

Glossary

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API Gravity: An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it may be calculated in terms of the following formula:

$$\text{Deg API} = \frac{141.5}{\text{sp gr}_{60\text{degF}/60\text{degF}}} - 131.5$$

The higher the API gravity, the lighter the compound. Light crudes generally exceed 38 degrees API and heavy crudes are commonly labeled as all crudes with an API gravity of 22 degrees or below. Intermediate crudes fall in the range of 22 degrees to 38 degrees API gravity.

ASTM: The American Society for Testing and Materials.

Aviation Gasoline (Finished): All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D 910 and Military Specification MIL-G-5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Barrel: A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons.

Bulk Sales: Wholesale sales of gasoline in individual transactions which exceed the size of a truckload.

CIF: Cost, insurance, and freight. A type of sale in which the buyer of the product agrees to pay a unit price that includes the f.o.b. value of the product at the point of origin plus all costs of insurance and transportation. This type of transaction differs from a "delivered" purchase, in that the buyer accepts the quantity as determined at the loading port (as certified by the bill of lading and quality report) rather than pay based on the quantity and quality ascertained at the unloading port. It is similar to the terms of an f.o.b. sale, except that the seller, as a service for

which he is compensated, arranges for transportation and insurance.

Commercial/Institutional: Firms engaged in transportation, wholesale or retail trade, finance, insurance, and real estate. Also included are apartment buildings/complexes and other multifamily dwellings, hotels and office buildings or complexes, local, State, or Federal facilities or organizations including the military, schools, hospitals, religious institutions, universities, and all other government-supported organizations.

Conventional Gasoline: See Motor Gasoline.

Crude Oil (including lease condensate): A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Includes lease condensate and drip gas, as well as liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Excludes topped crude oil, residual oil, other unfinished oils, and liquids produced at natural gas processing plants and mixed with crude oil, where identifiable. Crude oil is considered as either domestic or imported according to the following:

1. **Domestic Crude Oil:** Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 U.S.C. 1331.
2. **Imported Crude Oil:** Crude oil produced outside the United States and brought into the United States.
3. **First purchase volume and cost data** for crude oil are classified in accordance with what the product was sold as, regardless of the actual specifications. Hence, its volumes may include some of the excluded liquids discussed above.

Crude Oil Acquisitions (unfinished oil acquisitions): The volume of crude oil either (1) acquired by

the respondent for processing for its own account in accordance with accounting procedures generally accepted and consistently and historically applied by the refiner concerned, or (2) in the case of a processing agreement, delivered to another refinery for processing for the respondent's own account.

Crude oil which has been added by a refiner to inventory, and which is thereafter sold or otherwise disposed of without processing for the account of that refiner, shall be deducted from its crude oil purchases at the time when the related cost is deducted from refinery inventory in accordance with accounting procedures generally applied by the refiner concerned.

Dealer Tank Wagon (DTW) Sales: Wholesale sales of gasoline priced on a delivered basis to a retail outlet.

Distillate Fuel Oil: A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on- and off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils and No. 1, No. 2, and No. 4 diesel fuels.

1. **No. 1 Distillate:** A petroleum distillate which meets the specifications for No. 1 heating or fuel oil as defined in ASTM D 396 and/or the specifications for No. 1 diesel fuel as defined in ASTM Specification D 975, with distillation temperatures of 420 degrees Fahrenheit at the 10-percent recovery point and 550 degrees Fahrenheit at the 90-percent recovery point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100 degrees Fahrenheit.

a. **No. 1 Diesel Fuel:** A volatile distillate fuel oil with a boiling range between 300-575 degrees Fahrenheit and used in high-speed diesel engines generally operated under wide variations in speed and load. Includes type C-B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D 975.

b. **No. 1 Fuel Oil:** A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D 396 specifies for this grade maximum distillation temperatures of 400 degrees Fahrenheit at the 10-percent recovery point and 550 degrees

Fahrenheit at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100 degrees Fahrenheit.

2. **No. 2 Distillate:** A petroleum distillate which meets the specifications for No. 2 heating or fuel oil as defined in ASTM D 396 and/or the specifications for No. 2 diesel fuel as defined in ASTM Specification D 975.

a. **No. 2 Diesel Fuel:** A gas oil type distillate of lower volatility with distillation temperatures at the 90-percent point between 540-640 degrees Fahrenheit for use in high speed diesel engines generally operated under uniform speed and load conditions. Includes Type R-R diesel fuel used for railroad locomotive engines, and Type T-T for diesel-engine trucks. Properties are defined in ASTM Specification D 975.

- **Low Sulfur:** The sulfur level does not exceed 0.05 percent by weight.

- **High Sulfur:** The sulfur level is above 0.05 percent by weight.

b. **No. 2 Fuel Oil:** A distillate fuel oil for use in atomizing type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D 396 specifies for this grade distillation temperatures at the 90-percent point between 540 and 640 degrees Fahrenheit, and kinematic viscosities between 2.0 and 3.6 centistokes at 100 degrees Fahrenheit.

NOTE: Published volume and price data for No. 2 diesel fuel and No. 2 fuel oil are classified in accordance to what the product was sold as, regardless of the actual specifications of that product; i.e., if a No. 2 distillate was sold as a heating or fuel oil, the volume and price would be published in the category "No. 2 Fuel Oil" even if the product conformed to the higher specifications of a diesel fuel.

3. **No. 4 Fuel:** A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D 396 or Federal Speci-

fication VV-F-815C; its kinematic viscosity is between 5.8 and 26.4 centistokes at 100 degrees Fahrenheit. Also included is No. 4-D, a fuel oil for low- and medium-speed diesel engines that conforms to ASTM Specification D 975.

First Purchase (of crude oil): An equity (not custody) transaction involving an arms-length transfer of ownership of crude oil associated with the physical removal of the crude oil from a property (lease) for the first time. A first purchase normally occurs at the time and place of ownership transfer where the crude oil volume sold is measured and recorded on a run ticket or other similar physical evidence of purchase. The reported cost is the actual amount paid by the purchaser, allowing for any adjustments (deductions or premiums) passed on to the producer or royalty owner.

F.o.b. Price (free on board): The f.o.b. price is the price actually charged at the producing country's port of loading. The reported price includes deductions for any rebates and discounts or additions of premiums where applicable and should be the actual price paid with no adjustment for credit terms.

Gas Plant Operator: Any firm, including a gas plant owner, which operates a gas plant and keeps the gas plant records. A gas plant is a facility in which natural gas liquids are separated from natural gas, or in which natural gas liquids are fractionated or otherwise separated into natural gas liquid products or both. For the purposes of this publication, gas plant operator data are contained in the refiner categories.

Gasohol: A blend of finished motor gasoline and alcohol (generally ethanol but sometimes methanol) in which 10 percent or less of the product is alcohol. For the purposes of this publication, gasohol may be included in any of the types of gasoline, depending on how it was marketed.

Industrial: Firms engaged in mining, construction, or manufacturing.

Kerosene: A petroleum distillate that has a maximum distillation temperature of 401 degrees Fahrenheit at the 10-percent recovery point, a final boiling point of 572 degrees Fahrenheit, and a minimum flash point of 100 degrees Fahrenheit. Included are the two grades designated in ASTM D3699: No. 1-K and No. 2-K, and all grades of kerosene called range or stove oil which have properties similar to No. 1 fuel

oil, but with a gravity of about 43 degrees API and a maximum endpoint of 625 degrees Fahrenheit. Kerosene is used in space heaters, cook stoves, and water heaters; it is suitable for use as an illuminant when burned in wick lamps.

Kerosene-Type Jet Fuel: A quality kerosene product with maximum distillation temperature of 400 degrees Fahrenheit at the 10-percent recovery point and a final maximum boiling point of 572 degrees Fahrenheit. The fuel is designated in ASTM Specification D 1655 and Military Specifications MIL-T-5624P and MIL-T-83133D (Grades JP-5 and JP-8). A relatively low freezing point distillate of the kerosene type used primarily for commercial turbojet and turboprop aircraft engines.

Landed Cost: Landed cost represents the dollar per barrel price of crude oil at the port of discharge. Includes charges associated with the purchase, transporting, and insuring of a cargo from the purchase point to the port of discharge. Does not include charges incurred at the discharge port (e.g., import tariffs or fees, wharfage charges, and demurrage).

Motor Gasoline (Finished): A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, blended to form a fuel suitable for use in spark-ignition engines. Specifications for motor gasoline, as given in ASTM Specification D 439-88 or Federal Specification VV-G-1690B, include a boiling range of 122 to 158 degrees Fahrenheit at the 10-percent recovery point to 365 to 374 degrees Fahrenheit at the 90-percent recovery point. "Motor Gasoline" includes conventional gasoline, oxygenated gasoline (EPA approved), and reformulated gasoline. Blendstock (including ethanol and MTBE) are excluded until blending has been completed.

1. **Conventional Gasoline:** Motor gasoline not included in the oxygenated or reformulated gasoline categories. Excludes reformulated gasoline blendstock for oxygenate blending (RBOB).
2. **Oxygenated Gasoline:** Gasoline formulated for use in motor vehicles that is intended for use in EPA approved carbon monoxide nonattainment State programs. Excludes reformulated gasoline, oxygenated fuels program reformulated gasoline (OPRG) and reformulated gasoline blendstock for oxygenate blending (RBOB).

3. **Reformulated Gasoline:** Gasoline formulated for use in motor vehicles, the composition and properties of which meet the requirements of the reformulated gasoline regulations promulgated by the U.S. Environmental Protection Agency under Section 211(k) of the Clean Air Act. Includes oxygenated fuels program reformulated gasoline (OPRG). Excludes reformulated gasoline blendstock for oxygenate blending (RBOB).

a. **Regular Gasoline:** Gasoline having an anti-knock index $((R + M)/2)$ greater than or equal to 85 and less than 88.

b. **Midgrade Gasoline:** Gasoline having an antiknock index $((R + M)/2)$ greater than or equal to 88 and less than or equal to 90.

c. **Premium Gasoline:** Gasoline having an antiknock index $((R + M)/2)$ greater than 90.

NOTE: For this publication, gasoline sales are reported by grade in accordance with their classification at the time of sale. In general, automotive octane requirements are lower at high altitudes. Therefore, in some areas of the United States, such as the Rocky Mountain States, the octane ratings for the gasoline grades above may be 2 or more octane points lower.

MTBE (methyl tertiary butyl ether): An ether eligible for gasoline blending, blends up to 15.0 percent by volume MTBE which must meet the ASTM D 4814 Specifications. Blenders must take precautions that the blends are not used as base gasolines for other oxygenated blends.

Naphtha: A generic term applied to a petroleum fraction with an approximate boiling range between 122 and 400 degrees Fahrenheit.

Naphtha-Type Jet Fuel: A fuel in the heavy naphtha boiling range with an average gravity of 52.8 degrees API and 20 to 90 percent distillation temperatures of 290 degrees to 470 degrees F., meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

OPEC: Organization of Petroleum Exporting Countries, oil-producing and exporting countries that have organized for the purpose of negotiating with oil companies on matters of oil production, prices, and future concession rights. Current members are

Algeria, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela. Prior to January 1, 1993, Ecuador was a member of OPEC.

OPRG: "Oxygenated Fuels Program Reformulated Gasoline" is reformulated gasoline which is intended for use in an oxygenated fuels program control area during an oxygenated fuels program control period.

Other End Users: For motor gasoline, all direct sales to end users other than those made through company outlets. For No. 2 distillate, all direct sales to end users other than residential, commercial/institutional, industrial sales, and sales through company outlets. Included in the "other end users" category are sales to utilities and agriculture.

Oxygenated Gasoline: See Motor Gasoline.

Oxygenates: Any substance which, when added to gasoline, increases the amount of oxygen in that gasoline blend.

PAD District: Petroleum Administration for Defense Districts

PAD District I:

Subdistrict IA: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont.

Subdistrict IB: Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania.

Subdistrict IC: Florida, Georgia, North Carolina, South Carolina, Virginia, West Virginia.

PAD District II:

Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, South Dakota, Tennessee, Wisconsin.

PAD District III:

Alabama, Arkansas, Louisiana, Mississippi, New Mexico, Texas, Federal Offshore Gulf.

PAD District IV:

Colorado, Idaho, Montana, Utah, Wyoming.

PAD District V:

Alaska (North Slope and Other Mainland), Arizona, California, Hawaii, Nevada, Oregon, Washington, Federal Offshore California.

Petrochemical Sales: Sales of propane to a manufacturer of chemicals derived from petroleum or natural gas, or from raw materials derived from petroleum or natural gas.

Petroleum Products: Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes, plus aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Prime Supplier: A firm that produces, imports, or transports selected petroleum products across State boundaries and local marketing areas, and sells the product to local distributors, local retailers, or end users.

Propane, Consumer Grade: A normally gaseous paraffinic compound (C₃H₈), which includes all products covered by Natural Gas Policy Act (NGPA) Specifications for commercial use and HD-5 propane and ASTM Specification D 1835. It is a colorless paraffinic gas that boils at a temperature of -43.67 degrees Fahrenheit. It does not include the propane portion of any natural gas liquids (NGL) mixes; i.e., butane-propane mix.

Rack Sales: Wholesale truckload sales or smaller of gasoline where title transfers at a terminal.

RBOB: "Reformulated Gasoline Blendstock for Oxygenate Blending" is a motor gasoline blending component which, when blended with a specified type and percentage of oxygenate, meets the definition of reformulated gasoline.

Reference Month: The calendar month and year to which the reported cost, price, and volume information relates.

Refiner: A firm or the part of a firm that refines products or blends and substantially changes products, or refines liquid hydrocarbons from oil and gas field gases, or recovers liquefied petroleum gases

incident to petroleum refining and sells those products to resellers, retailers, resellers/retailers, or ultimate consumers. "Refiner" includes any owner of products which contracts to have those products refined and then sells the refined products to resellers, retailers, or ultimate consumers. For the purposes of this publication, gas plant operator data are included in this category.

Reformulated Gasoline: See Motor Gasoline.

Reseller: A firm (other than a refiner) that carries on the trade or business of purchasing refined petroleum products and reselling them to purchasers other than ultimate consumers.

Reseller/Retailer: A firm (other than a refiner) that carries on the trade or business activities of both a reseller and a retailer; i.e., purchasing refined petroleum products and reselling them to purchasers who may be either ultimate or other than ultimate consumers.

Residential: Sales of No. 2 distillate and propane to individual customers or households (as opposed to businesses or institutions) who ostensibly use the fuel in a residence for space heating, cooking, etc. Sales to apartment buildings/complexes or to other multi-family dwellings are excluded from the "Residential Sales" category and are included in the "Commercial/Institutional Sales" category.

Residual Fuel Oils: The topped crude of refinery operations, which includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D 396 and Federal Specification VV-F-815C, Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendment 2 (NATO Symbol F-77), and Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes.

Retailer: A firm (other than a refiner, reseller, or reseller/retailer) that carries on the trade or business of purchasing refined petroleum products and reselling them to ultimate consumers.

Retail Outlet: Any company-owned outlet (e.g., service station) selling gasoline, on-highway low-sulfur diesel fuel, or propane for on-highway vehicle use which is under the direct control of the firm filing the EIA-782 by virtue of the ability to set the retail product price and directly collect all or part of the retail margin. This category includes retail outlets: (1) be-

ing operated by salaried employees of the company and/or its subsidiaries and affiliates, and/or (2) involving personnel services contracted by the firm.

Sale: The transfer of title from the seller to a buyer for a price. Excludes intrafirm transfers, products consumed directly by the reporting firm, or sales of bonded fuel. Also excludes products delivered/loaned to exchange partners, except where the amount supplied exceeds the amount received and the differential is invoiced as a sale during the reference month.

Sales for Resale: Sales of refined petroleum products to purchasers who are other-than-ultimate consumers; wholesale sales.

Sales to End Users: Sales made directly to the consumer of the product. Includes bulk consumers such as agriculture, industry, and utilities, as well as residential and commercial consumers.

Sales Type: Sales categories of sales to end users and sales for resale.

Unit Price: Total revenue derived from the sale of product during the reference month divided by the total volume sold; also known as the weighted average price. Total revenue excludes all taxes but includes transportation costs that were paid as part of the purchase price.

United States: For the crude oil statistics, the United States includes the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, and all American Territories and Possessions. For the petroleum products data, United States includes the 50 States and the District of Columbia.

Wellhead: The point at which the crude (and/or natural gas) exits the ground. Following historical precedent, the volume and price for crude oil production are labeled as "wellhead," even though the cost and volume are now generally measured at the lease boundary. In the context of domestic crude price data, the term "wellhead" is the generic term used to reference the production site or lease property.