superstraw effect - new technological inventions accelerate the decline of reserves

Cladistical classification - based on shared characteristics

Stratophentic classification - based on morphology similarities and geologic time

hypothesis - a tentative and speculative explanation advanced for testing

theory - explanation for a phenomenon, which has been well tested and generally agreed

law or principle - highest level on confidence, lots of rigorous testing

primary energy - thermal

secondary energy - electricity, refined petroleum products and nuclear

tertiary energy - end uses of energy

power density - energy produced by a given volume of fuel

basic energy units - definition is not related to particular fuel

sources based energy units - definition is related to idealized/average properties of a specific fuel

viscosity - resistance to flow

pour point - lowest temperature at which oil will pour

Spot price - the price the oil that can be bought or sold on the day (or time) it is posted.

conventional oil � can be easily be produced and refined

Unconventional oil � difficult, expensive to produce and

refine

source rocks - where oil is formed

Rocks that contain the organic matter that may be transformed into oil

migration - movement of oil through porous rocks (from source rocks to reservoir rocks)

reservoir rocks - where oil is trapped and can be obtained

Rock with adequate porosity and permeability to function as a petroleum reservoir

trap - geologic feature where oil accumulates

fluid saturation - sediments laid down in the oceans

diagenesis - all chemical, physical and biologic changes undergone by sediments after initial burial

maturation - transformation of kerogen to oil

oil window (oil kitchen) - temperature range at which oil forms (150F - 250F)

expulsion - extremely high pressures that compacts and fractures source rocks,

expelling interstitial water and hydrocarbons

closeology - Drill next to a neighbour

Seepology - In the old days look for an oil seep and then drill nearby

play - area being explored for gas or oil

oil lease - right to explore and for and develop oil from landowner

Slant hole drilling - steal from neighbor (now horizontal drilling)

well allowables - max barrels per day that a well is permitted to produce

recoverable reserves - identified resource that can be economically

extracted at the time of classification or estimation using technology and at the

then prevailing price

unrecoverable reserves - currently unrecoverable today or in the future with

current technology, but may become recoverable with new technological innovation

proven reserve:

Reserve estimates based on reasonable certainty that

that actual quantities will equal or 90% probability

exceed estimates reservoirs based on �

1. Current economic conditions

2. Current operating methods

3. Governmental regulation

vertically integrated - total control of production to distribution

Non vertically integrated - Either produce crude or refined products but do not do both

pigs -

Used to clean or check for corrosion on interior of pipe

cat (catalytic) cracking - process of converting heavier fuel oils to gasoline

crack spread - difference between the cost of crude and price of the refined product

Stocks - crude oil in the Strategic Petroleum Reserve

Royalty In Kind (RIK) - federal government forgoes royalty payments in exchange for crude oil for SPT

Gasoline � light petroleum product in spark-ignited internal combustion engines

vapor pressure - vapor pressure is a measure of the pressure it takes to keep a liquid from vaporizing.

Octane number -

Measure of the resistance to ignition of the fuel without the aid of a spark plug knocking

knocking - pre-ignition of the fuel before cylinder has maximized compression

Inventory on demand: only the minimum of inventory is kept at terminal

rack - refers to the loading area or point of sell

Jobber - Business person who does not carry out refining operations but who sells wholesale products to the retailer

person who delivers the gasoline

Hyperstation - high volume at low price to bring customers into store

Inelasticity of oil � price can rise with little effect on �short term� demand