

Chemistry:

Crude oil-

Crude oil is a non-renewable (finite) resource. Crude oil is a mixture of lots of different compounds that are not chemically combined. Most of the compounds in crude oil are hydrocarbons.

Crude oil is found in rock and is used to produce fuels and other important chemicals.

Crude oil is formed from the fossilised remains of ancient planktons.

Crude oil is found in rocks and its uses included: tarmac

Fuels

H-H-H

Alkanes = e.g. - H-C-C-C-H

H-H-H

In alkanes, carbon atoms bond the four other atoms. (hydrogen and carbon)

We call them saturated hydrocarbon as they only contain single bonds with atoms.

Fractional distillation:

This is the process, of separating crude oil into groups of hydrocarbons with similar numbers of carbon atoms. We call these groups of hydrocarbon "fractions".

Hydrocarbons with few carbon atoms (short chain hydrocarbons)

Hydrocarbons with lots of carbon atoms are called (long chain hydrocarbons)

Evaporation:

*crude oil is heated until evaporation

*crude oil vapour is put into a fractionating column at the bottom and rises upwards.

There are many organic (carbon-containing) compounds because carbon atoms can form families of similar compounds. These groups are called homologous series.

Changes;

*evaporation

*condensation

Cracking and alkanes:

Burning hydrocarbons: the equations for the combustion (burning) of hydrocarbons depends on the amount of oxygen that is available. If alkanes are burned without oxygen, then carbon monoxide can be created;

$2C + O_2 \rightarrow 2CO$. carbon monoxide is a colourless, odourless, toxic gas.