Why Sierra Leone Bauxite?

• Tri-hydrate soft gibbsitic bauxite with practically no monohydrate content.
• Bond work index of SMHL bauxite is below 10 kWh /ton requiring low energy for grinding this bauxite in the refinery.
• Low total organic content.
• Well homogenized beneficiated bauxite suitable for processing in low-cost, low-temperature alumina refineries.
• Excellent historical track record of exporting consistent premium washed bauxite.
• SMHL bauxite from Sierra Leone is considered to be one of the top three bauxite deposits in the world in terms of quality.
Vision
01. To build a sustainable mining business that delivers uppermost quartile shareholder returns while leading in safety, environmental stewardship and socially responsible manner.
02. To be the most valued and reputable mining company through industry leading performance.

Mission
01. To meet the global supply of alumina & aluminum through our bauxite mining activities in the West Coast of Africa, Sierra Leone.
02. To be entirely compliant to all national and international standards/regulations and bring added value to our staff, community and the nation.
03. To promote sound public policy at all levels of government, educating the community on the benefits of mining and supporting the sustainability of a safe and responsible mining industry.

Facts and Figures
• Run of mines capacity of 3.0 to 3.2 million tons per annum.
• Washed bauxite production capacity of 2.0 to 2.2 million tons per annum.
• Dry bauxite production of 0.6 million tons per annum.
• Average loading rate on the OGV is 8,000 tons per day.
• Commercial bauxite sales of 2.0 to 2.2 million tons per annum.
• Loading at buoy 04 of Sherbro river with draft of 12.5 meter.
• Bauxite delivery terms on FAS/FOB terms and conditions

07. Transhipment
This operation is being carried out between loading port (Nitti-2) and high Sea (buoy 04) which is 32 nautical miles apart from each other. SMHL owned river-fleet consists of Barges and Push boats are engaged in the transportation of commercial bauxite. The capacity of barges varies between 2000-2500 metric tons. Handymax to Supramax Ocean Going Vessels (OGV) are used to export bauxite from Sierra Leone under FAS or FOB terms.
05. Stock Piling
Stock piles are designed for temporary storage of run off mines as well as commercial bauxite based on quality, processability parameters for the ease of better material handling and supply. Washed bauxite and dry beneficiated bauxite received from respective production plants are stocked in various areas in the port based on quality and moisture parameters. Stock piling also facilitates the appropriate blending of bauxite to meet the required quality parameters of final commercial products.

06. Drying
Drying is the process of reduction of moisture content (NMC) in bauxite. This process is being performed at the loading port in the dryer (120 tons/hour capacity) as well as through natural sun drying. This process enables to meet the final required moisture specification of commercial bauxite as per off-take agreement as well as comply with international maritime solid bulk cargoes (IMSBC) codes.

Resources
Based on exploration work carried out in the northern part of SMHL Concession during 2018 and 2020 SMHL Vimetco has reported additional 89 million tons of Indicated resource in line with JORC 2012 standard. As of current date the total resource volume of SMHL stands at approximately 106 million tons.
01. Exploration
Explorations involves systematic drilling and pitting of potential exploration target areas identified based on number of exploration tools like satellite imageries (SRTM, thematic mapper, etc.). Exploration drilling/pitting patterns are designed from wider grid (150X150) closed in to (40X40) meter. Based on the outcome of the exploration drilling results mineral resource and ore reserves are identified and delineated.

02. Open Pit Mining
Since the bauxite mineralization within SMHL mining lease occurs on hill slopes, the mineable ores are extracted on 2-3 meters benches. It is a trucks and excavators loading operation in which 20-30 tons capacity of trucks are utilized to haul ores from mining pit to beneficiation plant.

03. Benefication
It is a process in which the metal assays of run off mines are improved and enhanced. Beneficiation is carried out in wet through washing plant and dry through crusher and vibrating power screen plant.

04. Haulage
Haulage operations are being performed from different mine pits to run off mine pads located at respective plant sites as well as from respective plant sites to loading port of Nitti-2. Majority of haulage operations are being out-sourced and they are being performed by 10-wheelers 3-4 axle's trucks with 16-17 cubic meter capacity. The haulage roads within the concession are designed to accommodate safe haulage trucks movement based on Mine Safety and Health Administration (MSHA) standards.