

The composition of mining waste varies according to the nature of the mining operation and many other factors, but where the same mineral is extracted from a similar style of metalliferous or industrial mineral deposit or coal, the waste usually has similar characteristics. There are many potential sources of industrial minerals from mining waste. Waste from one mine may be a byproduct or coproduct in a mining operation elsewhere. Much technical research work on mine waste utilization, for example studies on slate waste, has included a manufacturing process. The waste is invariably an inferior material compared with an industrial mineral from a primary resource for the manufacturing process. Successful markets have not been found. Four scenarios are proposed where an industrial mineral product made from mining waste may be marketed successfully. These are a bulk product for a local market made with minimal or no processing; a low unit value product and a cost-effective alternative source of a mineral for local industry; an industrial mineral commodity traded nationally or internationally; and extraction of a high unit value rare mineral. Making an industrial mineral product from mining waste and successfully marketing it should involve minimal processing of the waste consistent with the value of the mineral product.