

VSEP in Oil Applications

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It is true that oil or other hydrocarbons will plate out on static membrane filters. In VSEP, oil tends to form Micelles which are micro-bubbles of oil that are suspended in water. As oil does not get along with water, so it tends to clump together in little spheres. These spheres of oil will also collect other hydro-phobic materials. These materials seek refuge in the oil bubble because not getting along in water. Actually, all materials want to reach a state of low surface tension. These micelles of oil and other hydrophobic materials are held in suspension above the membrane just as all the other suspended solids are in VSEP due to the vibration. Our experience is that there is no more fouling in our system whether the O&G is 5 ppm or 5%. In the world of petroleum processing, VSEP has proven itself as a strong competitor to traditional separations technologies. Using membranes, VSEP is able to provide a consistently high quality permeate and a highly concentrated sludge in a single pass. This applies to diverse applications from produced water treatment to waste oil recycling.