

EXECUTIVE SUMMARY

The project has been proposed for Mining of Boulder Stone from “Khrikshon Lyngkhai's Boulderstone Mine 4.45 ha”. The proposed production is 6,43,608 TPA by open cast semi-mechanized method of mining. Mining will be confined to the allotted lease area.

Pillar Coordinates		Pillar	Latitude (N)	Longitude (E)
		A	26° 04’ 20.16’’	91° 49’ 48.10’’
		B	26° 04’ 15.80’’	91° 49’ 48.28’’
		C	26° 04’ 14.80’’	91° 49’ 58.40’’
		D	26° 04’ 19.90’’	91° 49’ 58.20’’
Name of the Project	“Khrikshon Lyngkhai’s Boulderstone Mine 4.45 ha”			
Village	Village Umduba, Killing, 9 th Mile, Raid Marwet			
Tehsil	Umling			
District	Ri-Bhoi			
State	Meghalaya			
Name & Address of Applicant	Shri Khrikshon Lyngkhai S/O Late S.Khardewsaw Address: K.L. Complex, Maccabe Road, Demseiniong, Shillong, East Khasi Hills-793001, Meghalaya			
Nearest Railway	Guwahati Railway Station, 14.70 Km, towards North-West direction			
Nearest Airport	LBG International Airport Guwahati, 24.50 Km, towards West direction			
Nearest Major Road	NH-40, 4.16 km, towards East direction NH-37, 4.40 km, towards North-East direction			
Mineral	Boulder Stone			
Area (Ha) as per LoI	4.45 Ha			
Life of Mine	6.16 years			
Status of Mine	Existing			

The proposed project is an opencast semi-mechanized mining project, where mining of Boulder Stone will be done. Excavators will be deployed for the removal of overburden & inter burden. Methods of mining will be open cast semi-mechanized with drilling and blasting. Mining will be confined to the allotted lease area located in Village Umduba, Killing, 9th Mile, Raid Marwet, District- Ri Bhoi, State- Meghalaya from which a maximum of 6,43,608 TPA of Boulder Stone will be excavated eve. Drilling and Blasting is proposed in this mining activity. Terms of Reference (ToR) for the proposed project has been granted by the Directorate of Environment, Meghalaya vide its letter no. ML/SEIAA/MIN/RB/P-113/2020 dated, Shillong, the 15th January, 2021.

Salient features of the project

1.	Name of Proponent & Address	Shri Khrikshon Lyngkhoi S/O Late S.Khardewsaw Address: K.L. Complex, Maccabe Road, Demseiniong, Shillong, East Khasi Hills-793001, Meghalaya																	
2.	Name of Project	“Khrikshon Lyngkhoi's Boulderstone Mine 4.45 ha”																	
3.	Location of Project																		
	Name of Village	Village Umduba, Killing, 9 th Mile, Raid Marwet																	
	Tehsil	Umling																	
	District	Ri-Bhoi																	
	State	Meghalaya																	
4.	Name of Minor Mineral	Boulder Stone																	
5.	Sanctioned Lease Area In Ha	4.45 Ha																	
6.	Mineable Area In Ha	4.17 Ha																	
7.	Max. & Min mRL Within Lease Area	368 mRL to 247 mRL																	
8.	Pillar Coordinates	<table><tr><th>Pillar</th><th>Latitude (N)</th><th>Longitude (E)</th></tr><tr><td>A</td><td>26° 04’ 20.16”</td><td>91° 49’ 48.10”</td></tr><tr><td>B</td><td>26° 04’ 15.80”</td><td>91° 49’ 48.28”</td></tr><tr><td>C</td><td>26° 04’ 14.80”</td><td>91° 49’ 58.40”</td></tr><tr><td>D</td><td>26° 04’ 19.90”</td><td>91° 49’ 58.20”</td></tr></table>			Pillar	Latitude (N)	Longitude (E)	A	26° 04’ 20.16”	91° 49’ 48.10”	B	26° 04’ 15.80”	91° 49’ 48.28”	C	26° 04’ 14.80”	91° 49’ 58.40”	D	26° 04’ 19.90”	91° 49’ 58.20”
Pillar	Latitude (N)	Longitude (E)																	
A	26° 04’ 20.16”	91° 49’ 48.10”																	
B	26° 04’ 15.80”	91° 49’ 48.28”																	
C	26° 04’ 14.80”	91° 49’ 58.40”																	
D	26° 04’ 19.90”	91° 49’ 58.20”																	

9.	Total Mineable Reserve	39,64,950 Tones
10.	Proposed Production	6,43,608 TPA
11.	Sanctioned Period of Mine Lease	30 years
12.	Production of Mine/Day	2,146 tones
13.	Method of Mining	Open Cast Semi Mechanized with Drilling and Blasting
14.	No. of Working Days	300
15.	Working Hours/Day	08 hrs max, Day Time
16.	No. of Workers	91
17.	No. of Vehicles Movement/Day	215 Truck (one side)
18.	Type Of Land	Private Land
19.	Max Depth of Mining	323 mRL (45 m from Highest elevation)
20.	Nearest Metalled Road From Site	NH-40, 4.16 km, towards East direction NH-37, 4.40 km, towards North-East direction
21.	Water Requirement	<u>WATER REQUIREMENT</u> 1- Drinking & Domestic: 3.2 KLD 2-Dust Suppression: 0.90 KLD 3-Plantation 0.90 KLD Total water requirement is about: 5.00 KLD
22.	Name of the QCI Accredited Consultant With QCI No. And Period Of Validity	GEOGREEN ENVIRO HOUSE PVT LTD, LUCKNOW NABET/EIA/1720/IA0023 Extended till 3 rd May, 2021.
23.	Any Litigation Pending Against The Project Or Land In Any Court.	No
24.	Proposed CER Cost	Rs. 1,90,000/-
25.	Propose EMP Cost	Rs. 3,92,000/-
26.	No. of trees to be planted	500 Saplings

The baseline data was collected for the winter season i.e. December 2020 to February 2021 in the 10 km study area.

The maximum value for **PM₁₀** was observed as 87.3 µg/m³ while 24 hours applicable limit is 100µg/m³ for industrial and mixed-use areas. The area observes average PM₁₀ concentration in the range of 40 µg/m³ – 87.30 µg/m³.

The maximum value for **PM_{2.5}** was observed, 36 µg/m³ while 24 hours applicable limit is 60µg/m³ for industrial and mixed-use areas. The area observes average PM_{2.5} concentration in the range of 16.0 – 36.0 µg/m³.

The maximum value for **SO₂** was observed, as 6.9 µg/m³ while 24 hours applicable limit is 80µg/m³ for industrial and mixed use areas. The average **SO₂** concentration lies in between 3.1- 6.9 µg/m³.

The maximum value for **NO₂** was observed, as 10.0 µg/m³ while 24 hours applicable limit is 80µg/m³ for industrial and mixed use areas. The area observes average **NO₂** concentration in the range of 6.0 -10.0 µg/m³. All the villages have observed value well under the prescribed limit.

Ambient noise levels were measured at 08 locations around the proposed project site. Minimum and maximum noise levels recorded during the day time were from 12.6 Leq dB and 15.0 Leq dB respectively and minimum and maximum level of noise during night time were 10.1 Leq dB and 11.3 Leq dB respectively

Environmental Management Plan (EMP):

Proper environmental management plan is proposed for “Boulder Stone” mining project to mitigate the impact during the mining operation.

- No labour camps will be established on site.
- No cooking, or burning of woods will be allowed in the nearby area.
- Prior to commencement of mining, a short awareness program will be conducted for labours to make them aware of way of working and various precautions to be taken while at work. Such program will be repeated occasionally.
- In the event of any some causality or injury to any animal occurs, proper treatment will be given.
- No tree cutting, chopping, lumbering, uprooting of shrubs and herbs will be allowed.

- Corridor movement of wild animals, if exists mining operations will be avoided in the area.
- It will be ensured that noise produced due to vehicles movement while carrying stone is within the permissible noise level.
- No piling of Stone will be done in adjoining area.
- If wild animals are noticed crossing the area, they will not be disturbed or chased away, instead the labors will move away from their path.

Environment Monitoring Program

S. No.	Activity	Schedule
Air Pollution Monitoring		
1.	Ambient air monitoring of parameters specified by MoEF (PM ₁₀ , SO ₂ & NO ₂).	Twice in a Year except monsoon
Water Quality Monitoring		
2.	Monitoring water quality surface water from the river	Twice in a Year except monsoon
3.	Monitoring of one sample of tube well and open well at mine / nearby location. Parameters are essential parameters as per IS: 10500:1991.	Twice in a Year except monsoon
4.	Monitoring of water spray requirements	Log-sheet of water spray will be maintained on daily basis
Noise Quality Monitoring		
5.	Noise in the ambient atmosphere in mining lease	Twice in a Year except monsoon
Greenbelt Maintenance		
6.	Monitoring schedule for Greenbelt development as per mining plan	Yearly
Soil Quality Monitoring		
7.	Soil at six locations	Twice in a Year except monsoon

The proposed project is expected to provide employment to local people in different activities such as mining, sizing (sieving) transportation and plantation activities. The revenue generated

from the production and sale of mineral will also add to the exchequer of government, which in turn will help in the growth of state economy. Excavated material will cater the huge increasing demand of mineral in the fast-growing construction industry of Meghalaya and nearby states etc. The project is not expected to have any major adverse impact on the environment and whatever impacts are anticipated during the EIA study will be minimized with the help of suitable mitigation measures.