

Crude Oil

# What is Crude Oil?

- It's a natural mineral oil, a thick greenish – brown flammable liquid found underneath permeable rocks.
- It's lighter than water and is insoluble in water.
- It consists of hydrocarbons mixed with oxygen, sulphur, nitrogen, and other elements etc.
- It's the main fuel for transport, agricultural uses and on some industries.

# How it's formed?

- Crude oil occurs deep down under the earth between 2 layers of non porous rocks.
- The plants and animals which died millions of years ago were gradually buried deep in the earth covered by sand and mud.
- In the absence of oxygen. The chemical effects of pressure, heat and bacteria convert this in to fossil fuel.
- Buried remains of large plants gets converted into coal, and those of smaller plants and animals are converted into Petroleum and natural gas.

# How it's refined!

- Crude Petroleum is refined by the process of fractional distillation to obtain more useful Petroleum products. Crude Petroleum is heated to about 400°C in a furnace and the vapours thus formed are passed into a tall fractioning column from near its bottom. As the mixture of hot vapours rises in the column, it starts cooling gradually.
- Products obtained from Petroleum are: Petroleum gas or LPG, Petrol, Kerosene, Diesel, Paraffin Wax... Etc.

# Advantages of Petroleum or Crude Oil

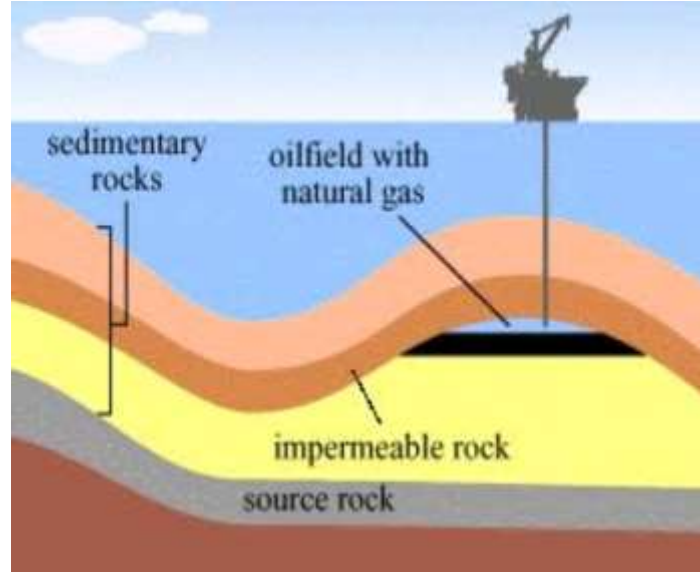
- Easy to transport.
- Huge amount of electricity can be generated.
- Most widely used Fuel.
- Relatively cheap.
- Can be easily used.
- Can be directly used.

# Disadvantages of Crude Oil or Petroleum

- It's a non renewable source of energy and eventually will run out.
- It pollutes environment.
- Burning of these oils can release green house gases and can cause Greenhouse effect.
- Extraction is costly and difficult.
- Extraction from ocean floor it can spread over the water surface and can affect the marine life.



**Crude Oil**



**Formation of Crude Oil**



**Crude Oil Extraction**