

**GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE  
(IMPACT ASSESSMENT DIVISION)  
NON-COAL MINING SECTOR**

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**SUMMARY RECORD OF 22<sup>ND</sup> MEETING OF THE COMMITTEE OF THE RE-CONSTITUTED EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF NON-COAL MINING PROJECTS CONSTITUTED UNDER THE EIA NOTIFICATION, 2006.**

The 22<sup>nd</sup> meeting of the Re-Constituted Expert Appraisal Committee (EAC) for Environmental Appraisal of Mining Projects (Non-Coal) of the Ministry of Environment, Forest and Climate Change was held during 14-15 November, 2023 through video conference. The list of participants is annexed herewith. After login of the Committee Members through video conference link provided by NIC discussion on each of the Agenda Items was taken up ad-seriatim.

**(1.0) Deliberation & Circulation on the Minutes of 21<sup>st</sup> EAC (Non-Coal Mining) meeting held during 18-20 October, 2023:**

The minutes of the 21<sup>st</sup> EAC meeting held during 18-20 October, 2023 were placed before the members of the EAC.

**Day 1: 14<sup>th</sup> November, 2023 (Tuesday)**

**1.1 Amendment in EC dated 17<sup>th</sup> July, 2018 w.r.t Condition No 22 for Guda Clay mine of M/s Harish Clays with enhancement of production capacity from 60,000 TPA to 2,50,000 TPA (ROM) of Clay in the mine lease area of 284.20 ha, located at Village-Guda, Tehsil Kolayat, District Bikaner, Rajasthan - [File No: J11015/163/2014-IA.II(M), Proposal No: IA/RJ/MIN/125957/2014, Consultant: M/s. Enviro Green Consultants (I) Pvt. Ltd] - Amendment in EC**

The instant proposal is for amendment in EC dated 17<sup>th</sup> July, 2018 w.r.t Condition No 22 for Guda Clay mine of M/s Harish Clays with enhancement of production capacity from 60,000 TPA to 2,50,000 TPA (ROM) of Clay in the mine lease area of 284.20 ha, located at Village-Guda, Tehsil Kolayat, District Bikaner, Rajasthan.

2. The details of the project as ascertained from the document submitted by the Project Proponent and revealed from the discussions held during the meeting are given as under:

- i. Initially, the Project Proponent has obtained Environmental Clearance (EC) vide EC letter dated 18.02.1998 for the production capacity of 60,000 TPA of clay.

- ii. Then, the Project Proponent obtained Environmental Clearance (EC) vide EC letter dated 17.07.2018 for Guda Clay mine of M/s Harish Clays with enhancement of production capacity from 60,000 TPA to 2,50,000 TPA (ROM) of Clay in the mine lease area of 284.20 ha.
- iii. Now, the Project Proponent requested for amendment in EC w.r.t Condition No 22 which as mentioned below:

S. No	As per EC letter dated 17.07.2018	Request for amendment in EC by the Project Proponent
1	<p>22) <i>The top soil, if any, shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time. <b>The maximum height of the dumps shall not exceed 8m and width 20 m and overall slope of the dumps shall be maintained to 45<sup>o</sup>. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. <b>The entire excavated area shall be backfilled and afforested. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.</b></b></i></p>	<ul style="list-style-type: none"> <li>i. The Project Proponent submitted that the existing dump height is 38 meters which will reach approximately 60 meters. It would not be economical or feasible to maintain a height of 8 m as it will require a significant part of the lease area which will also cover the major part of mineralized zone and will degrade the surrounding environment to a greater extent. Hence the <b>dump height should be permitted to 60 meter instead of 8 meter.</b></li> <li>ii. In line with point no. 7 of EC, Change is sought in point 22 from “the entire excavated area shall be backfilled and afforested”, to <b>“at the conceptual stage, out of 271 Ha of excavated pit, 100 ha will be converted in to rain water collection pond and remaining 171 ha will be back filled and ecologically restored by plantation which is similar to the conceptual planning given in the EMP report and approved Mining Plan”.</b></li> </ul>

- iv. The proposal was earlier considered in the 18<sup>th</sup>EAC (Non-coal Mining) held during 22-24 June, 2020 and after detailed deliberations, the Committee was of the view the study for slope study has already been conducted by CMPDI but to execute the same the PP is required to submit the modified mining plan. The Committee appreciate the effort of PP made towards backfilling and was of the view that while preparing the modified mining plan it should be kept in the mind the to the extent possible the backfilling is to be done and only in case where it is not feasible the dumping of the same in dump yard to be done. Therefore, PP shall submit a draft mining plan in the similar lines, so that, height of the dump, area of dump, area to be backfilled, time line for backfilling etc. may be appraised before consideration of amendment in EC. Therefore, EAC deferred the proposal. Then, the Project Proponent submitted the information on 12.01.2023 in Parivesh Portal and accordingly the proposal was considered in the EAC meeting held on 8<sup>th</sup>February, 2023. After detailed deliberations, the EAC deferred the proposal for want of requisite information. Then, the Project Proponent submitted the information on 21.10.2023 and accordingly the proposal was again reconsidered in the EAC (Non-Coal Mining) meeting held during 14-15 November, 2023.

Based on observation of EAC in its EAC meeting held during 8<sup>th</sup> February, 2023 and compliance of observation of EAC made by Project Proponent are detailed below:

S. No	Observation of EAC in its meeting held on 8 <sup>th</sup> February, 2023	Reply by Project Proponent					
1	The Project Proponent needs to address the environmental impacts due to increase in dump height from 8m to 60m.	<p>The Project Proponent has submitted the anticipated environmental impacts due to the increase in dump height and their protective measures as mentioned below:</p> <table border="1" data-bbox="769 1318 1424 1877"> <thead> <tr> <th data-bbox="769 1318 1073 1352">Anticipated Impact</th> <th data-bbox="1073 1318 1424 1352">Mitigation measures</th> </tr> </thead> <tbody> <tr> <td data-bbox="769 1352 1073 1877">Sliding of waste dumps may cause loss of life as well as undue land degradation.</td> <td data-bbox="1073 1352 1424 1877">A study has been carried out by CMPDI, Ranchi for the stability of dump. As per the recommendations made in the study, the geometry of the dump is proposed to maintain the height of 10 m and width of 10 m with a slope angle of 45° for each individual bench and up to 60 m height, making 6 benches with an overall slope angle of 29°, and pp assure to maintain the</td> </tr> </tbody> </table>		Anticipated Impact	Mitigation measures	Sliding of waste dumps may cause loss of life as well as undue land degradation.	A study has been carried out by CMPDI, Ranchi for the stability of dump. As per the recommendations made in the study, the geometry of the dump is proposed to maintain the height of 10 m and width of 10 m with a slope angle of 45° for each individual bench and up to 60 m height, making 6 benches with an overall slope angle of 29°, and pp assure to maintain the
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		<p>same.</p> <p>Any depressed land nearby the toe of the dump or top, if seen, will be filled up with OB material and dozed or levelled so that no accumulation of water takes place.</p> <p>If any deformation in the slope geometry of the dump is observed, it will be monitored with the help of the survey department for further movement.</p> <p>The spill of the overburden will be checked by making a retaining wall at the toe of the overburden dump to check for undue land degradation as well as loss of life.</p>	
		<p>The impact of runoff from the over burden and other stockpiles on water bodies (siltation, contamination etc.).</p>	<p>Garland drain (1m x 1.5m) will be constructed around the OB dump to channelize the rain water to a settling pond of (5.0m x 5.0m x 0.1 m).</p> <p>Proper drainage measures are being taken. No water stagnation on the top of the overburden is allowed. The top of the overburden dump will be graded in such a manner that no water will accumulate there, and cleaning of the drain and settling pond will be done every year in the premonsoon season to maintain the efficiency of the sediment control.</p>

		<p>Degradation of land and loss of aesthetic value of the land</p>	<p>Both the backfilled and dumping sites will be reclaimed by growing local grasses, trees, and bushes. This will improve the aesthetic value of the area</p>
<p>2</p>	<p>The Project Proponent needs to carry out detailed study on stability of pit slope.</p>	<p>The Project Proponent has submitted that the Scientific Study on Stability of Pit Slopes at Guda Clay mine has been carried out by CSIR-Central Institute of Mining &amp; Fuel Research. CSIR-CIMFR Team has done a detailed field investigation in and around the current Pit No.1 &amp; 2 (Central Quarry) to examine the current stability scenario of its benches which involved the collection of geological and geotechnical data related to the rock masses.</p> <p>The conclusion and suggestions of the scientific study are as follows:- To minimize the risk associated with slope failure, the stability of the inter-ramp and overall pit slope is considered to be the most important factor for an open-cast mining operation. The analyzed stability condition of the inter-ramp of Pit No. 1 &amp; 2 (Central Quarry) as well as the overall slopes of Guda clay mines through numerical methods suggest quite a stable condition for pit benches as well as overall mine slopes. The field investigation suggests differential weathering of variable grades of different lithological units which varied within the inter-ramp of Pit No. 1 &amp; 2 (Central Quarry) locations.</p> <p>Field-based rock mass characterization of slope materials recommends poor rock mass conditions due to intense weathering, tectonically sheared and low-strength materials. The overall stability of the mine slope is quantified by the FOS which varied from 3.59 to 1.17 for five considered cross-sections along the mine from west to east. The lowest FOS of 1.17 is observed for the uppermost pit benches of the E1-E2 section which are composed of yeathered sandstone</p>	

		<p>and clay overlain by alluvium. The stability analysis was performed in static and dry conditions. So, the inclusion of rainfall conditions may reduce the FOS by some magnitude due to the susceptibility of clay to swell in water. Therefore, is suggested to take care of proper surface drainage on the inter-ramp as well as the slope crest area to minimize the water infiltration into the slope mass. It reduces the build-up of the pore water pressure within the clay and weathered rock mass and thereby lessens the chance of failure.</p>
3	<p>The Project Proponent needs to submit the approved modified scheme of mining w.r.t amendment sought.</p>	<p>The Project Proponent has submitted the Mining Scheme with Progressive Mine Closure Plan was approved by the Office of Superintending Mining Engineer, Mines &amp; Geology Department vide Lr.No. SME/Bikaner-CIR/Mine-Scheme/Bikaner/ F-489/23/6224 dated 23.08.2023.</p> <p>In mining scheme, it has been mentioned that as per recommendation of CMPDI, the geometry of dump is proposed to maintain the height of benches 10m and width 10m with slope angle 45° of individual bench and up to 60 m height making 6 benches overall slope 29°. The Project Proponent has informed that they are in the process to modify the existing dump in a modified way to have dump geometry with 42° to 45° individuals.</p> <p>It is also mentioned that it has been conceptualized that 271.00 ha will be converted in to mining pit at end of the life of the mine and out of this, about 100.00 ha area would be left for rain water storage so that nearby villagers may use for various purposes as well as to serve as artificial recharge to increase the water table and 171.00 ha area would be backfilled and rehabilitate by growing trees and bushes.</p>
4	<p>The Project Proponent needs to submit the Certified Compliance Report to be issued by the Ministry's</p>	<p>The Project Proponent has submitted the certified compliance report issued by the Regional Office (RO), Gandhinagar vide Lr.No: IV/Env/Raj/MINE-578/992/2019 dated</p>

	Integrated Regional Office.	11.07.2023. The site visit was conducted by RO on 13.04.2023.
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- v. Details of Mine Lease:
- a) The total mine lease area is 284.20 ha, out of which Private land is 90.0 Ha and Govt. land is 194.20 ha.
  - b) The Project Proponent has submitted that the State Govt. vide Lr no. ME/Bika/ML/7/ 93/5181 dated 16.02.2015 have extended the validity of the mine lease period for a period of 50 years i.e., upto 04.08.2048. The rider agreement for the extension of the lease period and change in major to minor mineral of clay has been made on 16.02.2016.
- vi. The Project Proponent has submitted that the Consent to Operate (CTO) issued by the Rajasthan State Pollution Control Board vide Order No: 2021-2022/Mines/10390 dated 18.01.2022 for production of Clay of 2,50,000 tonnes / annum for the period from 01/02/2022 to 31/01/2027.
- vii. The Project Proponent has submitted the certified production details from the Department of Mines & Geology vide letter dated 16.01.2020 for the period 05.08.1998 - 04.08.1999 to 01.04.2018 - 31.03.2019, vide letter dated 13.01.2021 for the period 2019-20 to 2020-21 (April 2020 – December 2020) and vide letter dated 01.02.2023 for the period 2020-21 to 2022-23 (April 2022 - December 2022). The Project Proponent has submitted an undertaking in a non-judicial stamp paper of Rs 100 bearing no: AL 668434 dated 13.06.2020 stating that no violation made in the project under the provisions of the EIA Notification dated 14.09.2006 and as per Ministry's OM dated 14.03.2017 and there is no penalty imposed by the Dept. of Mines and Geology, Govt of Rajasthan.
- viii. The Project Proponent has submitted an undertaking vide letter dated 30.01.2023 stating that there is no any litigation/court case pending against the project.

### **3. Observation and Recommendation of the EAC: -**

The EAC noted that the instant proposal is considered in the EAC as per Ministry's OM dated 27.09.2022 which states that *"the proposals which have been considered/ appraised once by EAC either for TOR or EC, but final decision has not been taken, shall continue to be appraised at the Central level only, till final disposal for ToR/EC, even after the amendments in the EIA Notification are issued from to time regarding delegation of projects to SEIAAs"*. The Project Proponent/Consultant presented the KML file to indicate the site features in the study area. The Project Proponent has shown the mine lease boundary of 284.20 ha, existing waste dump and boundary plantation. Then, the EAC deliberated on the additional details submitted by the Project Proponent and the Consultant.

The EAC asked about the nature of the topsoil. The Project Proponent has informed the EAC that the nature of the topsoil is alluvium and thickness of the topsoil varies from 20cm to 1m. The EAC also asked about the backfilling. The Project Proponent has informed the EAC that the considering the safety, part of the material is backfilled and partly dumped. The lateral expansion of dump has also been done to a height of 8m. Garland drain (1m x 1.5m) will be constructed around the OB dump to channelize the rain water to a settling pond of (5.0m x 5.0m x 0.1 m). The Project Proponent has also informed the EAC that the Scientific Study on Stability of Pit Slopes at Guda Clay mine has been carried out by CSIR-Central Institute of Mining & Fuel Research. The CSIR-CIMFR Team has done a detailed field investigation in and around the current Pit No.1 & 2 (Central Quarry) to examine the current stability scenario of its benches. As per the recommendations made in the study, the geometry of the dump is proposed to maintain the height of 10 m and width of 10 m with a slope angle of 45° for each individual bench and up to 60 m height, making 6 benches with an overall slope angle of 29°. The EAC opined that the Project Proponent needs to ensure that the overall slope angle of 29°.

Further, the Project Proponent has informed the EAC that the Mining Scheme with Progressive Mine Closure Plan was approved by the Office of Superintending Mining Engineer, Mines & Geology Department vide letter dated 23.08.2023. The Project Proponent also informed the EAC that the certified compliance report was issued by the Regional Office (RO), Gandhinagar vide dated 11.07.2023. The Project Proponent has also shown the photographs of the existing waste dump, backfilled area and safety barrier. The EAC noted that the existing waste dump of 38m is inactive and asked the Project Proponent to stabilize the waste dump to prevent soil erosion.

After detailed deliberations made by the Project Proponent and the Consultant, the EAC agreed only for increase in dump height of lateral expansion of dump from 8m to 30m. The EAC opined that further increase in dump height i.e., beyond 30m shall be reviewed by the concerned authority w.r.t stabilization of waste dump. The EAC was not convinced with the proposal for partly backfilling and converting the pit into water reservoir. The EAC also opined that the Project Proponent needs to have proper backfilling from the view point of mineral conservation. Based on the discussions held, the EAC in its meeting held during 14-15 November, 2023 under the provisions of EIA Notification, 2006 and subsequent amendments therein, **recommended** the proposal for amendment in EC dated 17<sup>th</sup> July, 2018 for Guda Clay mine [2,50,000 TPA(ROM)] of M/s Harish Clays only for an increase in dump height of lateral expansion of dump from 8m to 30m in the mine lease area of 284.20 ha, located at Village-Guda, Tehsil Kolayat, District Bikaner, Rajasthan along with following additional special conditions:-



- i. The Project Proponent needs to properly stabilize through plantation the existing dump height of 38m. Plantation program over inactive dump needs to be scientifically planned.
- ii. For further increase in dump height beyond 30m, the Project Proponent shall approach the concerned authority only after proper stabilization of later expansion of dump and existing dump and also with the action plan for backfilling.
- iii. The Project Proponent needs to implement the recommendations of the Scientific Study on Stability of Pit Slopes carried out by CSIR-Central Institute of Mining & Fuel Research.
- iv. The Project Proponent needs to ensure that the overall slope angle shall be 29°.
- v. The Project Proponent needs to make provision for permanent water sprinklers instead of water tankers.
- vi. The catch drains and siltation ponds needs to be regularly maintained to arrest silt and sediments flow from dumps.
- vii. Digital processing of the entire lease area using remote sensing technique shall be carried out regularly once in three years for monitoring land use pattern and report submitted to Regional Office of MoEF&CC.
- viii. The Project Proponent shall create awareness among the local people working within the project area as well as its surrounding area on the ban of Single Use Plastic (SUP) in order to ensure the compliance of Notification published by MoEF&CC on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report.
- ix. All other terms and conditions mentioned in the EC letter dated 17<sup>th</sup> July, 2018 remains unchanged.

**1.2 Proposal for Regularization of Environmental Clearance under the provision of MoEF&CC Notification S.O. 1530 (E) dated 6<sup>th</sup> April 2018 for Terms of Reference of Roha-Kotada-Nandra-Jarjok Bauxite Mining of M/s Gujarat Mineral Development Corporation Limited with Production Capacity 1,00,000 TPA in the mine lease area of 360.3601 ha, located at Village Roha, Kotada, Nana Nandra, MotaNandra&Jarjok, TehsilAbdasa&Naktarna, District Kutch, Gujarat– [File No. J-**

**11015/149/2018- IA-II(M); Proposal No. IA/GJ/MIN/258092/2022] - Terms of Reference**

The instant proposal is for Terms of Reference under the provision of MoEF&CC Notification S.O. 1530 (E) dated 6<sup>th</sup>April 2018 for mining of Limestone in Roha-Kotada-Nandra-Jarjok Bauxite Mining project of M/s Gujarat Mineral Development Corporation Limited with Production Capacity of 1,00,000 TPA in the mine lease area of 360.3601 ha, located at Village Roha, Kotada, Nana Nandra, MotaNandra & Jarjok, Tehsil Abdasa & Naktarna, District Kutch, Gujarat.

**2. Observation and Recommendation of the EAC: -**

The EAC noted that the Project Proponent vide email dated 30.10.2023 informed that the Terms of Reference (ToR) have been already granted on 18.04. 2022. Hence, the EAC **returned** the proposal.

**1.3 Proposal for Regularization of Environmental Clearance under the provision of MoEF&CC Notification S.O. 1530 (E) dated 6<sup>th</sup>April 2018 for Terms of Reference of MothalaBalachod Bauxite Mining Project of M/s Gujarat Mineral Development Corporation Limited with Production Capacity of 42,000 TPA in the mine lease area of 280.7686 ha, located at Village: Balachod, Mothala&Khandai, Tehsil Abdasa, District Kutch, Gujarat– [File No.J-11015/150/2018- IA-II(M); Proposal No. IA/GJ/MIN/258052/2022] - Terms of Reference**

The instant proposal is for Terms of Reference under the provision of MoEF&CC Notification S.O. 1530 (E) dated 6<sup>th</sup>April 2018 for mining of Limestone in Mothala Balachod Bauxite Mining Project of M/s Gujarat Mineral Development Corporation Limited with Production Capacity of 42,000 TPA in the mine lease area of 280.7686 ha, located at Village: Balachod, Mothala & Khandai, Tehsil Abdasa, District Kutch, Gujarat.

**2. Observation and Recommendation of the EAC: -**

The EAC noted that the Project Proponent vide email dated 30.10.2023 informed that the Terms of Reference (ToR) have been already granted on 18.04.2022. Hence, the EAC **returned** the proposal.

**1.4 Proposed Limestone Mine “Mudhvay Sub Block A” of M/s. JK Lakshmi Cement Ltd.with Limestone production capacity of 2.50 Million TPA, Top Soil: 0.22 Million TPA, Over Burden: 2.08 Million TPA (Total Excavation: 4.8 Million TPA) in the mine lease area of 198.90.98 ha, located at Village: Mundhvay, Taluka: Lakhpat, District: Kachchh, Gujarat – [F.No: :IA-J-11015/32/2023-IA.II(NCM); Proposal No: IA/GJ/MIN/445723/2023; EIA Consultant: M/s J.M. EnviroNet Pvt. Ltd] – Terms of Reference (ToR)**

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The instant proposal is for grant of Terms of Reference (ToR) for mining of Limestone in “Mudhvay Sub Block A” of M/s. JK Lakshmi Cement Ltd. with Limestone production capacity of 2.50 Million TPA, Top Soil: 0.22 Million TPA, Over Burden: 2.08 Million TPA (Total Excavation: 4.8 Million TPA) in the mine lease area of 198.90.98 ha, located at Village: Mundhvay, Taluka: Lakhpat, District: Kachchh, Gujarat.

2. The details of the project as ascertained from the documents submitted by the Project Proponent and revealed from the discussions held during the meeting are given as under:

- i. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals. General condition is applicable for the project due to presence of Eco Sensitive zone of Narayan Sarovar Wildlife Sanctuary located at a distance of 3.6 km and from the boundary of Narayan Sarovar Wildlife Sanctuary at an aerial distance of 4.0 km from lease boundary and hence the proposal falls under Category “A” and appraised at the Central level.
- ii. The mine lease area is located between Latitude: 23°42'57.58" to 23°44'09.26" N and Longitude: 68°40'31.47" to 68°41'12.38" E. The mine lease area falls under the Survey of India Toposheet No: 41A/10 and falls in Seismic Zone-V.

iii. Details of Mine Lease:

S. No	Letter of Intent (Lol) and Lr No	Date of the grant	Name of the Mineral & (Major/ Minor)	Period of Grant	Granted by	Mine lease area in Ha
1.	Letter of Intent (Lol) for grant of mining lease vide Lr.No.: MMR- 102020-MM-496-CHH	06.08.2021	Limestone (Major mineral)	3 years	Govt. of Gujarat	198.90.98

iv. Land Use/Land Cover of the Mine Lease Area:

Private land	58.63 ha
Government waste land	138.51 ha
Pond land	1.76 ha
Forest Land	-
Total Mining lease area (MLA), Ha	198.90.98 ha
Private land for crusher, workshop & other infrastructure outside the MLA	No infrastructure is proposed outside the ML area.

v. Mining plan details:

Mining Plan along with Progressive Mine Closure Plan	Letter No.	MCDR- MPCP 0 CaF1/50/2022- GNR- IBM_RO_GNR
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was approved by Indian Bureau of Mines (IBM)	Date	16.01.2023
	Mineral & (Major/Minor)	Limestone (Major mineral)
	Mine Lease Area, Ha	198.90.98 ha
	Validity	5 years from the date of Mining Lease registration
Mining Parameters	Quantitative Description	
Method of Mining	Fully Mechanized Opencast Mining Method.	
Drilling/Blasting	Excavation will be done by mechanized opencast method using Surface Miner with combination of excavator-tippers combination. Surface Miner is eco-friendly machine as it suppresses dust emission. No drilling and blasting carried out during excavation of limestone	
Geological Reserves	263.75 Million TPA (As on 01/10/2022)	
Mineable Reserves	227.14 Million TPA (As on 01/10/2022)	
Breakup of Total Excavation (Topsoil/OB/SB/IB/Mineral Rejects/ Waste, MTPA)	Total Excavation: 4.8 Million TPA <u>Breakup of Total Excavation:</u> <ol style="list-style-type: none"> <li>1. Limestone: 2.5 Million TPA</li> <li>2. Top Soil: 0.22 Million TPA</li> <li>3. Over Burden: 2.08 Million TPA</li> </ol>	
Life of mine	95 years (Expected by 01.10.2022)	
Mine Bench Height & Bench Width	Bench height: 6.0 m (Minimum) Bench Width: 20 m (Maximum)	
No. of Mine Benches	16 benches at conceptual stage	
Existing Depth, m bgl	It's a greenfield project and so not applicable.	
Ultimate Depth of Mining, m bgl	-89 m RL (112 m bgl)	
Ground Water Table, m bgl	6 m bgl	
Details of ground water intersection	Water table will be intersected during the plan period and necessary permission will be taken before intersecting ground water table.	
Individual bench slope	70°	
Overall pit slope	45°	
Details of existing/ proposed Crusher	Nil	
Mineral Beneficiation	Nil	
RoM output size	Nil	
Transportation details including capacity of dumper/tipper, mode of transport and distance	Limestone will be transported from mine face to head by dumpers via haul road and it will be transported to end users via Road.	
Generation of Topsoil/OB & its Management during plan period & conceptual period.	<u>Top Soil:</u> <ul style="list-style-type: none"> <li>➤ Total 0.22 million tonnes of top soil will be generated during plan period which will be used in green belt generation. At the conceptual stage top soil generated will be used for Greenbelt and</li> </ul>	

	<p>plantation.</p> <p><u>Over Burden:</u></p> <ul style="list-style-type: none"> <li>➤ During this Plan period, 6.46 Million Tonnes Over burden will be generated which will be dumped over an area of 24.51 ha.</li> <li>➤ Approx 103.73 million tonnes of overburden will be generated during conceptual stage. Management: At the conceptual stage, OB generated will be used for backfilling of 70.87 ha excavated area.</li> </ul>
Generation of Mineral Rejects/ Waste & its Management during plan period & conceptual period	-

vi. Water requirement:

Total water requirement	305 KLD	Fresh Water	305 KLD
		Treated water	-
Source	Ground water and rain water collected in mine sump as and when developed Permission will be taken from State Govt. for using Ground water.		
Permission for withdrawal/ intersection along with details of grant and its validity	Working depth during the plan period will be -19 m RL (42 m bgl) and at conceptual stage, ultimate working depth will be - 89 m RL (112 m bgl). Depth of water table in the area is 6 m bgl. Water table will be intersected during the plan period and necessary permission will be taken before intersecting ground water table.		

vii. Nearest village/town/ highway/interstate boundary/railway station/water bodies/monument/ forest

Particulars	Particular's Name	Directions
Nearest Village	Nathura Dada	~250 m in West direction
Nearest Town	Bhuj	~111 km in SE direction
Nearest State/National Highway	SH-6	~1.5 km in WNW direction
Interstate Boundary	None	None
Railway Station/Railway line	Bhuj Railway Station	~113 km in SE direction
Water Bodies	Nathuwara Talav	Within the ML area
	Kapurarsi Nadi	~ 3.5 km in West direction
	Sangdiawala Talav	~ 4.5 km in south direction
	Korai Creek	~ 4.5 km in West direction
Forest	Mudhvay Reserved Forest	~ 0.75 km in SE direction
	Naredi Reserve Forest	~ 3.5 km in South direction

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	Kaiyari Reserved Forest	~ 3.0 km in SW & ~ 5.5 km in SW direction
	Godhatad Reserved Forest	~6.5 km in SW direction

viii. Presence of Environmentally Sensitive areas in the study area:

Forest Land / Protected Area / Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter issued by the concerned Department mentioning the Lr no, date of grant and remarks
Forest Land within the mine lease area and (if yes) status of Forest Clearance	No	No Forest land involved in mining lease area.
National Park	No	The Project Proponent has submitted the letter obtained from the Forest and Environment Department, Government of Gujarat, Gandhinagar letter dated 23.06.2023 stating that proposed area is located North Side 4 km away from Narayan Sarovar Wildlife sanctuary and 3.6 km away from Eco Sensitive zone of Narayan Sarovar Wildlife Sanctuary.
Wildlife Sanctuary	Yes	
Elephant/Tiger Reserve	No	
Eco-Sensitive Zone (ESZ) /Eco-Sensitive Area (ESA)	Yes	
Coastal Regulation Zone (CRZ)	No	--
Schedule-I species (No.s and name of schedule-I species with authenticated letter)	-	This proposal is for ToR, study will be carried out, if schedule - I found in the study area Wildlife Conservation Plan will be prepared during the preparation of EIA/EMP Report.
Wildlife Conservation Plan	-	

ix. Green belt/Plantation details:

Proposed area for greenbelt/plantation and no. of saplings proposed	Total area under greenbelt and plantation will be 80.28 ha (4.60 ha area on 7.5 m lease periphery, 4.81 ha. on safety zone of Road and water pond & 70.87 ha. backfilled area).
Budget for green plant & plantation till the end of life of mine.	Rs 3.61 Crore
Budget for nursery	N/A
Details of existing plantation and its survival rate	It's a greenfield project.
No. of tree cuts in the mine lease area and compensatory afforestation	55
Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	4.60 ha
50 m safety zone of nallah, roads, electric lines	4.81 ha

500 m safety zones of nearest habitation villages	Nil
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x. Rehabilitation & Resettlement:

R & R details	<p>i. Total mining lease area is 198.90.98 ha, out of which 58.63 ha is private land.</p> <p>ii. Land will be purchased with negotiation and R&amp;R provisions will be followed as per Central and State Government Rules &amp; Notifications.</p>
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xi. Court case details:

Court Case, No and its present status	No Court Case or Litigation is pending
Undertaking by Project Proponent w.r.t court case	The Project Proponent has submitted a undertaking vide letter dated 25.09.2023 stating that there is no litigation pending against the project and/or any direction/ order passed by any court of law against the project and that for any such litigation whatsoever, the sole responsibilities will be borne by the company.

xii. Affidavit/Undertaking details:

Affidavit as per Ministry's OM dated 30.05.2018	The Project Proponent has submitted the Affidavit in a non-judicial stamp paper of Rs 100 bearing no: BP 852442 dated 31.10.2023 stating that the company undertakes by affidavit that they will comply with all the statutory requirement & judgment of Hon'ble Supreme Court order dated 2 <sup>nd</sup> August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ors before grant of ToR/EC.
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xiii. Details of project cost and employment:

Particulars	Budget (Rs. in Crores)
Project Cost	Rs. 200 Crores
Employment	92 persons

**3. Observation and Recommendation of the EAC: -**

The Project Proponent/Consultant presented the KML file to indicate the site features in the study area. The Project Proponent has shown the mine lease boundary over an area of 198.90.98 ha. The instant project attracts the general condition due to presence of Eco Sensitive zone of Narayan Sarovar Wildlife Sanctuary located at a distance of 3.6 km and from the boundary of Narayan Sarovar Wildlife Sanctuary at an aerial distance of 4.0 km from lease boundary. The Project Proponent has also shown the boundary of ESZ and Narayan Sarovar Wildlife Sanctuary from the mine lease area

on the southern side. Further, the Project Proponent presented the letter obtained from the Forest and Environment Department, Government of Gujarat, Gandhinagar dated 23.06.2023 regarding the distance of ESZ and NarayanSarovar Wildlife Sanctuary from the mine lease area. The India-Pakistan International boundary is located at a distance of 27 km on northern side from the mine lease area. The Arabian Sea is located at a distance of about 30km on western side from the mine lease area. The Korai Creek is located at a distance of about 5.0 km, NW from the mine lease area. The instant proposal does not come under CRZ. The total mine lease area is 198.90.98 ha, out of which 138.51 ha is a Govt. land, 58.63 ha is a Pvt. land (Rain fed Agriculture land) and 1.76 ha is a Pond land. A cart track is passing through the mine lease area and will not be disturbed during entire life of the mine. A 50m safety zone on either side will be maintained along the cart track. There are also 2 ponds located within the mine lease area and the same will be maintained as non-mining zone during entire life of the mine. Dense plantation and bund formation will be undertaken to protect the pond. The EAC opined that the adequate safety measures have to be taken to protect the pond. Private Agricultural land will be purchased. There will be about 10-15 Project Affected Families. Detailed R&R survey is under process.

The EAC asked about the mineral transportation route. The Project Proponent has informed the EAC that the mined out mineral will be transported by road through NH on western side to the other cement plants and industries. The EAC asked about the proposed depth of mining and no. of mine benches. The Project Proponent has informed the EAC that the proposed depth of mining will be 112m bgl and 16 no. of mine benches will be created. The EAC opined that the pit slope stability study has to be carried out. The Project Proponent has informed the EAC pit slope stability study will be undertaken within 1<sup>st</sup> year plan period. The EAC also asked about the presence of Schedule - I species in the study area. The Project Proponent has informed the EAC that generally Chinkara, Monitor lizard, Great Indian Bustard, Leopard are found in the study area. A detailed survey will be undertaken and will be submitted in EIA/EMP report. The EAC asked about the Overburden dumping. The Project Proponent has informed the EAC that the OB will be dumped in the center part of the mine lease area. No backfilling has been proposed in the 1<sup>st</sup> five year plan period. The thickness of the Overburden is 5-6m. Height of the dump will be 30m. Topsoil will be maintained as a separate dump. Excavation will be done by mechanized opencast method using Surface Miner with combination of excavator-tippers combination. Water requirement will be 305.0 KLD. The EAC asked the Project Proponent to explore the possibility to reduce the water consumption. At conceptual stage, total area under mining will be 177.60 ha, out of which 70.87 ha will be backfilled and an area of 106.73 ha will be converted into water reservoir. The EAC asked the Project Proponent to revisit the proposed species for plantation. The EAC also suggested the Project Proponent to



address the additional traffic load due to transportation and also to carry out cumulative impact assessment.

After detailed deliberations made by the Project Proponent and the Consultant, the EAC in its meeting held during 14-15 November, 2023 under the provisions of EIA Notification, 2006 and subsequent amendments therein, **recommended** the proposal for grant of Terms of Reference (ToR) to M/s. JK Lakshmi Cement Ltd. for “Mudhvay Sub Block A” with Limestone production capacity of 2.50 Million TPA, Top Soil: 0.22 Million TPA, Over Burden: 2.08 Million TPA (Total Excavation: 4.8 Million TPA) in the mine lease area of 198.90.98 ha, located at Village: Mundhvay, Taluka: Lakhpat, District: Kachchh, Gujarat for undertaking detailed EIA/EMP study subject to the following specific conditions in addition to the standard ToR conditions and applicable for non-coal mining projects:-

- i. The Project Proponent needs to submit the ecology restoration plan for mined out pits for using as Water reservoir/ Pisciculture as well as the plan for the backfilled area.
- ii. Since the project is located in Seismic Zone –V, the Project Proponent needs to submit the risk and disaster management plan. The Project Proponent also needs to submit the past history of disasters occurred in the region.
- iii. The Project Proponent needs to undertake the scientific study on pit slope stability by the reputed Institute.
- iv. The Project Proponent needs to submit the safety measures proposed to protect the ponds within the mine lease area.
- v. The Project Proponent needs to submit the existing soil salinity data of the Mine lease area and in the Korai Creek.
- vi. The Project Proponent needs to submit the Cost Benefit analysis comparing the current agricultural production and annual turnover including the cost and the benefits drawn by the local villages vis-a-vis the mineral cost and beneficiaries at the time of submission of EC proposal.
- vii. The Project Proponent needs to submit the year wise sequence of mining operation and plan for backfilling.
- viii. The Project Proponent shall monitor the water quality in the impact zone such as water reservoir, river water with specific reference to the parameter Langelier

Saturation Index which will denote the impact of calcium carbonates on water bodies and these parameters and determine the tendency of water to form calcium carbonate scaling.

- ix. The Project Proponent needs to submit the map showing the transport route of the mineral from the mine lease area to the destination, impact of details of habitation at a distance of 100m from the center on both sides of road, details of no. of trips/day to and fro, capacity of the dumper/tipper to be deployed and the dimensions of the road and the carrying capacity of the road. Project Proponent needs to submit SOP for transportation.
- x. The Project Proponent needs to monitor the ambient air quality and noise level at the mine lease boundary, nearest village, crusher, predominant downwind direction and at other sensitive receptors. Accordingly, Project Proponent shall propose to install Continuous Ambient Air Quality Monitoring Station within certain timeline.
- xi. The Project Proponent should prepare the EMP considering the scenario of pollution to be generated for normative and peak total excavation for assessing air pollution, noise level and ground vibration.
- xii. The Project Proponent needs to carry out the cumulative impact assessment by considering all the mining activity of the proposed mine, existing mines, cement plant and other operating mines including the transport scenario in the study area and also should indicate the capacity of each mine considered for predication of air quality modeling. The control case and worst-case scenario needs to be demonstrated with controlling factor and GLCs values for all the pollutants needs to be clearly mentioned. The input parameters and data used for each activity of the modeling also needs to be submitted at the time of appraisal of EC.
- xiii. The Project Proponent needs to carry out the Public Hearing as per provisions of EIA Notification, 2006. PP should also submit the time bound action plan on concerns of the public through a separate budget with capital expenditure with a timeline of 3 years. The Project proponent shall ensure that the activities proposed under the public hearing shall be different from the CSR activities.
- xiv. The Project Proponent needs to undertake the enumeration of the species within the mine lease area before cutting. The Project Proponent also needs to submit the compensatory afforestation plan for the no. of trees to be cut in the mine lease area.

- xv. The Project Proponent needs to submit the action plan for undertaking the plantation along the 7.5m barrier, safety zone of nallah, village road, electric line etc., PP should also submit the details no of saplings to be planted, type of saplings proposed and the area to be covered under greenbelt/plantation along with the timeline and budget. The greenbelt/plantation plan shall be prepared in such a way that the ecology of the area shall be restored. The Project Proponent to revisit the proposed species for plantation.
- xvi. The Project Proponent shall carry out the assessment of impact due to the proposed project as per the guidelines issued by the Central Ground Water Authority from time to time and submit the same as a part of the EIA/EMP. The project proponent shall conduct hydrological study for projects involving intersection of ground water table as per the guidelines issued by the Central Ground Water Authority from time to time and submit the same as a part of the EIA/EMP.
- xvii. The Project Proponent shall explore the possibility of reduction of specific water requirement by optimization / technology up gradation, etc. The efforts shall be delineated in the EIA/EMP.
- xviii. The Project Proponent shall prepare the scheme for mandatory recycle/re-use of water as specified by the Central Ground Water Authority for different category areas seeking NoC for ground water withdrawal and the shall submit as part of EIA/EMP report.
- xix. The Project Proponent needs to submit the detailed R&R plan covering all the components viz. number of Project Affected Families (PAF) and details of the land owned by them, break up of total compensation to be paid including method of calculation including the sources/references adopted and mode of payment etc. The Project Proponent needs to submit the plan for Socio economic development of the neighbourhood habitats based on the need based survey along with the time bound action plan. Further, PP needs to submit the possession certificate and timeline for acquiring the land at the time of submission of EC proposal.
- xx. The Project Proponent shall conduct drone survey of the mine lease area and buffer area and submit during the appraisal for EC.

**1.5 Daba Saitthad Limestone Deposit of M/s Star Cement Ltd with production capacity of 2.51 MTPA of Limestone in the mine lease area of 25 Ha, located at**

**Daba Saitthad (wahlareng), Village Lumshnong, District East Jaintia Hills, Meghalaya – [F.No: IA-J-11015/39/2023-IA.II(NCM), Proposal No: IA/ML/MIN/449327/2023; EIA Consultant: M/s Perfect Enviro Solutions Pvt Ltd] – Terms of Reference (ToR)**

The instant proposal is for Terms of Reference for mining of Limestone in Daba Saitthad Limestone Deposit of M/s Star Cement Ltd with production capacity of 2.51 MTPA of Limestone in the mine lease area of 25 Ha, located at Daba Saitthad (Wahlareng), Village Lumshnong, District East Jaintia Hills, Meghalaya.

2. The details of the project as ascertained from the documents submitted by the Project Proponent and revealed from the discussions held during the meeting are given as under:

- i. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals. The instant proposal attracts the General conditions as the Narpuh Wildlife Sanctuary is located at a distance of 3.9 km, SE direction and its ESZ boundary is located at a distance of 2.7 km SE to the project site and hence the proposal falls under Category “A” and appraised at the Central level.
- ii. The mine lease area is located between Latitude: 25°09’24.78”N to 25°09’39.43”N and Longitude: 92°21’29.53”E to 92°21’56.03”E. The mine lease area falls under the Survey of India Toposheet No: 83C/8 (Restricted) and falls in Seismic Zone-V.

iii. Details of Mine Lease:

S. No	Prospecting License/ Letter of Intent (LoI)/ Grant of Mine lease and Lr No	Date of the grant	Name of the Mineral & (Major/ Minor)	Period of Grant	Granted by	Mine lease area in Ha
1	Prospecting License- MG.6/2023/33	01.03.2023	Limestone (Major)	3 years	Mining & Geology Department, Government of Meghalaya	25 ha.
2	Letter of Intent- MG.6/2023/277	28.08.2023	Limestone (Major)	3 years	Mining & Geology Department, Government of Meghalaya	25 ha.

iv. Land Use/Land Cover of the Mine Lease Area:

Private land	25 ha.
Government land	-

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Forest land	Nil
Total Mining lease area (MLA), ha	25 ha.
Private land for crusher, workshop & other infrastructure outside the MLA	NA

v. Mining plan details:

Mining Plan was approved by Indian Bureau of Mines (IBM)	The Project Proponent has submitted that the Mining Plan was submitted to Indian Bureau of Mines (IBM) for approval vide application ID PB113 dated 06.10.2023.
Mining Parameters	Quantitative Description
Method of Mining	Opencast mechanized mining
Drilling/Blasting	Deep hole drilling & blasting.
Geological Reserves	52.44 million tons
Mineable Reserves	40.89 million tons
Breakup of Total Excavation (Topsoil/OB/SB/IB/Mineral Rejects/Waste, MTPA)	2.832 MTPA (including 2.51 MTPA of limestone, 0.322 MTPA of Waste/OB including topsoil).
Life of mine	50 Years [Max production of Lst (ROM) shall be restricted to 2.51 MTPA. Production from this mine at a later stage of ML may get reduced. Additional exploration shall also be taken up which will increase the reserves.]
Mine Bench Height & Bench Width	The height of the bench will be 9 m and a minimum working width of the benches in mineral will be 18 m for safe operation of mining machinery.
No. of Mine Benches	13
Existing Depth, m bgl	NA, as it is a green field project
Ultimate Depth of Mining, m bgl	137
Ground Water Table, m bgl	156
Details of ground water intersection	Water table will not be intersected as it is at 156 m bgl and mining will be done up to 137 m bgl.
Individual bench slope	85° from horizontal
Overall pit slope	<45°
Details of existing/ proposed Crusher	Limestone will be transported to cement plant crusher of 1200 TPH capacity.
Mineral Beneficiation	NA
RoM output size	-1000 mm
Transportation details including capacity of dumper/tipper, mode of transport and distance	The material after blasting will be loaded by hydraulic excavators of about 2.6 m <sup>3</sup> bucket capacity into tippers of 25 tons carrying capacity for its transportation to crusher at a distance of 4.6 km and temporary waste dump inside mining lease.

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Generation of Topsoil/OB & its Management during plan period & conceptual period	Max. 322,524.25 TPA of Waste/OB including topsoil will be generated. Waste/OB will be dumped temporarily at earmarked places. Later it will be used as blending material after taking permission from the Government. The topsoil generated will be used extensively for plantation.
Generation of Mineral Rejects/Waste & its Management during plan period & conceptual period	There will be no reject from the mine.

vi. Water requirement:

Total water requirement	40.0 KLD	Fresh water	05 KLD
		Treated water	35 KLD
Source	Water tankers from the company's cement plant.		
Permission	Vide Letter No. AGRO/IRRI-110/96/2004-05/80 dated Shillong, 15 <sup>th</sup> Sep 2004		
Additional information (if any)	Total water requirement for the proposed mine will be around 40 KLD, out of which 35 KLD will be from STP treated water and 5 KLD of fresh water for domestic purposes.		

vii. Nearest village / town/ highway/railway station / water bodies

Particulars	Particular's Name	Distance & Directions
Village	Lumshnong	1.95 Km NE
Town	Khliehriat	21.70 Km N
Highway	NH-6	0.57 km SE
Interstate Boundary	India-Bangladesh International Boundary	9.08 km SSW
	Meghalaya-Assam State Boundary	12.88 Km SE
Railway station	Hilara railway station	65 km (by road)
Water bodies	Um Badoh Stream	0.85 Km WNW
	Lubha River	3.71 km SE
	Seshympa River	4.87 Km WSW
Forest	Narpuh Reserve Forest	4.13 km SSW

viii. Presence of Environmentally Sensitive areas in the study area:

Forest Land/Protected Area/Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter issued by the concerned Department mentioning the Lr no, date of grant and remarks
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Forest land within the minelease area and (if yes) status of Forest Clearance	No	The Project Proponent has submitted the letter from the Office of the Principal Chief Conservator of Forests (HoFF), Meghalaya vide Lr.No: MFG.39/NLFC/Mining/ MMMCR/2016/JH/15,529 Shillong dated 1 <sup>st</sup> Feb, 2023 stating that plot of land of 25 ha is non-forest land as per definition of forest in Section 3 (10) of Meghalaya Forest Regulation, 1973 as amended vide Meghalaya Forest Regulation (Amendment) Act, 2012.
National Park	No	Not Applicable
Wildlife Sanctuary	Yes	The Project Proponent has submitted the letter from the Office of the Principal Chief Conservator of Forests (Biodiversity & Wildlife) & Chief Wildlife Warden vide Lr No. FWC/Clearance/12/4006, Shillong dated 1 <sup>st</sup> Feb, 2023 stating that the aerial distance of the proposed mining of Presbyterian Church located at Lumshnong Village, East Jaintia Hills District from the boundaries of Eco-Sensitive Zone is 2.7 km and Narpuh Wildlife Sanctuary is 3.9 km. This letter does not convey any NOC whatsoever.
Eco-Sensitive Zone(ESZ)/Eco-Sensitive Area(ESA)	Yes	
Coastal Regulation Zone (CRZ)	No	Not Applicable
Schedule-I species (No.s and name of schedule-I species with authenticated letter)	Yes	There are ten Schedule I Species found in the buffer zone are given below: <i>Hoolock hoolock</i> (Western hoolock gibbon), <i>Nycticebus bengalensis</i> (Slow loris), <i>Prionailurus bengalensis</i> (Leopard Cat), <i>Python molurus</i> (Indian Rock Python), <i>Neofelis nebulosa</i> (Clouded Leopard), <i>Buceros bicornis</i> (Great Pied Hornbill), <i>Canis lupus pallipes</i> (Indian Wolf), <i>Manis pentadactyla</i> (Pangolin), and <i>Melursus ursinus</i> (Sloth bear), <i>Capricornis sumatraensis</i> thar (Himalayan serow).

Wildlife Conservation Plan	Yes	The Chief Wildlife warden had a meeting with Industries and Government Departments for preparation of Regional Conservation plan for the East Jaintia Hills district under the supervision and guidance of CWLW, Meghalaya and the cost for preparation and implementation of the Regional Conservation Plan may be shared by various project proponents on a proportionate basis keeping in view the likely impacts of each project on the wildlife and their habitat. We also confirmed that we shall be part of the regional conservation plan and will pay the fee as determined for our project.
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ix. Green belt/plantation details:

Proposed area for green belt/plantation	At the end of life of mine, out of the total 25 ha area, 20.12 ha will be used for Bench Plantation/ Grassification and 1.46 ha. along the 7.5 m wide peripheral boundary will be developed under green belt.
Budget for green plant & plantation till the end of life of mine.	Rs 1.03 Cr
Budget for nursery	NA
Details of existing plantation and its survival rate	NA as it is greenfield project
No. of tree cuts in the mine lease area and compensatory afforestation	215 trees will be cut in the mine lease. Total about 37854 trees will be planted upto conceptual period.
Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	1.46 Ha

x. Rehabilitation & Resettlement (R&R):

R & R details	The Project Proponent has submitted that the R&R is not involved in this project.
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xi. Court case details:



Court case no and its present status	The Project Proponent has submitted that there is no litigation pending against the project and/or land in which the project is proposed to be set up
Undertaking by Project Proponent w.r.t court case	

xii. Affidavit/Undertaking details:

Affidavit as per Ministry's OM dated 30.05.2018	The Project Proponent has submitted the Affidavit dated 17.10.2023 stating that they commit to comply with order of the Hon'ble Supreme Court order dated 2 <sup>nd</sup> August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of common cause versus Union of India &Ors.
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xiii. Details of project cost and employment:

Particulars	Budget (Rs. in Crores)
Project Cost	Rs. 37.30 Crores
Employment	99 persons

**3. Observation and Recommendation of the EAC: -**

The Project Proponent/Consultant presented the KML file to indicate the site features in the study area. The entire mine lease area of 25 Ha is a Pvt. land. The instant proposal attracts the General conditions as the Narpuh Wildlife Sanctuary is located at a distance of 3.9 km, SE direction and its ESZ boundary is located at a distance of 2.7 km SE to the project site. The EAC asked about the status of the Mining Plan. The Project Proponent has informed the EAC that the Mining Plan was submitted to Indian Bureau of Mines (IBM) for approval on 06.10.2023. The scrutiny comments have been received from the IBM and Mining Plan is yet to be approved. NH-6 is located at a distance of about 1.0 km on Southern side and Lumshnong Village is located at a distance of about 3km on NE side. General drainage direction is towards west. Lubha River is located on the South Eastern side. The EAC asked about the distance of the International Boundary from the mine lease area. The Project proponent has informed the EAC that India – Bangladesh International Boundary is located at a distance of about 9.0 km from the mine lease area on SSW side.

The EAC asked about the mineral transportation route. The Project Proponent has informed the EAC that the mineral will be transported by road through NH6 to reach crusher. About 0.8km of company's own road and 0.6 km of public road will be used to reach NH6. Total distance to reach Crusher will be about 4.5 km. The EAC asked about the distance of the width of the public road. The Project Proponent has informed the EAC that the width of the public road is about 7-8m. The EAC asked the Project Proponent to physically verify the width of the public road. Further, the Project Proponent has informed the EAC that the crusher is located at the Cement Plant. The EAC also asked the Project Proponent whether there is any possibility of putting up crusher inside

the mine lease area to avoid transportation by road from the view point of environment and safety. The Project Proponent has informed the EAC that the entire mine lease area is mineralized zone and crusher at cement plant is also utilized by other mines which leads to put up a another crusher at cement plant. The EAC suggested the Project Proponent to explore the possibility of utilizing mobile crusher at within the mine lease area. The EAC asked about the possibility of transporting the ore through Over Land Belt Conveyor (OLBC). The Project Proponent has informed the EAC that there are elevation issues to lay OLBC and will be explored in future. The EAC noted that a number of mines are going to come up in the study area, the EAC asked the Project Proponent to submit the future year wise production plan to assess the production requirement. The EAC also opined that the Project Proponent needs to explore the possibility of utilizing surface Ripper-Dozer combination along with the hardness of Limestone tested by reputed Institute.

The Project Proponent also informed the EAC that a letter has been obtained from the Office of the Principal Chief Conservator of Forests (HoFF), Meghalaya vide letter dated 1<sup>st</sup> Feb, 2023 stating that plot of land of 25 ha is non-forest land as per definition of forest in Section 3 (10) of Meghalaya Forest Regulation, 1973 as amended vide Meghalaya Forest Regulation (Amendment) Act, 2012. The Project Proponent has informed the EAC that exploration level is G1. The EAC asked the Project Proponent to relook the life of the mine. The Project Proponent has informed the EAC that maximum elevation is 406 mRL and minimum is 336 mRL. The ultimate level of excavation will be 269 mRL. The depth of the mining will be 137 m bgl from the surface. The EAC opined that the Project Proponent needs to undertake a slope stability study and shall submit the same in the EIA/EMP report. Maximum production capacity of 2.51 MTPA of Limestone will be achieved in the 5<sup>th</sup> year of 1<sup>st</sup> five year plan period. At the conceptual stage, 23.54 ha will be under mining area and out of which 3.02 ha will be converted into water reservoir, 20.12 ha will be under bench plantation and 0.40 ha area under roads. The EAC opined that even though Project Proponent is a part of the Regional Conservation Plan, the Project Proponent needs to submit the Wildlife Conservation Plan for conservation of wildlife.

After detailed deliberations made by the Project Proponent and the Consultant, the EAC noted that the India – Bangladesh International Boundary is located at a distance of about 9.0 km from the mine lease area on SSW side. The EAC reiterated the Ministry of Defence letter dated 08.05.2023 regarding security considerations for construction activities/other activities in Border areas/other areas wherein it has been mentioned that *“all activities connected with mining within 20kms from all the borders including seaboard frontier should be planned in consultation with Ministry of Defence”*. The EAC was of the view that border area is falling within 20 km radius and hence the EAC opined that the NOC from the Ministry of Defence is prerequisite for

grant of Terms of Reference (ToR). Based on the discussions held, the EAC **deferred** the proposal for want of following additional information: -

- i. The Project Proponent needs to submit the NOC from the Ministry of Defence.
- ii. The Project Proponent needs to submit the width of the public road.
- iii. The Project Proponent needs to submit the hardness of Limestone tested by reputed Institute.
- iv. The Project Proponent needs to explore possibility of installing fixed/ mobile crusher within the lease area.

**1.6 Rohisa Limestone Mine of M/s HeidelbergCement India Limited with Limestone Production Capacity 3.0 Million TPA, Top Soil 0.147 Million TPA (Total Excavation: 3.147 Million TPA) in the mine lease area of 891.7185 ha, located at Villages: Rohisa, Balana and Vadhera, Taluka: Jafrabad, District: Amreli, Gujarat – [F.No: IA-J-11015/19/2023-IA-II(NCM), Proposal No:IA/GJ/MIN/434388/2023, EIA Consultant: M/s J.M. EnviroNet Pvt. Ltd] – Terms of Reference**

The instant proposal is for mining of Limestone in Rohisa Limestone Mine of M/s HeidelbergCement India Limited with Limestone Production Capacity 3.0 Million TPA, Top Soil 0.147 Million TPA (Total Excavation: 3.147 Million TPA) in the mine lease area of 891.7185 ha, located at Villages: Rohisa, Balana and Vadhera, Taluka: Jafrabad, District: Amreli, Gujarat.

2. The details of the project as ascertained from the documents submitted by the Project Proponent and revealed from the discussions held during the meeting are given as under:

- i. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category “A” of the schedule of the EIA Notification, 2006 as the mine lease area is greater than 250 ha and appraised at the Central level.
- ii. The mine lease area is located between Latitude: 20°49’00” N to 20°51’00” N and Longitude: 71°13’00” E to 71°18’45” E. The mine lease area falls under the Survey of India Toposheet No: 41 P/5 (Restricted) and falls in Seismic Zone-III.
- iii. The instant proposal was earlier considered in the 34<sup>th</sup>EAC meeting held during 27 – 30 July 2021 wherein the Committee was of the view that clarification is required regarding the distance from CRZ through Coastal Zone Management Plan (CZMP) authenticated by the Competent Authority in the State and therefore the Committee returned the proposal in present form as part of mine lease falls under CRZ. Then, the Project Proponent has submitted a fresh proposal for

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Terms of Reference along with the information sought by the EAC and accordingly the proposal was considered in the 18<sup>th</sup>EAC (Non-Coal Mining) meeting held during 31<sup>st</sup>July & 1<sup>st</sup>August, 2023. After detailed deliberations, the EAC deferred the proposal. The CRZ Division gave their comments on 03.09.2023 and the Project Proponent submitted the information on 19.10.2023 in Parivesh portal and accordingly the proposal was again reconsidered in the EAC meeting held during 14-15 November, 2023.

Based on observation of EAC in its EAC meeting held during 31<sup>st</sup>July & 1<sup>st</sup>August, 2023 and compliance of observation of EAC made by Project Proponent are detailed below:

S. No	Observation of EAC in its meeting held on 31 <sup>st</sup> July & 1 <sup>st</sup> August, 2023	Reply by Project Proponent
1	The Ministry may seek comments from the CRZ Division in the Ministry in reference to the letter from the Forests & Environment Department, Govt. of Gujarat dated 21.10.2022 regarding opinion for CRZ-NOC for Rohisa Limestone Mine of M/s HeidelbergCement India Limited.	<p>The CRZ Division gave their comments on 01.09.2023 as given below:</p> <ol style="list-style-type: none"><li>As per para 3(x) of CRZ Notification 2011 Mining of sand, rocks and other sub-strata materials except, mining of Atomic Minerals notified under Part-B of the First Schedule of the Mining and Minerals (Development) Act, 1957 (67 of 1957) occurring as such or in association with one or other minerals and exploration and exploitation of Oil and Natural Gas, is prohibited in CRZ area.</li><li>As the record available in the file and EAC (NCM) noted Project Proponent has carried out the CRZ study conducted by the Institute of Remote Sensing, Anna University, Chennai and project activity falls in CRZ area and as per CRZ Notification it is prohibited activity.</li><li>The EAC opined that the Ministry may seek comments from the CRZ Division of the Ministry in reference to the letter from the Forests &amp; Environment Department, Govt. of Gujarat dated 21/10/2022 regarding the opinion for CRZ-NOC for Rohisa Limestone Mine of M/s Heidelberg Cement India Limited.</li><li>It is submitted that as already mentioned above the activity is prohibited as per CRZ Notification, however, it is requested the</li></ol>

		Division concern may be provided a statutory document as per CRZ Notification para 4.2 i.e. 1:4000 scale map, SCZMA recommendation etc. for a complete examination of the project.															
2	The Project Proponent needs to ensure that the depth of mining may be planned in such a way that the floor RL at any place should not be lower than the mean sea level in the modified mining plan submitted for approval.	<p>The Project Proponent has submitted that as per Modified Mining Plan, there is no proposal for mining in CRZ area including its appropriate buffer. Also, aiming the prevention of sea water ingress, the ultimate pit depth in the non-CRZ area has been kept up to 0m AMSL only. The mineable reserves have also been estimated up to 0m AMSL only. It shall be ensured during course of mining that the excavation shall not be below 0m AMSL.</p> <p>The Project Proponent also submitted the relevant page of modified mining plan showing the above statement and conceptual cross sections.</p>															
3	The Project Proponent needs to submit the modified mining plan approved by Indian Bureau of Mines (IBM).	The Project Proponent has submitted that the Modified Mining Plan along with Progressive Mine Closure Plan was approved by Indian Bureau of Mines (IBM), Gandhinagar vide Letter No. MCDR-MPCPOCaFI/10/2023-GNR-IBM_RO_GNR MP-472 Mine Code: 38GUJ439001 dated 21.09.2023. It is also mentioned that no mining activity shall be carried out in CRZ zone and related zones as notified time to time, even in case of proposal made therein.															
4	The Project Proponent needs to submit the copies of the letter wherein State DMG has mentioned that the CRZ area shall be kept as a non mining zone instead of surrendering it.	<p>The Project Proponent has submitted that CRZ study has been conducted by the Institute of Remote Sensing, Anna University, Chennai. As per approved CZMP Map of Gujarat and Local Level Coastal Regulation Zone Map prepared by Institute of Remote Sensing, (IRS), Chennai GCZMA has confirmed that out of the total mine lease area i.e. 891.7185 ha, an area of 183.6332 ha falls under CRZ.</p> <table border="1"> <thead> <tr> <th>S. No</th> <th>CRZ Classification</th> <th>Area (in Ha)</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>CRZ - 1B</td> <td>139.9037</td> </tr> <tr> <td>B</td> <td>CRZ – III (NDZ)</td> <td>30.9217</td> </tr> <tr> <td>C</td> <td>CRZ – III (200 m to 500 m from HTL)</td> <td>12.8078</td> </tr> <tr> <td>I</td> <td>Total Area falling in</td> <td>183.6332</td> </tr> </tbody> </table>	S. No	CRZ Classification	Area (in Ha)	A	CRZ - 1B	139.9037	B	CRZ – III (NDZ)	30.9217	C	CRZ – III (200 m to 500 m from HTL)	12.8078	I	Total Area falling in	183.6332
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5	The Project Proponent needs to submit the existing soil salinity data of the Mine lease area i.e adjacent to CRZ, within CRZ and farthest from CRZ boundary.	The Project Proponent has submitted that Central Soil Salinity Research Institute (CSSRI) is in process to carry out the study regarding the soil salinity of the Mine lease area (i.e. adjacent to CRZ, within CRZ and farthest from CRZ boundary). The Project Proponent also submitted the correspondence made by CSSRI vide email dated 18.10.2023 regarding the methodology and work schedule of the study.									

iv. Details of Mine Lease:

Minutes of 22<sup>nd</sup> EAC (Non-Coal Mining) meeting held during 14-15 November, 2023

- a) Initially, the prospecting license was granted by the State Govt. on 31.05.2000 over an area of 891.7185 Ha in Villages Rohisa, Balana and Vadhera of Taluka - Jafrabad of Dist. Amreli (Gujarat) in favour of M/s Indorama Cement Ltd.
- b) Then, the Govt. of Gujarat vide its letter No. MCR-112005-987-CH-1 dated 08.02.2006 granted the Letter of Intent for grant of Mining lease for minerals Limestone and Marl over an area of 891.7185 Ha in favour of M/s Indorama Cement Ltd.
- c) Pursuant to a Scheme of Amalgamation sanctioned by the Hon'ble High Courts of Bombay and Karnataka, Indorama Cement Limited was amalgamated with Mysore Cements Limited and the new entity was renamed as HeidelbergCement India Limited w.e.f. 16.04.2009. The same was intimated to the office of Deputy Secretary, Industry and Mines Department, Govt. of Gujarat requesting to take note and confirm the aforesaid change of name of the company so that permits and licenses required to set up an integrated Cement Plant can be obtained and also for incorporation of change of name of company in relevant records and documents. The process took its own time and ultimately the Govt. of Gujarat issued the order no. MCR-112005-ML 987-CHH-1 dated 10.01.2017 for grant of mining lease over an area of 891.7185 Ha in favor of M/s HeidelbergCement India Limited.
- d) The mine lease deed was executed on 09.09.2020 and registered on 15.09.2020 for the mineral Limestone and Marloveran area of 891.7185 Ha for a period of 50 years i.e., upto 14.09.2070 in favor of M/s HeidelbergCement India Limited.

v. Land Use/Land Cover of the Mine Lease Area:

Private Agriculture land	526.1699 ha
Government land	292.6380 ha
Gauchar land	72.9106 ha
Forest land	-
Total Mining lease area (MLA), ha	891.7185 ha
Private land for crusher, workshop & other infrastructure outside the MLA	Crusher to be Installed in premises of Proposed Interlinked Cement Plant
Additional information (if any)	Total ML Area is 891.7185 out of which 183.6332 ha falls in CRZ & 72.9106 ha is Gauchar land.

vi. Details of Mining Plan: -

Modified Mining Plan including Progressive Mine Closure Plan was approved by Indian Bureau of Mines	Letter No.	684 (4) (1)/MP-358/2021-22 GNR
	Date	01.09.2021
	Mineral & (Major/Minor)	Limestone (Major)

Minutes of 22<sup>nd</sup> EAC (Non-Coal Mining) meeting held during 14-15 November, 2023

	Mine Lease Area, Ha	891.7185
	Validity	2021-22 to 2024-25
Additional information (if any)	Mining Plan with Progressive Mine Closure Plan was approved by IBM vide COM (NZ) letter no.682(23)(452)/2006-Udai, dated 23.01.2006 in the name of Indorama Cement Ltd. Modified mining plan in the name of HeidelbergCementIndia Limited (HCIL) has been approved by IBM vide letter dated 684(4)(1)/MP-358/2021-22GNR dated 01.09.2021. Now, HCIL has submitted the modification in the mining plan for further approval to IBM.	
Mining Parameters	Quantitative Description	
Method of Mining	Opencast Mechanized method	
Drilling/Blasting	No drilling & blasting is involved. The mineral will be mined by deploying surface miners, dumpers, bulldozer, and excavators/loaders.	
Geological Reserves	230.438 Million Tonnes	
Mineable Reserves	100.679 Million Tonnes	
Breakup of Total Excavation (Topsoil/OB/SB/IB/Mineral Rejects/ Waste, MTPA)	Limestone: 3.0 Million TPA Top Soil: 0.147 Million TPA Total Excavation: 3.147 Million TPA	
Life of mine	~34 years (Based on the future exploration life of mine may change)	
Mine Bench Height & Bench Width	Bench Height: 6 m Bench Width: 12 m	
No. of Mine Benches	5	
Existing Depth, m bgl	This is proposed mine	
Ultimate Depth of Mining, m bgl	26 m BGL	
Ground Water Table, m bgl	26 m BGL	
Details of ground water intersection	This proposal is for Terms of Reference (ToR). Details will be incorporated in EIA/EMP Report	
Individual bench slope	75°	
Overall pit slope	45°	
Details of existing/ proposed Crusher	Crusher to be installed in premises of proposed Interlinked Cement Plant	
Mineral Beneficiation	Mineral Beneficiation is not involved.	
RoM output size	-80 mm	
Transportation details including capacity of dumper/tipper, mode of transport and distance	The mined materials will be dozed and fed to a hopper located at mines using dumpers from where the material will be conveyed to the Cement Plant via covered conveyor belt.	
Generation of Topsoil/OB & its Management during plan period &	During Plan Period About 0.147 Million Tonnes of top soil will be	



conceptual period	generated which will be simultaneously used for the greenbelt/plantation purpose. At Conceptual Stage About 5.5 Million Tonnes of top soil to be generated which will be used in Greenbelt/plantation.		
Generation of Mineral Rejects/Waste & its Management during plan period & conceptual period	None		
vii. Water requirement:			
Total water requirement	150 KLD	Fresh water	142 KLD
		Treated water	8 KLD
Source	Desalination Plant (will be installed with Cement Plant) & from mine sump		
Permission for withdrawal/intersection along with details of grant and its validity	This proposal is for Terms of Reference (ToR). Details will be incorporated in EIA/EMP Report.		

viii. Nearest village/town/ highway/interstate boundary/railway station/water bodies/monument/ forest

Particulars	Particular's Name	Distance & Directions
Village	Balana	Adjacent in ENE direction
	Vadhera	~200 m in ENE direction
	Rohisa	Surrounded by ML
	Dharabander	~0.7 km in WNW direction
	Khatrivada	~1.0 km in ENE direction
Town	Jafrabad	~5.0 km in ENE direction
Highway	SH 34	~0.3 km in ENE direction
	SH 90	~0.3 km in ENE direction
	NH 51	~5.0 km in NW direction
	SH 104	~3.5 km in SW direction
Interstate Boundary	None	-
Railway Station/Railway line	Una Railway Station	~20 km in West direction
Water Bodies	Arabian Sea	In South direction
	Bhatia Nadi	Adjacent in WNW direction
	RawalNadi	~1.0 km in WSW direction
	RupanNadi	~1.5 km in WNW direction
	Malan Nadi	~3.0 km in WNW direction
	Jafrabad Creek	~6.0 km in ENE direction
	RaidiNadi	~7.5 km in ENE direction
Forest	RF	Adjacent in SW direction
	RF	~8.5 km in SW direction
	RF	~8.5 km in ENE direction

ix. Presence of Environmentally Sensitive areas in the study area:

Forest Land/Protected Area/Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter issued by the concerned Department mentioning the Lr no, date of grant and remarks																								
Forest Land within the mine lease area and (if yes) status of Forest Clearance	No	The Project Proponent has obtained the letter from the Office of the Principal Chief Conservator of Forests, Gandhinagar vide dated 04.04.2022 stating that no forest land is involved in the project.																								
National Park	No	Project Proponent reported that no National Park, Wild Life Sanctuaries, Biosphere Reserves, Tiger Reserves, Wildlife Corridors, etc. falls within 10 km radius study area.  The Project Proponent has obtained the letter from the Office of the Principal Chief Conservator of Forests, Gandhinagar vide dated 04.04.2022 certifying that the distance between mining lease for mineral limestone of M/s Heidelberg Cement India Limited situated in Village: Rohisha, Balana and Vadhera, Area: 891.7185 ha. Dist: Amreli is 21.85 km away from the Gir Sanctuary. PP also submitted the map showing the distance of the forest area and Gir Wildlife Sanctuary from the mine lease area and which was authenticated by the Chief Wildlife Warden, Gandhinagar.																								
Wildlife Sanctuary	No																									
Elephant/Tiger Reserve	No																									
Eco-Sensitive Zone (ESZ)/Eco-Sensitive Area (ESA)	No																									
Coastal Regulation Zone (CRZ)	Yes	<p>The Project Proponent has submitted that the CRZ study has been conducted by the Institute of Remote Sensing, Anna University, Chennai. As per approved CZMP Map of Gujarat and Local Level Coastal Regulation Zone Map prepared by Institute of Remote Sensing, (IRS), Chennai GCZMA has confirmed that out of the total mine lease area i.e. 891.7185 ha, an area of 183.6332 ha falls under CRZ.</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>CRZ Classification</th> <th>Area (In Ha)</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>CRZ - 1B</td> <td>139.9037</td> </tr> <tr> <td>B</td> <td>CRZ – III (NDZ)</td> <td>30.9217</td> </tr> <tr> <td>C</td> <td>CRZ – III (200 m to 500 m from HTL)</td> <td>12.8078</td> </tr> <tr> <td>I</td> <td>Total Area falling in CRZ</td> <td>183.6332</td> </tr> <tr> <td>II</td> <td>Outside CRZ</td> <td>708.0853</td> </tr> <tr> <td></td> <td>Total</td> <td>891.7185</td> </tr> <tr> <td colspan="3"><i>Source: CRZ Study Report prepared by IRS, Anna University, Chennai</i></td> </tr> </tbody> </table> <p>The Project Proponent also submitted that the</p>	S. No.	CRZ Classification	Area (In Ha)	A	CRZ - 1B	139.9037	B	CRZ – III (NDZ)	30.9217	C	CRZ – III (200 m to 500 m from HTL)	12.8078	I	Total Area falling in CRZ	183.6332	II	Outside CRZ	708.0853		Total	891.7185	<i>Source: CRZ Study Report prepared by IRS, Anna University, Chennai</i>		
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Minutes of 22<sup>nd</sup> EAC (Non-Coal Mining) meeting held during 14-15 November, 2023

		Commissioner of Geology & Mining, Gandhinagar vide letter no. CGM/Lease/ML/Heidelberg/2022–23/848 dated 10.04.2023 has mentioned that an area of 183.6332 ha falls within the mine lease area under various categories of Coastal Regulation Zone. So, as mentioned in letter dated 21.10.2022, Director (Environment) & MS, GCZMA, GOI, the company shall not carry out any activities otherwise permissible as per CRZ notification within area falls in CRZ without prior permission of Competent Authority.
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x. Green belt/Plantation details:

Proposed area for green belt/plantation and no. of saplings proposed	Total Greenbelt/Plantation: 136.31 ha Greenbelt (7.5 m): 22.10 ha Plantation: 114.21 ha (3.56 ha on Bench Plantation & remaining 110.65 ha on unworked area, Road side, safety zone). No. of Saplings Proposed: 3,40,775
Budget for green plant & plantation till the end of life of mine.	Rs. 6.81 Crore
Budget for nursery	Rs. 10 Lakh
Details of existing plantation and its survival rate	Survival Rate will be maintained 95%
No. of tree cuts in the mine lease area and compensatory afforestation	250 trees will be cleared
Particulars for Green belt/plantation	Area covered (In Ha)
7.5 m barrier & non-mineralized zone	22.10ha
50 m safety zone of nallah, roads, electric lines	2.74 ha area to be covered along the roads out of 110.65 ha total plantation

xi. Rehabilitation & Resettlement (R&R):

R & R details	The Project Proponent has submitted that the land will be purchased directly from the land owners on willing buyer willing seller basis. Adequate compensation based on mutual negotiations will be paid for the land, standing crop and any other infrastructure affected by the procurement of land. No. of Villages: 3 No. of Project Affected Families: 350 No. of Project Displaced Families: 104 Detailed R & R study is yet to be carried out.
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xii. Court case details:

Court Case, No and its present status	The Project Proponent has reported that there is no court case pending against the project.
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Undertaking by Project Proponent w.r.t court case	The Project Proponent has submitted an undertaking vide letter dated 23.06.2023 stating that there is no litigation pending against the project and/or any direction/order passed by any Court of Law against the project and/or land in which the project is proposed and that for any such litigation whatsoever, the sole responsibility will be borne by the Company.
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xiii. Affidavit/Undertaking details:

Affidavit as per Ministry's OM dated 30.05.2018	The Project Proponent has submitted an affidavit in a non-judicial stamp paper of Rs 100 bearing no: BK 485498 dated 24.06.2023 stating that the company hereby undertakes by affidavit to comply with all the statutory requirement & judgment of Hon'ble Supreme court dated 2 <sup>nd</sup> August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of common cause versus Union of India & Ors before grant of ToR/EC.
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xiv. Details of project cost and employment:

Particulars	(Rs. In Crore)
Project Cost	Rs. 70 Crores
Employment (Nos)	91 Persons

**3. Observation and Recommendation of the EAC: -**

The Project Proponent/Consultant presented the KML to show the site features in the study area. The EAC deliberated on the additional details submitted by the Project Proponent and the Consultant. The EAC noted the comments given by the CRZ Division on 01.09.2023. The Project Proponent has shown the area of 183.6332 ha falls under CRZ and informed the EAC that no mining will be undertaken in CRZ area. The EAC asked the Project Proponent about the distance of the International Boundary and seaboard frontier. The Project Proponent has informed the EAC that the India-Pakistan International Boundary is located at a distance of about 370 km, N and the mine lease area is 12 nautical miles away from the seaboard frontier. The EAC reiterated the Ministry of Defence letter dated 08.05.2023 regarding security considerations for construction activities/other activities in Border areas/other areas wherein it has been mentioned that *“all activities connected with mining within 20kms from all the borders including seaboard frontier should be planned in consultation with Ministry of Defence”*.

The Project Proponent also informed the EAC that there is no proposal for mining in CRZ area including its buffer. The mineable reserves have also been estimated up to 0m AMSL only and it will be ensured that during course of mining that the excavation

will not be below 0m AMSL. The above statement is also included in the modified mining plan. Further, the Project Proponent has informed the EAC that the Modified Mining Plan along with Progressive Mine Closure Plan was approved by Indian Bureau of Mines (IBM), Gandhinagar vide letter dated 21.09.2023. The Project Proponent also informed the EAC that Commissioner of Geology & Mining, Gandhinagar vide letter dated 05.10.2023 had issued a letter stating that the Company shall not carry out any mining activities in the area falling in CRZ without prior permission of competent authority and such area shall be kept as a non-mining zone instead of surrendering it. The Central Soil Salinity Research Institute (CSSRI) is in process to carry out the study regarding the soil salinity of the Mine lease area (i.e. adjacent to CRZ, within CRZ and farthest from CRZ boundary) and the same will be submitted in the EIA/EMP report. The EAC asked the Project Proponent about the land acquisition plan. The Project Proponent has informed the EAC that the land will be purchased directly from the land owners on willing buyer willing seller basis. Initially, mining will be carried out in the Govt. land and then the Private land will be purchased. The EAC asked about the location of the crusher. The Project Proponent has informed the EAC that crusher is proposed to be installed in the Cement Plant.

After detailed deliberations made by the Project Proponent and the Consultant, the EAC in its meeting held during 14-15 November, 2023 under the provisions of EIA Notification, 2006 and subsequent amendments therein, **recommended** the proposal for grant of Terms of Reference (ToR) subject to submission of No Objection Certificate(NOC) from Ministry of Defence for Rohisa Limestone Mine of M/s HeidelbergCement India Limited with Limestone Production Capacity 3.0 Million TPA, Top Soil 0.147 Million TPA (Total Excavation: 3.147 Million TPA) in the mine lease area of 891.7185 ha, located at Villages: Rohisa, Balana and Vadhera, Taluka: Jafrabad, District: Amreli, Gujarat for undertaking detailed EIA/EMP study subject to the following specific conditions in addition to the standard ToR conditions and applicable for non-coal mining projects:-

- i. The Project Proponent needs to submit the Cost Benefit analysis comparing the current agricultural production and annual turnover including the cost and the benefits drawn by the local villages vis-a-vis the mineral cost and beneficiaries at the time of submission of EC proposal.
- ii. The Project Proponent needs to submit the existing soil salinity data of the Mine lease area i.e adjacent to CRZ, within CRZ and farthest from CRZ boundary.
- iii. The Project Proponent needs to submit the map and the details regarding alternate land for grazing land and also its protection measures.

- iv. The project proponent needs to submit 1:4000 scale map of the mine lease location and its 10 km radius.
- v. The Project Proponent needs to submit the distance of the Ultimate Pit Limit from the School and Habitations along with their mitigation measures to protect it from the mining activity. The Project Proponent also needs to submit the details of strength of school.
- vi. The Project Proponent should prepare the EMP considering the scenario of pollution to be generated for normative and peak total excavation for assessing air pollution, noise level and ground vibration due to movement of HEMM.
- vii. The Project Proponent shall monitor the water quality in the impact zone such as water reservoir, river water with specific reference to the parameter Langelier Saturation Index which will denote the impact of calcium carbonates on water bodies and these parameters and determine the tendency of water to form calcium carbonate scaling.
- viii. The Project Proponent needs to monitor the ambient air quality and noise level at the mine lease boundary, nearest village, predominant downwind direction and at other sensitive receptors. Accordingly, Project Proponent shall propose to install Continuous Ambient Air Quality Monitoring Station within certain timeline.
- ix. The Project Proponent needs to undertake the enumeration of the species within the mine lease area before cutting. The Project Proponent also needs to submit the compensatory afforestation plan for the no. of trees to be cut in the mine lease area.
- x. The Project Proponent needs to carry out the Public Hearing as per provisions of EIA Notification, 2006. PP should also submit the time bound action plan on concerns of the public through a separate budget with capital expenditure with a timeline of 3 years. The Project proponent shall ensure that the activities proposed under the public hearing shall be different from the CSR activities.
- xi. The Project Proponent needs to increase the no. of saplings proposed. The Project Proponent also needs to submit the action plan for undertaking the plantation along the 7.5m barrier, safety zone of nallah, village road, electric line etc., PP should also submit the details no of saplings to be planted, type of saplings proposed and the area to be covered under greenbelt/plantation along

with the timeline and budget. The greenbelt/plantation plan shall be prepared in such a way that the ecology of the area shall be restored.

- xii. The Project Proponent shall carry out the assessment of impact due to the proposed project as per the guidelines issued by the Central Ground Water Authority from time to time and submit the same as a part of the EIA/EMP. The project proponent shall conduct hydrological study for projects involving intersection of ground water table as per the guidelines issued by the Central Ground Water Authority from time to time and submit the same as a part of the EIA/EMP.
- xiii. The Project Proponent shall explore the possibility of reduction of specific water requirement by optimization / technology up gradation, etc. The efforts shall be delineated in the EIA/EMP.
- xiv. The Project Proponent shall prepare the scheme for mandatory recycle/re-use of water as specified by the Central Ground Water Authority for different category areas seeking NoC for ground water withdrawal and the shall submit as part of EIA/EMP report.
- xv. The Project Proponent shall conduct drone survey of the mine lease area and buffer area and submit during the appraisal for EC.

**Day 2: 15<sup>th</sup> November, 2023 (Wednesday)**

**2.1 Gothra Parasrampura West Limestone Mine Block' of M/s ACC Ltd for mining of Limestone with production capacity of 1.0 MTPA of Limestone & 1.57 MTPA of Overburden including Topsoil (Total excavation: 2.57 MTPA) in the mine lease area of 287.7539 ha, located at Gothra Village, Navalgarh Taluk, Jhunjunu District, Rajasthan – [F.No: IA-J-11015/ 36/2023-IA.II(NCM), Proposal No: IA/RJ/MIN/449491/2023; EIA Consultant: M/s Ecomen Laboratories Pvt. Ltd] – Terms of Reference**

The instant proposal is for mining of Limestone in Gothra Parasrampura West Limestone Mine Block' of M/s ACC Ltd with production capacity of 1.0 MTPA of Limestone & 1.57 MTPA of Overburden including Topsoil (Total excavation: 2.57 MTPA) in the mine lease area of 287.7539 ha, located at Gothra Village, Navalgarh Taluk, Jhunjunu District, Rajasthan.

2. The details of the project as ascertained from the document submitted by the Project Proponent and revealed from the discussions held during the meeting are given as under:

- i. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category "A" as the mining lease area is greater than 250ha and accordingly, appraised at the Central level.
- ii. The mine lease area is located between Latitude: 27°46'10.8821"N to 27°47'17.9410"N and Longitude: 75°19'44.8420"E to 75°21'10.1965"E. The mine lease area falls under the Survey of India Toposheet No: 45M/5.

iii. Details of Mine Lease:

S. No.	Prospecting License/Letter of Intent (LoI)/ Grant of Mine lease and Lr No	Date of the grant	Name of the Mineral & (Major/Minor)	Period of Grant	Granted by	Mine lease area in Ha
1.	Letter of Intent for grant of mining lease vide Lr.No: P.2(28)Khan/Group-2/2022,	18.11.2022	Limestone	2 years	Govt. of Rajasthan	287.7539 Ha.

iv. Land Use/Land Cover of the Mine Lease Area:

Private land	267.036Ha
Government land	20.7179Ha
Forest land	Nil
Total Mining lease area (MLA)	287.7539 Ha.
Private land for crusher, workshop & other infrastructure outside the MLA	-

v. Mining Plan details:-

- a) The Project Proponent has submitted that the Mining Plan along with the Progressive Mine Closure Plan was approved by Indian Bureau of Mines vide Lr.No. MCDR-MPCOLST/7/2023-AJM-IBM-RO-AJM dated 30/05/2023 over an area of 287.7539 ha for 05 years period from the date of execution of the mining lease.
- b) The method of mining will be opencast mechanized mining with deep hole drilling and blasting.
- c) Total Mineral Reserves is estimated as 6,92,98,009.95 Tonnes and Minerals Resources estimated as 16,31,62,054.12 Tonnes. Life of the mine is estimated as 69 years based on current exploration.
- d) The mine benches will be formed with a bench height of 8m and bench width of 8m.



- e) During the first five years of the Mining Plan period, a total of 50,67,369.00 Tons of waste will be generated which will be stacked at the predefined place as per the approved Mining Plan. The top soil generated will be stacked and preserved at the earmarked places and will be utilized for the afforestation.
- f) Hydraulic excavators will be deployed to load the blasted limestone into the dump trucks. The loaded limestone will be fed to the crusher. Crusher location is still undecided and it may be decided at later stage.
- vi. The total requirement of water will be around 75 KLD which will be sourced from existing pit rain harvested water and well water.
- vii. The Project Proponent has submitted that the part of Village Basawa falls in the western part of block area upto almost 200m inside the area and village Nehron ki Dhani also observed in the southern part of the area up to 100 m within the area. PWD road from village Baswa to Chaurhani passes through Block area. State Highway SH-25B passes through Block Area in NW part of block area. There are 3 nos of existing old abandoned quarries with a broken up area of 2.89 Ha in the subject area of auctioned mining block as per the field observation.
- viii. The Project Proponent has submitted that there is no forest land involved in the mine lease area. There is no national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve/coastal zone/archaeological site/historical places in the core (Block) and buffer zone (10 km radius of the block).
- ix. The Project Proponent has submitted that the instant proposal does not envisage Rehabilitation and Resettlement (R&R).
- x. The Project Proponent has submitted that there is no litigation pending against the project and/or land in which the project is proposed to be set up.
- xi. The Project Proponent has submitted that the total cost of the project is Rs 134.17 Cr. About 185 persons (Direct: 85 persons + Indirect: 100 persons) will get employment.

### **3. Observation and Recommendation of the EAC:**

The Project Proponent/Consultant presented the KML file to indicate the site features in the mine lease area and in the study area of 10 km radius. The Project Proponent has shown the boundary of the mine lease area. The Project Proponent has informed the EAC that the State Highway (SH) 25B and public road from Village Baswa to Chaurhani passes through the mine lease area. There will be no diversion of public road. There are two villages on western direction and the other on southern direction are partly located within the mine lease area. The total mine lease area is 287.7539 Ha, out of which Private land is 267.036Ha and Govt. land is 20.7179Ha. The Project Proponent has also shown the patches of the Private land and Govt. land within the mine lease area. A school is located in the western side of the mine lease area. No National Park, Wildlife Sanctuary, ESZ/ESA located within 10 km radius of the study area.

The Project Proponent has informed the EAC that the mining activity will start from south eastern part of the mine lease area and will progress towards south western side of the mine lease area. As on date, G2 level exploration has been completed. G2 level exploration will be converted into G1 level exploration within 1<sup>st</sup> five years of plan period. The EAC asked the Project Proponent about the mineral transportation route. The Project Proponent has informed the EAC that the transportation route is not yet decided and will be decided in due course time depending upon the location of the cement plant. Till then, the material will be utilized in the sister plants in and around Rajasthan by and will be transported by road to a distance of about 250 – 300 km. Further, the Project Proponent has informed the EAC that there are three old pits over an area of 2.89 ha existing in the mine lease area and these pits were in existence before the mine lease area was put up for auction. These are shallow pits created by the local people for construction of road. Agricultural activities are being taken place in the mine lease area. The Project Proponent also informed that there is an another mine lease located adjacent to the instant mine lease sharing the common boundary of the mine lease area. In future, mining will be done in common boundary after obtaining statutory permission and agreement with the adjacent lease holder (M/s Dalmia Cement (Bharat) Ltd).

The Project Proponent has informed the EAC that the northern part of the mine lease area is non-mineralized zone. Dumps will be located in the non-mineralized zone. The EAC noted that to reach the waste dump, the Project Proponent has to cross the public road. The Project Proponent has informed the EAC that the road will be shifted in appropriate time or an underpass will be constructed for safe movement of material. The EAC observed that the Project Proponent has given two statements regarding the shifting of the public road. The EAC asked about the presence of Schedule-I species in the study area. The Project Proponent has informed the EAC that as of now reconnaissance survey has been carried out and no Schedule-I species reported. A detailed study will be covered in the EIA/EMP report. The EAC opined that the Project Proponent needs to carry out the enumeration of flora within the mine lease area before getting approval for tree cutting. The EAC asked the Project Proponent about the status of the R&R plan, since the land is not in possession with the Project Proponent, how the Project Proponent will ensure that the mining activity will take place. The Project Proponent has informed the EAC that the discussion with the local people for negotiation has been started and it is under process. The EAC was of the view that what will be scenario, if the land owners do not agree to give their lands.

The EAC noted that as per Common Application Form and as per approved mining plan, crusher is not a part of the proposal and whereas in Prefeasibility report, it has been mentioned that the crusher will be constructed at the time of execution of mine lease and the location of the crusher may be decided at a later stage. Further, cost of

the crushing plant is also included in the Project Cost of Rs 134.17 Cr. The EAC was of the view it is not clear whether the Project Proponent is proposing to install a crusher within the mine lease area or not. The Project Proponent has informed the EAC that an area of 101 ha will remain unutilized at the conceptual stage. In this regard, the EAC noted that in Prefeasibility report submitted by the Project Proponent, it has been mentioned that an area of 96.7539 ha will remain unutilized. The statements made by PP were contradictory. The EAC was of the view that the Project Proponent needs to submit the exact pre and post land use plan as per approved mining plan. The Project Proponent has informed the EAC that the maximum production of 1.0 MTPA will be achieved in the 5<sup>th</sup> year. Mined out area will be partly rehabilitated and partly converted into water reservoir.

After detailed deliberations made by the Project Proponent and the Consultant, the EAC observed that the Project Proponent has not yet decided the mineral transportation route. The EAC was of the view that atleast the Project Proponent should have come with the multiple options for transportation route and also the options for land acquisition with merits and demerits. The EAC noted that the Project Proponent/Consultant is not able to convince or justify the EAC about the mineral transportation route, need of a crusher, public road passing within the mine lease area and plan for land acquisition for determining the terms of reference. Based on the discussions held, the EAC **deferred** the proposal for want of following additional information: -

- i. The Project Proponent needs to submit the map showing the mineral transportation route to destination along with the design of the road.
- ii. The Project Proponent needs to clarify whether public road within the mine lease area will be diverted or an underpass will be proposed.
- iii. The Project Proponent needs to submit the exact pre and post land use plan as per approved mining plan.
- iv. The Project Proponent needs to clarify whether there is a requirement of crusher or not. Location of the crusher needs to be specified and transportation of crushed limestone to the required destination needs to be firmed up.
- v. The Project Proponent needs to submit the distance of the school from the Ultimate Pit Limit, strength of the school and the sequence of year wise mining operation near the school.

- vi. The Project Proponent needs to submit the plan for acquisition of land with merits and demerits.

**2.2 Proposed GothraParasrampura East Block (Auctioned Block) of M/s Dalmia Cement (Bharat) Ltd. with Limestone Production Capacity 3.0 Million TPA, OB 10.3191 Million TPA, Soil 1.271537 Million TPA (Total Excavation 14.590637 Million TPA) along with Installation of Crusher 1000 TPH with Screen/Wobbler in the mine lease area of 460.4006 ha, located at Villages: Devgaon, Shivnagar, Naya Parasrampura, Gothra, Chaudhani, Khojas & Bhojnagar, Tehsil: Nawalgarh, District: Jhunjhunu, Rajasthan – [F.No: :IA-J-11015/37/2023-IA.II(NCM), Proposal No: IA/RJ/MIN/446436/2023; EIA Consultant: M/s JM EnviroNet Pvt. Ltd] – Terms of Reference (ToR)**

The instant proposal is for mining of Limestone in Gothra Parasrampura East Block (Auctioned Block) of M/s Dalmia Cement (Bharat) Ltd. with proposed Limestone Production Capacity of 3.0 Million TPA, OB 10.3191 Million TPA, Soil 1.271537 Million TPA (Total Excavation 14.590637 Million TPA) along with installation of Crusher 1000 TPH with Screen/Wobbler in the mine lease area of 460.4006 ha, located at Villages: Devgaon, Shivnagar, Naya Parasrampura, Gothra, Chaudhani, Khojas & Bhojnagar, Tehsil: Nawalgarh, District: Jhunjhunu, Rajasthan.

2. The details of the project as ascertained from the document submitted by the Project Proponent and revealed from the discussions held during the meeting are given as under:

- i. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category “A” as the mining lease area is greater than 250ha and accordingly, appraised at the Central level.
- ii. The mine lease area is located between Latitude: 27°47’59.3189”N to 27°46’32.9662”N and Longitude: 75°20’50.0430”E to 75°23’ 05.7004”E. The mine lease area falls under the Survey of India Toposheet No: G43D5 and falls in Seismic Zone-II.

iii. Details of Mine Lease:

S. No.	Prospecting License/Letter of Intent (Lol)/ Grant of Mine lease and Lr No	Date of the grant	Name of the Mineral & (Major/Minor)	Period of Grant	Granted by	Mine lease area in Ha
1.	Letter of Intent was issued vide	08.03.2023	Limestone	2 Years Valid upto 07.03.2025	Directorate of Mines & Geology,	460.4006

letter No. P.2(27) Khan/Group- 2/2022				Mines and Petroleum Department, Govt. of Rajasthan
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iv. Land Use/Land Cover of the Mine lease area:

Private land	438.9386 ha																		
Government land	13.0505 ha																		
Grazing Land	8.4115 ha																		
Forest land	-																		
Total Mining lease area (MLA)	460.4006 ha																		
Private land for crusher, workshop & other infrastructure outside the MLA	-																		
Additional information (if any)	1000 TPH Capacity of Crusher to be installed within the ML																		
	<table border="1"> <thead> <tr> <th>Pre-mining Land Use</th> <th>Area in Ha as per revenue record</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>Private Khatedari Land</td> <td>438.9386</td> <td>Scattered Houses/structure &amp; trees/shrubs exist on Pvt. Agricultural land</td> </tr> <tr> <td>Grazing Land</td> <td>8.4115</td> <td>Falls in Village Shivanagar (8.1333Ha) containing majority of consolidated habitation of BhilonkiDhani and Village NayaParasrampura (0.2782Ha). DCBL has proposed to surrender upon lease execution.</td> </tr> <tr> <td>Government Waste Land</td> <td>13.0505</td> <td>Government Wasteland includes area under:                             <ul style="list-style-type: none"> <li>• Linear public utilities /structure like Roads, electric lines, telephone lines etc. -3.04 ha</li> <li>• Area under temple, crematorium, Power Substation etc.- 3.4 ha</li> <li>• Settlements, temple, Degraded Pits &amp; Excavations etc.</li> </ul> </td> </tr> <tr> <td>Settlements</td> <td>--</td> <td>Settlements/habitation is spread in patches over an area of ~7.5312 Ha. Habitations are mostly on Govt. Land and Charagah Land.</td> </tr> <tr> <td>Degraded</td> <td>--</td> <td>7.57 Ha. Mostly in Govt. land</td> </tr> </tbody> </table>	Pre-mining Land Use	Area in Ha as per revenue record	Remarks	Private Khatedari Land	438.9386	Scattered Houses/structure & trees/shrubs exist on Pvt. Agricultural land	Grazing Land	8.4115	Falls in Village Shivanagar (8.1333Ha) containing majority of consolidated habitation of BhilonkiDhani and Village NayaParasrampura (0.2782Ha). DCBL has proposed to surrender upon lease execution.	Government Waste Land	13.0505	Government Wasteland includes area under: <ul style="list-style-type: none"> <li>• Linear public utilities /structure like Roads, electric lines, telephone lines etc. -3.04 ha</li> <li>• Area under temple, crematorium, Power Substation etc.- 3.4 ha</li> <li>• Settlements, temple, Degraded Pits &amp; Excavations etc.</li> </ul>	Settlements	--	Settlements/habitation is spread in patches over an area of ~7.5312 Ha. Habitations are mostly on Govt. Land and Charagah Land.	Degraded	--	7.57 Ha. Mostly in Govt. land
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Minutes of 22<sup>nd</sup> EAC (Non-Coal Mining) meeting held during 14-15 November, 2023

	Pits & Excavation		including one ML of 1.942 ha held under ML no. 82/2000
	Total	460.4006	

v. Mining plan details:

Mining Plan including Progressive Mine Closure Plan was approved by Indian Bureau of Mines (IBM)	Letter No.	MCDR-MPC0LST/9/2023-AJM-IBM_RO_AJM	
	Date	27.07.2023	
	Mineral & (Major/Minor)	Limestone, (Major mineral)	
	Mine Lease Area, Ha	460.40	
	Validity	5 Years from the date of the Mine Lease Execution. Mining lease is yet to be granted and executed.	
Mining Parameters	Quantitative Description		
Method of Mining	The proposed method of mining will be mechanized opencast method of mining with the use of HEMM with deep-hole drilling & blasting. It is proposed to mine with benches of 05 m height and 20m width for Overburden, 10m height and 30m width for Ore. The directions of movement of benches in south direction. Blast holes of 110-115 mm dia. are proposed to be drilled by using drill machine and blasting with ANFO with Booster charge bucket capacity excavation dumpers of 50 tonnes capacity and transported to wobbler & crusher combination for sizing.		
Drilling/Blasting	S. No.	Parameter	Description
	1	Bench Height	10m
	2	DepthofBlasthole	11m
	3	Burden	4m
	4	Spacing	6m
	5	Holediameter	110-115mm
	6	Powder Factor	8.5 Tonnes/Kg
Total Geological Resource	157.81 Million Tonnes		
Mineable Reserves	47.85 Million Tonnes		
Breakup of Total Excavation (Topsoil/OB/SB/IB/Mineral Rejects/Waste, MTPA)	Limestone Production Capacity: 3.0 Million TPA OB - 10.3191 Million TPA Soil- 1.271537 Million TPA Total Excavation: 14.590637 Million TPA		
Life of mine	~22 years (Based on the proposed exploration life of mine may change)		
Mine Bench Height&Bench Width	Bench Height: 5 to 10 m Bench Width: 20 to 30m		

Minutes of 22<sup>nd</sup> EAC (Non-Coal Mining) meeting held during 14-15 November, 2023

No. of Mine Benches	16
Existing Depth, m bgl	This is proposed mine
Ultimate Depth of Mining, m bgl	114m BGL
Ground Water Table, m bgl	120 m BGL
Details of ground water intersection	Mining is proposed upto 114mbgl. The general ground water table will encounter at about 120 mbgl. Therefore, ground water regime will not be intercepted.
Individual bench slope	85°
Overall pit slope	45°
Details of existing/ proposed Crusher	Crusher of 1000 TPH capacity is proposed to be installed within the ML
Mineral Beneficiation	Screen/wobbler will be installed
RoM output size	75 mm
Transportation details including capacity of dumper/tipper, mode of transport and distance	Excavated limestone will be transported to crusher by dedicated road through 60 tonner dumpers. The crusher is proposed within the area. This block has been auctioned for non-captive use. Hence, initially it is proposed to sell Limestone to cement plants and end use industries as and when required by road and subsequently DCBL has proposal to set up its own cement plant nearby for which crushed limestone for captive consumption will be transported via covered conveyor belt. Limestone sale to end-users will be by road.
Generation of Topsoil/OB & its Management during plan period & conceptual period	During Plan Period: 0.43 Million tonnes of soil will be generated which will be used in Greenbelt/Plantation and 8.4 Million Tonnes of waste will be generated which will be utilized for formation of the bund along the various safety zones liked road, village etc. and also for road maintenance. Area earmarked for Top Soil stacking is 7.4 Ha and Overburden/Waste Dumping 30 Ha. At Conceptual Stage: 3.46 Million Tonnes of soil to be generated which will be used in Greenbelt/Plantation and 212.64 Million Tonnes of waste to be generated which will be used in same will be used for backfilling in 123.14 ha exploited pit area.
Generation of Mineral Rejects/ Waste & its Management during plan period & conceptual period	-
Additional information(if any)	Top soil generated will be used in

	Greenbelt/Plantation. Waste/OB will be utilized for formation of the bund along the various safety zones liked road, village etc. and also for road maintenance and remaining is proposed to be used for backfilling of excavated area.
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vi. Water requirement:

Total water requirement	75.0 KLD	Fresh water	60.0 KLD
		Treated water	15.0 KLD
Source	Ground water and Mine Sump water as when developed.		
Permission for withdrawal/intersection along with details of grant and its validity	This proposal is for ToR. Details will be incorporated in EIA/EMP Report.		

vii. Nearest village/town/ highway/interstate boundary/railway station/water bodies/ monument/forest:

Particulars	Particular's Name	Distance &Directions
Village	Minon Ki Dhani	Within the ML
	Shivnagar (Bhilon Ki Dhani)	Scattered Habitation Within the ML
	Devgaon	Scattered Habitation Within the ML
Town	Town: Nawalgarh	~ 9.0 km in NW Direction
	City: Sikar	~ 22.0 km in SW Direction
Highway	SH-25B	~ 1.8 km in West Direction
	SH-37	~ 8.5 km in East Direction
	SH-378	~ 9.0 km in SE Direction
	SH-8	~ 9.5 km in WNW Direction
Interstate Boundary	None	-
Railway Station/Railway line	Nawalgarh Railway Station	~12.0 km in NW Direction
Water Bodies	Udaipur Lohagarh Ki Nadi	~0.2 km in NE Direction
Forest	Shakambari Conservation Reserve/Raghunathgarh PF	~9.3 km in SE Direction

viii. Presence of Environmentally Sensitive areas in the study area:

Forest Land/Protected Area/Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter issued by the concerned Department mentioning the Lr no, date of grant and remarks
Forest Land within the mine lease area and (if yes) status of Forest Clearance	No	No forest land fall within the ML
National Park	No	There is no National Park, Wildlife Sanctuary, Elephant/Tiger
Wildlife Sanctuary	No	



Elephant/Tiger Reserve	No	Reserves etc. within 10 km radius study area.
Eco-Sensitive Zone(ESZ)/Eco-Sensitive Area(ESA)	Yes	Shakambari Conservation Reserve Boundary starts at 9.3 km SE, Notified by Govt. of Rajasthan vide Notification P.3(16)Van/2009 dated 09.02.2012 in the Raghunathgarh PF area.
Coastal Regulation Zone (CRZ)	No	-
Schedule-I species (No.s and name of schedule-I species with authenticated letter)	-	-
Wildlife Conservation Plan	-	-

ix. Green belt/Plantation details:

Proposed area for green belt/plantation and no. of saplings proposed	Total Greenbelt/Plantation: 178.70 ha Greenbelt (7.5 m): 8.28 ha Plantation: 170.42 ha (123.14 ha on Backfilled area, 35.46 ha on Bench Plantation & 11.82 ha on Reclaimed area) No. of Saplings Proposed: 1,70,420 (considering 1000 trees/ha)
Budget for green plant & plantation till the end of life of mine.	Rs. 3.4 Crores
Budget for nursery	Rs. 10 Lakhs
Details of existing plantation and its survival rate	Survival rate will be maintained 70- 80%
No. of tree cuts in the mine lease area and compensatory afforestation	~500 trees will be cleared Compensatory Afforestation: Total 1,70,420 trees will be Planted
Particulars for Green belt/plantation	Area covered (In Ha)
7.5 m barrier & non-mineralized zone	8.28 ha
50 m safety zone of nallah, roads, electric lines	~23.0 ha. of safety zone (50 m) along road is proposed
500 m safety zones of nearest habitation villages	-

x. Rehabilitation & Resettlement (R&R):

R & R details	Total mine lease area is 460.4006 ha comprises 438.9386 ha of Private land, 13.0505 ha of Government wasteland and 8.4115 ha of Grazing (Charagah) land. DCBL has following options for acquisition of land for its proposed mining project: ➤ Option 1: Acquire land falling in the mining lease area through provisions of LARR Act, 2013 and rules made thereunder. ➤ Option 2: Direct Purchase Mode: It is proposed to purchase the private agriculture Directly through mutual
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	<p>agreement with the land holders at negotiated rates and terms and conditions. Basis of Land Compensation will be in line of the RFCTARR Act 2013 (Right to Fair Compensation, Transparency in land Acquisition and Rehabilitation &amp; Resettlement) or similar acts of Govt. of Rajasthan/Rules made by Govt. of Rajasthan under LARR. Options may also be evaluated to obtained land on lease/rental directly from the land owners at mutually agreed terms &amp; conditions.</p> <ul style="list-style-type: none"> <li>➤ Option 3: Securing land by payment of the annual surface compensation under the provision of Sec. 24 of the MMDR Act, 1957 and Rule 51 of The MCR Rules, 2016.</li> <li>➤ DCBL proposes to procure land under Option 3.</li> </ul> <p>As per Land Schedule the mine site falls under 7 Revenue Villages. Total Project Affected Families are 335 out of which about 60 families (from core zone) is likely to be displaced falling in the mineralized zone/minable area. Displacement will be done in a phased manner with the advancement of mining operation and adequately compensated at a mutually agreed price. These details may be changed after the detailed study of R&amp;R survey. Charagah land is proposed to be surrendered at the time of execution and consolidated habitation of village Bhilonkidhani on Charagah land will not be disturbed.</p>
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xi. Court case details:

Court Case, No and its present status	No Court Case or Litigation is pending
Undertaking by Project Proponent w.r.t court case	The Project Proponent has submitted a undertaking vide letter dated 03.10.2023 stating that there is no litigation pending against the project and/or any direction/ order passed by any court of law against the project and that for any such litigation whatsoever, the sole responsibilities will be borne by the company.

xii. Affidavit/Undertaking details:

Affidavit as per Ministry's OM dated 30.05.2018	The Project Proponent has submitted the Affidavit dated 03.10.2023 stating that the company will comply with all the statutory requirement & judgment of Hon'ble Supreme Court order dated 2 <sup>nd</sup> August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of common cause versus Union of India &Ors before grant of ToR/EC.
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xiii. Details of project cost and employment:

Particulars	Budget (Rs. in Crores)
Project Cost	Rs. 250 Crores
Employment	85 persons

**3. Observation and Recommendation of the EAC:**

The Project Proponent/Consultant presented the KML file to indicate the site features in the mine lease area and in the study area of 10 km radius. The Project Proponent has shown the common lease boundary of the instant mine lease area sharing with M/s Shree Cement Ltd on the northern side which is under operation and also with M/s ACC Ltd on the western side. The Project Proponent also shown the Cement Plant belonging to M/s Shree Cement Ltd. Further, the Project Proponent has informed the EAC that after execution of the mine lease deed, the matter regarding mining in common boundary will be taken up with the adjoining lease holders as per 106(2)(b) of the Metalliferous Mines Regulations, 1961. Accordingly, amendment in EC will be obtained in future. Udaipur Lohagarh Ki Nadi is flowing adjacent to the mine lease area i.e., 200m on the eastern side. The nadi is mostly dry and water is observed during only in monsoon season. Raghunathgarh PF is located at a distance of about 9.5 km, SE from mine lease area. No water bodies present within the mine lease area. There were 6 old pits over an area of 1.942 ha existed within the mine lease area. The Project Proponent also informed the EAC that the State Govt. during the auction has informed that the old excavated areas shall be excluded during the grant of mining lease and accordingly mining plan was prepared by excluding the area of 1.942 ha and the same was approved by Indian Bureau of Mines vide letter dated 27.07.2023.

Further, the Project Proponent has shown the 7.5m barrier all around the mine lease boundary. The Project Proponent has also shown the two patches of the Charagah land, Govt. land and crematorium ground within the mine lease area and informed the EAC that the Charagah land of 8.4115 ha will be surrendered upon execution of the mine lease deed. The Project Proponent also informed the EAC that there are village roads passing through the mine lease area. Existing roads are proposed to be diverted in future and discussions are happening with the local people. After that, the matter will be pursued with the State Govt. to provide an alternate road at the cost of the Project Proponent. High Tension Line passing from NE-SW direction of the area of the Block will not be disturbed during the mining operation as it is falling outside the proposed Ultimate Pit Limit (UPL). LT lines may be re-aligned outside the UPL, if required at the time during advancement of mining operations. Habitations are also existing within the mine lease area. Scattered Habitation of village Devgaon & Minon Ki Dhani falling within the UPL will be shifted.

The Project Proponent has informed the EAC that the G2 level exploration has been completed and within 1<sup>st</sup> three years of mining plan period, exploration program will be completed. Backfilling has been proposed to start in the 10<sup>th</sup> years as per current exploration program and may change subject to detailed exploration. The Project Proponent has shown the conceptual plan. The EAC noted that the Project Proponent has proposed to achieve maximum production of 3.0 MTPA in the 10<sup>th</sup> year. The production has been kept low considering the land acquisition process. However, the

mining plan will be modified in future depending upon the progress of the land acquisition. At the conceptual stage, an area of 223.19 ha will be excavated, out of which 64.59 ha will be converted into water reservoir, 123.14 ha will be backfilled and an area of 35.46 ha will be developed under bench plantation. An area of 178.70 ha will be developed under Greenbelt & Plantation at Conceptual Stage. Topsoil will be utilized for greenbelt/plantation and OB/Waste generated during plan period will be utilized for formation of the bund along the various safety zones liked road, village etc. and also for road maintenance and during conceptual stage will be used for backfilling in 123.14 ha of exploited pit area.

After detailed deliberations made by the Project Proponent and the Consultant, the EAC in its meeting held during 14-15 November, 2023 under the provisions of EIA Notification, 2006 and subsequent amendments therein, **recommended** the proposal for grant of Terms of Reference (ToR) to M/s Dalmia Cement (Bharat) Ltd. for proposed Gothra Parasrampura East Block (Auctioned Block) with Limestone Production Capacity 3.0 Million TPA, OB 10.3191 Million TPA, Soil 1.271537 Million TPA (Total Excavation 14.590637 Million TPA) along with installation of Crusher 1000 TPH with Screen/Wobbler in the mine lease area of 460.4006 ha, located at Villages: Devgaon, Shivnagar, Naya Parasrampura, Gothra, Chaudhani, Khojas & Bhojnagar, Tehsil: Nawalgarh, District: Jhunjhunu, Rajasthan for undertaking detailed EIA/EMP study subject to the following specific conditions in addition to the standard ToR conditions and applicable for non-coal mining projects:-

- i. The Project Proponent needs to submit the Biodiversity Conservation Plan to ensure no net loss to biodiversity (Shakambari Conservation Reserve: 9.3 km SE).
- ii. The Project Proponent needs to submit the ecology restoration plan for mined out pits for using as Water reservoir/ Pisciculture as well as the plan for the backfilled area.
- iii. The Project Proponent needs to submit the year wise sequence of mining operation and plan for backfilling.
- iv. The Project Proponent shall monitor the water quality in the impact zone such as water reservoir, river water with specific reference to the parameter Langelier Saturation Index which will denote the impact of calcium carbonates on water bodies and these parameters and determine the tendency of water to form calcium carbonate scaling.

- v. The Project Proponent needs to submit the site specific measures to protect the surface features in the mine lease area and in the vicinity of the mine lease area and also to submit the map demarcating the surface features and their safety distances left as per mines acts and rules.
- vi. The Project Proponent needs to submit the map showing the transport route of the mineral from the mine lease area to the destination, impact of details of habitation at a distance of 100m from the center on both sides of road, details of no. of trips/day to and fro, capacity of the dumper/tipper to be deployed and the dimensions of the road and the carrying capacity of the road.
- vii. The Project Proponent needs to monitor the ambient air quality and noise level at the mine lease boundary, nearest village, crusher, predominant downwind direction and at other sensitive receptors. Accordingly, Project Proponent shall propose to install Continuous Ambient Air Quality Monitoring Station within certain timeline.
- viii. The Project Proponent should prepare the EMP considering the scenario of pollution to be generated for normative and peak total excavation for assessing air pollution, noise level and ground vibration.
- ix. The Project Proponent needs to carry out the cumulative impact assessment by considering all the mining activity of the proposed mine, existing mines, cement plant and other operating mines including the transport scenario in the study area and also should indicate the capacity of each mine considered for predication of air quality modeling. The control case and worst-case scenario needs to be demonstrated with controlling factor and GLCs values for all the pollutants needs to be clearly mentioned. The input parameters and data used for each activity of the modeling also needs to be submitted at the time of appraisal of EC.
- x. The Project Proponent needs to carry out the Public Hearing as per provisions of EIA Notification, 2006. PP should also submit the time bound action plan on concerns of the public through a separate budget with capital expenditure with a timeline of 3 years. The Project proponent shall ensure that the activities proposed under the public hearing shall be different from the CSR activities.
- xi. The Project Proponent needs to undertake the enumeration of the species within the mine lease area before cutting. The Project Proponent also needs to submit the compensatory afforestation plan for the no. of trees to be cut in the mine lease area.

- xii. The Project Proponent needs to submit the action plan for undertaking the plantation along the 7.5m barrier, safety zone of nallah, village road, electric line etc., PP should also submit the details no of saplings to be planted, type of saplings proposed and the area to be covered under greenbelt/plantation along with the timeline and budget. The greenbelt/plantation plan shall be prepared in such a way that the ecology of the area shall be restored.
- xiii. The Project Proponent shall carry out the assessment of impact due to the proposed project as per the guidelines issued by the Central Ground Water Authority from time to time and submit the same as a part of the EIA/EMP. The project proponent shall conduct hydrological study for projects involving intersection of ground water table as per the guidelines issued by the Central Ground Water Authority from time to time and submit the same as a part of the EIA/EMP.
- xiv. The Project Proponent shall explore the possibility of reduction of specific water requirement by optimization / technology up gradation, etc. The efforts shall be delineated in the EIA/EMP.
- xv. The Project Proponent shall prepare the scheme for mandatory recycle/re-use of water as specified by the Central Ground Water Authority for different category areas seeking NoC for ground water withdrawal and the shall submit as part of EIA/EMP report.
- xvi. The Project Proponent needs to submit the detailed R&R plan covering all the components viz. number of Project Affected Families (PAF) and details of the land owned by them, break up of total compensation to be paid including method of calculation including the sources/references adopted and mode of payment etc. The Project Proponent needs to submit the plan for Socio economic development of the neighbourhood habitats based on the need based survey along with the time bound action plan. Further, PP needs to submit the possession certificate and timeline for acquiring the land at the time of submission of EC proposal.
- xvii. The Project Proponent shall conduct drone survey of the mine lease area and buffer area and submit during the appraisal for EC.

**2.3 Nahardih-Maghaipur Limestone Block of M/s. Nalwa Steel & Power Limited with Limestone production capacity of 1.5 Million TPA, Topsoil: 0.075 Million TPA, Over Burden: 0.88 Million TPA (Total Excavation: 2.45 Million TPA)along with**

**mobile crusher of 400 TPH in the mine lease area of 365.252 ha, located at Villages Pachari, Chhodia, Alesur, Maghaipur and Motimpur-Khurd, Tehsil: Kharora, District: Raipur, Chhattisgarh- [F.No: :IA-J-11015/38/2023-IA.II(NCM), Proposal No: IA/CG/MIN/449681/2023; EIA Consultant: M/s J.M. EnviroNet Pvt. Ltd.] – Terms of Reference (ToR)**

The instant proposal is for mining of Limestone in Nahardih-Maghaipur Limestone Block of M/s. Nalwa Steel & Power Limited with Limestone production capacity of 1.5 Million TPA, Topsoil: 0.075 Million TPA, Over Burden: 0.88 Million TPA (Total Excavation: 2.45 Million TPA) along with mobile crusher of 400 TPH in the mine lease area of 365.252 ha, located at Villages Pachari, Chhodia, Alesur, Maghaipur and Motimpur-Khurd, Tehsil: Kharora, District: Raipur, Chhattisgarh.

2. The details of the project as ascertained from the document submitted by the Project Proponent and revealed from the discussions held during the meeting are given as under:

- i. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category “A” as the mining lease area is greater than 250ha and accordingly, appraised at the Central level.
- ii. The mine lease area is located between Latitude: 21°25'39.33"N to 21°25'58.70"N and Longitude: 81°57'39.33"E to 81°58'37.92"E. The mine lease area falls under the Survey of India Toposheet No: 64G/15 and falls in Seismic Zone-II.

iii. Details of Mine Lease:

S.no	Prospecting License/ Letter of Intent (LoI)/ Grant of Mine lease and Lr No	Date of the grant	Name of the Mineral & (Major/ Minor)	Period of Grant	Granted by	Mine lease area in Ha
1.	Letter of Intent (LoI) was issued through e-auction process conducted by the Govt. of Chhattisgarh.	04.08.2022	Limestone	3 years	Govt. of Chhattisgarh	365.252

iv. Land Use/Land Cover of the Mine Lease Area:

Private land	352.574 ha
Government land	12.678 ha (Grazing land: 3.211 ha)
Forest Land	-

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Total Mining lease area (MLA), Ha	365.252 ha
Private land for crusher, workshop & other infrastructure outside the MLA	No infrastructure is proposed outside the ML area.

v. Mining plan details:

Mining Plan including Progressive Mine Closure Plan was approved by Indian Bureau of Mines	Letter No.	RPR/Raipur/LST/1378/MP/2022-23
	Date	12.09.2023
	Mineral & (Major/Minor)	Limestone, (Major mineral)
	Mine Lease Area, Ha	365.252 ha
	Validity	5 years from the date of Mining Lease registration
Mining Parameters	Quantitative Description	
Method of Mining	Fully Mechanized Opencast Mining Method.	
Drilling/Blasting	Excavation will be done by mechanized opencast method using drilling and blasting. DTH drills and wet drilling will be used to develop ecofriendly mining. Diameter of the blast hole drill will be 150 mm. The blasting will be done by ANFO/SME/Slurry as column charge and slurry /cast booster explosive as booster charge. Controlled blasting will be practiced by using Nonel to reduce sound, ground vibration, back break, fly rock within the safe limit. Hydraulic rock breaker will be used for breaking oversized boulders in place of secondary blasting. All precautions for blasting and safety measures will be taken at the time of blasting and will be carried out by qualified/certified blaster.	
Geological Reserves	122.22 Million Ton (As on 01/04/2022)	
Mineable Reserves	85.11 Million Ton (As on 01/04/2022)	
Breakup of Total Excavation (Topsoil/OB/SB/IB/Mineral Rejects/ Waste, MTPA)	Total Excavation: 2.45 Million TPA <u>Breakup of Total Excavation:</u> 1. Limestone: 1.5 Million TPA 2. Top Soil: 0.075 Million TPA 3. Over Burden: 0.88 Million TPA	
Life of mine	60 years (As on 01/04/2022)	
Mine Bench Height & Bench Width	Bench height: 6.0 m (Maximum) Bench Width: 12 m (Minimum)	
No. of Mine Benches	6 benches at conceptual stage	
Existing Depth, m bgl	It's a greenfield project so not applicable.	
Ultimate Depth of Mining, m bgl	245 m AMSL (42 m bgl)	
Ground Water Table, m bgl	3- 5 m bgl	
Details of ground water intersection	Water table will be intersected during the working and necessary permission will be taken before intersecting ground water table.	



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Individual bench slope	80°
Overall pit slope	45°
Details of existing/ proposed Crusher	Mobile crusher of 400 TPH will be installed
Mineral Beneficiation	Nil
RoM output size	Nil
Transportation details including capacity of dumper/tipper, mode of transport and distance	Limestone will be transported from mine face to head by tippers via haul road and it will be transported to end users via Road and Rail.
Generation of Topsoil/OB & its Management during plan period & conceptual period.	<p><u>Top Soil:</u></p> <ul style="list-style-type: none"> <li>➤ Total 0.07 million cu m of top soil will be generated during plan period which will be used in green belt generation. At the conceptual stage top soil generated will be used for Greenbelt and plantation.</li> </ul> <p><u>Over Burden:</u></p> <ul style="list-style-type: none"> <li>➤ During this Plan period, 0.46 million cu m Over burden will be Stacked at earmarked place and fully utilized for backfilling.</li> <li>➤ Approx 12.56 million cu m of overburden will be generated during conceptual stage and at the conceptual stage, OB generated will be used for backfilling excavated area.</li> </ul>
Generation of Mineral Rejects/ Waste & its Management during plan period & conceptual period	-

vi. Water requirement:

Total water requirement	110.0 KLD	Fresh Water	110.0 KLD
		Treated water	-
Source	Ground water and rain water collected in mine sump as and when developed		
Permission for withdrawal/ intersection along with details of grant and its validity	Permission will be taken from State Govt. for using Ground water.		

vii. Nearest village/town/ highway/interstate boundary/railway station/water bodies/monument/ forest

Particulars	Particular's Name	Directions
Nearest Village	Pachari Village	~0.2 km in NW direction
Nearest Town	Kharora	~6.0 km in SW Direction
Nearest State/National Highway	NH -130 B	~4.0 km in SSE direction

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Interstate Boundary	None	-
Railway Station/Railway line	Tilda Railway Station	~20 km in NW direction
Water Bodies	Tangna Nala	~3.0 km in North direction
	Kumhari Tank	~4.5 km in WNW direction
	Banjari Nala	~9.0 km in NW direction
	Chitawar Nala	~5.5 km in NNE direction
	Khorsi Nala	~5.0 km in ENE direction
	Mahanadi Canal (Lowan Branch)	~4.5 km in SE direction
	Mahanadi Canal (Baloda Branch)	~100 m in SSW direction
	Kosrangi Tank	~6.5 km in SSE direction
	Pindron Tank	~8.0 km in SSW direction
School	Pikridih Tank	~8.5 km in WSW direction
	Govt. New Middle School Chhadiya	~350 m in SW direction
Forest	Khulidabri Protected Forest	~3.0 km West direction
	Moheranga PF	~8.5 km in WNW direction

viii. Presence of Environmentally Sensitive areas in the study area:

Forest Land / Protected Area / Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter issued by the concerned Department mentioning the Lr no, date of grant and remarks
Forest Land within the mine lease area and (if yes) status of Forest Clearance	No	Certificate/letter from the concerned Department will be obtained during EIA study.
National Park	No	Certificate/letter from the concerned Department will be obtained during EIA study.
Wildlife Sanctuary	No	
Elephant/Tiger Reserve	No	
Eco-Sensitive Zone (ESZ) /Eco-Sensitive Area (ESA)	No	
Coastal Regulation Zone (CRZ)	No	-
Schedule-I species (No.s and name of schedule-I species with authenticated letter)	-	This proposal is for ToR, study will be carried out, if schedule - I Will found in the study area Wildlife Conservation Plan will be prepared during the preparation of EIA/EMP Report.
Wildlife Conservation Plan	-	

ix. Green belt/Plantation details:

Proposed area for greenbelt/plantation and no. of saplings proposed	Total estimated greenbelt area on lease boundary will be 11.250 ha. and total area under plantation will be 86.424 ha (42.370 ha on backfilled area and 44.054 ha on undisturbed
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	area).
Budget for green plant & plantation till the end of life of mine.	Rs 9.5 Crore
Budget for nursery	N/A
Details of existing plantation and its survival rate	It's a greenfield project.
No. of tree cuts in the mine lease area and compensatory afforestation	106
Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	11.250 ha

x. Rehabilitation & Resettlement (R&R):

R & R details	<ul style="list-style-type: none"> <li>➤ Total mine lease area is 365.252 ha, out of which 352.574 ha is private land.</li> <li>➤ Land will be purchased with negotiation and R&amp;R provisions will be followed as per Central and State Government Rules &amp; Notifications.</li> </ul>
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xi. Court case details:

Court Case, No and its present status	No Court Case or Litigation is pending
Undertaking by Project Proponent w.r.t court case	The Project Proponent has submitted a undertaking vide letter dated 16.10.2023 stating that there is no litigation pending against the project and/or any direction/ order passed by any court of law against the project and that for any such litigation whatsoever, the sole responsibilities will be borne by the company.

xii. Affidavit/Undertaking details:

Affidavit as per Ministry's OM dated 30.05.2018	The Project Proponent has submitted the Affidavit bearing no: R835030 dated 19.10.2023 stating that the company will comply with all the statutory requirement & judgment of Hon'ble Supreme Court order dated 2 <sup>nd</sup> August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of common cause versus Union of India &Ors before grant of ToR/EC.
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xiii. Details of project cost and employment:

Particulars	Budget (Rs. in Crores)
Project Cost	Rs. 300 Crores
Employment	96 persons

**3. Observation and Recommendation of the EAC:**

The Project Proponent has informed the EAC that the instant mine was granted under auction and letter for grant of mining lease was granted by the State Govt. vide order dated 04.08.2022. Mining Plan was approved by Indian Bureau of Mines vide letter dated 12.09.2023. The total mine lease area is 365.252 ha, out of which Pvt land is 352.574 ha and Govt. land is 12.678 ha (including Grazing land of 3.211 ha). The Project Proponent/Consultant presented the KML file to indicate the site features in the mine lease area and in the study area of 10 km radius. The Project Proponent has shown the 11 KVA transmission lines within the lease area and informed that during the plan period, safety barriers will be left in both sides of transmission line and all the transmission line will be diverted progressively up to the conceptual stage. The Project Proponent also shown the roads passing through the mine lease area on northern side and on southern side and informed that during course of mining, roads will be diverted. A nalah passes within the central part of the mine lease area will be diverted. Mining activity will reach the nalah after 30<sup>th</sup> year. Mining is proposed to a depth of 42 m bgl. The depth of the nalah is less than 1m. The EAC opined that no nalah should not be disturbed/diverted. No habitations are within the mine lease area.

The Project Proponent has shown the year wise working plan in the KML file. Mining activity will start from the northern side of the mine lease area. Backfilling will be started in the 15<sup>th</sup> year. Waste Dump is proposed in the eastern side of the mine lease area and mobile crusher is proposed to be on the western side of the mine lease area during the mining activity on northern side and then will be shifted to on the eastern side as the mining activity progresses from north to south. The maximum land is a private land within the mine lease area and land will be purchased with negotiation. Grazing land of 3.211 ha exists within the mine lease area and an alternate land will be provided. An area of 25 ha has been already purchased outside the mine lease area. An alternate land for grazing will be provided within the area of 25 ha. Under 25 ha, a provision has also kept to provide land for land compensation. Purchasing of land is in process and already negotiation has been done with the local people for purchasing about 145 acres of land. The EAC opined that while purchasing the land, the Project Proponent needs to consider the area from which the mining activity will progress, location of crusher, waste dump etc.,

The Project Proponent has informed the EAC that schools are located adjacent to the mine lease area. The strength of the nearest school is 121. During initial 10 years of mining operation, the mining activity will be 500m away from the school. The Project Proponent also informed the EAC that it is a non-captive mine and the mineral will be transported by road. A length of 2.5 km connecting to the Highway from the mine lease area will be developed as a separate road away from the village. The EAC opined that the Project Proponent needs to explore the possibility of utilizing the power from the solar energy. At the conceptual stage, an area of 309.948 ha will be excavated, out of

which 267.578 ha will be converted into water reservoir and an area of 42.370 ha will be backfilled. Topsoil generated during plan period will be used in green belt development and during conceptual stage will be spread over the backfilled area and also will be used in plantation. Over burden will be stacked at earmarked place and fully utilized for backfilling.

After detailed deliberations made by the Project Proponent and the Consultant, the EAC in its meeting held during 14-15 November, 2023 under the provisions of EIA Notification, 2006 and subsequent amendments therein, **recommended** the proposal for grant of Terms of Reference (ToR) to M/s. Nalwa Steel & Power Limited for Nahardih-Maghaipur Limestone Block with Limestone production capacity of 1.5 Million TPA, Topsoil: 0.075 Million TPA, Over Burden: 0.88 Million TPA (Total Excavation: 2.45 Million TPA) along with mobile crusher of 400 TPH in the mine lease area of 365.252 ha, located at Villages Pachari, Chhodia, Alesur, Maghaipur and Motimpur-Khurd, Tehsil: Kharora, District: Raipur, Chhattisgarh for undertaking detailed EIA/EMP study subject to the following specific conditions in addition to the standard ToR conditions and applicable for non-coal mining projects: -

- i. The Project Proponent needs to submit the ecology restoration plan for mined out pits for using as Water reservoir/ Pisciculture as well as the plan for the backfilled area.
- ii. The Project Proponent needs to submit the year wise sequence of mining operation and plan for backfilling.
- iii. The Project Proponent shall monitor the water quality in the impact zone such as water reservoir, river water with specific reference to the parameter Langelier Saturation Index which will denote the impact of calcium carbonates on water bodies and these parameters and determine the tendency of water to form calcium carbonate scaling.
- iv. The Project Proponent needs to monitor the ambient air quality and noise level at the mine lease boundary, nearest village, crusher, predominant downwind direction and at other sensitive receptors. Accordingly, Project Proponent shall propose to install Continuous Ambient Air Quality Monitoring Station within certain timeline.
- v. The Project Proponent needs to submit the map and the details regarding alternate land for grazing land and also its protection measures.

- vi. The Project Proponent needs to submit the map showing the transport route of the mineral from the mine lease area to the destination, impact of details of habitation at a distance of 100m from the center on both sides of road, details of no. of trips/day to and fro, capacity of the dumper/tipper to be deployed and the dimensions of the road and the carrying capacity of the road.
- vii. The Project Proponent should prepare the EMP considering the scenario of pollution to be generated for normative and peak total excavation for assessing air pollution, noise level and ground vibration.
- viii. The Project Proponent needs to submit the site specific measures to protect the surface features in the mine lease area and in the vicinity of the mine lease area and also to submit the map demarcating the surface features and their safety distances left as per mines acts and rules.
- ix. The Project Proponent needs to carry out the Public Hearing as per provisions of EIA Notification, 2006. PP should also submit the time bound action plan on concerns of the public through a separate budget with capital expenditure with a timeline of 3 years. The Project proponent shall ensure that the activities proposed under the public hearing shall be different from the CSR activities.
- x. The Project Proponent needs to explore the possibility of utilizing the power from the solar energy.
- xi. The Project Proponent needs to submit the action plan for undertaking the plantation along the 7.5m barrier, safety zone of nallah, village road, electric line etc., PP should also submit the details no of saplings to be planted, type of saplings proposed and the area to be covered under greenbelt/plantation along with the timeline and budget. The greenbelt/plantation plan shall be prepared in such a way that the ecology of the area shall be restored.
- xii. The Project Proponent shall carry out the assessment of impact due to the proposed project as per the guidelines issued by the Central Ground Water Authority from time to time and submit the same as a part of the EIA/EMP. The project proponent shall conduct hydrological study for projects involving intersection of ground water table as per the guidelines issued by the Central Ground Water Authority from time to time and submit the same as a part of the EIA/EMP.

- xiii. The Project Proponent shall explore the possibility of reduction of specific water requirement by optimization / technology up gradation, etc. The efforts shall be delineated in the EIA/EMP.
- xiv. The Project Proponent shall prepare the scheme for mandatory recycle/re-use of water as specified by the Central Ground Water Authority for different category areas seeking NoC for ground water withdrawal and the shall submit as part of EIA/EMP report.
- xv. The Project Proponent needs to submit the detailed R&R plan covering all the components viz. number of Project Affected Families (PAF) and details of the land owned by them, break up of total compensation to be paid including method of calculation including the sources/references adopted and mode of payment etc. The Project Proponent needs to submit the plan for Socio economic development of the neighbourhood habitats based on the need based survey along with the time bound action plan. Further, PP needs to submit the possession certificate and timeline for acquiring the land at the time of submission of EC proposal.
- xvi. The project proponent needs to look into the diameter of the drill holes and spacing burden in respect with the bench height.
- xvii. The Project Proponent needs to submit the layout of crusher plant and measures to be adopted to reduce dust and noise.
- xviii. The Project Proponent shall conduct drone survey of the mine lease area and buffer area and submit during the appraisal for EC.

**2.4 Limestone mining project of M/s Mangalam Cement Ltd for proposed production capacity of 32,08,690.3 TPA (ROM) Saleable Limestone: 29,69,287.5 TPA, Top Soil: 2,39,402.8 TPA in the mine lease area of 323.332 ha, located near Village- Kathiya - Pachri, Tehsil- Tilda, District- Raipur, Chhattisgarh – [F.No: IA-J-11015/35/2023-IA.II(NCM), Proposal no: IA/CG/MIN/444676/2023; EIA Consultant: M/s Cognizance Research India Private Ltd.] – Terms of Reference (ToR)**

The instant proposal is for Limestone mining project of M/s Mangalam Cement Ltd for proposed production capacity of 32,08,690.3 TPA (ROM) Saleable Limestone: 29,69,287.5 TPA, Top Soil: 2,39,402.8 TPA in the mine lease area of 323.332 ha, located near Village- Kathiya - Pachri, Tehsil- Tilda, District- Raipur, Chhattisgarh.

2. The details of the project as ascertained from the document submitted by the Project Proponent and revealed from the discussions held during the meeting are given as under:

- i. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category “A” as the mining lease area is greater than 250ha and accordingly, appraised at the Central level.
- ii. The mine lease area is located between Latitude: 21°27’27.50766”N to 21°28’21.22912”N and Longitude: 81°54’57.38042”E to 81°56’52.53573”E. The mine lease area falls under the Survey of India Toposheet No: 64G/15 and falls in Seismic Zone-II.

iii. Details of Mine Lease:

Sr. No	Prospecting License/ Letter of Intent (LoI)/ Grant of Mine lease and Lr No	Date of the grant	Name of the Mineral&(Major /Minor)	Period of Grant	Granted by	Mine lease area in Ha.
1	LoI No- F 3-04/2021/12, Nava Raipur, Atal Nagar,	04/08/2022	Limestone (Major Mineral)	3 Years	Joint Secretary Chhattisgarh Government Mineral Resources Department New Raipur	323.332

iv. Land Use/Land Cover of the Mine Lease Area:

Private land	250.647 Ha.
Government land	72.685 Ha.
Forest land	Nil
Total Mining lease area (MLA), ha	323.332 Ha.
Private land for crusher, workshop & other infrastructure outside the MLA	Nil (Not Proposed)

v. Mining plan details:

Mining Plan including Progressive Mine Closure Plan was approved by Indian Bureau of Mines (IBM)	Letter No.	RPR/RAIPUR/LIMESTONE/1381/MP/2023-24
	Date	14/07/2023
	Mineral & (Major/Minor)	Limestone (Major Mineral)
	Mine Lease	323.332



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	Area, Ha.	
	Validity	5 Year from date of agreement
Mining Parameters	Quantitative Description	
Method of Mining	Opencast Mechanized Mining	
Drilling/Blasting	Deep Hole wet Drilling & Blasting Diameter of hole – 110 mm, Depth of hole= 6.0m Explosive required per month = 75,000 kg	
Geological Reserves	21,17,79,706.0Tonnes	
Mineable Reserves	16,54,51,198 Tonnes	
Breakup of Total Excavation (Topsoil/OB/SB/IB/Mineral Rejects/Waste, MTPA)	Total Excavation 32,08,690.3 TPA (Limestone: 29,69,287.5 TPA, Top Soil: 2,39,402.8 TPA)	
Life of mine	50 Years from the date of registration.	
Mine Bench Height& Bench Width	Mine Bench Height 6m & Bench Width 15m	
No. of Mine Benches	3 benches (during plan period)	
Existing Depth, m bgl	Highest - 297mRL Lowest- 288mRL	
Ultimate Depth of Mining, m bgl	63 mbgl	
Ground Water Table, m bgl	Water Table 261mRL (27 mbgl Post monsoon) 258mRL(30 mbgl Pre monsoon)	
Details of ground water intersection	Proposed Mining depth is only 18mbgl, so there will no water intersection in next five years.	
Individual bench slope	60°	
Overall pit slope	37°	
Details of existing/ proposed Crusher	Not proposed	
Mineral Beneficiation	Not proposed	
RoM output size	0.5m <sup>3</sup> (max.)	
Transportation details including capacity of dumper/tipper, mode of transport and distance	Mode of transportation = Dumpers Number of Dumpers = 5 Capacity of Dumper =25 Tonner Lead Distance = 2 km	
Generation of Topsoil/OB & its Management during plan period & conceptual period	Top soil generated during plan period = 4,91,892.8tonnes (3,51,352 m <sup>3</sup> ) Top soil generated during conceptual period = 74,16,598tonnes (5,297,570 m <sup>3</sup> ) Top soil shall be Utilized for plantation.	
Generation of Mineral Rejects/Waste & its Management during plan period & conceptual period	No mineral waste and reject shall be generated during plan period.	

vi. Water requirement:

Total water requirement	71.0 KLD	Fresh water	4.0 KLD
		Treated water	67.0 KLD
Source	Water for Drinking & Domestic shall be taken by Govt.		

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	Supply and nearby villages Kathiya. Surface water accumulated in the existing pit shall be used for dust suppression and plantation.
Permission for withdrawal/ intersection along with details of grant and its validity	Permission of water intersection shall be taken before intersection of ground water table.

vii. Nearest village/town/ highway/interstate boundary/railway station/water bodies/monument/ forest:

Particulars	Particular's Name	Distance & Directions
Village	Kathiya - Pachri	Kathiya 0.40 km in North direction. Pachri 0.70 km in SE direction
Town	Tilda	14.85km in NW direction
Highway	NH-130B Tilda Simga Road	7.30 km in South direction 3.827 km in SW direction
Interstate Boundary	Nil	Nil
Railway Station/Railway line	Tilda Railway station	About 15.85 km in NW direction
Water Bodies	Pond, Pachri Pond, Kumhari Tank Keotara Pond, Bharuwadih Kalan Naiya Talab, Mohra Pond, Pindraon Tank Pond, Jara Pond, Kesla Jamuniya Nala Tangna Nala Khorsi Nala Pond, Parsada Banjari Nala	(About 207.52 meter in SE direction) (About 314 meter km in NW direction) (About 0.51 km in West direction) (About 4.35 km in NE direction) (About 6.013 km in SW direction) (About 6.55 km in NE direction) (About 6.60 km in SE direction) (About 7.00 km in West direction) (About 7.60 km in NE direction) (About 7.75 km in SE direction) (About 8.30 km ion SE direction) (About 8.45 km in North direction)
Forest	Khaulidabri Forest Mohrenga Forest	Protected Protected About 643.40 m in SW direction About 3.827 km in SW direction

viii. Presence of Environmentally Sensitive areas in the study area:

Forest Land/Protected Area/Environmental Sensitivity Zone	Yes/No	Details of Certificate/letter issued by the concerned Department mentioning the Lr no, date of grant and remarks
Forest Land within the mine lease area and (if yes) status of Forest Clearance	-No-	-

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National Park	-No-	-
Wildlife Sanctuary	-No-	-
Elephant/Tiger Reserve	-No-	-
Eco-Sensitive Zone(ESZ) /Eco-Sensitive Area(ESA)	-No-	-
Coastal Regulation Zone (CRZ)	-No-	-
Schedule-I species (No.s and name of schedule-I species with authenticated letter)	Will be submitted with EIA/EMP if Applicable	-
Wildlife Conservation Plan	Will be submitted with EIA/EMP if Applicable	-

ix. Green belt/plantation details:

Proposed area for green belt/plantation and no. of saplings proposed	Proposed area of green belt - 2.67 ha per year. No. of Sapling proposed per year = 2668
Budget for green plant & plantation till the end of life of mine.	INR 26,68,000 per year, INR = 10,67,20,000 at the end of life of mine.
Budget for nursery	Nil
Details of existing plantation and its survival rate	Number of existing trees -950 survival rate 90%
No. of tree cuts in the mine lease area and compensatory afforestation	950 tree cuts at the end of life of mine
Particulars for Green belt/plantation	Area covered (in Ha)
7.5 m barrier & non-mineralized zone	6.95 hectare statutory barrier & 20.60 hect. Non mineralized area.
50 m safety zone of nallah, roads, electric lines	Both side of road -79.17 hect.

x. Rehabilitation & Resettlement (R&R): -

R & R details	Rehabilitation and Resettlement (R&R) is not involved in this project.
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xi. Court case details: -

Court Case, No and its present status	The Project Proponent has submitted an affidavit dated 02.11.2023 stating that there is no litigation pending against the project and/or land in which the project is proposed to be set up and that for any such litigation whatsoever, the sole responsibilities will be borne by the Project Proponent.
Undertaking by Project Proponent w.r.t court case	

xii. The Project Proponent has submitted the Affidavit dated 02.11.2023 stating that there is no violation of provisions of EIA Notification dated 14.09.2006 and amendments made thereafter, circulars and OM issued their under.

xiii. Details of project cost and employment:

Particulars	Budget (Rs. in Crores)
Project Cost	Rs. 162.46Crores
Employment	120persons

### **3. Observation and Recommendation of the EAC:**

The Project Proponent/Consultant presented the KML file to indicate the site features in the mine lease area and in the study area of 10 km radius. The Project Proponent has shown the boundary of the mine lease area and informed the EAC that the total mine lease area is 323.332 ha. A State Highway is passing adjacent to the mine lease area on north eastern side. A Protected Forest is located on the south western side of the mine lease area. A water body is located at a distance of 0.3km on north western side of the mine lease area. A kuttcha road is passing within the mine lease area. A poultry farm is located within the mine lease area. No habitations are found within the mine lease area. The EAC noted that there are old pits existing in the mine lease area. The Project Proponent has informed the EAC that the lease area mostly comprises of Private land of 250.647 ha and Govt. land of 72.685 ha.

The EAC asked about the evacuation route of the mineral. The mined out mineral will be transported to the Cement plant around 10 km radius by State Highway. Width of the road is found to be 30 ft. A cement plant is also planned to propose on the north western side of the mine lease area. Ground water will be intersected during the working and necessary permission will be taken before intersecting ground water table. The Project Proponent has informed the EAC that the instant mine was granted under auction and letter for grant of mining lease was granted by the State Govt vide order dated 04.08.2022. Mining Plan was approved by Indian Bureau of Mines vide letter dated 14.07.2023. No National Park, Wildlife Sanctuary, ESA/ESZ is found within 10km radius of the study area. The EAC asked the Project Proponent to increase the no. of saplings proposed. The EAC noted that in common application form, the Project Proponent has inadvertently mentioned that the crusher is proposed to be installed within the mine lease area and also noted that the crusher is not a part of the proposal as per approved mining plan. The EAC asked about the location of the crusher. The Project Proponent has informed the EAC that crusher is proposed to be located in the Cement Plant.

After detailed deliberations made by the Project Proponent and the Consultant, the EAC in its meeting held during 14-15 November, 2023 under the provisions of EIA

Notification, 2006 and subsequent amendments therein, **recommended** the proposal for grant of Terms of Reference (ToR) to M/s Mangalam Cement Ltd for proposed production capacity of 32,08,690.3 TPA (ROM); Saleable Limestone: 29,69,287.5 TPA, Top Soil: 2,39,402.8 TPA in the mine lease area of 323.332 ha, located near Village-Kathiya - Pachri, Tehsil- Tilda, District- Raipur, Chhattisgarh for undertaking detailed EIA/EMP study subject to the following specific conditions in addition to the standard ToR conditions and applicable for non-coal mining projects:-

- i. The Project Proponent needs to submit the Cost Benefit analysis comparing the current agricultural production and annual turnover including the cost and the benefits drawn by the local villages vis-a-vis the mineral cost and beneficiaries at the time of submission of EC proposal.
- ii. The Project Proponent needs to provide the exact breakup of total excavation including Production/ROM, Mineral Rejects, Topsoil, OB, Waste per year in first five year plan period.
- iii. The Project Proponent needs to submit the map and the details regarding alternate land for grazing land and also its protection measures.
- iv. The Project Proponent needs to submit the distance of the Ultimate Pit Limit from the Poultry farm. A detailed note on how the Project Proponent shall ensure that the mining activity will not have impact on the poultry farm inside the mine lease area shall be submitted. The Project Proponent also needs to explore the possibility of shifting the poultry farm along with the timeline and cost.
- v. The Project Proponent needs to submit the map showing the transport route of the mineral from the mine lease area to the destination, impact of details of habitation at a distance of 100m from the center on both sides of road, details of no. of trips/day to and fro, capacity of the dumper/tipper to be deployed and the dimensions of the road and the carrying capacity of the road.
- vi. The Project Proponent needs to address the impacts and mitigation measures arising out of the mining activity to nearby water bodies in the vicinity of the mine lease area.
- vii. The Project Proponent shall monitor the water quality in the impact zone such as water reservoir, river water with specific reference to the parameter Langelier Saturation Index which will denote the impact of calcium carbonates on water bodies and these parameters and determine the tendency of water to form calcium carbonate scaling.

- viii. The Project Proponent needs to monitor the ambient air quality and noise level at the mine lease boundary, nearest village, crusher, predominant downwind direction and at other sensitive receptors. Accordingly, Project Proponent shall propose to install Continuous Ambient Air Quality Monitoring Station within certain timeline.
- ix. The Project Proponent should prepare the EMP considering the scenario of pollution to be generated for normative and peak total excavation for assessing air pollution, noise level and ground vibration.
- x. The Project Proponent needs to carry out the Public Hearing as per provisions of EIA Notification, 2006. PP should also submit the time bound action plan on concerns of the public through a separate budget with capital expenditure with a timeline of 3 years. The Project proponent shall ensure that the activities proposed under the public hearing shall be different from the CSR activities.
- xi. The Project Proponent needs to undertake the enumeration of the species within the mine lease area before cutting. The Project Proponent also needs to submit the compensatory afforestation plan for the no. of trees to be cut in the mine lease area.
- xii. The Project Proponent needs to increase the no. of saplings proposed. The Project Proponent also needs to submit the action plan for undertaking the plantation along the 7.5m barrier, safety zone of nallah, village road, electric line etc., PP should also submit the details no of saplings to be planted, type of saplings proposed and the area to be covered under greenbelt/plantation along with the timeline and budget. The greenbelt/plantation plan shall be prepared in such a way that the ecology of the area shall be restored.
- xiii. The Project Proponent shall carry out the assessment of impact due to the proposed project as per the guidelines issued by the Central Ground Water Authority from time to time and submit the same as a part of the EIA/EMP. The project proponent shall conduct hydrological study for projects involving intersection of ground water table as per the guidelines issued by the Central Ground Water Authority from time to time and submit the same as a part of the EIA/EMP.

- xiv. The Project Proponent shall explore the possibility of reduction of specific water requirement by optimization / technology up gradation, etc. The efforts shall be delineated in the EIA/EMP.
- xv. The Project Proponent shall prepare the scheme for mandatory recycle/re-use of water as specified by the Central Ground Water Authority for different category areas seeking NoC for ground water withdrawal and the shall submit as part of EIA/EMP report.
- xvi. The Project Proponent needs to submit a letter from the Department of Geology and Mining, Government of Chhattisgarh during the appraisal for EC, clarifying whether any illegal mining within the mine lease area has been carried out or not and whether the same has been carried out by M/s Mangalam Cement Ltd or not?
- xvii. The Project Proponent shall conduct drone survey of the mine lease area and buffer area and submit during the appraisal for EC.

**2.5 Amendment in EC dated 24.01.2012 for Dhobil Iron Ore Mining Project (Capacity 0.75 MTPA ROM & ML Area-513.036 ha) of M/s SAIL - Bokaro Steel Plant for continuation of iron ore transportation through road for 2 years w.e.f. 23.01.2024, located in Village Dhobil, Tehsil Manoharpur, Dist: West Singhbhum, Jharkhand – [F.No: J-11015/251/2009-IA-II(M), Online Proposal No: IA/JH/MIN/445601/2023; EIA Consultant: M/s MECON Limited] – Amendment in EC**

The instant proposal is for amendment in EC dated 24.01.2012 for Dhobil Iron Ore Mining Project (Capacity 0.75 MTPA ROM & ML Area-513.036 ha) of M/s SAIL - Bokaro Steel Plant for continuation of iron ore transportation through road for 2 years w.e.f. 23.01.2024, located at Village Dhobil, Tehsil Manoharpur, Dist: West Singhbhum, Jharkhand.

2. The details of the project as ascertained from the document submitted by the Project Proponent and revealed from the discussions held during the meeting are given as under:

- i. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category “A” as the mining lease area is greater than 250ha and accordingly, appraised at the Central level.
- ii. Details of previous Environmental Clearance (EC):
  - a) Initially, the Project Proponent has obtained Environmental Clearance on 24.01.2012 for Dhobil Iron Ore Mining Project for production capacity 0.75 MTPA of Iron Ore over an area of 513.036 ha.

- b) Then, the Project Proponent obtained amendment in EC on 01.05.2012 w.r.t specific condition no (v) stating that *“Necessary wildlife clearance, as applicable, shall also be obtained”*.
- c) Further, the Project Proponent has obtained amendment in EC on 19.04.2017 to the effect that transportation of Iron ore is allowed for further 5 years w.e.f 23.01.2017 onward through road with the condition that the project proponent will put in place the conveyor system for transportation of Iron ore within 5 years.
- d) Again, the Project Proponent obtained amendment in EC on 04.04.2022 for continuation of iron ore transportation through road for another 2 years w.e.f 23.01.2022 located in Village Dhobil, Tehsil Manoharpur, District West Singhbhum, State Jharkhand. If Project proponent does not stand upto the commitment provided vide letter dated 19.03.2022, the production may get curtailed to minimise the air pollution due to transportation of ore through trucks.
- iii. Now, the Project Proponent has requested for amendment in EC dated 24.01.2012 for continuation of iron ore transportation through road for 5 years w.e.f. 23.01.2024.
- iv. Justification for amendment in EC:
  - a) The Project Proponent has submitted that the Manoharpur Ore Mines (MOM), Chiria consist of six mining leases i.e. Ajitaburu, McLellan, Ankua, Tatiburu, Sukri-Lutur & Dhobil. Dhobil Iron Ore Mining Leasehold area under Monoharpur Ore Mines, Chiria covering an area of 513.036 ha is located in West Singhbhum District of Jharkhand and falls entirely within Ankua Reserve Forest (R.F.) of Saranda Forest Division. At present only Dhobil is in operation.
  - b) Iron Ore from Dhobil mines is transported by road (~31 km) to the railway siding situated at Manoharpur and loaded into railway wagons for dispatch. The 31 km long route through which the ore is trucked to Manoharpur Railway Siding comprises of forest road, State Highway No. 4 (SH4) and the connecting road from SH4 to the railway siding.
  - c) For development of Manoharpur Ore Mines, Stage-I FC over an area of 595.075 ha for Manoharpur Group of Mining Leases (2376.122 ha) was granted by MoEFCC on 07.03.2011. Post approval of Management Plan for Sustainable Mining (MPSM), MoEFCC sought some information on 10.08.2018, which was submitted by Govt. of Jharkhand on 07.06.2019. However, grant of Stage-II FC for an area of 595.075 ha is pending with MoEFCC, due to No-Mining Zone issue of Management Plan for Sustainable Mining (MPSM) of Saranda Forest Division.
  - d) Accordingly, for evacuation of iron ore from Manoharpur Group of Mining Leases, the proposal for diversion of 14.88 ha of forest land for installation of LDBC was submitted online on 31.01.2017. The proposal was considered by REC, MoEFCC, Ranchi on 11.03.2019. However, grant of FC over 14.88 ha is pending due to No-Mining Zone issue of MPSM.



- e) Though the mining leases under Manoharpur Ore Mines are falling within the No mining Zone of MPSM, however MoEFCC, New Delhi has permitted mining only within already broken area of Dhobil lease as an exception. Forest Clearance was obtained vide Lr No. 8-20/98-FC dated 21.10.1998 under section-2 of Forest (Conservation) Act, 1980 for diversion of 29.411 ha of forest land (already broken up area). At present all mining and allied activities are confined within broken area only.
- f) The grant of above forest clearances are yet to be resolved which is beyond the control of SAIL. In order to ensure uninterrupted supply of iron ore to SAIL Steel Plants and also to enable SAIL-BSL to contribute to the socio-economic development of region, continuation of ore transportation through road for 5 years w.e.f. 23.01.2024 from Dhobil Lease to Manoharpur Railway Siding is very much essential.
- v. Details of Mine Lease:
  - a) The Project Proponent has submitted that the Govt. of Jharkhand vide letter dated 07.03.2018 have renewed the 2<sup>nd</sup> renewal period of Dhobil lease from 08.03.1998 to 07.03.2018 (20 years) and further extended the period of mine lease from 08.03.2018 to 07.03.2038 (20 years) as per Mineral (Mining by Government Company) Rules, 2015. Subsequently, lease deeds for both the periods were executed on 21.04.2018.
- vi. Mining Plan:
  - a) The Project Proponent has submitted that the Review of Mining Plan along with Progressive Mine Closure Plan was approved by Indian Bureau of Mines (IBM) vide Letter No. RAN/WSB/Fe/MP-10/2021-22 dated 15.11.2021 in respect of Dhobil lease area of 513.036 Ha. The approval is given for the received proposals as applicable from this date for the mining activities to be carried out within the extended area of 29.411 ha.
- vii. Forest Clearance:
  - a) The Project Proponent has submitted that the entire mine lease area of 513.036 Ha is a forest land. Forest Clearance was obtained vide Lr No. 8-20/98-FC dated 21.10.1998 under section-2 of Forest (Conservation) Act, 1980 for diversion of 29.411 ha of forest land (already broken up area).
- viii. Environmental Status:
  - a) The Project Proponent has submitted that the present Environmental status was analyzed on the basis of baseline environmental data generated for one month during April - May, 2023 by Environmental Engineering Laboratory of MECON Ltd. (a Govt. of India U/T under the Ministry of Steel). The data includes micro-meteorological conditions, ambient air quality (11 locations), noise levels (11 locations), water quality (Groundwater: 2 locations and Surface water: 8 locations) and traffic density (4 locations). The collected data has been analysed

in detail for identifying, predicting and evaluating the environmental impacts due to continuation of existing road transportation of Dhobil Iron Ore Mine.

- b) The Project Proponent also submitted that the baseline data levels show that the contributions due to the continuation of ore transportation through road will have insignificant impact on the existing ambient air quality. The environmental monitoring carried out by SAIL within the nearby areas revealed that the air, noise and water quality in and around the mines are well within the respective standards. The traffic studies revealed that the entire ore transport road is capable of handling the ore transport from Dhobil Iron ore mine with adequate buffer capacity. Once the covered conveyor is commissioned, ore transport from Dhobil Mines to Manoharpur siding shall be carried out exclusively through covered conveyor.
- ix. Certified Compliance Report (CCR):
  - a) The project was monitored for ascertaining compliance to the conditions stipulated in the environmental clearance by the Regional Office of this Ministry at Ranchi on 03.08.2021, which has submitted their reports to Ministry vide letter No. 103- 356/12/EPE/4911 dated 27.09.2021. The report has been examined by the Ministry.
  - b) A letter seeking ATR/clarification on the observed non-compliance was issued to M/s. Steel Authority of India Limited (SAIL) by Ministry vide letter no. IA-J-11014/53/2021-IA-I dated 01.12.2021 for which M/s. Steel Authority of India Limited (SAIL) submitted a response vide letter dated SAIL/MOM/EC/2021-22/449 dated 17.01.2022.
  - c) IRO, Ranchi provided their observations on the Action Taken Report (ATR) submitted by M/s. Steel Authority of India Limited (SAIL) vide letter No. 103-356/12/EPE/061 dated 21.01.2022. The report has been examined by the Ministry and it was observed that there is still substantive non-compliance of environmental conditions contained in said EC letter No. J-11015/251/2009-IA II (M) dated 24.01.2012 and the same are as enlisted below:
    - (i) STP has not been installed in the Colony. (Specific Conditions: xxvii)
    - (ii) Mining technology and scope of working has not been followed without prior approval of the Ministry of Environment & Forests. (General Conditions: i)
  - d) The existing operations at Dhobil ML have been inspected by the IRO, MoEF&CC, Ranchi on 17.01.2022 and reported as follows:

Observation by Integrated Regional office, Ranchi MoEF&CC, report date 27.09.2021.	Integrated Regional Office Ranchi MoEF&CC on the basis of site inspection dated 17.01.2022 and action taken reports and other documents submitted by Project proponent.
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<p>i. In the EC it was mentioned that "No crushing plant is proposed as part of this project". However, two mobile crushing units were observed in the mine project during inspection. PP should explain the reasons for above deviation from the EC.</p>	<p>Two crushing units were observed in the mine project during inspection on 17.01.2022 PP has explained the reason for deviation from EC condition as can be seen in adjacent column. PP explains that "it was envisaged to development common crushing plant of 7.0 MTPA capacity in Ajitaburu leasehold for crushing of ROM from Dhobil, Ajitaburu MClélan and Sukri Luturburu leases of Manoharpur Ore Mines. Due to delay in Forest Clearance for Ajitaburu lease common crushing plant could not be installed as envisaged. To fulfill the crushing requirement mobile crushing units were installed in the Dhobil mine", Final decision on the compliance of this condition may be taken by MOEF&amp;CC. New Delhi.</p>
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- e) As explained above, till date no mining operations and the envisaged Common C&S Plant for sizing of the ore from all the four MLs as per the EC grant order at Ajitbura ML could not be installed till date for want of Stage-II FC from MoEF&CC Accordingly, the existing mining operations at Dhobil ML is being continued without changing any mining technology and scope of the work since grant of EC dated 24.01.2012. Therefore, the Project Proponent requested to consider their submission and to withdraw the Show Cause Notice dated 17<sup>th</sup> May, 2023 issued under Section 5 of Environment (Protection) Act 1986 w.r.t Dhobil Iron Ore Mining Project of SAIL.
  - f) The Compliance & Monitoring Division of this Ministry vide letter dated 17.05.2023 issued Show Cause Notice under section 5 of Environment (Protection) Act, 1986 to Dhobil Iron Ore Mining project of M/s SAIL.
  - g) The Project Proponent has submitted their response to the Show Cause Notice dated 17.05.2023 to the Ministry vide letter dated 12.06.2023.
  - h) The Project Proponent has submitted the Certified Compliance Report (CCR) issued by the Regional Office (RO) vide letter dated 12.09.2023 for the EC's dated 24.01.2012, 01.05.2012, 19.04.2017 and 04.04.2022. Site Inspection was conducted by RO on 28.07.2023. Non-Compliances were observed by RO w.r.t non-installation of STP/ETP, density of the plantation, solar powered electric fencing and change in mining technology.
  - i) Then, the Project Proponent has submitted the action taken report to the Regional Office on 21.09.2023 for the non-compliances identified by RO.
- x. Past Production details:

- a) The Project Proponent has submitted the certified past production details issued by the District Mining Officer vide letters dated 08.11.2014, 29.10.2021 and 06.05.2023 for the period 1993-94 to 2022-23.

Financial Year	Certified ROM Production (Metric Tonnes)
1993-94	66,616.73
1994-95	92,974.45
1995-96	68,261.58
1996-97	1,55,183.40
1997-98	97,722.10
1998-99	1,02,940.60
1999-00	1,42,564.90
2000-01	3,36,994.50
2001-02	2,82,810.00
2002-03	2,73,463.30
2003-04	3,00,328.70
2004-05	3,11,058.70
2005-06	4,38,590.00
2006-07	7,90,127.20
2007-08	9,64,527.00
2008-09	5,58,748.98
2009-10	6,83,968.00
2010-11	3,05,035.00
2011-12	3,48,855.00
2012-13	4,43,187.01
2013-14	4,08,964.48
2014-15	3,27,029.83
2015-16	4,50,784.89
2016-17	5,55,166.07
2017-18	4,43,592.69
2018-19	7,29,308.48
2019-20	7,33,794.93
2020-21	5,53,841.03
2021-22	75,251.75
2022-23	3,41,182.29

xi. Details of Violation/Court Cases:

- a) The Project Proponent has submitted that with regard to the allegations of excess production prior to the grant of the EC, MoEFCC has communicated the violation of Environment (Protection) Act 1986 occurred at the Dhobil Iron Ore Mine vide letter No.- J-11015/251/2009-IA(II).M dated 20.04.2011 that the production from the mine was enhanced without obtaining the requisite Environmental Clearance as required under EIA Notification, 2006. Based on this, criminal proceedings were initiated by the JSPCB as well as the resolution

was passed based on the specific direction of MoEFCC on 20.04.2011. Recently, the case has been disposed-off on 24.04.2023.

- b) Subsequent to the final judgment dated 02.08.2017 of Hon'ble Supreme Court of India in the matter of Common Cause (i.e., Unlawful mining in Odisha), the Government of Jharkhand has issued the Demand Notice to SAIL – Dhobil Iron Ore Mines vide demand Letter No. 1352/M dated 07.09.2017 amounting to Rs. 228,13,04,898/- towards recover price of mineral produced without or beyond the EC capacity for payment on or before 31.12.2017.
- c) In order to mitigate the risk of closure of Dhobil Mining Lease beyond 31.12.2017, M/s SAIL filed a Writ Petition bearing No. 7016 of 2017 – Steel Authority of India Ltd Vs. State of Jharkhand &Ors. before the Hon'ble High Court of Jharkhand at Ranchi on 04.12.2017.
- d) An amount of Rs. 199.84 Cr. was paid by SAIL to Government of Jharkhand under protest prior to 31.12.2017 to avoid the stoppage of mining operations.
- e) On subsequent hearings, the Hon'ble High Court vide order dated 21.02.2018 referred the matter to the Division bench of the Jharkhand High Court since it involves substantial questions of Law. The Hon'ble High Court also directed that during the pendency of writ petition transit challans for the petitioner companies shall not be stopped until the interim orders passed by this Court are varied, modified or recalled. The matter is sub-judice before the Division Bench of the Hon'ble High Court of Jharkhand.
- f) Further, the Project Proponent has also submitted the Affidavit in a non-judicial stamp paper of Rs. 20 bearing dated 24.06.2023 stating that Manoharpur Ore Mines (Dhobil Mining Lease -513.036 Ha.) of SAIL -Bokaro Steel Plant shall comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2<sup>nd</sup>August 2017 in Writ Petition (Civil) No.114 of 2014 in the matter of Common Cause versus Union of India and Ors, subject to the result of the pending Writ Petitions before Hon'ble High Court of Ranchi further appeals thereto if need arises.

### **3. Observation and Recommendation of the EAC:-**

The Project Proponent has informed the EAC that the instant proposal is for amendment in EC dated 24.01.2012 for Dhobil Iron Ore Mining Project for continuation of iron ore transportation through road upto Manoharpur Railway siding for a period 5 years w.e.f. 23.01.2024. The Project Proponent also informed the EAC that there is no change in existing scenario. Presently, the mineral is being transported from Dhobil Iron Ore Mining to Manoharpur Railway siding at a distance of 31 km by road. Due to non-availability of forest clearance, development of Manoharpur Ore Mines (595.075 ha) and installation of Long Distance Belt Conveyor (14.88 ha) has been held up. Mining activity is restricted to 29.411 ha of forest land (already broken up area) and FC is valid upto

07.03.2038. Further, the Project Proponent has informed the EAC that in order to ensure uninterrupted supply of iron ore to SAIL Steel Plants and also to enable SAIL-BSL to contribute to the socio-economic development of region, continuation of ore transportation through road for 5 years w.e.f. 23.01.2024 from Dhobil Lease to Manoharpur Railway Siding is very much essential.

The EIA Consultant has informed the EAC that to assess the environmental status baseline data was collected for one month during April - May, 2023 by Environmental Engineering Laboratory of MECON Ltd. (a Govt. of India U/T under the Ministry of Steel). The traffic density was carried out at 4 locations. The present traffic volumes on all the roads are well within the respective capacities as per IRC:64. Predominant wind directions are from West followed by North direction. The air pollutant parameters are well within the NAAQS norms. The mean noise levels at all the ambient locations are well within the respective norms of the type of area. The Project Proponent has also shown the photographs of the air pollution control measures being implemented, plantation undertaken on waste dump, transport route, near office and surface water management structures.

The Project Proponent informed the EAC that the site Inspection was conducted by Regional Office (RO), MoEF&CC on 28.07.2023 and Certified Compliance Report (CCR) was issued by the RO vide letter dated 12.09.2023 for the EC's dated 24.01.2012, 01.05.2012, 19.04.2017 and 04.04.2022. The PP submitted the action taken report to the RO on 21.09.2023 w.r.t non-installation of STP/ETP, density of the plantation, solar powered electric fencing and change in mining technology. Further, the Project Proponent informed the EAC, that, during inspection, RO was informed that No crushing plant was proposed as part of the instant project (Dhobil). However, crushing units were observed by the RO representative in the mine lease area during inspection and the same was report in Certified Compliance Report by RO Ranchi. The Project Proponent informed the EAC that a common Crushing & Screening units was proposed to be installed at Ajitaburu ML for size reduction of ore from all four ML including Dhobil ML. Accordingly, it was mentioned in EC grant Order of Ajitaburu ML dtd 31.03.2011 that "*It is proposed that an additional common crushing & screening plant of 7 million TPA will be established as part of this mine lease*". Further, it was also mentioned in the preamble (Para - 4) of the EC grant Order of Dhobil ML dtd 24.01.2012 that "*No Crushing Plant is proposed as part of the project. It was committed by the proponent that ore transportation by road will be undertaken only for five years and thereafter it will be by conveyor only*". With regard to above, PP further informed that in the EIA report, it was already mentioned that the details of the mining operations of Dhobil mining lease which states that blasted ROM will be fed to the mobile crushing and screening plant. The EAC noted the submission of the project proponent and observed that the use of mobile crusher till installation of common crushing unit as mentioned in the EIA report.

The PP further mentioned that the Hon'ble High Court in WP (C) 7016 of 2017 vide order dated 21.02.2018 referred the matter (regarding demand notices issued in light of the Hon'ble Supreme Court judgement dated 02.08.2017) to the Division bench of the Jharkhand High Court since it involved substantial questions of Law. The Hon'ble High Court also directed that during the pendency of writ petition transit challans for the petitioner companies shall not be stopped until the interim orders passed by this Court are varied, modified or recalled. As on date the matter is sub-judice before the Division Bench of the Hon'ble High Court of Jharkhand. The Project Proponent has also informed the EAC that there is no change in configuration w.r.t mine lease area and production capacity. The existing road transport infrastructure is capable of handling the ore-transportation load from Dhobil Mines through the permitted transport road.

After detailed deliberations made by the Project Proponent and the Consultant, the EAC opined that the road transportation may be permitted for 2 years considering the pollution load. The EAC also opined that the PP may continue using the mobile crusher and screening for sizing the ore before transportation of the same by road to the railway siding as mentioned by it in the earlier EIA report submitted during the grant of EC in the year 2012. The Committee also recommended that a field visit may be undertaken along with the pending visit of Kiriburu-Meghahatuburu Iron Ore Mines of Steel Authority of India Limited (SAIL) for real time appraisal on ground realities for facilitating the decision making in case of the instant project in near future. Based on the discussions held, the EAC in its meeting held during 14-15 November, 2023 under the provisions of EIA Notification, 2006 and its subsequent amendments therein; **recommended** the proposal for amendment in EC dated 24.01.2012 for Dhobil Iron Ore Mining Project (Capacity 0.75 MTPA ROM & ML Area-513.036 ha) of M/s SAIL - Bokaro Steel Plant for continuation of iron ore transportation through road for a period of 2 years w.e.f. 23.01.2024, located at Village Dhobil, Tehsil Manoharpur, Dist: West Singhbhum, Jharkhand along with the following additional specific conditions mentioned below: -

- i. This amendment in EC will be valid for a period of a 2 (two) years only w.e.f 23.01.2024.
- ii. Mining activity is restricted to an area of 29.411 ha for which the Stage-II Forest Clearance is available.
- iii. The Project Proponent shall convert the unpaved road into concrete road to reduce the fugitive dust.

- iv. Fugitive dust monitoring during transportation shall be monitored regularly at all the sensitive receptors and report shall be submitted quarterly to the Regional Office of MoEF&CC.
- v. Over loading of transport equipment's should be avoided to prevent spillage. Vehicles involved in transporting the material should be covered with tarpaulin to prevent fugitive dust emission.
- vi. The Project Proponent shall maintain the entire mineral transportation route by road at their own cost. The Project Proponent shall also periodically maintain the roads to reduce the fugitive emissions from roads and also the vehicular emissions.
- vii. Regular sprinkling shall be done on roads to suppress the dust at the source.
- viii. The Project Proponent shall adhere to the pollution control measures suggested by the Central Pollution Control Board (CPCB) in the environmental guidelines for crushing/screening activity.
- ix. The Project Proponent shall undertake the dense plantation all along the haul roads and approach roads to attenuate the fugitive dust.
- x. As committed by the Project Proponent, modular type STPs shall be installed in place of Septic Tanks by March, 2024 with a provision to use the treated sewage for plantation.
- xi. To increase the density of trees, the Project Proponent needs to undertake the plantation in low density areas within the mine lease area.
- xii. The Project Proponent should follow-up the matter regarding solar powered electric fencing with DFO, Saranda to reach at a decision thereof.
- xiii. The Project Proponent shall create awareness among the local people working within the project area as well as its surrounding area on the ban of Single Use Plastic (SUP) in order to ensure the compliance of Notification published by MoEF&CC on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report.
- xiv. The mining lease holders shall, after ceasing mining operations, undertake regrassing the mining area and any other area which may have been disturbed



due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. The implementation report of the above said condition shall be submitted to the Ministry's Regional Office.

- xv. All other terms and conditions mentioned in the EC letter dated 24.01.2012, 01.05.2012, 19.04.2017 and 04.04.2022 shall remain unchanged.

**2.6 Amendment in Environmental Clearance dated 04.06.2009 for Changes in Operation of Rowghat Iron Ore Project of M/s SAIL's Bhilai Steel Plant (Despatch of Maximum 2.0 MTPA of Iron Ore by Road up to Antagarh Rly. Siding and / or Bhanupratappur Rly. Siding and then by Rail to Bhilai), located in Matla Reserve Forests, Narainpur and Kanker District, Chhattisgarh – [F.No: J-11015/331/2006-IA.II(M), Proposal No: IA/CG/MIN/439531/2023; EIA Consultant: M/s MECON Limited] – Amendment in EC**

The instant proposal is for amendment in EC dated 04.06.2009 for Changes in Operation of Rowghat Iron Ore Project of M/s SAIL's Bhilai Steel Plant (Despatch of Maximum 2.0 MTPA of Iron Ore by Road up to Antagarh Rly. Siding and / or Bhanupratappur Rly. Siding and then by Rail to Bhilai), located in Matla Reserve Forests, Narainpur and Kanker District, Chhattisgarh.

2. The details of the project as ascertained from the document submitted by the Project Proponent and revealed from the discussions held during the meeting are given as under:

- i. The proposed project activity is listed at schedule no. 1(a) Mining of Minerals and falls under Category "A" as the mining lease area is greater than 250ha and accordingly, appraised at the Central level.
- ii. Details of previous Environmental Clearance (EC):

Date of application	Proposal No	Consideration	Details	Date of accord
28.07.2007	IA/CG/MIN/8566/2009	-	Production of 14.0 MTPA of iron ore mining over a lease area of 883.22ha	04.06.2009
23.06.2009	-	-	Partial modification in EC letter dated 04.06.2009 and additional specific conditions were imposed	15.03.2010

Minutes of 22<sup>nd</sup> EAC (Non-Coal Mining) meeting held during 14-15 November, 2023

09.02.2017	IA/CG/MIN/ 8566/2009	February 20- 21, 2017	Transportation of 0.3 million TPA of ore from Rowghat M.L to Keonti by road and further onwards to Dalli Raihara/Bhilai through rail till 2021	08.06.2017
01.11.2021	IA/CG/MIN/ 236647/2021	30 <sup>th</sup> Nov - 3 <sup>rd</sup> Dec, 2021	Extension of validity of amendment in Environmental Clearance granted on 08.06.2017 for Rowghat Iron Ore mine Deposit F [ML area 2028.797ha and production capacity 14 million TPA] for transportation of 0.3 MTPA of iron ore from Rowghat ML to Keonti rail head by road and further onwards to Dalli Rajhara/Bhilai by rail located in Matla Reserve Forests, in Narainpur and Kanker District, Chhattisgarh for a period of another two (2) years i.e., till 31.12.2023	25.01.2022

- iii. Now, the Project Proponent has requested for amendment in EC dated 04.06.2009 for Changes in Operation of Rowghat Iron Ore Project of M/s SAIL's Bhilai Steel Plant (Despatch of Maximum 2.0 MTPA of Iron Ore by Road up to Antagarh Rly. Siding and / or Bhanupratappur Rly. Siding and then by Rail to Bhilai) as mentioned below:

S. No	Reference	Description	Existing	Amendment sought	Reason for amendment
1	Para 2 of Original EC 04.06.2009	Change in Process	14 MTPA Crushed Ore Disptached to downhill through 12 KM Conveyor length	2 MTPA Crushed and Screened Ore transport through Road from Hill Top from existing 0.3 MTPA	Downhill conveyor not installed due to non handing over of land by forest department
2	Para 2 of Original EC	Change in Process	14 MTPA Screening Ore transport through Rail from Rowghat Siding located	Total 2 MTPA Screened Material transport through Road Length 235 KM maximum upto Antagarh or Bhanuprtappur Siding till Dec'26 from existing 0.3	Railway siding not commissioned due to hindrances caused due to

			at Foot Hill to Bhilai Steel Plant	MTPA upto Dec'23)	Left wing extremism Consequently delay in handing over of land by GoCG
3	Para 14 of Amended EC dated 25.01.2022	Amendment in Quantity and extension of time	0.3 MTPA transport through Road upto Keonti Siding validity upto Dec'23	Request for allowing dispatch through road @ 2.0 MTPA till Dec.,'26 which includes: 1. @ 0.8 MTPA of iron ore up to Antagarh Railway Siding via Tadoki (direct route) 2. 1.2 MTPA up to Bhanupratappur/ Antagarh Railway Siding via Narainpur & Kanker (long route) and subsequently by rail to Bhilai. 3. In case of law and order problem along the Rowghat Mine to Antagarh Siding (direct route) as is often the case, the entire ore will be trucked to Bhanupratappur/Antagarh Siding via Narainpur & Kanker.	Railway Siding Commissioned only upto Antagarh Siding. Expected to reach Rowghat by Dec'25 and development of associated infrastructure by Dec'26

iv. The Project Proponent has submitted the mine lease deed was executed on 21.10.2009 and is valid for a period of 20 years. The entire lease area of 2028.797 ha is a Forest Land. Stage-II Forest Clearance was obtained vide letter no. F.No.8-44/2005-FC (Pt), dated 3<sup>rd</sup>Aug., 2009 for diversion of 883.22 ha of forest land.

v. The Project Proponent has submitted that the Rowghat Mine commenced mining operations only in late Feb., 2022. Prevailing micro-meteorological conditions, ambient air quality (14 locations), noise levels (14 locations) and water quality (Groundwater: 5 locations and Surface water: 5 locations), soil quality (6 locations) were assessed by carrying baseline environmental data generation for one month during May, 2023 (Summer Season). Traffic density on the proposed ore evacuation route was also studied.

vi. The Project Proponent has submitted the certified compliance report issued by the Sub Office, MoEF&CC vide letter dated 10.10.2023 for the EC's dated 04.06.2009, 15.03.2010, 08.06.2017 and 25.01.2022. The site visit was

conducted on 18.09.2023. Then, the Project Proponent has submitted the action taken report on 16.10.2023 to the Regional Office, MoEF&CC. The Ministry vide letter dated 02.11.2023 requested the Regional Office, Nagpur to submit the review report of the ATR submitted by Project Proponent. Then, the Project Proponent vide email dated 13.11.2023 submitted the revised and updated action taken report.

### **3. Observation and Recommendation of the EAC:**

The Project Proponent has informed the EAC that the instant proposal is for amendment in EC dated 04.06.2009 for changes in operation of Rowghat Iron Ore Project of M/s SAIL's Bhilai Steel Plant for dispatch of Maximum 2.0 MTPA of Iron Ore by Road up to Antagarh Rly. Siding and / or Bhanupratappur Rly. Siding and then by Rail to Bhilai. Initially, Environmental Clearance (EC) was obtained on 04.06.2009 for production of 14.0 MTPA of Iron ore. The ore is dispatched by rail to SAIL's Bhilai Steel Plant located at a distance of 185 km from the mine lease area. There has been delay in commissioning of rail link to Rowghat due to Left wing extremism activities and obtaining forest clearance. In this regard, amendment in EC dated 04.06.2009 has been sought to allow dispatch through road @ 2.0 MTPA till Dec.,2026 from the existing capacity of 0.3 MTPA by road. About 81% of the rail works has been completed upto Tadoki (77km) and the remaining work up to Rowghat will be completed by June, 2025 and it is expected to commission the Rowghat Station by Dec 2025 and associated linking infrastructure by Dec, 2026. The Bhilai Steel Plant is the sole producer and supplier for strategically important products to Indian Railways. The Bhilai Steel Plant is completely dependent on Rowghat Iron Ore mine and this project is an importance of national interest. The EAC noted the public complaints were received against the project and also in support of the project to increase their production capacity.

Then, the Project Proponent has presented the KML file and shown the boundary of the Rowghat mine lease area and informed the EAC that the entire mine lease area of 2028.797 ha is a Forest Land. Presently mining activity is being carried out in Anjarel block. The present proposal is to transport the ore of 0.8 MTPA from Rowghat to Antagarh Railway siding (~58km by road) via Tadoki (direct route) and 1.2 MTPA ore to Antagarh / Bhanupratappur Railway Siding (232 km/200km by road) via Narainpur & Kanker (long route). Due to law and order issue, the State Govt. has suggested to take the longer route via Narainpur & Kanker to reach Antagarh / Bhanupratappur Railway Siding. If the law and order issue exists via Tadoki route, the entire material will be transported through longer route as suggested by the State Govt. The Project Proponent also informed the EAC that the own RCC road of 7.5m width has been developed by the Project Proponent with an estimated budget of Rs 35 Cr from the foot

hill of Rowghat to SH-5. Further, the Project Proponent has shown the photographs of the road developed by M/s SAIL, SH 5 between Tadoki & Antagarh, Road linking SH-5 with Antagarh Siding, Kondagaon bypass road, Kanker bypass road and SH 6 between Kanker & Bhanupratappur. Project Proponent also shown the photographs of Antagarh and Bhanupratappur Railway sidings and also the progress of the rail link.

The Project Proponent informed the EAC that the project is well equipped to produce 2.0 MTPA. Transportation will be outsourced and local people will be involved in transportation. The EIA Consultant has informed the EAC that the baseline data was generated during May, 2023. The ambient air quality stations (14 locations) were monitored in the mine lease and all along the transportation route. Noise levels at 14 locations were within the norms prescribed by CPCB. Surface water quality has been monitored at 5 locations and found to be suitable for drinking after conventional treatment and disinfection. Traffic density was studied on the transport route at 9 locations at hourly intervals. Additional load on the road will not have impact and the resultant concentration of PM<sub>10</sub> due to transportation will be ~91.14 µg/m<sup>3</sup>, PM<sub>2.5</sub>: ~47.1 µg/m<sup>3</sup>, SO<sub>2</sub>: 15.8 µg/m<sup>3</sup> and NO<sub>x</sub>: 25.26 µg/m<sup>3</sup>. The Project Proponent also detailed about the CSR activities being taken up. The Project Proponent has shown the certified past production details dated 06.07.2023 from the year 2020-21 to 2022-23. The Project Proponent has submitted the certified compliance report issued by the Sub Office, MoEF&CC vide letter dated 10.10.2023 for the EC's dated 04.06.2009, 15.03.2010, 08.06.2017 and 25.01.2022. The site visit was conducted on 18.09.2023. Then, the Project Proponent has submitted the action taken report on 16.10.2023 to the Regional Office, MoEF&CC.

After detailed deliberations made by the Project Proponent and the Consultant, the EAC opined that the dispatch of 2.0 MTPA (Maximum) of Iron Ore by Road up to Antagarh Rly. Siding and / or Bhanupratappur Rly. Siding and then by Rail to Bhilai will be allowed in two phases for a period of two years i.e., 1.5 MTPA for a period of 6 months w.e.f 01.01.2024 to 30.06.2024 and 2.0 MTPA (1.5 MTPA + 0.5 MTPA) for a period of 18 months w.e.f 01.07.2024 to 31.12.2025 considering the pollution load due to transportation by road. The EAC also opined that meanwhile, the Project Proponent shall speed up the progress of the rail link. Based on the discussions held, the EAC in its meeting held during 14-15 November, 2023 under the provisions of EIA Notification, 2006 and its subsequent amendments therein; **recommended** the proposal for amendment in EC dated 04.06.2009 for dispatch of Maximum 2.0 MTPA of Iron Ore by Road up to Antagarh Rly. Siding and / or Bhanupratappur Rly. Siding and then by Rail to M/s SAIL's Bhilai Steel Plant from Rowghat Iron Ore Project [MLA:2028.797 ha] of M/s SAIL, located in Matla Reserve Forests, Narainpur and Kanker District, Chhattisgarh along with the following additional specific conditions mentioned below: -

- i. This amendment in EC will be valid for a period of a 2 (two) years only w.e.f 01.01.2024.
- ii. The dispatch of 2.0 MTPA (Maximum) of Iron Ore by Road up to Antagarh Rly. Siding and / or Bhanupratappur Rly. Siding and then by Rail to Bhilai is allowed in two phases for a period of two years i.e., 1.5 MTPA for a period of 6 months w.e.f 01.01.2024 to 30.06.2024 and 2.0 MTPA (1.5 MTPA + 0.5 MTPA) for a period of 18 months w.e.f 01.07.2024 to 31.12.2025. Accordingly, State Pollution Control Board shall grant the Consent to Operate (CTO).
- iii. Mining activity is restricted to an area of 883.22 ha for which the Stage-II Forest Clearance is available.
- iv. The Project Proponent shall speed up the progress of the rail link and monthly progress/status along with the photographs shall be submitted to the Regional Office of MoEF&CC.
- v. Fugitive dust monitoring shall be monitored regularly at all the sensitive receptors and report shall be submitted quarterly to the Regional Office of MoEF&CC.
- vi. The Project Proponent shall maintain the entire mineral transportation route by road at their own cost. The Project Proponent shall also periodically maintain the roads to reduce the fugitive emissions from roads and also the vehicular emissions.
- vii. Regular sprinkling shall be done on roads to suppress the dust at the source.
- viii. The wheel washing facility for the ore transport vehicles shall be provided at the exit point of the mine. The wheel washing facility shall be integrated with complete recirculation system.
- ix. Over loading of transport equipment's should be avoided to prevent spillage. Vehicles involved in transporting the material should be covered to prevent fugitive dust emission.
- x. The Project Proponent shall undertake the dense plantation all along the haul roads and approach roads to attenuate the fugitive dust.

- xi. The Project Proponent shall ensure that the additional traffic on the road in no way shall be hindrance to the public. Traffic marshal shall be deployed to ensure the safe movement of transportation.
- xii. The real time data generated by continuous ambient air quality monitoring stations (CAAQMS) should be displayed digitally at entry and exit gate of mine lease area for public display and shall be linked to server of CPCB/SPCB.
- xiii. The Project Proponent shall explore the possibility of using atleast 20% of Electric vehicles/CNG/Solar instead of diesel operation within three years.
- xiv. Periodical maintenance of surface water management structures has to be carried out to prevent and control the water pollution and soil erosion. The Project Proponent shall take adequate measures to prevent the washout of fines during monsoon season.
- xv. The Project Proponent shall undertake the gap plantation and shall plant quality sapling of appropriate height of native and fruit bearing species. In case of tall transplants (seedlings) the seedlings should have proper trained root stock with root biomass commensurate with seedling height to ensure good growth after out planting.
- xvi. The Project Proponent shall create awareness among the local people working within the project area as well as its surrounding area on the ban of Single Use Plastic (SUP) in order to ensure the compliance of Notification published by MoEF&CC on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report.
- xvii. The mining lease holders shall, after ceasing mining operations, undertake regrassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. The implementation report of the above said condition shall be submitted to the Ministry's Regional Office.
- xviii. All other terms and conditions mentioned in the EC letter dated 04.06.2009, 15.03.2010, 08.06.2017 and 25.01.2022 shall remain unchanged.

**Additional Agenda:**

**2.7 Proposal for validity extension of Environmental Clearance granted for Rajashree Limestone Mine No.2 (Mine Lease Area – 400.70 Ha.) with expansion of limestone production capacity from 0.45 MTPA to 1.0 MTPA and installation of 400 TPH crusher by M/s UltraTech Cement Limited (Unit: Birla White) located at Villages: Basni, Tehsil: Merta, District: Nagaur, Rajasthan - [Proposal no: IA/RJ/MIN/213651/2021; File No. J-11015 /15/2015 IA.II (M); Consultant: Wolkem India Limited] - Site visit report**

The Ministry vide letter dated 4.10.2021 accorded the extension of validity of EC for three years for Rajashree Limestone Mine No.2 (Mine Lease Area 400.70 Ha.) with expansion of limestone production capacity from 0.45 MTPA to 1.0 MTPA and installation of 400 TPH crusher by M/s UltraTech Cement Limited (Unit: Birla White) located at Villages: Basni, Tehsil: Merta, District: Nagaur, Rajasthan with following specific condition:

*“After issue of extension of validity of Environmental Clearance for three years, it will be reviewed through the field/site visit by sub-committee of EAC at the end of two years”.*

2. The term of two years ended on 3.10.2023. Accordingly, as per the request of the Project Proponent, Ministry constituted a sub-committee comprising of the following members:

1. Shri Niranjan Kumar Vasu, EAC Member
2. Shri Bandi Ramchandra Reddy, EAC Member
3. Shri Pankaj Verma Scientist E & Member Secretary, EAC (NCM), MoEF&CC
4. Shri Vidyasagar Jha, Research Officer, MoEF&CC
5. Shri Mahesh Purohit, Scientist-C, Sub Office Jaipur, MoEF&CC

3. The subcommittee was tasked to examine the recommendations made by EAC in its 31<sup>st</sup> EAC held during 9th to 15th June 2021. The members of the sub – committee that undertook site visit during 15-17 October 2023. The recommendation of the 31<sup>st</sup> EAC in verbatim is given as under: -

***“Recommendation of the Committee:***

*After detailed deliberations made by the Project Proponent and the Consultant, the Committee Recommended the proposal for validity extension of Environmental Clearance for three years granted for Rajashree Limestone Mine No.2 (Mine Lease Area – 400.70 Ha.) with expansion of limestone production capacity from 0.45 MTPA to 1.0 MTPA and installation of 400 TPH crusher by M/s UltraTech Cement Limited (Unit: Birla White) located at Villages: Basni, Tehsil: Merta, District: Nagaur, Rajasthan with subject to submission in correction of form 6*



on PARIVESH portal and submission of an undertaking to clear all the backlog activities within three years and will demonstrate the efforts being made in the field of environmental restoration.”

4. Based on the aforesaid recommendation the project proponent submitted an undertaking dated 16.06.2021 stating the following:

1. We have taken sincere efforts for increasing plantation & improving the plant survival rate in 7.5 metre safety zone along the lease boundary.
2. As suggested by local DFO vide letter dated 09.12.2020, we have adopted RDF-I) Rehabilitation of Degraded Forest Scheme) plantation model (500 Trees per hectare) looking into the semi-arid climatic conditions and carried out green belt in 7.5 meter safety zone along the lease boundary in 8.5 hectare area except rocky outcrop area.
3. As advised by the Hon'ble committee during the 31<sup>st</sup> Meeting of the Expert Appraisal Committee (Non Coal Mining) held on 15<sup>th</sup> June 2021, we will try our level best to develop plantation in 7.5 meter safety zone along the lease boundary in rocky outcrop area in consultation with local DFO and some experts by adopting various technologies for plantation of species which can grow in rocky area and will also adopt other measures as suggested.
4. The progress and compliance status of the plantation will be submitted within 03 years time.
5. We humbly request committee to consider extending the EC validity for 05 years.

5. Beside above, the M/s UltraTech Cement Limited (Unit: Birla White) also submitted Compliance Report on Plantation along the boundary of mining lease area with the undertaking wherein following data was provided with regard to plantation till September 2020: -

S.No	Number of Trees planted	Number of Trees survived	Area (Ha)
1	8250	8097	8.50
2	36311	29149	29.50
Total	44561	37246	38

6. In the same document the project proponent submitted the Proposed Plantation Programme till the FY 2036 and the same is tabulated as under: -

S. No	FY	Area Covered (Ha)	No of Saplings to be planted	Dump (Ha)	Non Mineralized (Ha)	Backfilled area & Greenbelt (Ha)	Budgetary allocation (INR)
1	2019-21	11.00	11000	3.00	8.00	-	2800000

2	2021-26	21.50	21500	6.50	15.00	-	7200000
3	2026-31	46.00	25000	9.00	25.00	12.00	7900000
4	2031-36	56.00	34000	6.00	25.00	25.00	9100000
Total		134.50	91500	24.50	73.00	37.00	27000000

7. Further while requesting for this instant site visit vide letter dated 26.09.2023, the Project Proponent has submitted the following: -

1. An approximate plantation of 11,000 trees in two years with survival rate of 90% and it has been done focussing the mine lease boundary & 7.5 m safety zone
2. A dedicated team of four members has been deputed for greenbelt development for better survival rate of plantation and take care of plants after plantation.
3. Also, private land holders of mine lease area are encouraged to adopt plantation by UTCL management, they are provided free fruit bearing and other plant species as suggested by DFO office with one year financial assistance towards plantation
4. Time to time guidance from the District Forest Department, Nagaur has been sought for tree species selection and method of plantation adoption, as advised RDF-I method of plantation keeping the local conditions in the mind with plantation density of 500 plants per hectare.
5. As per EC condition no. 2 plantation on safety zone of 7.5 meter has been done.
6. For increasing plantation and for improving the growth and survival rate of plants we engaged the NEERI to provide technology and support to achieve the targets.

8. In accordance with the order dated 03.10.2023; the sub-committee undertook the site visit during 15-17 October 2023. During the visit sub-committee observed the following: -

1. Sub-committee observed that M/s UltraTech Cement Limited (Unit: Birla White) is having surface rights in patched across the mine lease area. PP informed that out of total mine lease area of 400.7 ha, they have only obtained surface rights for 153.35 ha.
2. Sub-committee observed that boundary pillars/ boundary wall have been erected by the M/s UltraTech Cement Limited (Unit: Birla White) over the acquired lease.



3. It was noted that efforts have been made by the M/s UltraTech Cement Limited (Unit: Birla White) to plant trees in the acquired lease area alongside the 7.5 m boundary and also in patches based on feasibility of plantation.
4. PP informed that since they do not have the surface rights alongside the mine lease they have done compensatory plantation in the aforesaid patches of land.
5. Sub-committee was observed that in some patches and stretches M/s UltraTech Cement Limited (Unit: Birla White) has successfully planted neem and other trees and their growth over the period of time has been adequate.



6. NEERI's interventions in the plantation programme of M/S UltraTech Cement Limited has not achieved the desired results in the absence of quality planting stock in terms of seedling quality as well as selection of species. They need to grow seedlings of appropriate height commensurate with healthy root stock for successful out-planting.



7. It was also observed that M/s UltraTech Cement Limited (Unit: Birla White) was using tall and poor quality saplings having poor root growth as a result of which in most of the patches they have not grown well or died. M/s UltraTech Cement Limited (Unit: Birla White) informed that they have procured them locally from some agencies.



8. Sub-committee noted that the watering of plants needs to be more effective in terms of quantity of water, time of watering and maintenance of soil moisture in the root zone for a longer period. Models of in situ water harvesting around plants and water conservation may be adopted for better growth.
9. Sub-committee also noted that most of the mine lease acquired area was having a rocky terrain with a little or less availability of soil, arid climate and as reported by PP having annual rainfall less than 300 mm.

9. Based on the aforesaid observation, the sub-committee recommended the following: -

1. M/s UltraTech Cement Limited (Unit: Birla White) should engage/take assistance from local institute of repute for planning and executing their plantation programme. The present scenario of plantation as observed by committee is inadequate and doesn't suffice the purpose and conditions mentioned in the Environmental Clearance.
2. M/s UltraTech Cement Limited (Unit: Birla White) may either develop their own nursery with the help of technical experts who are well experienced in growing plantation within the climatic conditions prevalent in the mine lease area or procure seedlings from reputed research nursery capable of raising seedlings for stress sites.
3. M/s UltraTech Cement Limited (Unit: Birla White) should plant only those saplings whose root system is properly developed commensurate with seedling height, it should plant more native species such as Acacia nilotica, Acacia Senegal, Azadirachta indica and other species tried and growing well on the stress sites in the region in consultation with the research institute and shall use proper planting techniques.
4. M/s UltraTech Cement Limited (Unit: Birla White) has made a lot of effort in plantation however due to lack of technical expertise they have made less progress. Hence PP should make a team of technical experts to monitor and implement the progress of plantation.
5. If required PP may transport and supplement soil suitable for seedling growth wherever required.
6. M/s UltraTech Cement Limited (Unit: Birla White) should widen and re-built the haul roads and should sprinkle water for dust mitigation
7. M/s UltraTech Cement Limited (Unit: Birla White) should follow scientific dumping of overburden and must construct garland drains and retaining walls
8. Since the progress has been slow, the sub-committee is of the opinion that PP should follow the recommendations made herein to expedite its plantation activity after next planting season in the area and the same should be confirmed by Regional Office through CCR in next 6 months.
9. In addition to existing plantation works being executed, Project Proponent shall also carry out survey all along the lease boundary and enumerate the standing vegetation in the safety belt. They shall pursue the land owners where surface rights are not there with the lease holder to allow raising of plantation in the safety belt wherever no standing vegetation is observed.

**10. Observation and Recommendation of the EAC: -**

The EAC noted that the site visit was conducted by the subcommittee during 15-17 October 2023. The EAC deliberated on the observation and recommendations of the subcommittee. After detailed deliberations, the EAC agreed to the recommendations of the subcommittee.

**2.8 Report of the field visit undertaken by EAC sub-committee during 29-31 October, 2023 at Bicholim Mineral Block- Block 1 (Auction Block) of M/s Vedanta Limited for mining of Iron Ore with proposed production capacity of 3.0 MTPA, Waste: 25.162 MTPA (Total Excavation: 28.162 MTPA) along with crushing and screening plant capacity of 4.0 MTPA in the mine lease area of 478.5206 ha, located in Bicholim, Bordem, Lamgao, Mulgoa, Mayem&Sirigao Villages of Bicholim Taluka of North Goa District, Goa - [F.No: IA-J-11015/ 3/2023-IA-II(NCM), Proposal No: IA/GA/MIN/442593/2023] - Environmental Clearance (EC)**

The instant proposal is for mining of Iron Ore in Bicholim Mineral Block – Block 1 (Auction Block) of M/s Vedanta Limited with proposed production capacity of 3.0 MTPA, Waste: 25.162 MTPA (Total Excavation: 28.162 MTPA) along with crushing and screening plant capacity of 4.0 MTPA in the mine lease area of 478.5206 ha, located in Bicholim, Bordem, Lamgao, Mulgoa, Mayem&Sirigao Villages of Bicholim Taluka of North Goa District, Goa.

2. The total mine lease area is 478.5206 Ha, out of which Private land is 421.1153 Ha and Government land is 57.4053 Ha. The mine lease area is located between Latitude: 15°34'20.518"N to 15°36'54.018"N and Longitude: 73°54'4.754"E to 73°57'09.51"E. The mine lease area falls under the Survey of India Toposheet No: D43B14 and falls in Seismic Zone-II.

3. The Directorate of Mines & Geology, Govt. of Goa vide letter dated 13.01.2023 granted the Letter of Intent (LoI) for grant of mining lease for Block I - Bicholim Mineral Block for Iron Ore over an area of 478.5206 Hectare for a period of 50 (fifty) years in pursuant to Rule 10(2) of the Auction Rules. This letter of intent is valid for a period of 3 (three) years from the date of its issuance.

4. Review and Mining Plan was approved by Indian Bureau of Mines, Goa vide letter dated 26.05.2023. Method of Mining will be Opencast mechanized mining without Drilling & Blasting. ROM/Iron ore or Screened/crushed material will be transported by 10.5 Tonne trippers from Mine to Sarmanas jetty through a dedicated road. The total distance from the mine to Jetty is 5.48 km of which 0.94 km stretch is public road and remaining 4.54 km is company owned dedicated road.

5. The Project Proponent obtained Terms of Reference (ToR) vide ToR letter dated 16.06.2023. Baseline data was carried out during March-May, 2023 (Summer Season). Public hearing was conducted on 07.07.2023. About 4708 written objections were submitted against the project and about 5183 no.s of letters were also received in support of the project. Budget of Rs 309.3 Lakhs has been earmarked to address the concerns raised during public hearing.

6. There are two habitations such as Mulgao and Lungao and schools are located within the mine lease area. Asnora River is touching the mine lease boundary at one of the points and Mayem Lake is found at a distance of 0.46km from the mine lease area. Namuzgah/Idgah is found within the mine lease area. A safety distance of 300m buffer has been left from Lamgao caves.

7. Mayem Forest Common Boundary with the mine lease area. Block-I Bicholim Mineral Block of Vedanta Ltd is not a part of any Eco Sensitive Area. The Schedule-I species such as Common leopard (*Felidae*) White-bellied Sea-Eagle(*Accipitridae*) Indian Peafowl (*Phasianidae*) and Crimson rose- Butterfly (*Papilionidae*) are found in the study area. Wild Life Conservation Plan is prepared and submitted for approval of Chief Wildlife Warden (CWLW) on 19.06.2023.

8. No Rehabilitation & Resettlement Plan is proposed during life of mine. There are three court cases pending against the project w.r.t auction. Total cost of the project is Rs 250 Cr. The Capital cost of EMP is Rs 72.0 Lakhs and about 716 no.s will get employment.

9. The instant proposal was earlier considered in the EAC (Non-Coal Mining) meeting held during 21-22 September, 2023 and the EAC after detailed deliberations opined that there is a need to ascertain the present scenario and ground reality with regards to handling of waste, settling ponds, location of waste dump w.r.t habitation, school and river, other surface features as forest (Mayem common boundary), temples, caves and fort, mineral transportation route and traffic congestion. The EAC was of the view that a site visit needs to be conducted by a sub-committee comprising of EAC Members and officers from MoEF&CC.

10. Accordingly, the Ministry vide letter dated 09.10.2023 constituted a sub-committee comprising of the following members to ascertain the ground realities of the project.

1. Shri Niranjan kumar Vasu, EAC (Non-Coal Mining), Member,
2. Shri. Avijit Ghosh, EAC (Non-Coal Mining), Member,
3. Shri. Pankaj Verma, Scientist E & Member Secretary EAC (NCM), MoEF&CC,
4. Shri. Saurabh Upadhyay, Scientist C, MoEF&CC,
5. Shri Suresh kumar Adapa, Scientist E, MoEF&CC, Bengaluru;

6. Shri. A. Mohankumar, Consultant, MoEF&CC

11. The aforesaid committee undertook the day-long field visit on 30<sup>th</sup> October 2023. The following officers from M/s Vedanta Ltd such as Head of the Mines, Head of the Environment, Mines Manager, Geologist and EIA Coordinator were present during the site visit. The Project Proponent gave a brief about the layout of the mine lease area. The subcommittee during the site visit observed the following: -

1. The subcommittee visited the mine lease area which extends from mines office to the bottom pit by road covering a distance of 7.0 km in the lease area. The subcommittee also observed the boundary pillars erected by the Project Proponent alongside the mine lease boundary.
2. The subcommittee observed the dense vegetation throughout the mine lease area.



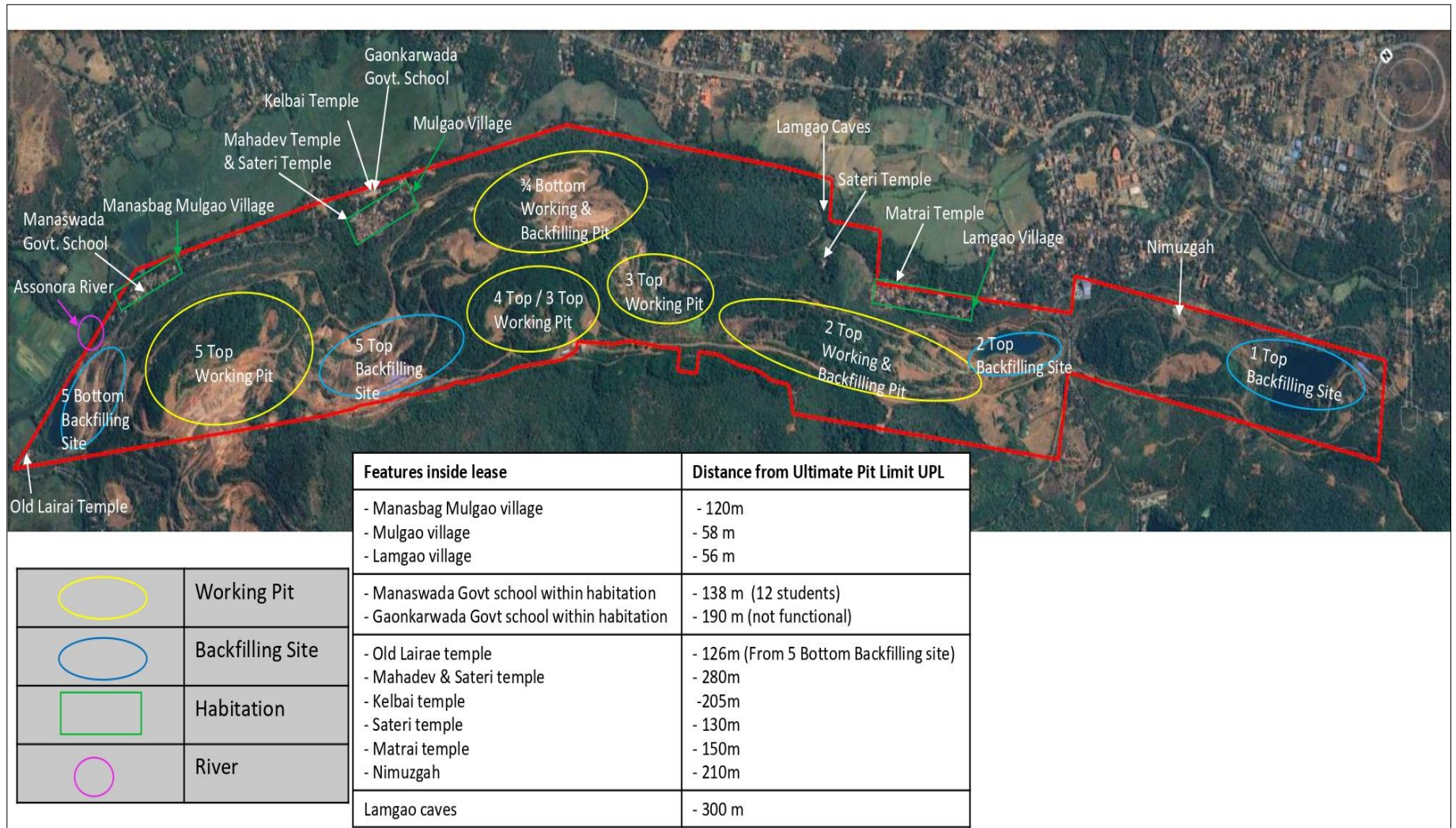
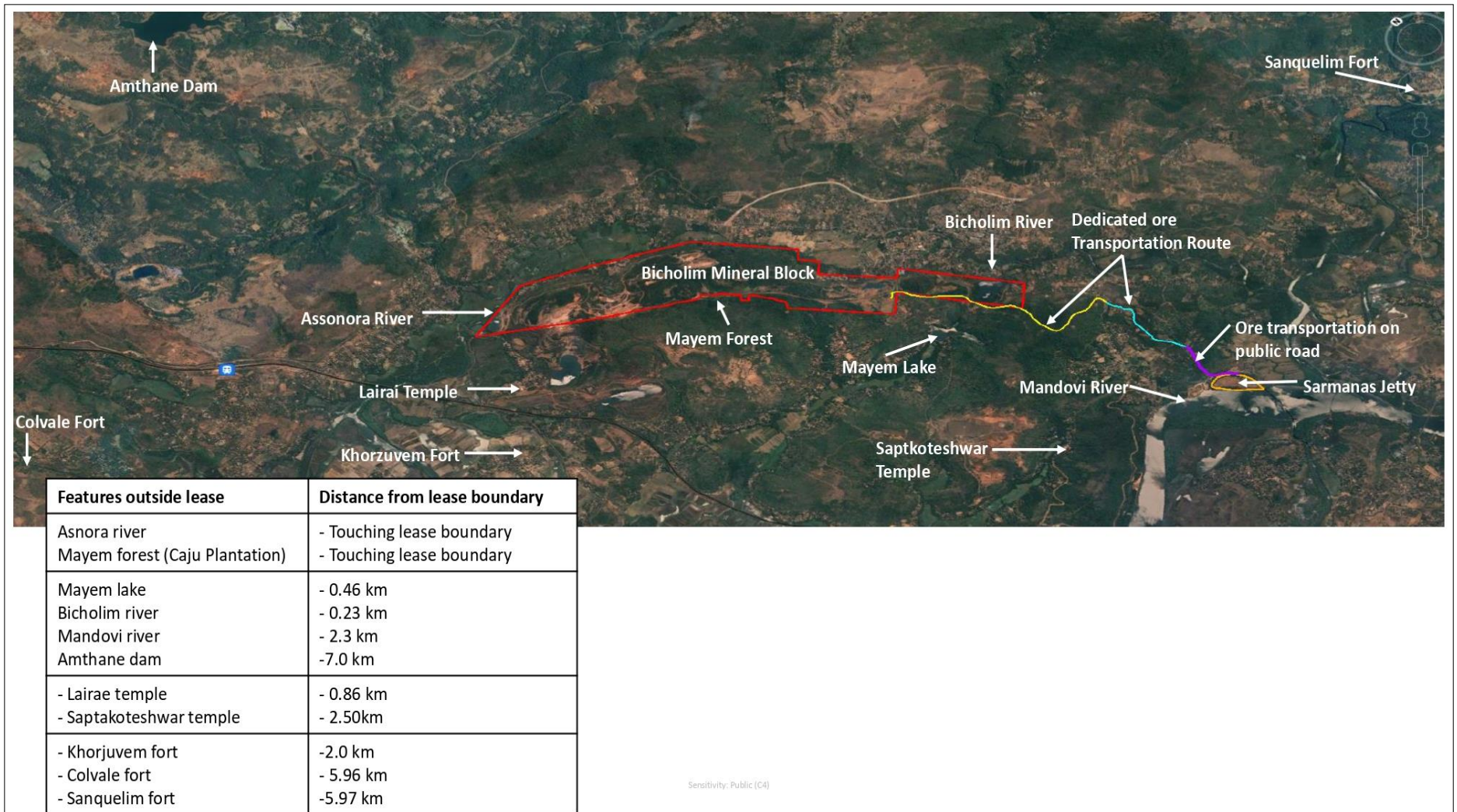


Figure 1: Google Image of Bicholim Mineral Block showing working & backfilling pits and surface features in the mine lease area



**Figure 2: Google Image of Bicholim Mineral Block showing surface features in the buffer zone**



**Figure 3: Project Proponent explaining about mine layout and site features**

3. The subcommittee visited the mine pit with stagnant rain water, top and bottom working pits. The Project Proponent has informed that the rain water in the mine pit is being used for dust suppression and agricultural purposes by the local farmers. The rainwater stagnant in the working pits will be pumped out and will be channelized through network of pipes and will be discharged into settling ponds. The Project Proponent also informed that the waste generated during mining will be temporarily stacked within the mining lease and will be backfilled in the exhausted portion in the working pits. The material from one pit will be used to backfill the other exhausted working pit.



**Figure 4: Rainwater stagnant in the mined out pit**



**Figure 5: Rainwater stagnant in the working pit**

4. The subcommittee has observed that the permanent water sprinklers are not in place.
5. The subcommittee has observed the temple within the mine lease area and Assonora River touching the mine lease boundary. The Project Proponent has informed that the safety distance of 50m is left on either side of the river. A dense plantation has been carried out in the safety zone.
6. The subcommittee also visited the settling pond in the mine lease area. The subcommittee noted that the settling pond is poorly maintained. The Subcommittee suggested to construct silt check dam based on the rate of inflow. Subcommittee also suggested the Project Proponent not to discharge any water outside lease area without passing it through treatment plant.



**Figure 6: Settling Pond**

7. The subcommittee visited the Mayem Forest boundary which is demarcated by poles with white flags from the mine lease area. The Project Proponent informed that the forest boundary is about 70-80m away from the mine lease area. The Differential Global Positioning System (DGPS) survey has been carried out by the Forest Dept but pillars are not demarcated by the Forest Dept. The Project Proponent also informed that a letter has been obtained from the Dept. of Forest stating that the forest land is not involved in the mine lease area. The subcommittee suggested that the Project Proponent should consult with the Forest Dept and should erect the pillars to differentiate the mine lease area from the forest boundary.
8. The subcommittee has visited the waste dump to see the dump height, dump slope and plantation made on waste dumps. The subcommittee noted that the plantation has been carried out using coir mats. The subcommittee suggested that the proper terracing has to be done and suitable measures to be undertaken for preventing soil erosion.



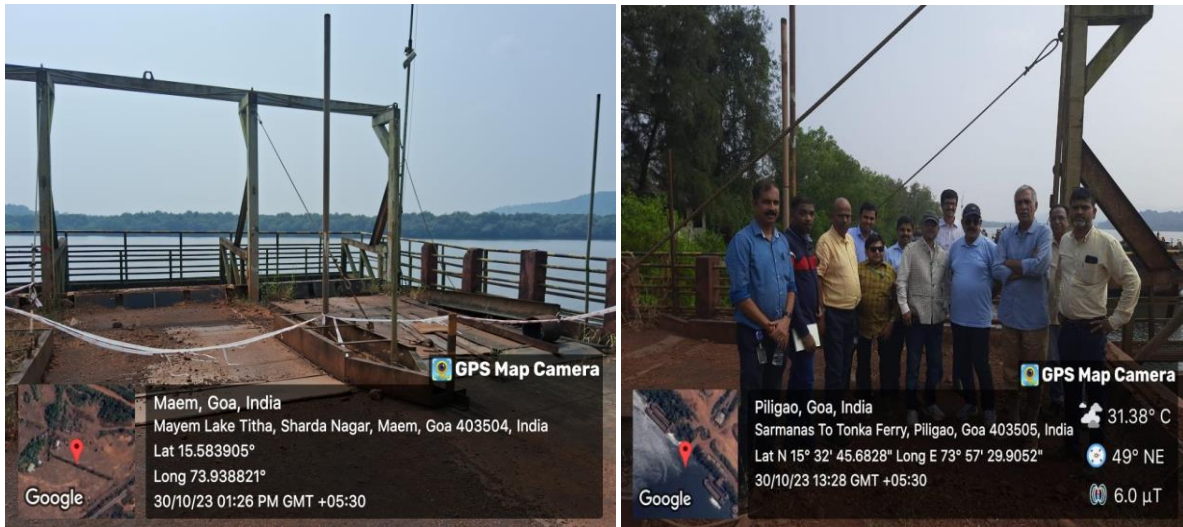
**Figure 7: Near Waste Dump**

9. The subcommittee observed that the villages and schools are located in the mine lease area. The Project Proponent has informed that the villages such as Manasbag Mulgao village (~120m from Ultimate Pit Limit-UPL), Mulgao Village (~58m from UPL) and Lamgao Village (~56m from UPL) are located within the mine lease area. The Project Proponent also informed that the Manaswada Govt. School is located at a distance of ~138m from UPL with 12 no. of students and Gaonkarwada Govt. School is located at a distance of ~190m from UPL which is non-operational.
10. The subcommittee has observed that the crematorium ground is located within the mine lease area. The subcommittee also visited the Idgah located within the mine lease area. The Project Proponent has informed that the mining activity will be carried out by using ripper dozer combination. There will be no activity of drilling and blasting. A buffer zone of 200m will be maintained from Idgah. The subcommittee was of the view that the mining activity shall be strictly carried out by using only ripper dozer combination.
11. The subcommittee has visited the crushing and screening units in the mine lease area. The subcommittee noted that the crushing and screening units are not maintained well. The subcommittee opined that the fabrication works has to be carried out before starting mining operations and also suggested that the crushers and screening plant should have adequate arrangement to suppress dust and also measures should be taken to control noise.



**Figure 8: Crushing and Screening Units**

12. The subcommittee has observed that there are four Schedule-I species reported in the study area. The subcommittee asked the Project Proponent to ensure that whether any other Schedule-I species has been added as per latest Wildlife (Protection) Amendment Act 2022.
13. The subcommittee has visited the entire mineral transportation route of 5.48 km [4.54 km company owned dedicated road + 0.94 km public road] from the mine lease area to Sarmanas Jetty. The subcommittee has observed that there at two places public road is getting intersected. The width of the road is not adequate. The Project Proponent has informed that the under passes are proposed at the intersecting points and hence the public road will not be disturbed. Traffic marshals will be deployed at the intersecting point to monitor the movement of traffic. During rainy season, no transportation will be carried out and only developmental works will be carried out. The subcommittee also visited the Sarmanas Jetty. The subcommittee opined that the maintenance works has to be carried out at Sarmanas Jetty before commencing mining operations. The subcommittee was of the view that the Over Land Belt Conveyor (OLBC) from the mine lease area to Sarmanas Jetty may be solution for eco friendly transportation and economics.



**Figure 9: Sarmanas Jetty**

14. The subcommittee opined that the Project Proponent needs to develop an own nursery.
15. The subcommittee also visited the nearby Sanquelim mine of Sesa Goa Ltd to see the reclamation activities carried out in the mined out area.

**12. Recommendations of the Sub-committee:**

1. The Project Proponent needs to submit the techno economic feasibility report for laying Over Land Belt Conveyor (OLBC) from the mine lease area to Sarmanas Jetty.
2. The subcommittee asked the Project Proponent to submit the ecology restoration plan for mined out pits for using as Water reservoir/Pisciculture.
3. The subcommittee noted that the transfer of material from one pit to other working pit will lead to transportation issues. The subcommittee asked the Project Proponent to identify the shortest lead distance and also to explore the possibility of concurrent backfilling. The Project Proponent also needs to submit the sequential stage wise mining in top and bottom working pits and their backfilling plan.
4. The Project Proponent needs to submit the action plan for strengthen the settling pond with proper stone pitching in line with the design of settling pond considering the annual rainfall, flow rate, catchment area and its discharge. The action plan for monitoring the water level and water quality before discharge needs to be submitted.



5. The design of garland drain around the waste dumps to divert the water to settling ponds and the measures to be taken to arrest the suspended solids needs to be submitted. The measures to be taken for preventing the soil erosion on slope of waste dumps needs to be submitted.
  6. The Project Proponent needs to submit the action plan for installing permanent water sprinklers.
  7. The Project Proponent needs to submit the action plan and timeline to modify the crushing and screening units. The Project Proponent also needs to submit the material flow sheet and material balance.
  8. The Project Proponent needs to submit the action plan for developing their own nursery by mentioning the details of the area to be covered, species to be planted and budget proposed. Most of the standing vegetation in the lease area constitutes of *Acacia auriculiformis* and *Casuarina equisetifolia* and it is further invading the open areas through natural regeneration. The invasion may be checked through planting native species in the region.
  9. The Project Proponent needs to ensure that whether any other Schedule-I species has been added as per latest Wildlife (Protection) Amendment Act 2022 or not. Accordingly, the Project Proponent shall submit the revised authenticated Schedule-I species. The Project Proponent also needs to submit the breakup of the conservation activities proposed under Wildlife Conservation Plan.
  10. The Project Proponent needs to submit the map demarcating the surface features in the mine lease area and their safety distances left/maintained as per mines acts and rules.
  11. The Project Proponent needs to provide proper treatment of channels and nallas flowing in the lease area for soil and water conservation. Scientifically designed and placed check dams and other engineering structures at different places can help control the erosion and loss of productive soil. Necessary study from competent institution/individuals may be done for this purpose.
- 13. Observation and Recommendation of the EAC: -**

The EAC noted that the site visit was conducted by the subcommittee during 29-31 October 2023. The EAC deliberated on the observation and recommendations of the

subcommittee. After detailed deliberations, the EAC agreed to the recommendations of the subcommittee.

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**List of members of Expert Appraisal Committee participated through VC**

S.No	Member Name	Member Address	Designation	14 <sup>th</sup> Nov., 2023	15 <sup>th</sup> Nov., 2023
1	Dr. Dinesh Misra, IFS (Retd.)	Plot No 65, Sector 8, Gandhinagar, Gujarat, 382 008	Chairman	Yes	Yes
2	Sh. Niranjana Kumar Vasu, IFS (Retd.)	816, Shanti Nagar, Opposite Durgapur Railway Station, Jaipur-Rajasthan, 302018	Member	Yes	Yes
3	Dr. Asha Rajvanshi, Scientist 'G' (Retd.), WII	B/104/106 Rock Valley Apartments, GMS Road, Sewla Kalan, P.O. Majra, Dehradun, Uttarakhand-248171.	Member	No	No
4	Shri. Avijit Ghosh (CMD- Heavy Engineering Corporation Limited) (Retd.)	Singhee Marg, A- 604 Shahadeo Tower, P.P.Compound, Ranchi 834001, Jharkhand	Member	Yes	Yes
5	Shri. Bandi Ramchandra Reddy (Former CMD-South Eastern Coalfields Limited)-(Retd.)	Flat No-503 A, Jyoti Cosmos, White Fields, Hi-Tech City, Kondapur, Hyderabad-500081	Member	Yes	No
6	Prof. Pramod Kumar, Professor, Shri Aurobindo College, University of Delhi	Shri Aurobindo College, University of Delhi 1372, B-1, Vasant Kunj, New Delhi-110070	Member	Yes	No
7	Prof. Devesh Walia, Department of Environmental Studies	Department of Environmental Studies, NEHU, Shillong-793022 Meghalaya	Member	Yes	Yes
8	Dr. Suresh Tiwari Scientist-F	Indian Institute of Tropical Meteorology, Pune, New Delhi Branch, Prof. Ram Nath Viji Marg Rajinder Nagar, New Delhi – 110060	Member	No	No

Minutes of 22<sup>nd</sup> EAC (Non-Coal Mining) meeting held during 14-15 November, 2023

9	Dr. K.G Asha Manjari, Professor, University of Mysore	10/B, "SPARSHA", 2 <sup>nd</sup> Main, 2 <sup>nd</sup> Cross,BhogadiInd Stage, Mysore-570026, Karnataka	Member	Yes	Yes
10	Prof. Dev Dutt Sharma, Vice- Chancellor	Sardar Patel University,Mandi 175001	Member	No	No
11	Shri V. K. Soni, Representative of India Meteorological Department	Government of India, Ministry of Earth Sciences, India Meteorological Department, MausamBhawan, Lodi Road, New Delhi – 110003	Member	Yes	No
12	Shri Yogesh Kale/ Abhay Agarwal, Representative of Indian Bureau of Mines	Controller of Mines, IBM Block D, Second Floor, Indira Bhavan, Civil Lines, Nagpur - 440001	Member	Yes	Yes
13	Representative of Directorate General of Mines Safety	Directorate General of Mines Safety	Member	No	No
14	Shri Pankaj Verma	3 <sup>rd</sup> Floor, Vayu Block, Indira Paryawaran Bhawan, MoEF&CC, Jorbagh, New Delhi- 110003.	Member Secretary	Yes	Yes
15	Dr. Saurabh Upadhyay	2 <sup>nd</sup> Floor, Vayu Block, Indira ParyawaranBhawan, MoEF&CC, Jorbagh, New Delhi- 110003.	Scientist C	No	Yes

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