EXECUTIVE SUMMARY

SIJIMALI BAUXITE MINING PROJECT

M/s Larsen & Toubro Limited (L&T) is a diversified Indian multinational conglomerate with very sound technical and financial resources having registered office in Mumbai. During 2018-19, the consolidated revenue was in excess of Rs. 1,40,000 Crores. It operates in over 30 countries worldwide. A strong, customer–focused approach and the constant quest for top-class quality have enabled L&T to attain and sustain leadership in its major lines of business for over seven decades.

L&T has proposed to develop Sijimali bauxite mine located in Kalahandi and Rayagada districts in Odisha. The brief details of the project are as follows:

Sijimali bauxite deposit is having about 220.39 million tonnes of mineable reserves as per the mining plan approved by Indian Bureau of Mines (IBM). The rated capacity of the project is 6.0 MTPA. Life of the mine is about 39 years based on rated capacity. However, the mine will be designed to last for the entire lease period of 50 years considering curtailment of production driven by market demands.

In the proposed mining lease area of 1560.40 ha, about 46.37% is forest land (village/revenue forest - 26.50 ha, DLC forest – 620.14 ha and sabik forest – 76.91 ha). Opencast mechanized mining method predominantly with the use of ripper/dozer and surface miners is proposed. Only in places where hard strata is encountered, controlled blasting would be resorted to.

The lease area falls under Thuamul–Rampur tehsil of Kalahandi district and Kashipur tehsil of Rayagada district in the state of Odisha. The lease area falls under the Survey of India toposheet nos. E44F2 and E44F3 and bounded by latitude of 19° 28’ 42.42” to 19° 32’ 02.35” N and longitude of 83° 06’ 04.66” to 83° 09’ 49.80” E.

Sijimali bauxite deposit is located at an aerial distance of about 42 km from Rayagada town. Rayagada is the district headquarter and is connected by SE railway. The nearest railway station is Sikarpai RS at about 20.2 km in SE direction.

Kashipur is the nearest town and tehsil head quarter, at a distance of about 13.8 km from Sijimali bauxite mine. The State Highway connects Kashipur with Rayagada. From Kashipur, the deposit is approachable by a 16 km state highway, 6 km long fair weather village road, followed by a 3 km kutcha road from the foothill to the plateau top. The total road distance from Sijimali hill top to Rayagada is about 94 km.

The Sijimali plateau has generally undulating topography. The proposed mining site at Sijimali plateau is principally a stony waste land. There are 14 reserved forests and 8 proposed reserved forests present in the radius of 10 km. There are no ecological sensitive areas (wild life sanctuaries, national parks, biosphere reserves, protected forest etc.) in the study area. Karlapat wildlife sanctuary is located at about 12.9 km in North direction.

The total mineable reserves of Sijimali bauxite deposit is about 220.39 million tonnes. For operational management, the mine has been sub-divided into 4 blocks with mineable reserves of 76.97 million tonnes, 68.57 million tonnes 58.77 million tonnes and 16.08 million tonnes respectively. It is proposed to undertake mining operation initially in the Block-I having mineable reserves of about 76.97 million tonnes and mining in this block shall continue for approximately 15 years (including initial period of limited production).

No raw material will be required for production of bauxite. The proposed bauxite mine shall be developed by opencast mechanized mining method. The main operation shall include removal and stacking of top soil by ripper/excavator cum loaders, exposing the bauxite zone, proper levelling by dozer and use of surface miners. Only in the places where strata is very hard to rip, controlled blasting would be resorted to. Bauxite will be then sorted out and reduced to size by crushers. The remaining rejects will be used for backfilling.

The bauxite extracted from Sijimali mine will be used as captive source for production of metallurgical grade alumina. The proposed alumina plant of 3.0 MTPA capacity will be installed in a nearby location.

An overland conveyor system to transport the bauxite to the proposed Alumina Refinery Plant will be installed outside the ML area. This conveyor system will be part of Alumina Refinery Project, for which Environmental Clearance is being obtained separately.

It is proposed to tap water from Naragul Nala at a distance of 4 km from Sijimali hill top. Total requirement of water is 725 m^3 per day. There will be no utilisation of groundwater resource. The mining will not puncture the ground water table. Power will be made available from the grid substation of Kashipur at 33 kV to main receiving step-down substation (MRSS) at Kutrumali (approx. distance 15 km) over double circuit overhead line on tower structure. At Sijimali, one Load Block Step down Substation (LBSS) will receive power from Kutrumali MRSS at 33 kV over double circuit overhead line on tower structure. Once Alumina Refinery plant becomes operational, power will be drawn from the captive power plant and transmitted by cables running along the long-distance conveyor.

The waste generated in the course of pre-mining development and subsequent mining operation will consist of top soil and overburden comprising mainly laterite and low grade unusable bauxite. The average overburden/mineral reject to ore ratio has been estimated at about 0.51:1, which will give rise to about 3 MT of overburden/mineral reject per year for production of 6 MTPA of bauxite.

A total time schedule of 30 months has been envisaged for operationalising the mine from the date of execution of mining lease deed. Out of the 30 months, 20 months are provided for land acquisition & construction of mine access road and 10 months for pre-mining developmental work. Estimated project cost is about Rs. 676 Crores. As per preliminary estimate, the total direct employment generation from the proposed mining project will be about 240 personnel.

The operation of the proposed project will bestow various social and economic benefits to the local communities of the area in addition to providing better employment opportunities (direct and indirect). The mining project shall improve social infrastructure of the area, apart from increased financial benefits accruing to state and central agencies by ways of taxes, royalties, DMF, cesses etc.

The proposed bauxite mining project has been earlier awarded with Terms of Reference (TOR) vide F No.: J-11015/100/2016-IA.II(M) dated 15th March 2016. However, due to change in land classification, the original proposal was withdrawn (EAC minutes dated April 23-24, 2019) and this application is being submitted for grant of fresh TOR.

M/s VIMTA Labs Limited, Hyderabad (NABET/EIA/1720/SA088), has been retained to carryout EIA studies and for obtaining Environmental Clearance from MOEF&CC.