year of the plan period.

The Year-wise proposal for the plan period 2022-23 to 2026-27 to be given accordingly and should be clearly demarcated on the PMCP plan & also year-wise production and development plan.

vi) Para 6.2.7-Dump area stabilization & Development-(Pg-54)- Details regarding toe wall, garland drain etc. year-wise for both Dump-D3 & D-4 to be given under this para as per above scrutiny comment no (iii), of the previous para 6.2.2.2. For the dump D-3 & D-4, no of terraces and average height of terraces details are to be given, as per the production and development plan of the respective year. The year-wise dump details under the table of this para to be given accordingly.

vi) Para 6.2.8.2- Year wise proposal-(Pg-54)-The other form of reclamation like coir matting etc for the active/inactive dumps may be reviewed for the plan period and year-wise proposals may be given accordingly. The dump stability study recommendations also recommend placing coir matting at slopes of active dump D-3 & D-4 for enhanced stability.

vii) Para 6.2.11- (Conceptual stage)- (Pg-55)-a) The figures under the table are not given correctly. All the area to be rechecked and corrected w.r.t the scrutiny comments of Geology & Mining chapter. Under the column- 'Area undisturbed/Virgin'-Green belt area-5.03 ha to be given. Under 'Mined out area fully reclaimed from rehabilitated area', Backfilling area till conceptual stage to be calculated and given. Under 'Stabilized waste dump Rehabilitated' the entire area under dumps till conceptual stage to be mentioned. Under 'Rehabilitated area under utility services' the entire area under utility services to be mentioned.

b) The waste dump (D-3 & D-4) terraces established and height (mRL) attained till conceptual stage taking the current dump stability study with max height of 930 mRL till conceptual stage, have not been shown on the conceptual plan. The waste dump position to be demarcated on conceptual plan including no of terraces till conceptual stage and the waste generated till conceptual stage that will be used in backfilling of the mined pit.

c) The conceptual plan should include undertaking of re-grassing of the mining area and any other area which may have been disturbed due to mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. in accordance with the order of Hon'ble Supreme Court dated 08.01.2020.

d) In the conceptual stage, the reclaimed backfilled area of the mined-out pit to be completely rehabilitated with afforestation. The entire waste dump present in conceptual stage to be rehabilitated with afforestation. All the infrastructures (area under utility services) to be dismantled at the Conceptual stage and to be rehabilitated with afforestation/Re-grassing.

e) The conceptual plan may also be checked w.r.t the R&R plan and to be planned accordingly. All the above corrections should be incorporated in the text and Conceptual plan & Section.

#### **CHAPTER-7- FINANCIAL ASSURANCE/PERFORMANCE SURETY (Pg. 56)**

20. i) Para 7.1-(Pg-56)-a) **For each Year of the plan period separate land use table to be given as per the format.**

b) The table in this para for each year of the plan period 2022-23 to 2026-27 regarding "area put to use at start of year", "additional requirement" and "total" to be recalculated after incorporating all corrections for General information (1.0), Geology & Exploration chapter (2.0), Mineral processing (3.0), Mining operations (4.0), Sustainable Mining (5.0), & Progressive Mine Closure Plan Chapter (6.0).

ii) Para 7.2-Financial assurance-(Pg-56)- The "total area proposed to be put to use in hectares" as arrived till the final year of plan period(2022-23 to 2026-27) should be calculated after incorporating all above corrections and accordingly the amount of bank guarantee to be calculated in accordance with Rule 27 of MCDR Amendment 2021. The bank guarantee validity should be till the end of plan period. Copies of the bank guarantee to be enclosed. The table under this Para and Annexure-16 to be rectified accordingly.

#### **CHAPTER-8- REVIEW OF PREVIOUS PROPOSALS (Pg. 57-62)**

21. i) Para 8.1.1-Lease area utilization (Pg-57)- a) The Land use review have not been carried out in accordance with the last approved document financial assurance table (Pg-71).The "Area at beginning of the proposal period" should be exactly similar as mentioned in "Area put on use at start of plan" of last approved document. There is no Mineral beneficiation plant inside the lease area, the Crushing/screening plant land use may be added under infrastructure along with workshop, administrative building etc. The area mentioned under OB/waste is not correct.

b) Under "Area proposed under activity" the area mentioned under "Area as at the end of plan period" as per the last approved document to be given. For e.g., in case of Mining – "77.99 ha" may be mentioned instead of 8.95 ha and so on in other headings also. The "actual area utilized in the proposal period" as given in previous para for mining is 74.41 ha whereas here it is mentioned 75.06 ha. The actual area is to be given as per "Area put to use at start of year" in the financial assurance chapter (7.0) for the first year of plan period (2022-23). The deviation may be calculated in **percentage** accordingly and reasons may be specified.

ii) Para 8.2.2.1-(Pg-59)-a) The unit mentioned under proposed and actual to be corrected as "MMT". For the year 2021-22, the review of the proposals to be made till Sep-2021 and same should be mentioned in the row as 2021-



22(till sep-2021). The actual figures should be as reported in Annual return and Monthly Return of the corresponding year/period.

b) \*Under the Row "**Dumping Site for Surface-** The area proposed under OB dump in financial assurance table of last approved document may be mentioned (66.34 ha) and actual as reported in AR 2020-21 may be mentioned.

c)\*Under the row "Removal of waste/overburden in cum" -Year-wise OB review to be done for the previous plan period (2017-18 to 2021-22(till Sep-2021) in Cum.

iii)Para 8.2.2.2-Excavation-(Pg-59)-It was observed during site inspection that lateral and vertical development of benches of Southern block from Sec-10-10' to Sec-15-15' were not carried out as per the approved proposal. Also, at Sec-3A-3A' it was observed that the benches have been developed beyond the proposed vertical limit of 777 mRL till 758 mRL and north eastern portion of benches have also not been advanced as per proposal. Also there were deviations in North block lateral & vertical extent.The actual co-ordinates under achievement in lateral extent may be mentioned accordinglyand measures taken in in this RMP to rectify the same is to be mentioned.**For the vertical extent proposed mRL and actual mRL attained to be mentioned instead of co-ordinates.**

v)Para 8.2.6-Production of Minerals-(Pg-60)- The corresponding year of the previous plan period for which review is done to be mentioned and unit to be corrected as MMT (million metric tonnes). For the year 2021-22, the review of the proposals to be made till Sep-2021.For the Cleaned ore alsoYear-wise opencast (ROM) quantity may be given. Under "**Dump Mining**"& "**Recovery from Mineral Rejects or Tailings**"- "**NIL**" may be mentioned. Total quantity will be equal to the opencast (ROM) quantity.

vi)Para 8.2.8-Environmental Compliances-(Pg-61)- The afforestation proposals & achieved figures to be given correctly as per the previous/last approved document and as reported in respective year Annual Return. The last approved document mentions 3000 nos. of saplings for the year 2020-21 & 1500 nos. for the year 2021-22 on the slope of south block dumps (Pg-47). The actual afforestation figures for the year 2020-21 is reported as 30128 within lease area.Also, the proposed figures for Retaining Wall and Garland drain have not been mentioned correctly. The last approved document mentions total 245 m garland drain for the year 2020-21(Pg-47). It is to be given as per the last approved document.The actual figures in this para should be as reported in Annual PMCP report and Annual Return for the corresponding year. The latest environmental monitoring report to be enclosed in annexure and reference to be given under this Para.

22. **CHAPTER-9-IMPACT ASSESSMENT (Pg. 63-67)-** The portion "*However.....and others*" to be deleted.

23. **CONSENT LETTER/UNDERTAKING/CERTIFICATE FROM THE APPLICANT**

i) Consent letter /undertaking/certificate from the applicant- The Consent letter is to be enclosed with the "Text" and should be digitally signed by the Nominated Owner. The contents of the letter may be kept as per the earlier format.

ii)Certificate from QP- The Certificate from QP is also to be enclosed with the "Text" and should be digitally signed by the Qualified Person. The contents of the letter may be kept as per the earlier format.

24. **PART-C, PLANS & SECTIONS:**

a) **All hard copy plan submission should be output of Auto-cad and soft copies submission should be output of KML/KMZ/SHP format.** The soft copy of the auto-cad plans, may also be submitted. All sections submission should be in dwg. Format (Auto-cad output).**None of the KML files prepared (Surface Plan, Geological plan P&D plan etc) are opening correctly.** The KML files to be also prepared correctly as per format and mine lease boundary with all pillars and 7.5 m safety zone all along the lease boundary is to be specifically demarcated in all KML plans also.

b) It should be ensured that all attached plans & sections are prepared as per the content & scale specifications, of Rule 31(General requirement about Plan & Sections) of MCDR 2017& IBM Circular no. 1/2021.All plans and sections should be signed with date by certified surveyor, Qualified Person, Geologist, Mining Engineer as per provisions of MCDR 2017.**The plate number has not been maintained as per format. The same has to be maintained as per the format.**

c) Surface Plan (Plate No-2A): The surface plan to be corrected/updated as mentioned in the Mining operations Chapter (4.0).The KML file of surface plan to be also prepared accordingly. The colour codes for different features to be followed as per the format.

d) Geological Plan(Plate no. 2B):1)The plates should be checked and all corrections to be specifically incorporated as per the aforementioned scrutiny comments of Geology and Exploration chapter (2.0). The plate should incorporate all lithological units in the area, already drilled boreholes, proposed boreholes for the plan period, the area covered under different explorations limits G1, G2,G3 to be clearly demarcated and area to be mentioned in plate.The Plan should be submitted showing different colour codes for i) Lithological/Geological occurrence ii) Area under G1, G2, G3 and other features as per format. The KML file of Geological plan to be also corrected accordingly.

2) Geological Section (Plate No.2C)-The plate should be checked and all corrections to be specifically incorporated as per the aforementioned scrutiny comments of Geology and Exploration chapter (2.0) and as, mentioned above. The existing pit profiles should be in line with the surface plan and also indexed. The section should be submitted with different colour code depicting all the features as shown in surface geological plan.

- e) Production & Development Plan (Plate No.3a-3e): These plates should be corrected as per the aforementioned scrutiny comments for Geology & Exploration (2.0), Mining operations (4.0), Progressive Mine Closure plan (6.0) & Financial Assurance/Performance security (7.0) chapters. The Year-wise production and development plan should be as per the corrected Year-wise Production and development sheet enclosed as Annexure-20.
- ii) **The proposal of bench development systematically mRL wise & connecting with the old benches as per bench mRL may be worked out. Also, the ramps/haul road for access to the mine pit and waste dump have to be demarcated on each year production & development plan for South block & North block.** The corrections to be incorporated in each year production & development plan accordingly.
- iii) The environmental protective work proposed year wise should also be demarcated year-wise along with index as per the PMCP chapter (6.0).
- iv) The KML files of each year production and development plan to be also corrected accordingly. The colour codes for different features to be followed as per the format.
- f) Production & Development section (Plate No.3f)-Individual year wise section as per the respective production & development plan have not been prepared. The same should be prepared. The corrections should be incorporated in the individual year section as per the respective production & development plan as mentioned above in scrutiny comment no (e). The demarcated existing pit profile should be in line with the surface plan and also to be mentioned in index. The year-wise excavation and dumping proposals with different colour depicting all the features as shown in respective P&D plan to be demarcated as per format.
- g) Progressive mine closure plan (Plate no 4/7): The name of the plate to be corrected as "PMCP". All corrections to be incorporated as per the PMCP Chapter (6.0) and related scrutiny comments of other chapters. The year-wise proposed PMCP measures for the plan period should be demarcated with different color code as per the format. The KML file of PMCP plan to be also corrected accordingly.
- h) Progressive mine Closure sections -The PMCP section (Plate no-7) has not been prepared. The same should be prepared as per the format after incorporating all corrections in Progressive mine closure plan.
- i) Conceptual Plan (Plate No 6)-i) All the corrections to be incorporated as per the above scrutiny comment no 19(vii). The benches development as proposed in the individual year-wise production and development plan should be in line with the benches development proposed till conceptual stage in the conceptual plan. The KML file of conceptual plan to be also corrected accordingly. The status of land use shall be depicted by different colour code as per the format. ii) Conceptual Sections may be corrected and furnished separately accordingly.
- j) Geo Referenced Cadastral Plan (Plate no 10)- Geo referenced cadastral plan duly certified by the State Govt. to be also enclosed as per format.
- k) Environment Plan (Plate No 5): -The corrections to be incorporated as mentioned above and as mentioned in scrutiny comments of different chapters. The KML file of Environment plan to be also corrected accordingly.
- l) Financial Area Assurance Plan: The plate has not been prepared. The same should be prepared incorporating comments for Financial Assurance/Performance Surety Chapter (7.0) (Scrutiny comment no 20). The Financial assurance table may also be given in plate accordingly and all the area shown in the table should be distinctly demarcated on plate and indexed.
- m) The dump management plan & surface water management plan as per approved R&R to be also attached.
- n) The slice plans may also be enclosed as per above scrutiny comment no 9(vi).
- o) The surface plan as approved by DGMS along with common boundary permission may also be enclosed.
- p) **All the Plans & Sections should be placed serially in a proper bound folder with heading "Part-C" as per the format. The list of plates should be mentioned accordingly in the text and the cover page of the folder maintaining the numbering & sequence specifically as per format.**

## 25. PART- B, ANNEXURE:

- a) The annexure number to be maintained as per the format.
- b) All the annexures as mentioned in above scrutiny comments of different chapters to be enclosed. Also, corrections in the annexures, as mentioned above in scrutiny comments of different chapters to be incorporated.
- c) Annexure-2- All the lease deeds from initial grant to be enclosed as mentioned above in scrutiny comment 4(i).
- d) Annexure-4-The latest copy of the resolution of Board of Directors nominating the owner should be enclosed as per above scrutiny comment no 4(vi).

- e) Annexure-7-Consent letter-The corrections to be incorporated as mentioned above in scrutiny comment no. 23.
- f) Annexure-9(9a, b &c)-Study Reports- The corrections/additions to be incorporated as mentioned above in scrutiny comment no 13(i) for Para 4.3.1.
- g) Annexure-10-Feasibility Report- The corrections to be incorporated as mentioned above in scrutiny comment no. 9(iii) & 9(iv).
- h) Annexure-12-Exploration details- The corrections to be incorporated as per above scrutiny comments of Geology & Exploration chapter (2)
- i) Annexure-13-Chemical & Mineralogical Analysis report-The corrections/additions to be incorporated as per above scrutiny comments of Geology & Exploration chapter (2).
- j) Annexure-15- Mineral Processing flow sheet- The correctionsto be incorporated as per above scrutiny comments of Mineral beneficiation/Processing chapter (3).
- k) Annexure-16- Copy of BG- The copy of BG to be submitted as per above scrutiny comment no 20(ii).
- l) Annexure-20-Calculations of Production &Development-The corrections to be incorporated in this annexure specifically as per above scrutiny comment of Mining Operations (4)chapter.
- m) **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 Part-B Annexures in text. All the annexures should be legible.**

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