

ABSTRACT**WASTE WATER TREATMENT METHOD AND APPARATUS**

A method for separating contaminants from a aqueous source containing contaminants. In one embodiment, the method involves the use of a high powdered oxidant dissolved within the aqueous system. The gas is dissolved within a reservoir in the aqueous solution and the pressure within the reservoir is controllable. This allows maximum contact of the oxidizing dissolved gas with the contaminant material. Once oxidized, the outlet of the reservoir is adapted to permit hydraulic cavitation. The net effect of the cavitation is to induce a foam formation which foam transports a floc into a separate phase from the aqueous solution. In this manner, the process is effectively a dissolved oxidizing gas mass transfer process. In another embodiment, the process may be augmented by electrocoagulation. This involves the use of an electric cell which is disposed within the reservoir containing the oxidant material. By providing electrodes and exposing the electrodes to a source of current, the contaminants within the aqueous solution are either oxidized or otherwise degraded and this complements the oxidation by the dissolved gaseous oxidant. An apparatus is also disclosed to effect the methods set forth above.

(FIGURE 1 IS SUGGESTED FOR PUBLICATION)