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(54) Title: PROCESSES FOR UTILISATION OF PURIFIED COAL COMPOSITIONS AS A CHEMICAL AND THERMAL FEEDSTOCK AND CLEANER BURNING FUEL

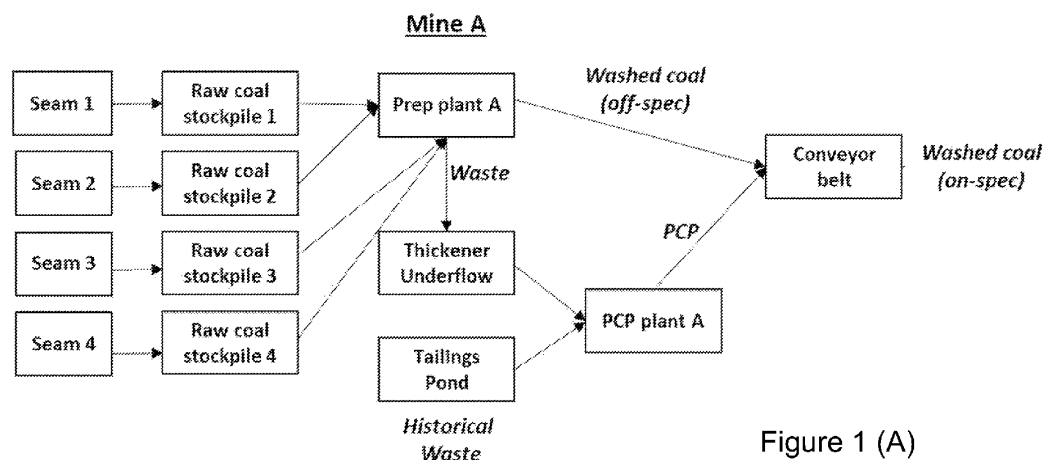


Figure 1 (A)

(57) Abstract: A process for upgrading of a coal product is provided. The process comprising the steps of: (i) providing a purified coal composition, wherein the composition is in the form of solid particles, and wherein at least about 90% by volume (%vol) of the solid particles are no greater than about 500 μm in diameter; and(ii) combining the purified coal composition with a solid coal feedstock, in order to create a combined solid-solid blend upgraded coal product. Further aprocess for preparation of a purified coal product is provided. The process comprising the steps of: obtaining a starting material that comprises coal; subjecting the starting material to at least one fine grinding stage so as to reduce the starting material to a particulate composition in which substantially all of the particles are no more than 500 microns (μm) in diameter; exposing the particulate composition to at least one froth flotation stage so as to separate hydrocarbonaceous material comprised within the particulate composition from mineral matter, wherein during the at least one froth flotation stage the hydrocarbonaceous material is associated with froth produced and separated from the at least one froth flotation stage; washing the froth separated from the at least one froth flotation stage with water to release the hydrocarbonaceous material; and subjecting the hydrocarbonaceous material to at least one dewatering stage so as to obtain a particulate purified coal product that has an ash content of less than 12% m , a water content of less than 25% m and wherein the particles comprised within the particulate purified

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coal product have a d₉₀ of less than 00 μm. Products, such as pelletized or briquetted coal, comprising purified coal material obtainable via the described processes are also provided.