

**Scrutiny comments of Review of Mining Plan with Progressive Mine Closure Plan of Adityana Limestone Mine of M/s Industrial Minerals over an area of 24.38 Ha., situated in village – Adityana, Taluka - Ranavav, District – Porbandar, submitted under Rule 17(2) of MCR 2016 and 23 of MCDR 2017 for approval period 2019-20 (Dec'19 to 31<sup>st</sup> March'19) and 2023-24.**

**1.0 Cover page & Introduction- (Page 1)**

- Category of lease may be mentioned correctly in the cover page
- Second renewal applied date may be mentioned correctly in the cover page.
- The status of supplementary deed may be mentioned as part of lease extension process.
- The mode of operation/category of the mines may be mentioned correctly in the introduction at page 1.
- The submitted Review of Mining Plan period may be mentioned correctly in page 1.
- The brief annual target of ROM production to be mentioned.
- ROM production reported in past & net excavated area needs to be discussed & justified.
- Status of EC clearance to be given.
- Give brief about public agitation if any along with latest development or court order if any is to be given.
- Status of annual return and monthly return may be mentioned.

**2.0 General & Location and Accessibility (page 3 to 5)**

- The photo ID, address & contact details of remaining board of directors/Partner needs to be submitted in the form of annexure.
- Second renewal applied date may be mentioned correctly in page no 4.
- The copy of resolution of the board of directors/ partnership agreement deed if any may be attached after duly signed by all the partners in a readable condition. Authentic document from government about nominated owner should be furnished.
- Khasra no/survey no of the non-forest area is missing in page no 6 and the same needs to be annexed.
- Location of boundary pillars need to checked and correctly should be positioned in the field.
- KML file showing the area with clarity (boundary pillars) are to be given.

**3.0 Details of approved mining plan (Page 6 to 8)**

- In the Exploration para a remarks may be mentioned for further exploration required to prove the entire deposit to G1 category in page 6.
- Proposed vs actual ROM production needs to be supported with proper documentary evidences as annual return and monthly return was not submitted.
- Height of the bench may be mentioned as per the approved mining plan.
- Air, water, noise & other relevant environmental monitoring stations to be mentioned in the Environment Plan and the Plate no to be mentioned actual columns.
- Review of the mining plan has not been properly described about the blocked reserve due to Electric Power line, roads, school buildings & others relevant items and true ground picture needs to be described.
- Proposed vs Actual of progressive mine closure plan details may be mentioned in a tabular form to describe plantation, fencing, garland drain etc. till date) need to be discussed.
- Last date of inspection and status of violations pointed out by the IBM and its compliance status may be given in details.

- Plantation status along with its survival rate supported by field photographs may be submitted.
- Land acquisition status may be given.

## **Part-A**

### **Chapter - Geology & Exploration**

- All the text & plates should be as per the IBM guidelines.
- In the regional geology and local geology part (page 10-11) the occurrence of limestone bearing strata may be shown in the tabular form as well graphically in relation to Deccan Trap. Local geology may be depicted in the mine scale also.
- All the boundary Pillars are to be shown prominently on all the statutory plan along with its latitude, longitude & RL.
- The area considered for reserve & resource calculation may be mentioned in the text in a table and also in Surface Geological Plan with distinct hatch and the same may be mentioned in the index also. G1, G2 & G3 area to be defined and the same are to be shown clearly in text as well as in the related plans & sections.
- Geological Cross-sections and longitudinal sections needs to be given in separate plate with appropriate scale. Cross-Sections may be shown clearly which has been considered for reserve & calculations.
- Exploration plan may be proposed for the year 2019-20 and 2020-21 to explore the entire area under G1 category as per MCDR, 2017 (page 15) and the same may be shown in the geological plan
- Entire reserve estimation is in-correct hence reserves & resources may be estimated in UNFC codes (G1/G2/G3) needs to be revised & modified after re-assessment.
- Bulk density of minerals should be supported with documentary evidences & test results.
- Analysis result needs to be submitted from NABL accredited laboratory.
- Boundary Pillar should be erected along with its no and corresponding latitude and longitude. Photographs of the same be enclosed in the annexure.
- Full form of all the abbreviations may be used in the entire text part.
- Recovery factor of limestone needs to be mentioned uniformly with proper justification (page 16, 19, 26, 27 & in other places).
- Area/width of influence considered for reserve/resource calculations may be supported with proper justification.
- The table of Mineral Reserve/Resources may be corrected

### **Chapter – Mining**

- The name of the Mines manager, agent, nominated owner may be mentioned as per MMR, 1961.
- Design parameters for limestone and chalk are to be discussed elaborately.
- Recovery % of limestone and chalk and mineral rejects may be mentioned correctly.
- Category of mines may be mentioned correctly in page 27, 33 and other places.
- Maximum and average height of the benches may be mentioned correctly.
- Year wise development proposals should be given along with the co-ordinates (preferably in degree, minutes, second) and pit no. and the same should be marked in the development plan.
- Opening balance may be corrected as per the revised reserve.

- Life of the mine should be re-calculated based on the updated reserves.
- Processing/ beneficiation of chalk ROM are to be discussed in details with flow diagram.
- Quality and quantity of tailing accrued in chalk processing is to be mentioned with its mode of disposal and confinement.
- List of Mining machinery will be used for the mining operation may be enclosed.

#### **Chapter - Mine Drainage.**

- Maximum working depth may be mentioned correctly at page 35.
- Water table of the area needs to be supported with documentary evidences.
- The area is low lying hence the possibility of encountering with ground water are to be discussed in terms mRL (w.r.t to MSL) and possibility of ingress of saline water.

#### **Chapter - Stacking of mineral rejects/Subgrade material & Disposal of waste, Use of Minerals, Others**

- Generation and Stacking subgrade mineral, mineral rejects, top soil and disposal of waste may be suitably elaborated as per IBM guideline.
- Full form of all the abbreviations may be used in the entire text part.
- Details of full time mining engineer, geologist as per MCDR may be given.
- Name of manpower and list of the same be enclosed as annexure.

#### **Chapter - PMCP**

- Total lease area is 24.38 ha. The plan period coincides with lease expiry and degradation of 19.46 ha area is anticipated. But proposal for its restoration/rehabilitation have not been made in PMCP.
- Land use pattern table may be corrected.
- The impact on water, air other environmental parameters needs to be discussed specifically as per the guide lines.
- Appropriate bank guarantee may be submitted
- Periodic environmental monitoring reports may be enclosed like Air, Water, Noise, land etc

#### **Plan & Section: - All plan & section need to be modified/updated as per above scrutiny.**

- Plan and text needs to be updated as per the scrutiny comments.
- Scale of all the maps to be corrected with proper title and appropriate index.
- Index of all the plates needs to be corrected as given in the maps.
- All plates to be signed with date by Mines Manager, RQP and other concerned person.
- **Surface Plan:** existing pit dimension, submergence water logged area of pit, bench & needs to be updated & corrected as per field observation. The statutory barrier of electric power line and other statutory barriers need to be marked and updated in plan & section. Further all the boundary pillars with co-ordinates of the lease area need to be given as per DLR map.
- Existing plantation area may be shown in the surface plan.
- Deep tube well, workshop (page41) needs to be shown in the surface plan.
- **Surface Geological Plan:** Corrected pit position, corrected mRL, revised core borehole locations to be shown in the Plan.
- The geological axis of G1/G2/G3 area needs to be modified and the same may be shown in the concerned plates with distinct color code.
- Blanks area in all the cross sections needs to corrected as per existing lithology.

- **Production & Development Plan:** Entire proposed ROM planning needs to be revised based upon above scrutiny by leaving statutory barriers etc.
- **Environment Plan:** The environmental monitoring stations needs to be marked in the plan and wind rose diagram may be shown all the relevant plates.
- **Reclamation plan/ Conceptual Plan/ Financial Area Assurance Plan:** Plan should be updated & modified as per above scrutiny.

**Annexures-**

- Annexures as mentioned in the 'List of Annexures' is not available. The same may be made available.
- All the attached annexures to be in a readable condition.
- Boundary pillar photos needs to be attached as mentioned in the scrutiny comments.
- The copy of DLR map duly sign with date by authorized person of the concerned State Government may be enclosed.
- NABL accredited laboratory certificate is missing at annexure 12A. The same may be attached.
- The copy of all Gujarati letters needs to be translated either in Hindi/English & Notarized & submitted in the form of annexure.
- The copy of field photographs of present mine workings, exploratory pit/trenches/lithologs, location, Boundary Pillars with no; Lat & Longitude, mRL etc. should be submitted.
- Photo ID & contact details of lessee/partners of firm, resolution of board of director of nominated owner may be enclosed.
- Environmental monitoring reports to be enclosed.

\*\*\*