

**SCRUTINY COMMENTS ON THE MODIFICATION TO THE APPROVED MINING PLAN IN RESPECT OF ITAGI LIMESTONE MINE, OVER AN EXTENT OF 519 HA, SUBMITTED BY M/s. ORIENT CEMENT LIMITED, SITUATED IN ITAGI AND MOGLA VILLAGES, CHITTAPURTALUK, KALABURAGI 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. The State Govt. letter no. DMG/ML-2681/2021-22 dated 03.02.202 (copy enclosed) addressed to this office mentions “ **Before approving mining plan along with FMCP in respect of this mine, IBM is requested to ensure that no mining has been conducted in pit no.3 by the lessee and no other violations of lease deed conditions as well as the provisions of MCDR 2017 are observed**”. Further it refers the EC condition stating “As observed from the EC issued by MOEF, a specific condition under S.I. No. a(i) has been imposed to execute the lease to the area for which EC has been given i.e., 238.80 hectares covering Pit 1 & 2. Although EC is for 512.354 hectares, pit no-3 measuring 89.70 hectare has not been included as Itagi village was totally surrounded by the mining lease except a narrow road and thus EC committee opined to allow mining activity in Pit no-3 in coming 15 years only after rehabilitation of Itagi village and safety concerns of Mogla village are suitably addressed by the Project proponent”. The Letter mentions “ Now it is incumbent upon lessee company to get the lessee Company to get the Lease area restricted to the extent of EC i.e., 280.90 hectare duly obtaining modification to other statutory approvals”.

During Site inspection as communicated by the Lessee it is noted that Pit 1 & 2- 280.90(Pit-1-238.8 ha + Pit-2-42.10 ha) hectares & Pit-3- 89.70 hectares ,total lease area 602.054 ha as per the application for grant of mine lease by the Lessee and corresponding fresh mining plan approved by this office vide Letter no KNT/GLB/MLP/Lst-260-SZ dated 03.12.2012. Further the Lease deed was executed on 519 ha as per the State Govt. notification no DMG: MLS: 1682AML2010/2015-16 dated 31.07.2015(Annex-2 of the submitted document). The State Govt vide Letter no CI53 CMC 2019 dated 31.07.2019 addressed to MOEFCC (Enclosed as Annexure-02 in the submitted document) have clarified at point no 13 (i) as “ the total area has reduced to 519 ha from 602.054 ha which was as per the PL granted to M/s OCL. Hence the reference of 602.054 ha does not arise here after and further the pit areas have got revised during the course of survey and demarcation jointly conducted by the Department of Mines and Geology before execution of mining lease deed details are as under: -“Pit-1:197.5 ha”, Pit-2- 10.51 ha & Pit 3-44.62 ha”.

Accordingly, as discussed during site inspection, an additional plan may be prepared superimposing the 602.054 ha applied ML area and 519 ha of the executed lease deed area and the change in area from 238.8 ha to 197.5 ha for Pit 1, 42.10 ha to 10.51 ha for Pit-2 & 89.70 ha to 44.62 ha for Pit-3 are to be specifically demarcated with distinct colours and clarification on the same to be furnished. Further Pit-3 is to be marked as “**No Mining Zone**” in all the plans accordingly and it is to be ensured that no working proposals are given for Pit-3. Additionally, an undertaking may be furnished with the document that “**No mining has been conducted in Pit-3 and in the proposed plan period also no mining activities will be conducted in Pit no-3 by the Lessee. Also, there is no pending violation of the lease deed conditions**”.

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2. The period of modification to be corrected as **2022-23 to 2024-25**.

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

3. i)Para 1.1.2: Mining Plan submission criteria details-(Pg-1-2)-a) Reason/s for Modification- Pit -3 and the area under allied activities to be mentioned separately as discussed during site visit instead of mentioning 310.99 Ha (519-208.01 ha). b) The period for which modification is proposed to be corrected as “2022-23” to “2024-25”. The reference of the State Govt. Letter dated 31.07.2019 to MOEF may also be mentioned in the Para.

**CHAPTER-2-GEOLOGY AND EXPLORATION (Pg. 6-33).**

4. i)Para- 2.1.4.7- Extent of Mineralization- (Pg-9)- It should be mentioned in the text “**All the materials analysing equal or more than CaO- 34 %(Min) and MgO-5%(Max) above have been considered as Limestone**” as per IBM notification no. C-284/3/CMG/2017 dated 25<sup>th</sup> April, 2018 for threshold value of Limestone.The physical and chemical characteristics details to be also given specifically under the para.The vertical continuity of the limestone has not been established accordingly it is to be mentioned “*the extent of limestone within the ML area is established up to average depth of \_\_\_ mRL as per the current exploration data*”.
5. i)Para-2.2.1.2-Geological Mapping- The details to be added for both 2020-21 & 2021-22(till Feb-22).  
ii)Para- 2.2.1.13- Bulk density-(Pg. 12)-. The bulk density testing for OB may also be carried out and supporting documents to be enclosed as Annexure.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.
6. Para-2.2.2.7.1-Core/Non-core drilling-(Pg-14)-. The **CSV/Excel sheet** of all the boreholes to be prepared and enclosed as Annexure and reference to be given under the column.
7. i)Para-2.2.4.2- Resource calculation- (Pg-18-22)-a) **The calculation has not been carried out as per the format in the table under this para.** The Resource calculation is to be done in the table of this para, as per format. The Level of Exploration(G-1/G-2/G-3), depth in metres along with other details to be added section wise and section wise calculation to be done in the table as per the format. **The Resource calculation is to be done as on 1.04.2021.**  
b) The Resource calculation is to be done for all Limestone with threshold value of 34 % CaO (Min) & 5 % MgO (Max) in accordance with IBM threshold value notification 2018 and in accordance with Minerals (Evidence of Mineral Contents) Rules, 2015.

c) No exploration is carried out after approval of the last document. Accordingly, the total Resource figure as reported in AR 2020-21 & the last approved document should be in line. The complete table under this Para along with calculations to be corrected accordingly.

ii) Para 2.2.4.4- Threshold value & cut off parameters-(Pg-23)- It is to be mentioned under the Para-**“Threshold value for Limestone is 34 % CaO (Min)& 5 % MgO (Max) as per IBM notification no. C-284/3/CMG/2017 dated 25<sup>th</sup> April, 2018.**

iii) Para 2.2.4.7- Cost & Revenue factors (Pg-23)- All the corrections to be incorporated in the feasibility study as per the above scrutiny comments. The sale price/ton considered in the feasibility study to be also mentioned under the Para and reference of feasibility report to be given.

iv) Para 2.2.4.9-Other modifying factors (Pg-24)- ‘No other modifying factors have been considered, accordingly “NIL” should be mentioned specifically. The other write up what is given in para is irrelevant and to be deleted.

v) Para 2.2.4.10- Classification (Pg-24)- Specific information regarding estimation done for Reserve/Resource under different UNFC codew.r.t the geologic, feasibility and economic viability axis as per UNFC & the Minerals (Evidence of Minerals Contents) Rules 2015 to be mentioned under para.

vi) Para 2.2.4.11- Calculation of blocked resources (Pg-25-27)-The blocked Resource calculation is to be done in the table of this para, as per format. The “depth” considered for sectional calculation to be also mentioned. Also, corrections to be incorporated as mentioned in above scrutiny comments of Geology chapter.

vii) Para 2.2.4.12-Calculation of Reserves (Pg-27-30)- i) The section wise calculation with relevant UNFC code along with other details like “depth” etc. to be mentioned in the table and Reserve calculation to be carried out as per the format. **The Reserves/resource estimation to be done as on 1.04.2021.**

**\*The mine being a fully mechanized mine with annual production of 3 million metric tonnes, the Reserve/Resource estimation may also be done parallely in Slice plan in software 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.**

viii) Para 2.2.4.13-(Pg-31)- All the corrections to be incorporated under tables in this Para as mentioned above The Reserve & Resource estimation to be given as on 1.04.2021 as per the format. The Quantity under different UNFC codes should be given in “Tonnes. 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 paras of text, annexures, and plates accordingly.

8. i) Para 2.2.5.1-Geological Mapping-(Pg-23)- The scale may be corrected as 1:2000 and year as 2022-23,2023-24 & 2024-25.

ii) Para 2.2.5.1- Core/Non-core drilling-(Pg-24)-a) It is to be mentioned under the Para that “In the plan period boreholes have been proposed for Pit 1 & Pit-2 area only to upgrade the area to G-1 at lateral and vertical extent in accordance with Minerals (Evidence of Mineral Contents) Rules, 2015

b) Pit-3 area to be demarcated as “No Mining Zone” as mentioned above in scrutiny comment no-1 in Geological plan and accordingly to be replicated in Geological sections. The other features along with safety zones to be also replicated in Geological plan & section as per the updated surface plan.

iii) The Sl. No under heading Petrology & Mineralogical studies to be corrected as 2.2.5.8. The Type of Sample to be mentioned correctly as per the options available in the format (Waste/Mineral).

### **CHAPTER-3-MINERAL BENEFICIATION/PROCESSING (Pg. 34-38)**

9. i) Para 3.3.1- Primary Crushing-(Pg-34)- a) The feed size in the crusher flow chart (Annexure-15) is mentioned as “1200 mm” whereas under the Para it is mentioned “1000 mm”. The same may be checked and corrected. The annexure reference of Crusher flowchart to be also mentioned.

ii) Para-3.9-Overall water requirement-(Pg-38)- a) The text mentions ‘Overall water requirement as 50 KLD’ whereas in water balance chart (Annex-13A) the break up under different activities are given for 51 KLD. This is to be checked and corrected. The complete details have not been provided as per format. The overall water requirement should be within the CFO permissible limits.

b) The chemical analysis report of water which is enclosed as Annexure-13A is of July 2019. The latest water chemical analysis report should be enclosed as annexure.

### **CHAPTER-4-MINING OPERATIONS (Pg. 39-54)**

10. **In accordance with Rule 34(A)(3) of MCDR Amendment Rules, 2021 the lessee is required to submit processed output [digital elevation model (DEM) and Orthomosaic] images obtained from drone survey of the mine lease area and up to hundred metres outside the lease boundary within six months, before submission of any mining plan document. The same may be submitted in accordance with the provision of the above rule.**

11. **As mentioned above in scrutiny comment no-1, Pit-1, Pit-2 & Pit-3 areas to be replicated from the surface plan. The Pit-3 area to be demarcated distinctly as “No Mining Zone” and it should be ensured that no working proposals are given for Pit-3. The text and all relevant plan & sections to be modified/corrected accordingly.**

12. i) Para 4.2.1.1-Pits- (Pg-39)- The new pit at the South of the existing pit (N-1893540, E-728520 co-ordinate) is not demarcated in the surface plan and other related plans. The details of the same have also not been given under the Para. The corrections to be incorporated in the text and all related plates.

ii) Para 4.2.1.2.1-Dump details-(Pg-39)- OD-4 dump mentioned have not been demarcated accordingly in Surface plan. The surface plan mentions OBS-4. The same should be checked and corrected in text and all related plates.

- iii) Para 4.2.1.2.2-Stack details-(Pg-40)- The Stack-ID MS-1 have not been demarcated with nomenclature on the surface plan. The corrections to be incorporated accordingly in all related plates.
- iv) Para 4.2.1.3- Details of Stabilized dumps-(Pg-40)-As communicated during site inspection, since OD-4 will be used for waste dumping in the plan period accordingly it may be removed. Corrections to be incorporated in text and related plates accordingly.
- v) Para 4.2.2.1- Bench Parameters-(Pg-41)-a **The slope stability report for mine pit 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 may be initiated from **Govt. agencies** to assess the overall Geotechnical stability condition for the mine.. The supporting documents regarding initiating of slope stability may 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 annexure reference to be given.
- b) The overall slope in the year 2022-23 is mentioned as 20 to 50 degrees. This may be rechecked as discussed during site inspection. Overall slope of Pit (degree) to be given year-wise as per the year-wise development & production sections
- c) Year 2021-22 to be removed as mentioned above in scrutiny comment no-2.
- vi) Para 4.2.2.2- Year wise opencast development-(Pg-42)-a The Year 2021-22 to be removed from the table.
- b) The bulk density of the top soil to be also mentioned under the Para.
- c) The stripping ratio to be calculated" in tons" including the topsoil quantity. Under foot Note it may be specifically mentioned that stripping ratio have been calculated "in tons".
- d) The year-wise proposed excavation should be proposed in-line with the conceptual plan.
- e) The **development & production sheet** enclosed as Annexure- 12 C to be provided specifically in excel format incorporating all details & corrections as mentioned above.
- f) The corrections to be incorporated accordingly in text and all related plates.
13. i) Para 4.3-Material Handling-(Pg-43)-Para-4.3.1-a The Slope stability report of the mines from Govt. agency may be enclosed as mentioned above in scrutiny comment no 12(v).
- b) The corrections/additions to be incorporated in Bulk density study report (Annex-9G) as mentioned above in scrutiny comment no 5(ii).
- ii) Para 4.3.2-Insitu Mining-(Pg-44), Para 4.3.3-Dump Workings (Pg-44), Para 4.3.4-Calculation Summary (Pg-45)- The details to be provided as per the format only for the year 2022-23, 2023-24 & 2024-25. The corrections to be made in the tables and also in all other related portion of text, annexure and plates.
- Para 4.4.2- Shovel/Excavator Requirement (Pg-46)-The swell factor for Limestone may be rechecked and corrected as "0.8". The calculations have not been done correctly. The TPH, yearly handling etc. 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. **The number of excavators to be rounded and not to be kept in decimals.**
- iii) Para 4.4.3- Dumper Requirement (Pg-47)-. The "maximum handling of material" quantity to be corrected including ore and waste. The Stand by dumper (xii) is to be calculated mentioning the availability percentage.
- iv) Para 4.4.4-Drill Machine Requirement (Pg-47)- The drill requirement per day comes to 136 m whereas it is mentioned 150 m. This may be checked.
14. Para 4.5.2-Blasting & Explosive Requirement-(Pg-48)-The "explosive Requirement per month for ROM zone blasting" comes to 28080 Kg whereas it is mentioned "29412 Kg". This may be checked and corrections to be incorporated.
15. Para 4.7-Waste Management (Pg-52-53)- i) Para 4.7.1-Existing dump-(Pg-45)- a) The Year wise OB dumping details to be provided under the Para as per the format for the year 2022-23, 2023-24 & 2024-25 and same to be demarcated on the development & production plates and other related plates accordingly as per the mentioned Dump-ID. The reference of the plates to be given. **If the OB dumping is proposed on the existing OB soil dumps only, then the details is to be given under this para.**
- b) It was communicated during site inspection, that dump OD-4 may be used for waste dumping. This may be checked and details to be added.
- ii) Para 4.7.2-New Dump-(Pg-45)- a) If the OB dumping is proposed on the new dumps, then Year-wise details for the plan period 2022-23, 2023-24 & 2024-25 to be given under this para as per the format and same are to be demarcated as per the mentioned Dump-ID, on the development & production plates and other related plates accordingly.
- b) It is observed that waste dumping is proposed in 7.5 m safety zone which is not acceptable. No waste dumping proposals to be given in 7.5 m safety zone along the ML boundary.
- \*The Year wise OB Quantity under above Para 4.7.1& Para 4.7.2 should be, the year-wise total waste generated from In-situ Mining (Para 4.3.2) & year-wise waste generated from dump workings (Para 4.3.3)**
- \*The proposed waste dump positions are not clear on the production & development plan. The OB soil dumping should be specifically proposed accordingly as per the EC condition and in line with the conceptual plan.**
- \*The waste dump proposals to be reworked in existing & new dump (VSB) in line with the discussions during site inspection.**
- c) The corrections to be incorporated in text and related plates accordingly.

iii) Para 4.7.3-Existing Stack & Para 4.7.4-New Stack (Pg-54)- Year wise Stack details to be provided under the Para as per the format for the year 2022-23, 2023-24 & 2024-25 and same to be demarcated on the development & production plates and other related plates accordingly, as per mentioned Stack-ID. MS-2 stack as mentioned in the text have not been demarcated on plates.

#### **CHAPTER-5-SUSTAINABLE MINING (Pg. 55-64)**

16. i) Para 5.1- Sustainable Mining and SDF Implementations (Pg-55), Para 5.2-CSR Initiatives (Pg-55-64) & Para 5.3-Rehabilitation & Resettlement of affected persons-The proposals to be given as per the format for the year 2022-23, 2023-24 & 2024-25.

#### **CHAPTER-6- PROGRESSIVE MINE CLOSURE PLAN (Pg. 65-71)**

17. i) Para 6.1-Status of Land-(Pg.65)- a) This may be checked w.r.t the scrutiny comment no 12 and corrections to be incorporated.
- ii) Para 6.2.2.1-Preparations for Ground water Recharging-(Pg-66)-Year 2021-22 may be deleted.
- iii) Para 6.2.2.2.1-Fencing-(Pg-66)- Year 2021-22 may be deleted. The proposed year wise fencing proposal to be demarcated distinctly on the development & production plates & PMCP plan.
- iv) Para 6.2.2.2.2- (Retaining wall) & Para 6.2.2.2.3 (Garland drain)- (Pg-66-67)-All the Protective measures (Retaining wall, garland drain, check dams etc) should be reviewed w.r.t General conditions(B), (vii), (viii) & (ix) of EC and incomplete portions to be proposed in the plan period year wise as discussed during site visit. The bund proposed along the Village safety zone to be given year-wise. Also Retaining wall & garland drain proposals to be reviewed for OD-4 as discussed during site visit & may be included in the proposal. The above PMCP measures are to be demarcated distinctly on the PMCP plan & also on year-wise development and production plan.
- v) Para 6.2.3.2- Year wise proposal-(Pg-67)- The plantation location to be specifically demarcated year-wise on the PMCP plan & also year-wise development and production plan. This may also be reviewed w.r.t the above scrutiny comment no 15.
- vi) Para 6.2.7-Dump area stabilization & Development-(Pg-69)- The details for Toe wall, garland drain etc. to be provided as per scrutiny comment no (iv) of the previous para 6.2.2.2. Year 2021-22 may be deleted.
- vii) Para 6.2.11- (Conceptual stage)- (Pg-70)-a) The details under the table have not been given correctly. The Conceptual land use to be restricted to mining in '**Pit-1:197.5 ha**', **Pit-2- 10.51 ha** as per the EC conditions. Accordingly, "total mined out area in the lease" arrives to **208.01 ha. Pit-3 area to be demarcated as "No-mining Zone" in the conceptual plan.** The other corrections to be incorporated accordingly in text, conceptual plan & section as detailed during site visit.
- b) The Area under dumps (in hect), Area under utility services etc., to be rechecked as discussed during site inspection. Under "the Area undisturbed /virgin" Pit-3 area and the "area undisturbed/virgin" break up to be given.
- c) The "Area under water Reservoir" to be mentioned correctly.
- d) The creation of safety bund, plantation all along safety zones (Village safety zones, Nala safety zones, Road & Railway safety zones) etc. till conceptual period are to be specifically as per the EC conditions.
- e) The entire "Area under Dumps (in hect.) to be stabilized with plantation and to be mentioned accordingly under "Stabilized waste dump rehabilitated". The "**area under utility services**" is given as "12.54 ha" whereas "Rehabilitated area under utility services" is given as "NIL" in conceptual stage which is not correct. At conceptual stage the area under infrastructure like workshop, building, etc needs to be dismantled & Rehabilitation measures (Grassing/Plantation) on such area to be implemented, accordingly such area needs to be calculated and proposed under "Rehabilitated area under utility services". **The complete land use under the para to be corrected accordingly as per the above points.**
- f) **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.** The benches which will reach its ultimate pit limit till conceptual stage and there will be no further advancement, such workings may be identified, the dismantled/decommissioned infrastructure area, area under dumps, etc. to be reviewed and plantation & re-grassing may be proposed in such area as per above.
- f) All the above corrections should be incorporated in the text and Conceptual plan & Section.

#### **CHAPTER-7- FINANCIAL ASSURANCE/PERFORMANCE SURETY (Pg. 72-74)**

18. i) Para 7.1-(Pg-72-73)-a) The land use details as per the format to be provided for the plan period 2022-23, 2023-24 & 2024-25. The "Area put to use at Start of the Year" under different headings as per the format should be given as per the latest survey, and as updated in the surface plan.
- b) As detailed during site visit, the break-up of the Pit-3-No Mining Zone & undisturbed area to be also added under Foot note of each year, thereby arriving to overall mine lease are of 519 ha.
- c) The corrections under this Para and Financial assurance plate to be corrected accordingly as per above points.
- ii) Para 7.2-Financial assurance-(Pg-74)- The "total area proposed to be put to use in hectares" as arrived at the end of the final year of plan period (2024-25) should be calculated after incorporating all above corrections and the amount of bank guarantee to be calculated in accordance with Rule 27 of **Mineral Conservation and Development (Amendment) Rules, 2021(Five lakh rupees for Category 'A' mines per hectare of the mining lease area put to use for mining and allied activities).** The bank guarantee validity should be till the end of plan period. Copies of the bank guarantee to be enclosed as annexure and reference to be given under Para.

#### **CHAPTER-8- REVIEW OF PREVIOUS PROPOSALS (Pg. 75-84)**

19. **The review of the proposals to be done specifically year-wise for the year 2020-21 & 2021-22(till Feb-22)** w.r.t the last approved document. For all the paras under this chapter the deviation may be calculated in percentage. The corrections in all the para of this chapter to be incorporated accordingly.
20. i) **Para 8.1.1-Lease area utilization (Pg-75)-a)** Under "Area proposed under activity" the area mentioned under "Area as at the end of plan period/Total area" as per the last approved document to be given. For e.g., in case of Mining – "40.49 ha" may be mentioned instead of 17.56 ha. For OB/Waste dump-10.87 ha and so on in other headings also. The deviation may be calculated in **percentage** accordingly and reasons may be specified.
- ii) **Para 8.2.8-Environmental Compliances-(Pg. 71-72)-** The Environmental monitoring report submitted (Annex-9F) is of Aug-2019. The latest environmental monitoring report to be enclosed in annexure and reference to be given under this Para.

#### **21. 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 mine plan 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 mine plan format.
- iii) Every chapter of the text to be digitally signed by QP at starting and end of the chapter. All the soft copies of plates (PDF) & relevant annexures to be also digitally signed by QP.

#### **22. PART-C, PLANS & SECTIONS:**

- a) *The Plate number and sequence to be maintained as per the format. The period to be corrected as 2022-23 to 2024-25.*
- b) An additional plan may be prepared as mentioned above in scrutiny comment no 1, superimposing the 602.054 ha applied ML area and 519 ha of the executed lease deed area and the change in area from 238.8 ha to 197.5 ha for Pit 1, 42.10 ha to 10.51 ha for Pit-2 & 89.70 ha to 44.62 ha for Pit-3 & the change in area pit wise to be specifically demarcated with distinct colours. **The Pit-1, Pit-2 & Pit-3 areas are to be replicated accordingly in all plans. The Pit-3 area to be demarcated distinctly as "No Mining Zone" and it should be ensured that no working proposals are given for Pit-3**
- c) *All the plans are to be prepared with boundary pillar nomenclatures and co-ordinates as per the State Govt. approved DGPS Lease sketch.*
- d) 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 (dwg. file), to be also be submitted. All sections submission should be in **dwg. Format** (Auto-cad output). **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, other safety zones (Village, Nala, Electric power line, Railway line, Roads etc.) are to be specifically demarcated in all KML plans also. The individual KML to be prepared Layer wise as per the respective plan requirement and as detailed under the "List of plates" in excel format of FAQ. Pit-3 area to be demarcated as No- mining zone in all KML files also.**
- e) All plans and sections should be signed with date by certified surveyor, Qualified Person, Geologist, Mining Engineer as per provisions of MCDR 2017. The submitted soft copies of the plates (dwg files) are to be digitally signed.
- f) **Surface Plan** (Plate No-3(a)): The surface plan to be corrected and updated specifically as per above **scrutiny comment 11 & 12.** and as mentioned in above points and also all related scrutiny comments of different chapters The KML/SHP file of surface plan to be also prepared accordingly after incorporating all corrections. The colour codes for different features to be followed as per the format.
- g) **Geological Plan** (Plate no.-3 (b)):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) & as mentioned in above points. All the features to be also replicated as per the corrected/updated surface plan. The KML/SHP files of Geological plan to be also corrected accordingly.  
2) **Geological Section** (Plate No.3(c))-The plate should be checked and all corrections to be specifically incorporated as per the aforementioned scrutiny comments of Geology and Exploration chapter (2) and as, mentioned in above points. The existing pit profile should be in line with the surface plan and also indexed.
- h) **Production & Development Plan** (Plate No.4(a), 4(c),4(e),4(g) & 5(a)): These plates should be corrected as per the aforementioned scrutiny comments for Geology & Exploration (2), Mining operations (4), Progressive Mine Closure plan (6) & Financial Assurance/Performance security (7) chapters. The existing pit profile, safety zones, Pit-3-No mining Zone etc. should be replicated as per the corrected/updated surface plan and also to be mentioned in index  
ii) **The proposal of bench development systematically mRL wise & connecting with the old benches as per bench mRL maybe worked out and demarcated distinctly year-wise. Also, the ramps/haul road for access to the mine pit and waste dump have to be specifically demarcated distinctly on each year production & development plan.**  
iii) The environmental protective work proposed year wise should also be demarcated year-wise along with index as per the PMCP chapter (6).

iv) The KML/SHP 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.

- i) Production & Development section (Plate No 4(b), 4(d), 4(f) & 4(h) & 5(b))-The corrections should be incorporated in the individual year section as per the respective production & development plan as mentioned above in scrutiny comment no (h). The demarcated existing pit profile, safety zones, Pit-3-No mining Zone etc. 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.**
- j) Progressive mine closure plan (Plate no 6(a)): All corrections to be incorporated as per the PMCP Chapter (6.0) and related scrutiny comments of other chapters. Also, all the features such as existing pit profile, safety zones, Pit-3-No mining Zone etc etc., to be replicated as per the updated/corrected surface plan. The year-wise proposed PMCP measures for the plan period should be demarcated with different color code as per the format. The KML/SHP files of PMCP plan to be also corrected accordingly.
- k) Progressive mine Closure sections (Plate no 6(b))-The corrections to be incorporated as mentioned above in point no (j) for PMCP plan.
- l) Conceptual Plan (Plate No 7(a))-i) All the corrections to be incorporated as per the above scrutiny comment no 17(vii) for Para 6.2.11. The KML/SHP files 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 (Plate no 7(b))-**The conceptual section should depict sections along Pit-1, Pit-2, Waste dumps etc. at conceptual stage as per the conceptual plan.**
- m) Environment Plan (Plate No 8): -The corrections to be incorporated as mentioned above and as mentioned in scrutiny comments of different chapters. The KML/SHP file of Environment plan to be also corrected accordingly.
- n) Financial Area Assurance Plan (Plate no 9): The plate may be checked w.r.t the comments for Financial Assurance/Performance Surety Chapter (7) (Scrutiny comment no 18) and corrections to be incorporated. 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.
- o) **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. The excel template as published in FAQ may be referred**

## 23. PART- B, ANNEXURE:

- a) 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.
- b) Annexure-9G-Bulk density Report- The corrections/additions to be incorporated as mentioned above in scrutiny comment no 13(i)(b) for Para 4.3.1.
- c) Annexure-9F-Environmental monitoring Reports- The latest environmental monitoring report to be enclosed as mentioned above in scrutiny comment no 20(ii) for Para 8.2.8(Environmental compliances).
- d) Annexure-10-Feasibility Report- All corrections to be incorporated in the Feasibility study as per the scrutiny comments of the Geology & Exploration Chapter (2), Mining (4) & other related chapters. **The feasibility report to be signed by QP.**
- e) Annexure-12 B-Reserve Resource Estimation-The Excel sheet may be furnished for the same.
- f) The **CSV/Excel sheet** of all the previous drilled boreholes (Collar, survey, Assay, Geology) to be prepared and enclosed as discussed during site inspection. The Sheet to be furnished in excel format.
- g) Annexure-12C-Development & Production Sheet- The corrections to be incorporated in this annexure as per above scrutiny comment of Geology & Exploration (2) & Mining Operations (4.0) chapters. **The Sheet to be furnished in excel format with Year-wise detailed calculation as discussed during site inspection.**
- h) Annexure-13- Water balance and chemical analysis of water- The corrections/modifications to be incorporated in this annexure as per above scrutiny comment no 9(ii) for Para 3.9(Overall Water Requirement).
- i) **All the annexure to be properly numbered/ paged and relevant annexure to be signed by QP. The annexure number and headings to be specifically maintained as per the format The Page no range should be accordingly given in Part-B Annexures in text. All the annexures should be legible.**

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