



Seminar on Classification of Energy Reserves and
Energy Statistics,
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The Joint Monthly Oil Data Project
Joint Oil Data Exercise
Definitions

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Production

Quantities of fuels extracted or produced, calculated after any operation for removal of inert matter.

Generally, production includes the quantities consumed by the producer in the production process (such as for heating or operation of equipment) as well as supplies to other producers of energy for transformation or other uses.

Net calorific value refers to production and trade in order to account for different calorific values in total supply.



Imports

Amount of fuels obtained from other countries, whether or not there is any trade agreement between the countries.

- ✓ Fuels in transit should be excluded.
- ✓ Quantities of crude oil and products imported under processing agreement (i.e. refining on account) should be included.



Exports

Amount of fuels supplied to other countries, whether or not there is any trade agreement between the countries.

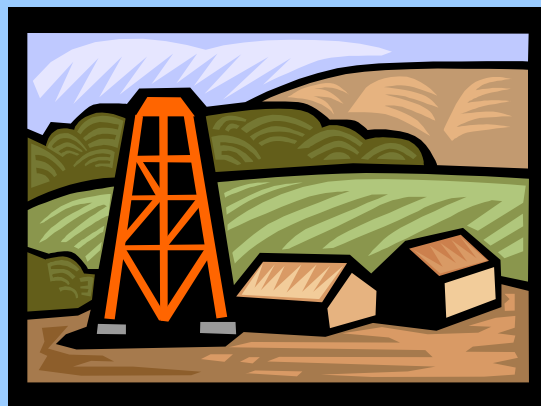
- ✓ Fuels in transit should be excluded.
- ✓ Quantities of crude oil and products exported under processing agreement (i.e. refining on account) should be included.
- ✓ Re-exports of oil imported for processing within bonded areas should be included as an export of products from the processing country to the final destination.





Imports and exports of crude petroleum...

include also imports and exports of feedstock, unrefined and semi-refined oils and components derived from crude petroleum.



Change in stocks

Difference between the amount of fuels in stocks at the beginning and end of the year.

The sign (+) for net increases and (-) for net decreases should be used.

Stock data should comprise the amount of fuels at premises of producers, importers, and industrial consumers whether on ground in stock sites or loaded on wagons, lighters, bins or hoppers. Account should be taken of the amount of fuels actually added to or withdrawn from stocks and of stock changes resulting from revisions of previous estimates or write-offs.



Closing stock

Amount of fuels in stock sites or loaded on wagons, lighters, bins or hoppers at the end of the year.

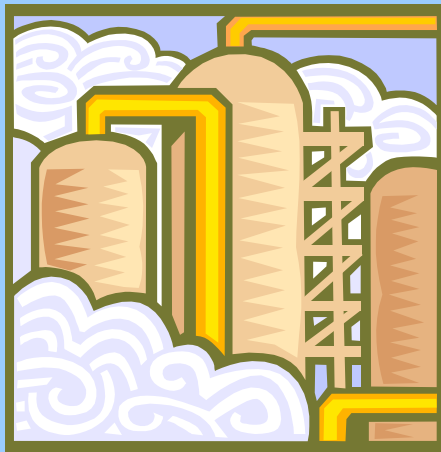


Refinery intake

Total crude oil put into processing units at refineries.

Refinery output

Refinery output/production.

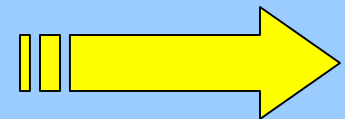


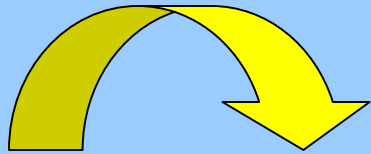
Demand

Data on demand refer to “apparent” consumption and are derived from the formula:

production + imports – exports – bunkers +/- stock changes.

Accordingly, the series on apparent consumption may occasionally represent only an indication of the magnitude of actual (i.e., “measured”) gross inland availability.



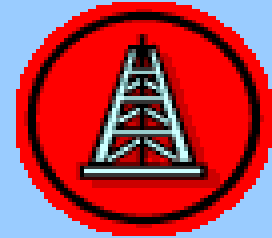


....This statement is particularly suitable either when stock data are unavailable or unreliable, or when apparent consumption is a small residual element derived from calculations between large aggregate series and thus is sensitive to small variations in these series.

Where the quantities involved are small, the series tend to exaggerate the effect of such elements as stock additions or withdrawals.



Crude petroleum



Comprises the liquid product obtained from oil wells consisting predominantly of non-aromatic hydrocarbons (paraffinic, cyclanic, etc.), provided that they have not been subjected to any further processes other than those of decantation, dehydration or stabilization (removal of certain dissolved hydrocarbon gases for convenience of transport) or to which have been added only hydrocarbons previously recovered by physical methods during the course of the above processes.





Crude Petroleum also includes...

...small amounts of hydrocarbons that exist in the gaseous phase in natural underground reservoirs, but which are liquid at atmospheric pressure after being recovered from oil well (casing head) gas in lease separators as well as small amounts of non-hydrocarbons produced with the oil.

➔ Data for crude petroleum include shale oil and lease (field) condensates but exclude natural gas liquids from plants and oils obtained from the distillation of solid fuels.



Petroleum Products

Comprise:

- ✓ Liquid Fuels
- ✓ Lubricating Oils
- ✓ Semi Solid Products obtained by distillation and cracking of crude petroleum
- ✓ Shale oil or semi-refined and unfinished petroleum products.

Excluded are:

- ✗ Oil products obtained from natural gas
- ✗ Coal
- ✗ Lignite and their derivatives

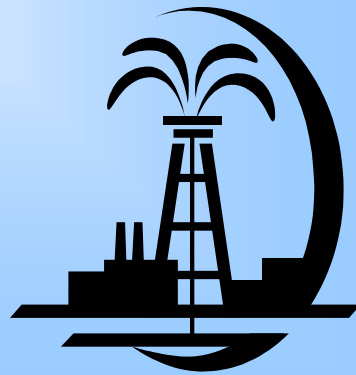
Liquefied petroleum gases

Includes hydrocarbons:

a) extracted by stripping of natural gas at crude petroleum and natural gas sources ,

b) extracted by stripping of imported natural gas in installations of the importing country,

c) produced at refineries or natural gas processing plants, including plants that fractionate new natural gas plant liquids,



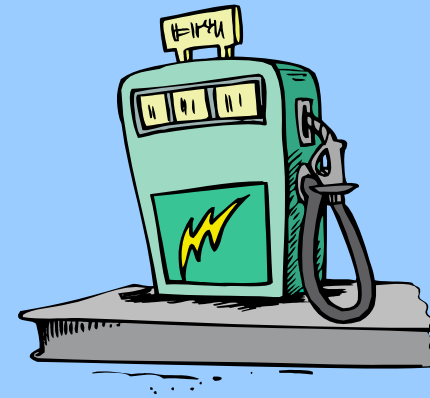
d) produced both in refineries and outside refineries in the course of processing of crude petroleum or its derivatives. Included are mainly propane, butane, isobutane and ethane.



Gasoline

Comprises a mixture of relatively volatile hydrocarbons with or without small quantities of activities, which have been blended to form a fuel suitable for use in spark-ignition internal combustion engines other than aircraft.

It includes conventional gasoline, all types of oxygenated gasoline including gasohol, and reformulated gasoline, but excludes aviation gasoline and naphtha. Motor gasoline may include additives, oxygenates and octane enhancers.





Kerosene

A medium oil distilling between 150° and 300°C, with at least 65 per cent of volume distilling at 250°C. Its specific gravity is around 0.80 and its flash point is above 38°C. It is used as an illuminant and as a fuel in certain types of spark-ignition engines, such as those used for agricultural tractors and stationary engines.

Kerosene is also used in space heaters, cook stoves, and water heaters; it is suitable for use as an illuminant when burned in wick lamps.





Gas/Diesel oil

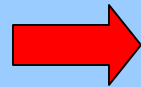
Primarily a medium distillate, distilling between 180⁰ and 380⁰C, and heavy oils obtained by blending together with gas oils on the condition that their kinematic viscosity does not exceed 27.5 cSt at 38⁰C.

Its flash point is always above 50⁰C and its specific gravity is higher than 0.82.

Also included are middle distillates intended for the petrochemical industry.

Gas/Diesel oils are used:

- ✓ as a fuel for internal combustion in diesel engines,
- ✓ as a burner fuel in heating installations, such as furnaces, and
- ✓ for enriching water gas to increase its luminosity.



Other names for this product are:

- diesel fuel,
- diesel oil and
- gas oil.





Residual fuel oil

Heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations. This covers all residual (heavy) fuel oils including those obtained by blending.

- ✓ Kinematic viscosity is above 10cST at 80⁰C.
- ✓ The flashpoint is always above 50⁰C and density/specific gravity is always more than 0.90 kg/l.
- ✓ Low sulphur content: Heavy fuel oil with sulphur content lower than 1%.
- ✓ High sulphur content: Heavy fuel oil with sulphur content of 1% or higher.

...Residual fuel Oil is used ...

- ✓ By commercial and industrial large-scale heating installations,
- ✓ for electricity generation and
- ✓ to power ships.

Another name for this product is *Mazout*.



**Energy and Industry
Statistics Section
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