



Four Types of Oil Pollution in Water

1. Free Oil

- Free floating oil
- AND Oil droplets greater than 150 micron
- Free oil can separate by Gravity given enough time
- Easy to remove



2. Emulsified Oil

- Oil droplets between 2 and 150 micron in size
- More powerful separators are required to remove the smaller oil droplets



3. Dissolved Oil

- Oil droplets less than 2 micron
- AND Detergents, cleaners that dissolved in the water
- AND Soluble hydrocarbons like Benzene, Toluene (1)
- Can't be removed with gravity tanks or plate pack type systems
- Can reach levels over 2000 mg/l oil and grease, hydrocarbons



4. Heavy Oil

- Oil with a density greater than 1000 kg/m³
- Oil that sticks to heavy solids



Notes:

(1) Mutual Solubility of Hydrocarbons and Water, Jiri Polak and Benjamin C. Y. Lu