Section Five

Alaska Refining
Sales and Consumption

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Alaska Refineries

Alaska is a leading supplier of United States crude oil, ranking second in crude oil production (excluding federal offshore production), according to the U.S. Department of Energy, Energy Information Administration. Prudhoe Bay on Alaska's North Slope is the highest yielding oil field in the United States, producing approximately 400,000 barrels per day. The trans-Alaska oil pipeline system (TAPS) throughput peaked at 2.1 million barrels of crude oil per day from North Slope oil fields to the Port of Valdez in 1988. In 2006, North Slope production had dropped to 781,000 barrels per day. From Valdez, North Slope crude is shipped primarily to refineries in Washington and California.

The state's six refineries have a combined crude distillation capacity of about 373,500 barrels per day. Five of the six facilities are "topping" plants which only remove the lighter, higher valued transportation fuels from the crude oil stream while injecting the degraded bottoms back into the crude oil in the pipelines serving the refineries.

As shown in Table V.1, two small refineries, owned by the Prudhoe Bay Unit and the Kuparuk River Unit, are located on the North Slope. The remaining four refineries are located in North Pole near Fairbanks, Nikiski on the Kenai Peninsula, and at Valdez near the TAPS marine terminal. These refineries serve a variety of residential, commercial, industrial, and transportation sectors across the state.

Table V.1 Alaska Refineries and Service Stations

Refinery	Location	Distillation Capacity (Barrels Per Day)
Flint Hills Resources AK LLC (FHR)	North Pole	210,000
Tesoro Petroleum Corp.	Nikiski (Kenai)	72,000
Petro Star Inc.	Valdez	48,000
Petro Star Inc.	North Pole	17,000
ConocoPhillips AK, Inc.	Kuparuk	14,000
BP Exploration (Alaska) Inc.	Prudhoe Bay	12,500
Total Distillation Capacity		*373,500*
Gasoline Service Stations	Statewide	460 Outlets

Alaska North Slope (ANS) oil comes from several units. The quality of the crude produced from each unit is somewhat different. To properly account for the difference in quality and value of the streams coming from the different units, each unit is assigned a quality bank value. The quality bank is the method of making monetary adjustments among shippers of ANS oil which either compensates or charges a shipper for the difference in quality between the crude oil tendered by that shipper at the unit LACT meter and the crude oil received by that shipper at the destination point. Through the quality bank process, the total payments paid by shippers equal the total payments received by shippers. The current methodology values the tendered crude oil on the value of the components of the oil. Similarly, the refineries in North Pole and Valdez take oil out of TAPS, extract the valuable components of the oil in manufacturing petroleum products, and inject into the pipeline a mixture of lower-valued components. The return streams from the refineries bear a quality bank payment to each of the shippers of the passing TAPS stream.

Flint Hills Resources Alaska (FHR) acquired its North Pole refinery – Alaska's largest – from Williams Alaska Petroleum, Inc., in 2004. FHR also owns a 700,000-barrel jet fuel terminal in Anchorage, and a 20,000-barrel jet fuel terminal in Fairbanks. The North Pole refinery, expanded in 1998, receives North Slope crude via TAPS and has a crude oil throughput of about 226,500 barrels per day; however, only about 60,000 barrels per day was refined into products for sale and the rest was injected back into TAPS. FHR processes North Slope crude and supplies gasoline, jet fuel, heating oil, diesel, gas oil, and asphalt to local and international markets. About 60 percent of the refinery's production goes to the aviation market. The company also owns and operates products terminals in Fairbanks and Anchorage that store and distribute asphalt, diesel, jet fuel, and gasoline produced at the North Pole refinery.

Constructed in 1965, the FHR Anchorage Terminal receives products from the North Pole Refinery via tank cars delivered by the Alaska Railroad. In 2006, more than 25,000 tank cars were delivered and offloaded. Each tank car holds approximately 550 barrels of product. Product from the FHR Anchorage terminal is distributed via pipeline, truck and rail racks locally and to locations throughout Alaska. The FHR Anchorage terminal facility can store more than 700,000 barrels of refined products. A pipeline system extends from the terminal one-half mile away to the Port of Anchorage and enables bulk fuel transfers to and from other terminals and vessels berthed at the Port of Anchorage municipal docks. The terminal loads an average of 60 to 80 vessels annually with refined product. The Fairbanks Terminal stores, in bulk, jet fuel that is delivered by tanker truck from the refinery. Jet fuel is loaded from tanks into 10,000-gallon aircraft refueling trucks called fuel tenders, or "DARTS," and delivered to airline customers. The DARTS fuel 18 to 24 flights per day. The Fairbanks Terminal was built in the early 1970s. The company produces low-sulfur gasoline at the North Pole Refinery and purchases ultra-low-sulfur diesel from other sources to meet local demand. FHR has also retrofitted its fuel terminals in North Pole and Anchorage to handle low-sulfur fuels.

Flint Hills North Pole refinery production by volume:

Gasoline & Naphtha	10%
Jet Fuel/#1 Fuel Oil	77
#2 Diesel	8
Gas Oil	4
Asphalt	1
Total	100%

FHR transported about 1.4 million gallons per day of jet fuel in 2006, and about 70,000 gallons per day of gasoline by rail to Southcentral Alaska. The North Pole refinery accounts for more than half of Anchorage jet fuel consumption. FHR purchases between 56,000 and 77,000 barrels per day of Alaska royalty oil per its state royalty contract.[1]

[1] Flint Hills Resources, LP; www.fhr.com/alaska/
and ADNR, Division of Oil and Gas http://www.dog.dnr.state.ak.us/oil/programs/royalty/rik_sale/flint_appx_a.pdf

Tesoro Corporation operates Alaska's first oil refinery, which opened in Nikiski in 1969 and currently has a throughput capacity of 72,000 barrels per day. The refinery processes all of the oil produced in Cook Inlet and supplements this supply primarily with Alaska North Slope and foreign crudes. In December 1994, Tesoro completed installation of a vacuum unit at Nikiski. The vacuum unit reduces the volume of bottoms and residual production by approximately half. The Nikiski refinery produces an average of approximately 55,000 barrels per day of petroleum products to serve its 125 Tesoro-branded retail stations and other customers across the state. Process units at the refinery include a hydrocracker that is used to maximize the production of jet fuel for sale at Ted Stevens Anchorage International Airport, where the refinery serves about 40 percent of the total monthly jet fuel demand. A 75-mile, 10-inch, multi-product pipeline traverses Cook Inlet from Nikiski to Tesoro's terminal facility located at the Port of Anchorage. A pipeline spur allows direct delivery into the airport's tank farm.

Asphalt produced at Nikiski is sold in Alaska. Nearly all of the remaining heavy oil, for which there is no local market, is exported to other states. Tesoro sells all of its summer gasoline production in the state, but must ship gasoline and diesel to markets in the Pacific Northwest during the winter season. As an example of the synergies, Tesoro capitalizes on its refineries by shipping heavy vacuum gas oil to its Anacortes, Wash., refinery where it is used as a feedstock to produce gasoline.

Tesoro Nikiski refinery production by volume:

Gasoline & Naphtha	28%
Jet Fuel	45-55
Diesel	
Gas Oil	
Bottoms/Resid (Asphalt)	22
Total	100%

Petro Star Inc. (PSI) operates refineries in North Pole and Valdez and is owned by the Arctic Slope Regional Corp. Petro Star was founded in 1984 to process light fuels for heating homes and operating businesses in rural Alaska and built its first refinery at North Pole in 1984. Petro Star acquired fuel distribution companies, including Sourdough Fuel in 1986, and began to distribute its products throughout Interior Alaska and the Arctic Slope, including Prudhoe Bay. In 1991, Petro Star expanded into the lubricants market with the purchase of Alaska Lube and Fuel, now known as PSI Lubricants. Also that year, plans for a larger refinery in Valdez got under way. By 1993, the PSI Valdez Refinery began continuous operations. PSI began servicing military and commercial aviation clients in Anchorage in 1994. Today, jet fuel production is the refinery's largest business sector. The company acquired Valdez Petroleum Terminal in the mid-1990s and began serving customers in western Alaska with the purchase of Kodiak Oil Sales in 1997 and North Pacific Fuel in 1998.

PSI's smaller North Pole refinery has throughput capacity of 18,000 barrels per day; while the Valdez refinery processes 48,000 barrels per day. Both refineries are relatively small scale, located adjacent to TAPS and process ANS crude oil. Approximately 25 percent of the throughput is retained as product and refinery fuel with the balance returned to TAPS in a similar manner to the Flint Hills North Pole refinery.

Petro Star North Pole and Valdez refinery production by volume:

Jet Fuel / # 1 Fuel Oil	68%
Diesel / # 2 Heating Oil	32
Total	100%

The main function of the BP-operated Prudhoe Bay Unit Crude Oil Topping Unit (COTU) is to provide arctic heating fuel (AHF) for the operation of North Slope equipment and drilling operations. The COTU currently receives crude oil for processing from the Endicott/Badami/FS2 oil transit line (OTL). After the AHF is distilled from the crude, all remaining residual oil, naptha and trace water are re-injected into the OTL. The supply and return volumes are metered and recorded.

The COTU consists of two parallel distillation plants that are very similar in equipment and operation. The incoming crude is split between the two plants. Each plant then heats the crude to approximately 550 degrees Fahrenheit and distills off the AHF in a simple distillation tower. This AHF is sent to their storage tanks and the remaining fluids are recombined and re-injected back into the OTL. Each plant is capable of processing approximately 7,000 to 8,000 Bbls per day of crude oil with a production of 1,200 to 1,400 Bbls per day of AHF. The production of Jet-A is done on a periodic batch basis and is the same operation with similar production figures. AHF and Jet-A are the only products the COTU produces for distribution. As stated, the main function of the COTU is to provide AHF for the Prudhoe Bay operation. The majority of the production is distributed for this purpose. The remaining production that is in excess of the unit's requirements is distributed to non-Prudhoe Bay operations. The COTU does not ship any AHF or Jet-A south of the Brooks Range for sale or distribution.

BP Prudhoe Bay Crude Oil Topping Unit production by volume:

Arctic Heating Fuel (Diesel)	97%
3% Jet–A	3
Total	100%

The ConocoPhillips-operated Kuparuk Unit Topping Plant is designed to process pipeline-quality crude oil feedstock from Central Processing Facility #1 (CPF1) for support of drilling and production operations. This feedstock is sent through a distillation process to extract AHF. The AHF is extracted from the distillation tower and further processed to control the flashpoint of the fuel before being transferred to a storage facility where the various users can take delivery. The plant processes approximately 14,500 barrels per day of crude-oil feedstock, which results in a yield of 1,700 to 2,400 barrels per day of AHF, depending on specific end product requirements.

ConocoPhillips – Kuparuk Crude Oil Topping Unit production by volume:

Arctic Heating Fuel	100%

Statewide Total Fuel Consumption

In-state consumption of refined products includes in-state production and imports. Sales volumes, a proxy indicator for consumption, are reported by the U.S. Department of Energy, Energy Information Administration[2] (EIA) in its *Petroleum Marketing Annual* and the Alaska Department of Revenue (ADOR) in its fuel sales tax reports. Total or gross annual fuel sales volume and price by major product type are summarized in Tables V.2.A and B. Annual gross fuel sales volumes increase over time for most products, except for No. 2 diesel fuel. Annual jet fuel sales volumes show a steady increase over the time period, despite slight declines in 2001 and 2003. The jet fuel decline in 2003 was probably related to a sharp nationwide decline in commercial aviation. Alaska's refineries supply approximately 88 percent of in-state jet fuel consumed based on EIA data on prime supplier sales.

Table V.2.A Prime Supplier Sales for Alaska, 1995 – 2006

(Thousands of Gallons per Day) Alaska Prime Supplier Sales Volumes of Petroleum Products

Year	Total Gasoline[a]	Aviation Gasoline	Kerosene Type Jet Fuel	Propane	No. 1 Distillate	No. 2 Diesel Fuel	No. 2 Fuel Oil	Total Fuel Sold
1995	691.9	49.9	1,714.7	W	243.2	W	280.2	2979.9
1996	698.8	46.4	1,935.3	40.2	219.6	W	277.1	3217.4
1997	694.6	47.4	2,193.2	W	255.0	W	421.7	3611.9
1998	771.4	57.6	2,285.2	W	254.8	427.7	357.4	4154.1
1999	784.4	58.7	2,434.4	W	276.6	467.2	295.9	4317.2
2000	744.8	58.7	2,502.9	W	216.7	396.5	287.6	4207.2
2001	761.2	61.2	2,461.9	W	233.6	462.5	227.4	4207.8
2002	755.2	55.3	2,777.1	W	233.9	512.8	W	4334.3
2003	784.0	W	2,627.4	W	185.9	551.8	W	4149.1
2004	826.8	W	2,970.9	W	162.8	361.9	263	4585.4
2005	838.0	W	3,201.9	32.3	W	298.9	300.7	4671.8
2006	778.9	W	3,080.9	30.9	W	W	270.4	4161.1

In the last 10 years, all product prices have nearly doubled. Propane sales volume data is limited, but a flattening consumption trend is evident since the mid-1990s. Alaska propane price data are not available.

Table V.2.B Prime Supplier Alaska Petroleum Product Prices, 1995 – 2006

(Dollars per Gallon – Taxes Excluded) Alaska Prices, Sales Volumes and Stocks

Year	Total Gasoline[a]	Aviation Gasoline	Kerosene Type Jet Fuel	No. 1 Distillate	No. 2 Diesel Fuel	No. 2 Fuel Oil
1995	1.13	W	0.61	0.75	0.82	0.83
1996	1.20	W	0.71	0.74	1.06	0.91
1997	1.18	W	0.67	0.67	1.08	0.97
1998	0.99	W	0.49	0.57	0.91	0.85
1999	1.00	W	0.61	0.81	0.81	0.97
2000	1.33	1.49	0.96	1.02	W	1.34
2001	1.38	W	0.81	0.83	1.26	1.38
2002	1.29	W	0.76	0.84	1.10	1.09
2003	1.48	W	0.90	W	1.29	1.24
2004	1.70	W	1.30	1.26	1.54	1.52
2005	2.09	W	1.77	W	2.04	2.06
2006	2.40	W	2.05	W	2.42	2.40

Table Notes:
[a] Includes regular, mid-grade, and premium blends of motor gasoline.
[W] Withheld to avoid disclosure of individual company data. Source: Energy Information Administration, U.S. DOE, Prime Supplier Sales in Alaska

[2] Fuel consumed is based on EIA data on prime supplier sales. Prime suppliers include firms that produce, import, or transport petroleum products across state boundaries and local marketing areas and sell the products to local distributors, local retailers, or end users. According to the EIA, prime supplier sales within a given state may serve as a proxy for consumption but may not equal actual consumption by the end-users in the state because a product may be sold by a prime supplier in one state and transported by local distributors to another state for final consumption. Price data for 2006 may be subject to revision upon final publication in the Petroleum Marketing Annual.
No. 2 diesel fuel and No. 2 fuel oil prices and sales volumes 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 oil 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.

Seasonal Taxable Aviation Gas, Jet Fuel, Motor Gas and Diesel Sales

Seasonal fuel sales shown in Figures V.3 through V.6 represent taxable sales only and are less than the total sold in any given month. The range (maximum and minimum values) of monthly sales over the six-year period 2001–2006 is presented as the shaded region in each of the four figures. Monthly sales during 2006 are shown with a black line within the shaded high-low range. Aviation gas sales for 2006 were near the historic low for the six-year period, whereas jet fuel sales in 2006 were high compared to previous years during the period. Motor gas sales tend to fluctuate between the upper and lower limits of its range while diesel sales tend to be at the peak range.

ADOR reported fuel sales totals do not match the monthly figures published by the EIA.[3] The primary reason for the difference is the ADOR totals represent taxable values, whereas the EIA prime supplier sales volumes are based on total sales volumes. The EIA reported prime supplier sales include firms that produce, import, or transport petroleum products across state boundaries and local marketing areas and sell the products to local distributors, local retailers, or end users. According to the EIA, prime supplier sales within a given state may serve as a proxy for consumption but may not equal actual consumption by the end-users in the state because a product may be sold by a prime supplier in one state and transported by local distributors to another state for final consumption. The largest discrepancy between EIA and ADOR data is in jet fuel, and is probably due to jet fuel used in commercial foreign flights.[4] ADOR data excludes jet fuel purchased in Alaska that is used in commercial flights that originated in a foreign country or where the next destination is a foreign country. For example, several international airlines refuel in Anchorage where the flight originated, say, in Korea or Hong Kong. Even if the flight is then destined for a U.S. city, the fuel is tax-exempt under AS 43.40.100(2)(B)(i). ADOR data includes only that fuel upon which the excise tax was due or collected. [5,6]

[3] The monthly EIA data contain numerous missing values, which limits its applicability.
[4] The primary reason for the difference is ADOR totals only count taxable volume, whereas, the EIA, Prime Supplier Sales Volumes are based on total or gross statewide sales. For the period 2001 through 2006, the ADOR taxable portion averages approximately 80% of the EIA total for all products except Jet Fuel, which averages 20 percent of the EIA reported total.
[5] Source: Energy Information Administration, U.S. DOE, Prime Supplier Sales in Alaska: http://tonto.eia.doe.gov/dnav/pet/pet_cons_prim_dcu_SAK_a.htm
[6] Motor Fuel tax is levied on motor fuel sold, transferred or used within Alaska. Motor fuel taxes are collected primarily from wholesalers and distributors who are licensed as qualified dealers. Persons who first transfer or sell motor fuel in the state are subject to the tax. Motor fuel tax rates are as follows: gasoline, diesel, and gasohol - highway 8¢ / marine 5¢; aviation gas 4.7¢; and jet fuel 3.2¢ per gallon. Motor fuel tax returns are filed monthly and are due with payment of tax by the last day of the month following the month in which sales were made, or taxable use occurred. See http://www.tax.state.ak.us/programs/motorfuel/index.asp. More information on AS 43.40, Motor Fuel Tax, can be found at: http://www.tax.state.ak.us/programs/motorfuel/reports/2005_MF_Annual_Report.pdf .

Figures V.3 and V.4 Seasonal Aviation Gas and Jet Fuel Sales

Statewide (Thousands of Gallons per Day)

Figure V.3 Seasonal Aviation Gas Sales 2006

Maximum-Minimum Range 2001-2006

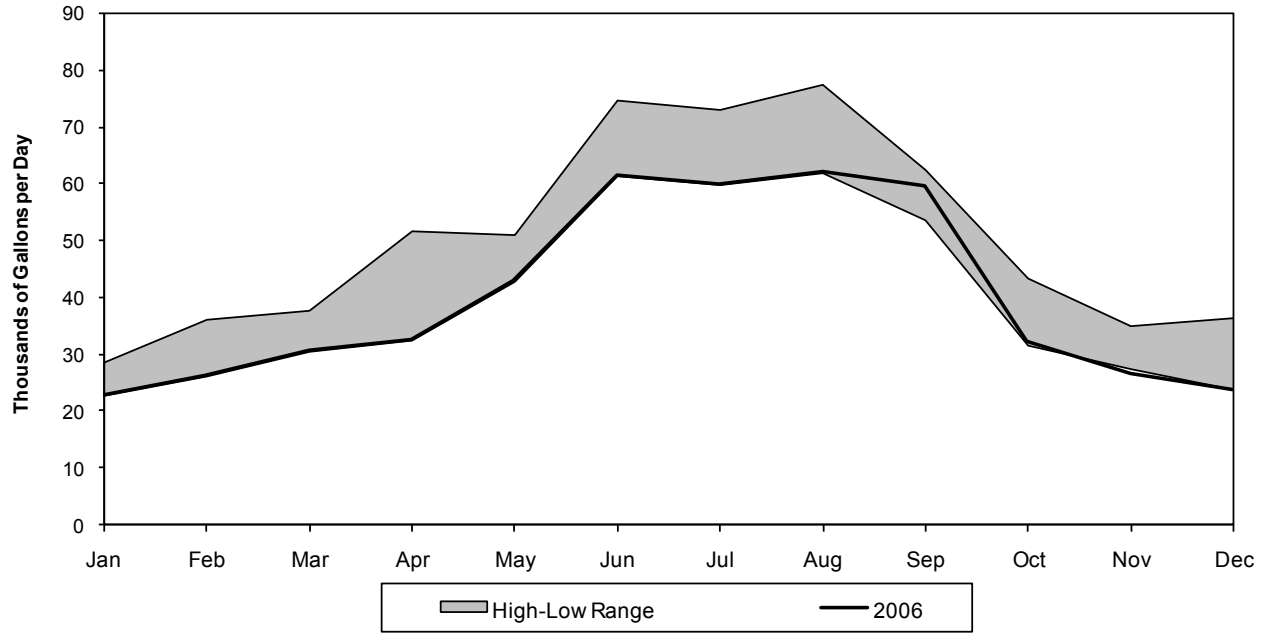
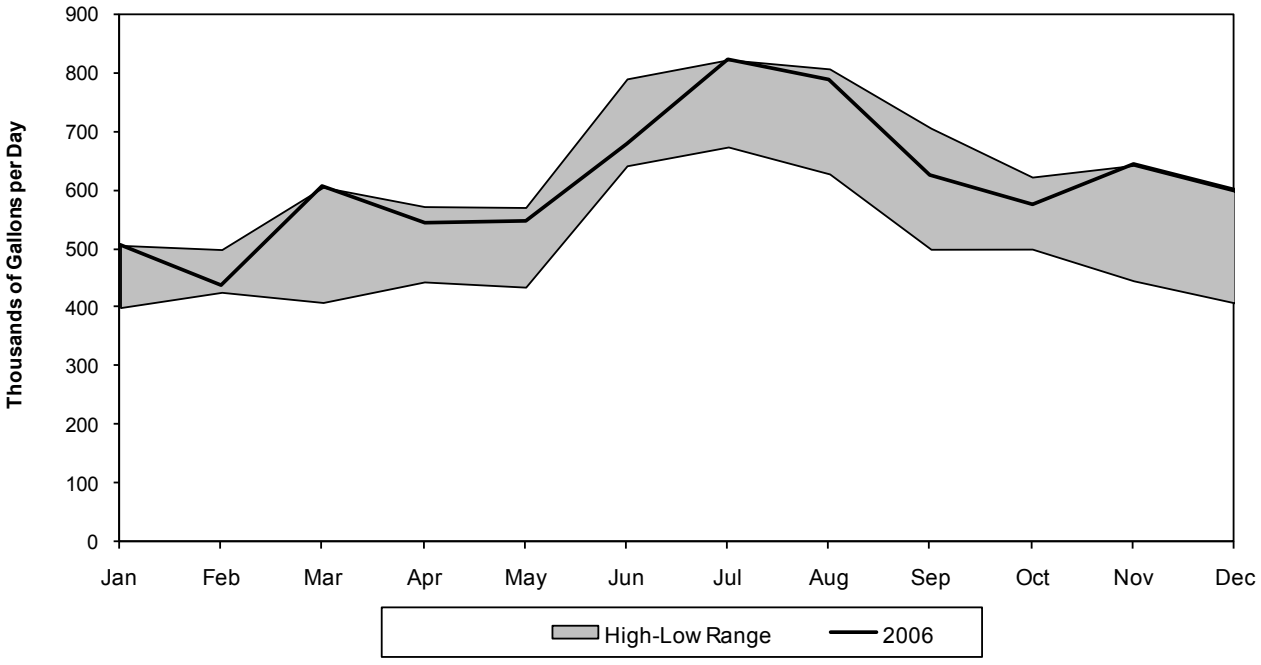


Figure V.4 Seasonal Jet Fuel Sales 2006

Maximum-Minimum Range 2001-2006



Source: State Of Alaska - Department of Revenue (Special Tabulations from Tax Division)

Figures V.5 and V.6 Seasonal Motor Gasoline and Diesel Sales

Statewide (Thousands of Gallons per Day)

Figure V.5 Seasonal Motor Gasoline Sales 2006

Maximum-Minimum Range 2001-2006

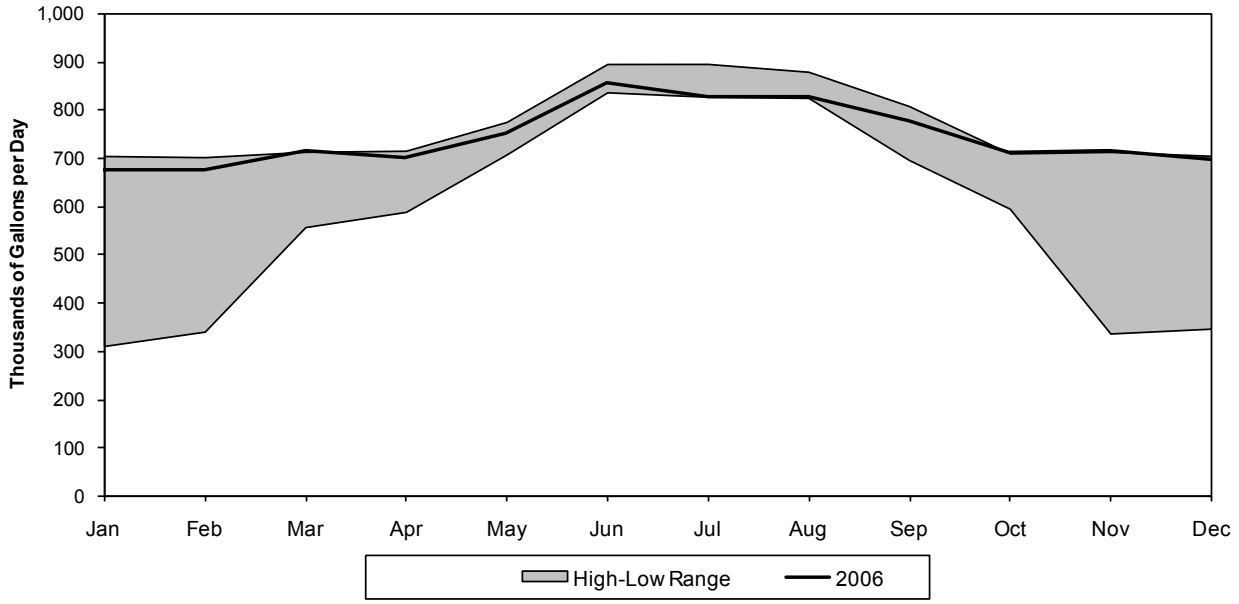
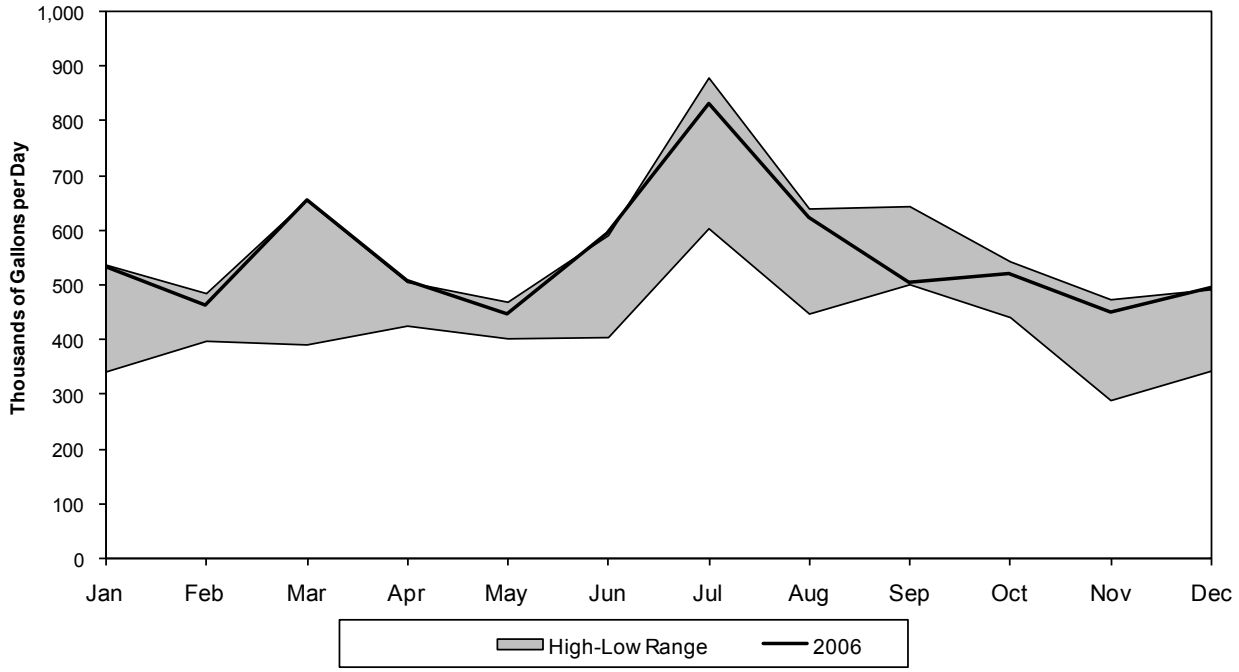


Figure V.6 Seasonal Diesel Sales 2006

Maximum-Minimum Range 2001-2006



Source: State Of Alaska - Department of Revenue (Special Tabulations from Tax Division)

Key Terms	Department of Energy Definitions*
Aviation 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 aviation reciprocating engines. Fuel specifications are provided in ASTM Specification D 910 and Military Specification MIL-G-5572. Note: Data on blending components are not counted in data on finished aviation gasoline.
Catalytic Hydrocracking	A refining process that uses hydrogen and catalysts with relatively low temperatures and high pressures for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel, and/or high-grade fuel oil. The process uses one or more catalysts, depending upon product output, and can handle high sulfur feedstocks without prior desulfurization.
Gas Oil	European and Asian designation for No. 2 heating oil and No. 2 diesel fuel.
Kerosene-Type Jet Fuel	A kerosene-based product having a maximum distillation temperature of 400 degrees Fahrenheit at the 10 percent recovery point and a final maximum boiling point of 572 degrees Fahrenheit and meeting ASTM Specification D 1655 and Military Specifications MIL-T-5624P and MIL-T-83133D (Grades JP-5 and JP-8). It is used for commercial and military turbojet and turboprop aircraft engines.
Motor Gasoline	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. Motor gasoline, as defined in ASTM Specification D 4814 or Federal Specification VV-G-1690C, is characterized as having 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; all types of oxygenated gasoline, including gasohol; and reformulated gasoline, but excludes aviation gasoline. Note: Volumetric data on blending components, such as oxygenates, are not counted in data on finished motor gasoline until the blending components are blended into the gasoline. Finished motor gasoline includes all ethanol blended gasoline (e.g. E10, E85).
No. 1 Distillate	A light petroleum distillate that can be used as either a diesel fuel (see No. 1 Diesel Fuel) or a fuel oil. No. 1 Diesel Fuel: A light distillate fuel oil that has distillation temperatures of 550 degrees Fahrenheit at the 90 percent point and meets the specifications defined in ASTM Specification D 975. It is used in high-speed diesel engines generally operated under frequent speed and load changes, such as those in city buses and similar vehicles. No. 1 Fuel Oil: A light distillate fuel oil that has distillation temperatures of 400 degrees Fahrenheit at the 10-percent recovery point and 550 degrees Fahrenheit at the 90 percent point and meets the specifications defined in ASTM Specification D 396. It is used primarily as fuel for portable outdoor stoves and portable outdoor heaters.
No. 2 Diesel Fuel	A fuel that has distillation temperatures of 500 degrees Fahrenheit at the 10 percent recovery point and 640 degrees Fahrenheit at the 90 percent recovery point and meets the specifications defined in ASTM Specification D 975. It is used in high-speed diesel engines that are generally operated under uniform speed and load conditions, such as those in railroad locomotives, trucks, and automobiles.
No. 2 Distillate	A petroleum distillate that can be used as either a diesel fuel (see No. 2 Diesel Fuel) or a fuel oil (see No. 2 Fuel Oil).
No. 2 Fuel Oil (Heating Oil)	A distillate fuel oil that has a distillation temperature of 640 degrees Fahrenheit at the 90 percent recovery point and meets the specifications defined in ASTM Specification D 396. It is used in atomizing type burners for domestic heating or for moderate capacity commercial/industrial burner units.
PADD	Petroleum Administration for Defense District **PADD V** (West Coast): Alaska (North Slope and Other Mainland), Arizona, California, Hawaii, Nevada, Oregon, Washington.

*Source for Terms and Definitions: United States Department of Energy, Energy Information Administration; www.eia.doe.gov/glossary/glossary_a.htm

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-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 (C_3H_8), which includes all products covered by Natural Gas Policy Act Specifications for commercial 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 liquid mixes, i.e., butane-propane mix.
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, reseller/retailers or ultimate consumers. "Refiner" includes any owner of products that contracts to have those products refined and then sells the refined products to resellers, retailers, or ultimate consumers. For the purposes of this survey, gas plant operator data are included in this category.
Reformulated	Finished motor 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. This category includes oxygenated fuels program reformulated gasoline (OPRG) but excludes reformulated gasoline blendstock for oxygenate blending (RBOB).
Regular	Gasoline having an antiknock index (average of the research octane rating and the motor octane number) greater than or equal to 85 and less than 88. Note: Octane requirements may vary by altitude.
Reseller	A firm (other than a refiner) that is engaged in a trade or business that buys refined petroleum products and then sells them to a purchaser who is not the ultimate consumer of those refined products.
Residual Fuel Oil	A general classification for the heavier oils, known as No. 5 and No. 6 fuel oils, that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations. It conforms to ASTM Specifications D 396 and D 975 and Federal Specification VV-F-815C. No. 5, a residual fuel oil of medium viscosity, is also known as Navy Special and is defined in Military Specification MIL-F-859E, including Amendment 2 (NATO Symbol F-770). It is used in steam-powered vessels in government service and inshore power plants. No. 6 fuel oil includes Bunker C fuel oil and 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 without substantially changing their form.
Topping Plant	Facilities that top off the lighter products from the crude stream that are used for internal refinery fuel use.

*Source for Terms and Definitions: United States Department of Energy, Energy Information Administration; www.eia.doe.gov/glossary/glossary_a.htm