

## REPORT ON CHECK INSPECTION OF MINE

Name and designation of inspecting officer: **1. Shri. V. Jayakrishna Babu**  
Controller of Mines (SZ)  
**2. Shri. Ashwini Kumar**  
Asst. Mining Engineer

Date of Inspection : 02.06.2022

### **1. General information of the mine :**

<b>i</b>	Name of mine	:	<u>Kairulabad Limestone Mine (ML-12)</u>
<b>ii</b>	Owner	:	<u>M/s UltraTech Cement Ltd.</u>
<b>iii</b>	Nominated owner	:	<u>Shri. K.C. Jhanwar</u>
<b>iv</b>	Mining Engineer	:	<u>Shri. Uma Maheshwaran N</u>
<b>v</b>	Agent	:	Shri. Sajendra Kumar J A
<b>vi</b>	Mine Manager	:	<u>Shri. Uma Maheshwaran N</u>
<b>vii</b>	Lease area	:	<u>24.635 Ha</u>
<b>viii</b>	Location	:	<u>Village: Kairulabad,</u> <u>District : Ariyalur,</u> <u>State Tamilnadu</u>
<b>ix</b>	Lease period	:	50 years
<b>x</b>	Date of Expiry	:	<u>09.01.2067</u>
<b>xi</b>	Date of approval of mining plan	:	<u>01.08.2014</u>
<b>xii</b>	Date of approval of scheme/RMP	:	<u>21.08.2017(Modified)</u>
<b>xiii</b>	Period of Mining Plan/ Scheme of Mining/RMP	:	5 Years
<b>xiv</b>	Production (last 3 years)	:	FY 2018-19: 105,146.28 T <u>FY 2019-20: 91,954.90T</u> FY 2020-21: 100,462.07 T
	Mineral rejects generated	:	FY 2020-21:3510.47 T
	<b>Dispatches</b>	:	FY 2020-21:100,462.07 T

### **2. Brief Description of the Mine:**

- a) A brief description of the mine covering location, geology, problems associated with mining of the deposit etc. may be given.**

**Location:** The mining lease area of 24.635 ha is situated in Kairulabad Village, Ariyalur Taluk, Ariyalur District (Tamil Nadu). The Mining lease area is covered in Survey of India Toposheet No. 58M/4 bounded by the following co-ordinates:

Latitudes: 11° 7'31.97"N - 11° 7'48.24"N

Longitudes: 79° 7'2.21"E- 79° 7'30.78"E

**Regional Geology :** In the Cauvery basin carbonate rock (mostly limestone) forms a sizable part of the stratigraphic column from the Lower Cretaceous to Recent. The rock formation in Ariyalur and Tiruchirapalli districts consists of Uttatur, Trichinopoly and Ariyalur Groups of Upper Cretaceous and Palaeocene and Cuddalore Formation of Mio-Pliocene. The sedimentary rocks rest over the Archean platforms which are exposed along the western, south-eastern

and south-western margins of the basin. The Uttatur and Trichinopoly Groups are folded in the southern part of the basin, whereas, the Ariyalur Group is free of deformation.

Limestone of Cretaceous and early Tertiary formations are exposed in the three principal outcrop areas viz. Trichirapalli, Virudhachalam, and Pondicherry along the western margin of the basin. The western margins of these sediments have a NE- SW trend. Limestone deposits in the region are categorized under four groups namely Uttatur, Trichinopoly, Ariyalur and Niniyur. The deposits falling in Kairulabad, Hastinapuram, Villipirringium, Pudupalayam, Periyagalur, Valajanagaram, Alanthuraiyarkattalai, Reddipalayam, Pudupalayam etc form a part of Pudupalayam formations of Ariyalur group whereas Nakkambadi and Sendurai areas form a part of Niniyur Group.

**Local Geology:** The area exhibits a plain and a gently sloping surface. The top soil is black in color with 0.5 to 1.0 m in thickness. In some areas the thickness of overburden ranges from 1 to 1.5 m and the limestone is observed below, which is hard compact and sometimes friable and soft. The general trend of the deposit in this part of limestone is northeast – southwest with gentle dips towards east and southeast.

General Lithological Succession as per bore hole data.

- Black cotton top soil
- Shell Limestone
- Sandstone/Sand

b) Description on deployment of mining machinery given in the following format:

Sl. No.	Machineries Deployed	Capacity	No. of units	In use	Ideal	Percent-age of utilization	Brief Description	Remarks
1	2	3	4	5	6	7	8	9
1.	Back-Hoe/Bull Clam (Capacity in cubic metres) (a)Diesel	0.90 cu.m 1.20 cu.m	1 1	1 1	NIL	100%	Tata Hitachi	
2.	Haulers / Dumpers	25 T	7	7	NIL	100%	Ashok Leyland & Bharat Benz	

3. Implementation of Mining Plan or Scheme of Mining/RMP:

Sl. No.	Proposals in the approved Mining Plan or Scheme of Mining/RMP	Observations regarding implementation of proposals given in approved Mining Plan or Scheme of Mining	Remarks
1	<b>CONSERVATION OF MINERALS</b>		
a)	<b>Exploration: NIL</b>	Completed	
b)	<b>Utilisation of sub-grade mineral:</b>	Nil	No sub grade mineral
c)	<b>Any other proposal for monitoring -</b>	Nil	
2	<b>SCIENTIFIC MINING</b>		
a)	<b>Mine Development and method of mining-Production:</b>	Open Cast	
b)	<b>Handling of Waste/ subgrade material -</b>		Sandstone Boulders are present inside the pit.

c)	<b>Area reclamation &amp; rehabilitation</b>	1.489 Ha	
<b>3</b>	<b>PROTECTION OF ENVIRONMENT</b>		
a)	<b>Afforestation: 2000</b>	Proposal : 2000nos Actual : 6000 Nos.	
b)	<b>Quality of air</b>	The air quality Monitoring is being carried out every month. The environmental monitoring was carried out by JM EnviroNet Pvt. Ltd. which is a NABL accredited lab. Air monitoring station have been fixed in 8 locations covering core zone and the surrounding villages (Buffer zone) and monitoring carried out regularly.	The existing Core zone & Ambient air quality levels for SPM, PM10, PM2.5, SO2 and NOx are within the prescribed limit as per NAAQ standards for work zone environment & Residential, Rural & other areas.
c)	<b>Quality of water</b>	The water quality Monitoring is being carried out every month. The environmental monitoring was carried out by JM EnviroNet Pvt. Ltd. which is a NABL accredited lab. Water samples are collected from 1 mine pit water, 1 surface water and 3 ground water sources (Bore well) situated around the mining lease and analyzed for physical-chemical parameters.	The water quality in general is found to be within permissible limit for mine water & ground water and compliance with the CPCB norms for surface Waters
d)	<b>Noise level</b>	Noise measurements were carried out at 4 locations in core zone and 4 locations in buffer zone. From the analysis it is found that, the day, night equivalent of existing noise level in the core zone area are ranging from 63.5 to 64.4 dB(A), 55.4 to 57.5 dB(A) respectively. While comparing with the DGMS Norm of 85 dB(A) the values were in well within the limits. In the buffer zone, day Equivalent Noise levels were ranging from 52.2 dB(A) to 52.4 dB(A) and night Equivalent Noise levels ranged between 43.2 dB(A) to 43.8 dB(A). While comparing with the MOEF Norm of 55 dB(A) for day time and 45 dB(A) for night time, the monitored ambient noise levels were written the prescribed limit for Residential areas	Under Control

e)	<b>Vibration</b>	Blasting is not carried out. Hence no ground vibration. All the HEMM used in Mining are manufactured by World class Heavy Equipment manufacturers like Tata Hitachi, L&T Komatsu, BEML etc. Hence Ergonomically designed cabins are provided in all the equipment.	
f)	<b>Any other proposal for monitoring</b>	NIL	--

**4. History of Violations after approval of Mining Plan or Scheme of Mining/RMP for last 3 years:**

Sl. No	Date of inspection	Name of inspecting officer	Violations of MCDR, 2017 observed and pointed out	Rectification of violations	Remarks
1	05.11.2019	Shri. SS. Kujur (DCoM)	<p><b>Rule 11(i)</b></p> <p><b>d)</b> The number of saplings proposed to be planted during 2018-19 has not been planted.</p> <p>Rule 36 (3) When the top soil is unable to be utilized concurrently, it shall be stored separately for future use- the same has not been stored separately as per approved MP.</p> <p>Rule 26 (2) The holder of mining lease shall submit to the competent authority a yearly report as per the format specified by the Indian Bureau of Mines, before 1st day of July every year setting forth the extent of protective and rehabilitative works carried out as envisaged in the approved mine closure</p>	<p>We have planted around 1000 sapling all along the mines periphery.</p> <p>As per the mining plan, the topsoil is being concurrently utilized over back filled area as well we are using the same for afforestation along the boundary.</p> <p>The yearly report has been resubmitted to IBM with duly signed.</p>	Complied

			plan and if there is any deviation, reasons thereof: The same has been submitted to this office without signature of Mining Engineer/ Geologist/ Mine Manager.		
2	18.11.2020	Shri. Matiul Islam (ACoM)	<p><b>Rule 11(1)</b></p> <p>a) The number of saplings planted during the year 2019-20 is less than that proposed in the approved plan.</p>	<p>Due to the unprecedented lockdown declared in the FY 2019-20 owing to Covid-19 Pandemic, mobilisation of manpower for plantation activity was challenging. Even after post lockdown due the restriction imposed by the Govt. on manpower mobilisation was completely disrupted. Hence, with the limited manpower availability we could achieve planting 1200 nos of sapling in the FY- 1920. However, we are pleased to inform you that, even after all the obstacle in the FY-2020-21 we have completed the backlog quantity of FY- 2019-20 by planting more than 4000 no's of native species of sapling and we are continuing the plantation activity as per the approved Mining Plan.</p>	Complied
3	22.07.2021	Shri. S. Thirunavukkarasu (SMG)	No Violation received in FY 2020-21		

**5. Socio-Economic Development Plan:**

<b>Sl. No.</b>	<b>Proposed Action Plan towards socio Economic Development</b>	<b>Expenditure proposed (In Rs, Lakh)</b>	<b>Expenditure incurred (in Rs, Lakh)</b>	<b>Remarks</b>
1	General Development in the area			
	i) Housing	Nil	Nil	
	ii) Water Supply	Nil	Nil	
	iii) Sanitation	Nil	Nil	
	iv) Health, Safety and Medical Facilities	Rs. 2,10,000	Rs. 2,12,000	Health booster, Pulse Polio Camp & Dry ration Distribution
2	Education and Training	Rs. 25,000	Rs. 28,000	Tailoring instructor remuneration
3	Employment to local inhabitants	Rs. 5,73,600	Rs. 5,73,600	4 no's of Local man power deployed
4	Public Transportation and communication	Rs. 18,000	Rs. 20,000	Village road repairing
5	Recreation and other sports activities	Nil	Nil	
6	Expenditure for environment management	Rs. 18,00,000		Plantation, Water Sprinkler & Environment monitoring
7	Other	Nil	Nil	
<b>8</b>	<b>Total</b>	<b>Rs. 26,08,600</b>	<b>Rs. 26,33,600</b>	

**6. Observations/ remarks on the earlier inspection carried out by sub-ordinate officer(s) with specific thrust on systematic and scientific mining, mineral conservation and environmental protection and other sensitive/important aspects pertaining to the mine area or surroundings (CRZ/ Western Ghats/ Wildlife Sanctuaries etc.):**

NIL

Place: Reddipalayam

Signature

Date: 02.06.2022