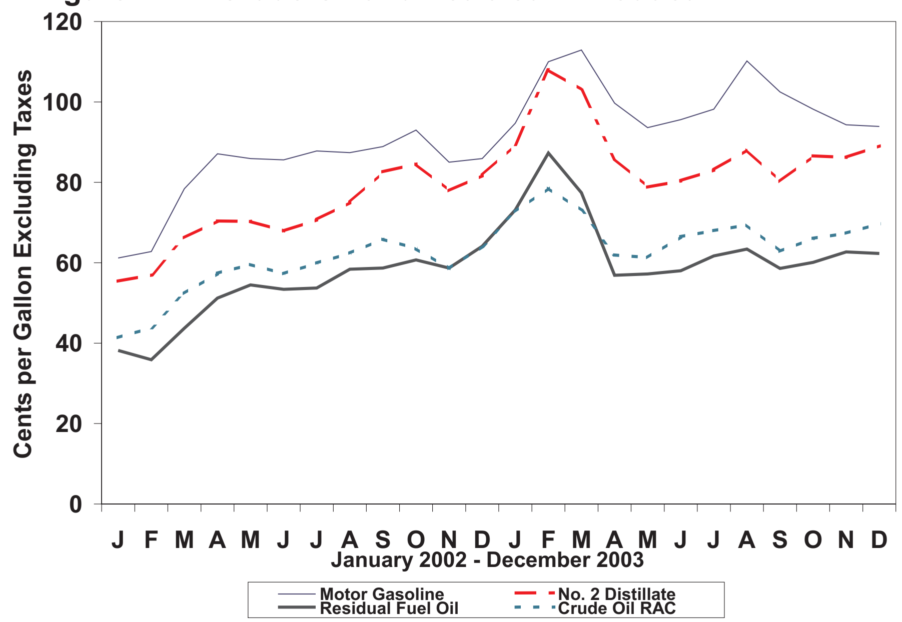
# Highlights
# Year in Review - 2003

2003 began with international crude oil prices at high levels and particularly sensitive to news and issues associated with production and supply. An ongoing general labor strike in Venezuela, which began in December 2002, continued to severely restrict oil production and exports from the world's fifth largest oil exporter, unsettling prices across international markets. In response to the situation, the Organization of Petroleum Exporting Countries (OPEC) voted to raise the group's production quotas by 1.5 million barrels per day beginning February 1. However, the group's decision to increase production was perceived as a belated one and not sufficient to check rising prices in light of the existing deficit in Venezuelan production and exports. Worries of a U.S.-led military invasion of Iraq also affected prices in January. Market observers considered the so-called "war premium" to consist of costs above the actual fundamental market value of crude oil, based on concern that a military conflict in the Middle East would disrupt shipments of oil from the region.

Prices continued to rise in February, driven by lean inventories in key markets, mounting fears of a U.S.-led military invasion of Iraq, and the continuing labor strike in Venezuela. While some estimates put Venezuelan oil production at about half of pre-strike levels, market watchers began to place greater emphasis on increasing political tensions involving Iraq. U.S. President George W. Bush and other administration officials began to step up efforts to demonstrate Iraq's noncompliance to the United Nations Security Council's resolution 1441 (which went into effect during the second week of November 2002, and called for Iraq to submit unconditionally to weapons inspections), and make the case for a military confrontation with Iraq. These developments in the political arena reinforced the effect of the "war premium" on rising prices in world oil markets. Additional impetus for rising oil prices came from reports of shrinking product inventories in the United States, the largest oil consuming market in the world.

In March, crude oil prices shifted direction in dramatic fashion, as a variety of market fundamentals that had supported the dramatic growth in prices during the previous two months changed. In addition to those changes, the U.S.-led invasion of Iraq had a significant effect on market prices as the influence of the "war premium" dissipated appreciably once the military action began. Shortly after it be-

**Figure HL1. Crude Oil and Petroleum Product**




Sources: Energy Information Administration. Crude oil refiner acquisition cost: Form EIA-14, "Refiners' Monthly Cost Report"; petroleum product prices: Form EIA-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report."

came clear following a speech by President Bush on March 17 that the United States intended to move ahead with the invasion at mid-month, prices for key crude oil streams began a substantial decline. Earlier fears that the supply of crude oil from that region would be adversely affected seemed unfounded, spurring the steep drop in prices. Further, data suggest a sizeable increase in world oil production in February that continued into March. Indications from OPEC early in March that it would suspend production limits if needed, and considerable amounts of crude oil from Middle Eastern sources already in transit prior to the military action in Iraq reaching foreign ports, particularly in the U.S. both served to dampen prices. The increase in supply also coincided with a typical seasonal decline in demand.

Crude oil prices were appreciably lower in April, but still volatile. More clarity in oil markets regarding the situation in Iraq, particularly following the capture of Baghdad by U.S. troops on April 9 helped lower prices. They experienced a period of increase during the latter half of the month on rising speculation that OPEC members would vote to reduce production levels during the group's April 24 meeting Vienna, Austria. However, the group voted to raise the official rate by 900,000 barrels per day to 25.4 million barrels per day, effective June 1, 2003, and prices fell in reaction to the decision. Downward pressure on prices also came from the ongoing restoration of Venezuelan oil production to pre-strike levels and a cessation of civil unrest in Nigeria that had temporarily hampered oil production.

Following the volatility seen during April, world crude oil prices moved along a more stable, albeit upward, path during May. Political factors spurred prices, as did maintenance on production facilities in the North Sea, and falling inventories in Atlantic Basin markets. A drop in U.S. inventories and talk of OPEC cutting production quotas during the group's next meeting in June underpinned rising prices. Additionally, the bombing of a residential compound largely inhabited by foreign nationals in Saudi Arabia in mid-May drove prices higher. The attack rekindled wider concerns about security in the Middle East and the possibility of disruptions to the flow of oil from the region. Prices softened modestly following a United Nations Security Council vote ending economic sanctions on Iraq on May 22. The vote meant that exports of Iraqi crude oil held in storage in Ceyhan, Turkey could resume, in addition to restarting wellhead production in Iraqi oil fields.

As June arrived, supply concerns and political issues remained the focus of market attention, and prices continued to register modest increases during the first part of the month. Reports indicated that OPEC production had dropped in addition to reported production declines from several non-OPEC sources due to scheduled maintenance and delays in the resumption of oil production and exports from Iraq. Prices turned downward following the June 11 OPEC meeting where the group decided that it would make no change to production quotas until it met again at the end of July.

Remaining at robust levels, oil prices showed relatively modest changes during July and August. Slower-than-anticipated recovery of Iraqi crude oil production and exports, a general labor strike in Nigeria, questions about Venezuela's production capability, and a number of storms threatening production facilities in North American waters pulled prices upwards during a good portion of the month. Market watchers took note of the lag in restoring Iraqi production to prewar levels in addition to raising some questions about Venezuela's ability to maintain the pace of production seen during the previous few months. In Nigeria, although the work stoppage did not duly affect oil production and export operations, the general atmosphere of national political and civil unrest was enough to make an impression on prices in international markets. Finally, a number of storms affected offshore and coastal production and refining operations in the Gulf of Mexico and Caribbean Sea lending a degree of support to prices. Tropical Storm Claudette, the most serious threat of all the storms, caused suspension of production operations at offshore facilities and halted shipping in the Houston Ship Channel at mid-month. Despite those events, no lasting damage to any facilities was reported. Many of the same political and fundamental factors also influenced August crude oil prices. Although Iraqi oil production was reckoned to have risen in August, efforts to increase wellhead production to desired levels and maintain a steady pace of pipeline operations have been thwarted by equipment breakdowns and other disruptions. In what some saw as a measure to compensate for the loss of Iraqi crude oil, OPEC elected not to change its production rates during its July 31 meeting. A drop in Venezuelan production and exports also influenced prices in June and July, as did more incidents of political unrest in Nigeria and the Middle East. In addition, soaring prices for gasoline, particularly in the United States, underpinned high crude oil price levels.

Prices declined firmly in September. Besides growing stockpiles of petroleum products throughout international markets, falling gasoline prices (particularly in the United States), increasing supplies of Iraqi crude oil, and lower demand for crude oil as refiners in Atlantic basin markets prepared for scheduled maintenance contributed to the decline in crude oil prices. An unexpected decision by OPEC stemmed the decrease in prices. The group voted on September 24 to cut production by 900,000 barrels per day to 24.5 million barrels per day, beginning November 1. The group cited many factors as influencing its decision: demand for crude oil was estimated to be at a normal rate, a continued rise in non-OPEC supplies, stock levels near normal levels in world markets, and the ongoing recovery of Iraqi production.

During the final quarter of the year, prices became more volatile. At the beginning of October, markets remained in a reactive mode in response to the unexpected late-September decision by OPEC to cut production on November 1. Prices also responded to a statement by Venezuelan President Hugo Chavez suggesting the range of the OPEC price band should be increased from $22-to-$28 per barrel to $25-to-$32 per barrel. At the same time, the group was seeking to sway nonmember producer countries, including Mexico, Norway, and Russia to reduce their rates of production, concurrent with the latest round of OPEC cuts. Talk of a general labor strike in Nigeria also underpinned rising oil prices. Besides robust crude oil demand from key consuming markets, finished product stocks in the United States also play a role in the movement of world crude oil prices when forecasts for another cold winter across North America spurred interest in heating oil. However, prices reversed direction at mid-month as many of the conditions that caused prices to rise changed, or were resolved. The volatility in prices continued during November. Crude oil demand from Asia, particularly China, remained robust during November as economic conditions in the region continued to improve. The problem-beset resumption of Iraqi crude oil exports also supported prices. In contrast, although OPEC officially implemented its latest round of production cuts at the start of the month, the reduction had only a relatively modest impact on prices. When the group met again on December 4, it voted to maintain official production output at 24.5 million barrels per day. However, values for benchmark streams showed little reaction to the decision as continued robust demand from China, a spate of cold and inclement weather in the Northeastern United States, and inventory reports that showed sizable declines in crude oil stocks in key international markets underpinned higher prices throughout December.

## Events and Trends in U.S. Markets

In the United States, 2003 began with continuing talk of war with Iraq, cold weather across much of the country, and solid demand for, and falling stocks of finished products. Because of the cold weather that gripped much of the country, January demand for distillate rose 9.3 percent from December's level and was 9.2 percent higher than the January 2002 rate. As the labor strike in Venezuela persisted, the deep decline in crude oil exports to the United State continued to have an impact on refinery operations and stock levels, and ultimately on finished product prices. Crude oil imports from Venezuela, which normally average about 1200 barrels per day, fell to 399 barrels per day in January. In February, many of those same factors served to send prices to levels not seen since the later half of 2000: the rising threat of war with Iraq, frigid temperatures coupled with severe winter storms, refinery outages and shrinking product inventories. While cold, inclement weather across the nation supported high demand for distillates, it was particularly in demand in the Northeast region. One of the worst snow storms to hit the region in years struck during the Presidents Day holiday weekend, dropping two feet or more of the snow in many cities from the Mid-Atlantic region and northward. Distillate stocks fell solidly again in February, following the sizable decrease registered in January. Further, crude oil stocks in PADD II fell to the lowest level recorded by EIA since it began collecting data at the regional level. Nonetheless, by March, many of these influences abated. Warmer temperatures and relief from harsh winter conditions across much of the country, rising stocks of crude oil and refined products, and increasing refinery utilization helped to lead product prices much lower in most regional markets. The start, and progression of the war also affected prices in Iraq.

Petroleum product prices were less volatile during the second quarter of the year. Shipments of crude oil, particularly from Middle Eastern sources, were arriving at U.S. ports in large numbers, bolstering stocks and dampening prices. Prices for finished products were also less turbulent in April. Rising supply levels and production rates in conjunction with sluggish demand influenced gasoline prices in most regional markets. Distillate prices remained vigorous, especially in Northeastern markets where unseasonably cool temperatures continued to support heating oil demand. In West Coast markets, gasoline prices continued to retreat from the very high levels seen during March as crude oil prices declined, and refining facilities came back online from both planned and unplanned maintenance. That general trend continued in May when crude oil and finished products prices registered only relatively modest changes. Gasoline prices showed the most range, pressured by growing demand and stock draws just prior to the Memorial Day weekend, the start of the so-called "driving season." In June, refinery problems caused gasoline prices to rise substantially in some regional markets. Reports of problems at a refinery in Illinois caused gasoline prices to spike in Chicago and other Midwestern markets due of fears of supply shortage. Once these concerns were allayed, regional spot market prices posted sizable declines. In Western markets, prices for gasoline, (and to a lesser extent, distillate prices) experienced substantial increases at mid-month. The rise in prices, observed in markets from the Pacific Northwest to the Southwest, also resulted from a host of reported refinery problems. Prices began to calm down at the end of the month, as news indicated some affected units were up and running again.

Much of the third quarter of 2003 was an uneventful period for crude oil and most product prices. Gasoline prices were the exception to the general trend. In July, gasoline prices rose sharply during the latter part of the month due to supply issues and refinery outages that affected facilities across regional markets. The stage was set by comparatively slow demand for gasoline during the months leading up to the summer driving season, which led refiners to moderate gasoline production. Then a spate of unexpected refinery outages caused a noticeable rise in prices across the country during the first two weeks of July. Additionally, and significantly, total finished gasoline inventories were nearly 10 percent below the July 2002 level, and the lowest amount for July recorded in at least five years. Further, imports from Europe declined due to more favorable prices for gasoline in European markets. In August, gasoline prices continued to react to declining stocks. They began the month on the rise following three consecutive decreases chronicled in July weekly stocks data. Along with declining stockpiles, data showed demand was on the rise. Refinery problems in the West Coast, Gulf Coast, and Midwestern markets already in progress at the start of August exacerbated the effect of the supply and demand conditions. New events compounded the impact of those circumstances. In Arizona, a rupture on a section to the Kinder-Morgan pipeline between Tucson and Phoenix led to a scarcity of gasoline in Phoenix, causing prices to spike dramatically. Suppliers were forced to purchase gasoline in California markets, which were already affected by the earlier refinery outages. Additionally, refinery production in the Pacific Northwest area was restrained by delays on a pipeline carrying crude oil and other petroleum products to the region from Canada. As the month wore on, more refinery problems in other regional markets cropped up, particularly after the power blackout in the Northeast and Midwest on August 14. Three refineries in the U.S. and several more in Canada were affected by the outage, as were some pipelines. While the power outage lasted for less than two days, powering up the affected refineries to previous operating levels took several more days. In September, while crude oil and other products' prices underwent smooth declines through most of the month due to rising inventories, gasoline prices remained volatile in regional markets across the country. While rising stocks and lower demand led gasoline prices down from the very high prices seen during August, the approaching seasonal change in product specifications, refiners purchasing product on the open market to meet immediate needs, and the coming refinery maintenance season caused much of the volatility during the month. Notably, although Hurricane Isabel carved a swath through the Mid-Atlantic region, leaving 5.5 million homes without power, it did not have a significant impact on prices or product delivery systems in the region.

Crude oil and refined product prices moved along a changing path at the start of the last quarter of 2003. Prices rose firmly during the first half of October, then gave back most, if not all of the increases during the latter part of the month. A variety of fundamental factors including inventory levels, crude oil prices, the start of the heating season, planned and unplanned refinery outages, and agricultural demand influenced refined product prices. While gasoline prices showed the most volatility, distillate prices increased appreciably on average from previous month's levels. Early in the month, distillate prices drew support from predictions for another cold winter. In Midwestern markets, prices were influenced by fears of shortages at terminals. The concern was due in part to high demand for diesel fuels during the harvest season. However, by the second half of October, stocks of the major petroleum products were within normal ranges, causing a downturn in prices. While a number of issues affected prices in November, stock levels and new specifications for gasoline in major East and West coast markets acted as leading factors behind the upward trend in prices for all of the major products during the month. California, New York, and Connecticut all mandated ethanol as the oxygenate to be used when making reformulated gasoline (RFG), banning the use of MTBE as of January 1, 2004. Differences in the way these gasoline formulations are manufactured, distributed, and stored may have contributed to some of the increase seen in gasoline prices, in part because accountings for supplies and assessing inventories may have been affected. Additionally, the price for ethanol soared during November. The sharp increase was a direct result of the jump in demand for the product due to the phase-out of MTBE. Continued mild weather throughout the month, especially in the Northeast, and robust inventories of distillates held its prices in check.

By the end of the year, crude oil and petroleum product prices were on the increase again. During December, market attention focused on the decline of crude oil stocks to long-term lows. While some of the decline can be attributed to year-end tax issues, imports were running at comparatively low rates. Generally, market observers believe, imports need to be approximately 10 million barrels per day to avoid constricted supplies, however, imports had been well below that mark in November and December. By the end of December, EIA weekly inventory data put commercial crude oil stocks (excluding the Strategic Petroleum Reserves) at 270.7 million barrels, only 700,000 above the Lower Operational Inventory (LOI). Forecast for, and the arrival of cold temperatures and inclement weather also played a part in rising crude oil and product prices. However, since the market perceived both gasoline and distillate supplies as adequate, their prices did not experience dramatic changes by the close of 2003.

## Crude Oil

The daily spot price for West Texas Intermediate (WTI) crude oil moved along a varied path during 2003, driven by many fundamental market and political factors. Opening the year at $31.21, the price dropped during the first week of the month in response to comments from OPEC representatives regarding an increase in the group's production rates to check rising prices. However, the price returned to an upward track despite OPEC's decision on January 12 to increase production quotas by 1.5 million barrels per day. Pressured by heightened worries of war with Iraq and significant draws on finished product stocks, the price rose throughout February, recording its highest level for the year on February 26 when it reached $37.96 per barrel. That price was also the highest one seen since October 1990. However, the price fell dramatically during March, dropping more than $10.00 per barrel in less than 2 weeks time. Rising Venezuelan production and exports and cargoes from other major producers reaching U.S. ports were the principal factors leading the decline. Although it underwent a brief period of increase in mid-April on speculation that OPEC would cut production levels, the price declined rapidly during the final week of the month and reached the year's low of $25.25 per barrel on April 28. Robust demand for crude oil and declining stocks supported a gradual rise in the price during May and June. It showed only modest changes during July and August, remaining in an approximately $30-to-$32 per barrel range. The price embarked on a steady decline at the beginning of September and continued on a downward path through most of the month due to rising inventories. However, following the surprise OPEC decision on September 24 to cut production quotas, the price reversed direction and rose during the final week of the month, and continued to rise through mid-October. As concern about supply levels began to dissipate during the latter part of the month, the price eased. The same sort of volatility continued during November as reports of decreases in crude oil and finished product stock levels (particularly gasoline) and technical market factors exerted influence upon the price. While the price dropped sharply due to technical factors during the final week of November, it rebounded in December as pressure from shrinking inventories and colder temperatures spurred it upwards. The price closed 2003 at $32.51 per barrel, $1.30 per barrel higher than where it opened the year.

- Yearly average crude oil prices for 2003 show significant increases from 2002 levels. The domestic crude oil first purchase price climbed $5.05 (22.4 percent), to $27.56 per barrel.

- The free-on-board (f.o.b.) cost of imported crude oil rose $3.23 (14.3 percent), to $25.86 per barrel. The landed cost of foreign crude oil increased $3.78 (15.8 percent), to $27.69 per barrel.

- The refiner acquisition cost of domestic crude oil rose $5.17 (21.0 percent), to $29.82 per barrel. The cost of imported crude oil to U.S. refiners increased $4.00 (16.9 percent), to $27.71 per barrel. The composite refiner acquisition cost of crude oil rose $4.43 (18.4 percent), to $28.53 per barrel.

## Petroleum Products

### *Motor Gasoline*

The daily spot price for regular gasoline at New York Harbor varied widely during 2003. As with other major products' prices during the first quarter of the year, the price for gasoline was volatile. After opening the year at 85.1 cents per gallon, the price was in an unsettled mode in response to pressure from firm demand, declining inventories, and refinery run cuts. By early February, the price had reached the highest level it had seen in several years, spurred by solid demand, fears of an imminent war, and sharp price increases for other products in the complex. After rising some more during the first week of March, the price went into a sharp decline, dropping nearly 28 cents during the next 2 weeks. The steep drop was caused in large part by rising stocks, rising refinery throughputs, and the progression of the war in Iraq. The second quarter of the year proved to be much less dramatic. During that period, the price fell to its lowest point for the year, 68.5 cents per gallon on May 2 following a steep drop which began in mid-April. The decline was the result of rising imports, higher stock levels, and slower demand. The price turned to a bumpy upward track after that point, staying in that mode for most of the remainder the quarter as inventories registered declines and various reports of refinery problems supported the rising price. A string of problems at refineries around the country and thin supplies of the product, especially in East Coast markets, led the price higher during July. The price became quite unsettled during August as a series of issues affecting refinery production and supplies triggered a period of steep increase lasting through the third week of the month. Following the power blackout in the Northeast and parts of the Midwest on August 14, the price jumped to the year's high of $1.121 per gallon. The price dropped substantially in the days following the Labor Day weekend, the traditional end of the high demand summer driving season. While it continued to be affected by remaining market jitters surrounding supply levels in regional markets around the country, the price closed September substantially below the month's opening level. Although the price did not experience drastic highs or lows during the last three months of the year, it did undergo frequent changes in direction. The price rose firmly during the first half of October, but gave back those increases when stocks were reported to be on the rise in markets across the country. In November, the price was enlivened by speculation and concern about refinery operations, talk of increasing demand, rising ethanol prices shortly before the implementation of MTBE-free reformulated gasoline regulations in several states, and reports of inventory decreases. It remained unsettled in December as factors such as low inventories, still-brisk demand, and supply issues exerted their influence. Concern about the possibility of supply shortages caused by the impending ban in the new year on gasoline containing MTBE in several states underpinned the price during the last week of the month. Closing 2003 at 94.5 cents per gallon, the prices was 9.4 cents higher than where it began the year.

- 2003 national average gasoline prices increased substantially from 2002 levels in all categories of sales. The average price for retail sales of motor gasoline by refiners rose 20.9 cents to $1.156 per gallon, while the average wholesale price increased 17.4 cents to $1.002 per gallon. Including data reported by a sample of motor gasoline marketers, the national average price at company-operated retail outlets climbed 19.3 cents, to $1.139 per gallon. The average wholesale price increased 16.9 cents, to $1.001 per gallon. The average dealer tank wagon (DTW) price for motor gasoline jumped 18.0 cents, to $1.069 per gallon. The average rack price rose 16.4 cents to 98.0 cents per gallon. The average bulk sales price increased 14.9 cents to 89.0 cents per gallon. The difference between reformulated and conventional gasoline prices nearly doubled in 2003, with margins averaging 11.0 cents at the retail level and 11.9 cents at wholesale. The difference between conventional and oxygenated gasoline prices averaged 5.4 cents at retail and 7.5 cents at wholesale.

- On average, 2003 refiner sales of finished motor gasoline remained on par with 2002 rates. Total sales stayed at an average of 375.4 million gallons per day. Retail sales rose 200,000 gallons per day (0.3 percent), while wholesales fell 200,000 gallons per day (0.1 percent). Rack sales accounted for 66.9 percent of refiner wholesale gasoline volumes, while DTW and bulk sales made up 19.2 percent and 13.9 percent, respectively. Sales of reformulated gasoline (RFG) represented 31.9 percent of total motor gasoline sales, while oxygenated gasoline made up 3.3 percent of sales.

*No. 2 Distillate*

The daily spot price for No. 2 heating oil at New York Harbor moved along a wide-ranging path during 2003. The price opened the year at 87.2 cents per gallon amid concerns about production and supply levels compounded by cold weather affecting a large portion of the country. The price began to increase rapidly at the end of January, then soared in February. The jump was driven by sharp declines in stocks and a prolonged period of cold, inclement winter weather. While well-below average temperatures gripped most of the nation and affected heating fuels prices across the country, heating oil prices in the Northeast were particularly unsettled. The No. 2 heating oil price at New York Harbor climbed 25.7 cents during the first week of February. Throughout the remainder of the month, the price followed an unsettled path as weekly reports continued to show significant inventory drawdowns and below-average temperatures throughout the country. Further, at the end of the month, high winds and frozen waterways prevented deliveries in the Northeast, the largest heating oil consuming region in the country. The price hit its high for the year on March 3 when it reached $1.269 per gallon. However, in addition to market fundamentals fostering lower prices for all petroleum products, warmer temperatures in the Northeast helped to draw the price for No. 2 heating oil at New York Harbor down dramatically by the end of the month. The second quarter of the year was much less sensational. During the first half of April, ongoing low inventories and unseasonably cool temperatures underpinned the price, particularly in the Northeast. During the latter part of the month, however, the price gave back a good part of the increase, principally because of soft demand. As warmer temperatures reduced demand for the product, the price showed a comparatively narrow range of movement during May and June. The same general trend continued during the third quarter of the year–as can be expected during the product's off-season–with the price moving along a quiet and uneventful path. By September, the price began to decline at a steady pace as inventory reports kept showing supplies at solid levels. The price gained some ground initially in October on news of short supplies in Midwestern markets and predictions of another cold winter. However, the price gave back most of the increase during the second half of the month as inventory data showed increases in stock levels in most regional markets. While the price followed the lead of other products' prices in the complex during November, forecasts for, and the arrival of cold temperatures and inclement weather in December caused the price to rise. After opening the month at its lowest level, the price rose during the following weeks as predictions for cold temperatures in the Northeast were realized and two storms hit the region on successive weekends. Nonetheless, with distillate supplies at comfortable levels because of warm temperatures in October and November, the prices did not experience exceptional changes like the ones seen during the first quarter of the year. The price closed the year at 88.8 cents per gallon, only marginally higher than where it began 2003.

- 2003 yearly average No. 2 distillate prices increased dramatically from 2002 levels. The national average residential price jumped 22.6 cents to $1.355 per gallon. The average wholesale price rose 16.3 cents to 89.1 cents per gallon. The national average price at company-operated retail outlets for No. 2 diesel fuel climbed 18.2 cents to $1.044 cents per gallon, while the average No. 2 diesel wholesale price increased 15.6 cents, to 89.1 cents per gallon. The difference between low- and high-sulfur diesel fuel prices in 2003 averaged 2.8 cents per gallon at retail and 2.5 cents per gallon at wholesale.

- Overall, refiner sales of No. 2 distillate rose modestly in 2003. Total sales increased 2.2 million gallons (1.5 percent) to 149.2 million gallons per day. No. 2 fuel oil sales fell 3.0 million gallons per day (11.3 percent) while sales of No. 2 diesel fuel climbed 5.2 million gallons per day (4.3 percent). Low-sulfur diesel accounted for 82.8 percent of all diesel fuel sales and 69.7 percent of all refiner No. 2 distillate sales.

*Residual Fuel Oil*

- Like other products' prices, average prices for residual fuel oil increased significantly in 2003. The refiner price for retail sales of low-sulfur residual fuel oil rose 16.4 cents to 80.4 cents per gallon. The wholesale price jumped 18.2 cents to 72.8 cents per gallon. Refiner high-sulfur residual fuel oil prices increased 10.7 cents, to 65.1 cents per gallon at retail and 8.0 cents to 58.8 cents per gallon at wholesale. Including data reported by a sample of residual fuel oil marketers, average low-sulfur residual fuel oil prices rose 17.3 cents to 78.5 cents per gallon at retail, and 18.4 cents to 73.2 cents per gallon at wholesale. Average prices for high-sulfur residual fuel oil increased 11.1 cents to 65.1 cents per gallon at retail, and 11.9 cents to 62.1 cents per gallon at wholesale.

- Refiner sales of residual fuel oil decreased in most sales categories on average in 2003. Total refiner sales declined 1.8 million gallons per day (9.4 percent), to an average of 17.4 million gallons per day. Low-sulfur residual fuel oil sales fell 1.0 million gallons per day (12.8 percent), while high-sulfur residual fuel oil decreased 900,000 gallons per day (7.8 percent).

### *Other Products*

- 2003 yearly average prices for the remaining surveyed products show sizable increases from 2002 levels. Refiner propane prices rose 15.8 cents per gallon at retail and 17.6 cents at wholesale. Including a sample of propane marketers, the average residential propane price climbed 18.8 cents to $1.274 per gallon, while the average wholesale price rose 17.5 cents to 61.5 cents per gallon. Refiner prices for kerosene-type jet fuel, aviation gasoline, kerosene, No. 1 distillate, and No. 4 distillate show large increases at both retail and wholesale.

- The volume of refiner sales of products included in this section were mixed in 2003. Sales of propane and kerosene-type jet fuel fell at retail, but rose at wholesale. Aviation gasoline sales did just the opposite, rising at retail and declining at wholesale. Sales of kerosene increased at both levels, while sales of No. 1 distillate and No. 4 distillate declined at both the retail and wholesale levels.