Vol. 40, No. 1 | Monday, January 7, 2019

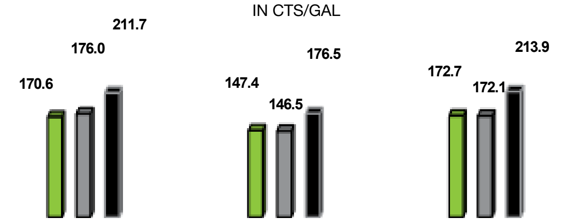
Oil Price Information Service

Independent Refined Products Prices and Comprehensive Analysis for All US Markets

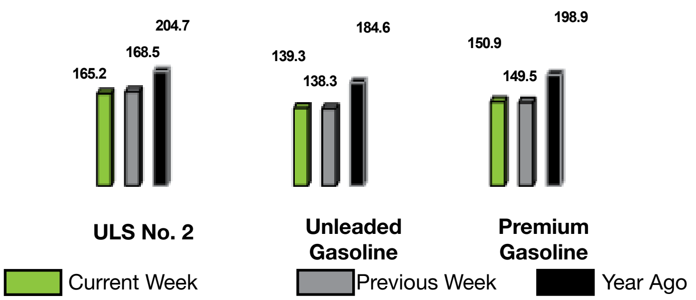
OPIS By IHS Markit

Inside Every Issue...

AVERAGE U.S. CONTRACT PRICES
IN CTS/GAL



AVERAGE U.S. SPOT PRICES
IN CTS/GAL



Source: Oil Price Information Service

U.S. PETROLEUM PRODUCT AVERAGES

Product	Spot	▲ Last Wk.	Rack	▲ Last Wk.
Gasoline	139.26	0.93	147.43	0.95
ULS No.2	165.23	-3.28	170.62	-5.41
Jet	169.12	-2.42	174.51	-14.26
Ethanol	136.22	3.58	142.63	0.83
Curr RIN	23.75	2.50		
Pre RIN	20.13	1.38		
MTBE	170.00	0.00		
Propane	59.76	1.41	75.95	-1.02
Resid	50.32	0.80		
Naphtha	119.05	3.25		
Med.VGO	146.66	0.76		

Note: All price averages in cts/gal except resid ($/bbl)

NATIONAL SPOT-RACK-RETAIL MARGINS

National Index	Gasoline	▲ Last Wk.	Diesel	▲ Last Wk.
Retail	223.29	-5.43	294.39	-4.41
Net	170.87	-5.31	200.94	-5.85
Wholesale	139.29	-0.54	168.62	-5.90
Rack-Retail Margin	**31.58**	**-4.77**	**32.32**	**0.05**
Spot	139.26	0.93	165.23	-3.28
Spot-Retail Margin	**31.61**	**-6.25**	**35.71**	**-2.58**

Note: All price averages in cts/gal

Market Overview:

Early 2019 Trading Forecasts a Wild Year

If the first couple of trading days in 2019 are any indication, this year is going to be a doozy of a ride.

A volatile start to the year has already seen RBOB bounce some 10cts/gal off the lows of Christmas Eve, and West Texas Intermediate (WTI) and Brent have rebounded by about 10%. At the same time, oil markets have started to decouple from equities markets and it's too early to know if the trend – a change from late 2018 – will stick.

The separation of oil's and equities' trajectories ties into some of the changing fundamentals in the oil markets. One of those (perhaps the most important) is the latest pledge by the Vienna Alliance (OPEC and non-OPEC) to begin new production cuts aimed at bringing an oversupplied market back into balance.

January kicked off with reports that December production by OPEC already pointed lower, with cartel kingpin Saudi Arabia cutting back output the most. Additionally, the kingdom has told its customers in Asia and the U.S. that its official oil selling price was going up.

While the 2019 reduction of OPEC and non-OPEC crude production was well communicated last month, word of the lower December volumes came as a bit of a surprise, which has helped oil markets rebound. Those cutbacks may not necessarily register right away as falling U.S. crude inventories because planned refinery maintenance could mask reduced imports of crude oil. OPIS estimates that capacity offline due to refinery maintenance will peak in February at some 1 million to 1.2 million b/d.

WTI futures' intraday ranges were $2-$3/bbl in just the first two trading sessions of 2019. Meanwhile, more than $4/bbl separated the high and low for Brent on the first trading day of the year.

Market sentiment is bullish as the new year begins amid new enthusiasm about the OPEC cuts, and fresh hedge fund money may be entering the market as a result. However, the market won't be able to tell because the U.S. government shutdown has halted release of the Commodity Futures Trading Commission's Commitments of Traders reports.

Based on seasonal tendencies, there is a very good chance that the futures lows from Christmas Eve will represent the seasonal lows for WTI, Brent and RBOB.

Stock markets have been as volatile as the oil market. An epic post-Christmas Day rally followed by further upside has slowed, with the DJIA already starting to scale back. It's too early to tell if equities will make their way back to recent lows,

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In Cash Markets

Weekly Averages Spot Report

GULF COAST

	Gulf Coast Pipeline Wk Avg.	Gulf Coast Waterborne Wk Avg.
Reg Unl	128.034	129.284
Mid Unl	131.714	132.964
Pre Unl	137.234	138.484
RBOB	125.378	N/A
Pre RBOB	137.440	N/A
CBOB	124.009	N/A
Pre CBOB	133.409	N/A
CPL 01	2.938	N/A
CPL 02	3.881	N/A
Alkylate	N/A	154.034
ULSD	159.829	160.829
ULSD63	N/A	N/A
ULS HO	156.904	157.904
ITT ETH	N/A	N/A
LSHO	N/A	N/A
HS No2	148.560	149.810
LS2OFF	N/A	150.310
Jet 54	160.904	162.404
ULS Kero	162.404	N/A
55Kero	161.154	162.654
B100 SME	263.500	N/A

NORTHEAST

N.Y. Harbor Barge Wk Avg.	N.Y. Harbor Cargo Wk Avg.	Linden Wk Avg.	Boston Cargo Wk Avg.
N/A	139.840	138.340	N/A
N/A	145.665	144.165	N/A
N/A	154.403	152.903	N/A
135.165	136.665	135.090	137.915
148.215	149.715	N/A	150.965
135.340	N/A	134.440	N/A
150.715	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
169.685	171.185	169.660	172.435
N/A	N/A	169.660	N/A
167.735	N/A	167.610	N/A
142.000	N/A	N/A	N/A
167.060	N/A	167.060	N/A
159.248	N/A	159.248	N/A
N/A	N/A	N/A	N/A
172.173	173.673	171.623	N/A
183.998	N/A	N/A	N/A
178.560	N/A	N/A	N/A
275.500	N/A	N/A	N/A

MIDWEST

	Chicago Pipeline Wk Avg.	Group 3 Pipeline Wk Avg.
Sub-oct REG	N/A	124.429
Mid Unl	128.603	137.814
Pre Unl	135.309	143.148
Pre RBOB	146.934	N/A
RBOB	120.934	N/A
CBOB	117.434	N/A
ULSD	148.498	161.011
Jet 54	154.435	167.168
B100 SME	274.000	N/A

BUCKEYE/LAUREL

	Buckeye Pipeline Wk Avg.	Laurel Pipeline Wk Avg.
RBOB	135.165	135.165
Pre RBOB	148.215	148.215
CBOB	135.340	135.340
Pre CBOB	150.715	150.715
ULSD	169.685	168.341
ULS HO	167.735	N/A
LSHO	167.310	N/A
Jet 54	172.173	172.173
55Kero	178.560	N/A

WEST COAST

	Los Angeles Pipeline Wk Avg.	San Francisco Pipeline Wk Avg.	Pac Northwest Pipeline Wk Avg.
CARBOB-R	154.715	145.965	N/A
CARBOB-P	163.715	171.965	N/A
AZRBOB-R	160.715	N/A	N/A
AZRBOB-P	170.465	N/A	N/A
Sub-oct REG	154.715	144.215	143.710
Sub-oct Pre	163.715	170.215	168.210
SEA Sub	N/A	N/A	143.710
SEA SubPre	N/A	N/A	168.210
CARB No.2	170.310	164.060	N/A
ULS No.2	170.060	164.060	164.543
Jet	169.716	N/A	N/A
B5	N/A	N/A	168.543

Methodology: OPIS spot weekly averages are calculated by averaging the daily averages, adding each low and high for each business day and dividing by the total.

It may be hard to grasp the idea that the futures market is rallying but front-month RBOB is up about a dime from the Christmas Eve lows. Rebounding futures values are lifting cash gasoline markets east of the Rockies.

The sole exception was the West Coast, where weakening spot basis differentials over the past week more than offset the paper gains. Los Angeles CARBOB in recent weeks has seen its premium sliced by about two-thirds – from 57cts over the screen to just 18cts at presstime.

Some U.S. bulk markets saw gasoline discounts narrow; Gulf Coast CBOB, for example, saw basis discounts move from double digits to 8.5cts/gal due at least in part to the shift in reference month to February from January. In New York Harbor, that change helped boost cash CBOB premiums by a couple of pennies to reach 3cts/gal before easing to plus 2.25cts.

Chicago spot ULSD has a tendency to trade at fairly wide basis discounts in the winter, but rarely has the discount been as deep as the current 24cts/gal. There have been few interested buyers, but barrels on the Badger Pipeline dropped to a roughly four-year low at 35cts under the screen. Buckeye barrels were stronger but sported a still wide basis discount in the 14cts-15cts area.

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GROUP 3 SPOT MARKET FORWARD INDEX

Month	ULSD Spot Midpoint	ULSD Spot Buy x Sell	Sub-Oct R Spot Midpoint	Sub-Oct R Spot Buy x Sell
Pmt Jan	165.20	-9.5 x -8.5	126.83	-8.25 x -8
Any Jan	166.20	-8.25 x -7.75	127.58	-7.75 x -7
Pmt Feb	166.76	-6.5 x -6.5	128.37	-8 x -7
Any Feb	167.51	-6.25 x -5.25	129.12	-7.5 x -6
Pmt Mar	167.42	-5.5 x -3.5	133.13	-23 x -19

but another leg down might be too much for the oil market to ignore.

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High Midwest Refinery Run Rates, Inventories Seen for Later 2019

The U.S. Midwest refined products market has entered the new year with participants eyeing strong inventory levels and high operating rates at refineries following early-year maintenance activity.

Run rates and inventory levels will be significant factors in determining the trajectory of spot market basis differentials in 2019. With utilization rates averaging a weekly level of 92.28% in 2018, stockpiles are expected to see continued growth. Those factors have lead to some pessimism about the upside of basis levels through the year, but expectations appear mixed regarding the support that pricing will receive from the futures complex.

"I'm bearish as a basis market, but I'm bullish as an outright price market," one trader said. "In this kind of market, you play defense – come in every day and try not to get killed. Crack spreads are extremely high even at these prices, (so) refiners will continue to go [all] out on everything, will set runs based on what they think they can move through their marketers or exporters."

Midwest gasoline markets could see weakness through the year because of strong inventory levels and lackluster demand. Regional gasoline inventory levels stand several million barrels over both year-ago figures and five-year-averages for this time of year, according to the EIA.

Most of December saw builds in inventories and participants don't expect that to change any time soon as the market enters a 12-week period when gasoline demand is typically at its lowest, sources indicated.

Diesel will see some support with the coming IMO 2020 changes to marine fuel specifications serving to tighten both diesel and jet fuel markets, sources said. Early-year weather trends are also attracting the attention of diesel market watchers who are gauging the timing of fuel demand from agricultural end-users.

"The Midcon can support itself until you get to harvest, really," said a second market participant.

Additionally, with current crack spreads looking better for heating oil versus gasoline, one market participant expects refiners to produce more heating oil.

"The market's rewarding you for running more heat," a third trader said. "It will be at the expense of gas and you can't swing all the way in either direction, but it may cut into gasoline production."

CHICAGO SPOT MARKET FORWARD INDEX

Month	ULSD Spot Midpoint	ULSD Spot Buy x Sell	CBOB Spot Midpoint	CBOB Spot Buy x Sell
Pmt Jan	143.20	-32 x -30	119.45	-16 x -15
Any Jan	146.70	-30 x -25	121.45	-14 x -13
Pmt Feb	164.76	-10 x -7	125.87	-11 x -9
Any Feb	164.76	-10 x -7	125.87	-11 x -9
Pmt Mar	165.42	-8 x -5	144.13	-10.5 x -9.5

Product Flows Attract Attention

Midwest refined products could see their market reach expanded in 2019, after Buckeye Partners' plan to provide bidirectional service on Laurel Pipeline by the end of 2018 did not come to fruition due to ongoing legal proceedings with the Pennsylvania Public Utilities Commission (PUC).

In a November earnings call, Buckeye said it was optimistic about a favorable decision from the Federal Energy Regulatory Commission to begin first bidirectional operation on a section of its Laurel Pipeline in early 2019.

Refined product flow to the east on the Laurel Pipeline would allow Midwest refineries access into Pennsylvania and the opportunity to gain margin as they pressure Northeast refineries.

Meanwhile, supply activity from the Gulf Coast (PADD 3) into the Midwest (PADD 2) should persist.

"There are times that PADD 2 will need the [arbitrage] from PADD 3 to open," a fourth market source said. "When that arb opens, everyone and their brother will try to ship into the arb, closing it like we had seen (in 2018). And then once the arb closes, PADD 2 will have to run down those inventory levels until the market becomes balanced and then tight enough that the arb will open again."

Last year presented itself as "challenging" for the trading community, a fifth source said, with fewer arbitrage opportunities to ship products up the Explorer Pipeline from the Gulf Coast. Once that opportunity arises, market participants have to "jump on the bandwagon" quickly before it disappears.

Those windows and the weeks it can take for Gulf Coast products to reach Chicago markets will help maintain pricing volatility within the market, another source said.

Crude Margins, Refinery Maintenance Key

The pricing of Canadian crude will also be an important trend to watch, especially after Midwest refiners who can process those barrels watched their refining margins erode toward the end of 2018.

Western Canadian Select (WCS) crude's discount to benchmark West Texas Intermediate crude ran as wide as \$40-\$50/bbl in November, but barrels more recently have trended toward \$11-\$13/bbl. The sharp narrowing in the WCS discount was due largely to the plan from Alberta's leadership to cut production.

Because Canadian crude supply has fewer and/or lower-volume offtake options than Gulf Coast crude, Midwest refiners running Canadian oil can often generate a significant refining margin versus their Gulf Coast counterparts. The Midwest refineries with access to north-of-the-border oil will likely operate their plants at high rates should the discounts remain for landlocked Canadian crude, market sources said.

Among the largest users of WCS or similar blends are BP

(Whiting and Toledo); Marathon Petroleum (Detroit); Phillips 66 (Wood River); Flint Hills (Pine Bend); and ExxonMobil (Joliet).

Refinery maintenance will play a role in Midwest markets early this year, but the impacts are expected to be more limited than Autumn 2018's significant turnaround downtime, market sources said.

As of presstime, Midwest refineries seen taking units down in Q1 include HollyFrontier Tulsa; BP Whiting; CHS McPherson; CVR Wynnewood and ExxonMobil Joliet.

In addition, Husky Energy's 50,000-b/d refinery in Superior, Wis., will remain down through the year following an explosion and fire involving the FCC and an asphalt tank on April 26, 2018. Normal operations are expected to resume at some point in 2020.

The Q3-Q4 2018 turnarounds in the Midwest took utilization of refinery capacity down as low as 70% for the week ended Oct. 12, according to EIA. The level marked the lowest capacity use recorded since the EIA began publishing PADD-specific utilization data in 2010.

Basis Levels Closed 2018 in Negatives

In the Group 3 region of the Midwest, "V-grade" sub-octane gasoline differentials ran several cents into negative territory toward the end of 2018, capping a year that saw basis as low as minus 17.50cts/gal versus NYMEX in the first quarter and as high as plus 16cts/gal over futures in September.

"X-grade" ULSD differentials bent into similarly negative territory to close out 2018, mirroring the prior year's trend to slide into basis discounts at the end of the year once agricultural demand had faded away.

X-grade basis levels saw a narrower range of movement, running as low as minus 9.50cts/gal below the screen in December and as high as plus 4.25cts in October.

While Group 3 earned the label of "level-headed" (even "boring") from some participants, the Chicago spot market was branded as the diva of the Midcontinent.

"Chicago was more interesting," said the fifth market participant. "It was full of volatility and big, violent moves on the basis parameter. We saw gas swings from 10cts over [NYMEX] to 10cts under, in a three-week period and back [again]. It's West Coast-type volatility. Such unpredictable movements dampen trader appetite for the region," the source noted.

In addition to pricing volatility, Chicago was also no stranger to wide pricing spreads between product moving on the different pipelines serving the region. The spread between generic barrels on Badger or West Shore Pipeline versus Buckeye Complex or Wolverine Pipeline was poised to exit 2018 with around a dime among them. Originally showing up in early 2018, that pricing spread returned in late November.

"How do you justify 5cts/gal between Wolverine and West Shore, and 8cts/gal between Buckeye and generics?" asked one participant. "I don't remember that swing between Buckeye and generics being that dramatic. It always spreads out this time of year, but not to the extent it has in recent years."

Chicago CBOB differentials weakened to less than minus 15cts/gal in the final trading sessions of 2018. The level was stronger than the year-long low of minus 30.63cts in February but well off the plus 15cts/gal seen ahead of the heaviest of the regional refinery maintenance in October.

Chicago ULSD also saw differentials declining to double-digit negatives at the end of 2018, pushing into the weakest levels of the year after running as high as plus 5.25cts in late November.

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Window Spot-to-Rack Netback Spreads

Downstream netbacks are determined by subtracting the Average Rack price from the Delivered Spot price (total of the Spot Average and Delivery Costs).

New York Harbor Wholesale Netbacks

	Diesel			Unleaded Gasoline		
	spot average		172.41	conventional spot avg		137.84
				reformulated spot avg		137.84
	Delivered Spot	Average Rack	Netback	Delivered Spot	Average Rack	Netback
Albany	176.06	178.36	2.30	141.49	143.90	2.41
Boston	175.26	176.38	1.12	140.69	145.70	5.01
Newark	173.71	171.92	-1.79	139.14	141.03	1.89
New Haven	174.41	175.98	1.57	139.84	143.69	3.85
Portland	175.91	184.70	8.79	141.34	156.04	14.70

Gulf Coast Colonial Pipeline Wholesale Netbacks

	Diesel			Unleaded Gasoline		
	spot average		162.81	spot average		129.84
	Delivered Spot	Average Rack	Netback	Delivered Spot	Average Rack	Netback
Atlanta	165.70	168.07	2.37	136.23	131.30	-4.93
Baltimore	166.22	170.69	4.47	133.25	138.94	5.69
Fairfax	166.22	169.64	3.42	133.25	135.95	2.70
Greensboro	165.97	169.43	3.46	136.50	130.14	-6.36
Philadelphia	166.29	172.41	6.12	133.32	143.83	10.51
Chicago	166.81	149.96	-16.85	0.00	0.00	0.00
St. Louis	165.81	161.40	-4.41	136.34	138.49	2.15
Birmingham	166.22	167.95	1.73	136.75	130.29	-6.46
Dallas	165.21	169.10	3.89	132.24	130.48	-1.76
Houston	164.31	165.87	1.56	131.34	129.43	-1.91

Group 3 Williams Pipeline Wholesale Netbacks

	Diesel			Unleaded Gasoline		
	spot average		164.66	spot average		129.09
	Delivered Spot	Average Rack	Netback	Delivered Spot	Average Rack	Netback
Kansas City	167.26	165.99	-1.27	131.69	129.58	-2.11
Minnesota	169.02	169.75	0.73	133.45	134.41	0.96
Omaha	167.96	169.82	1.86	132.39	132.10	-0.29
Tulsa	165.91	165.23	-0.68	130.34	130.92	0.58
Denver	167.66	172.03	4.37	132.09	123.55	-8.54

West Coast Netbacks

	Diesel			Unleaded Gasoline		
	spot average		170.56	spot average		157.06
	Delivered Spot	Average Rack	Netback	Delivered Spot	Average Rack	Netback
Los Angeles	172.16	192.51	20.35	158.66	199.32	40.66
Phoenix	174.31	179.16	4.85	160.81	187.33	26.52
San Francisco	166.16	186.70	20.54	148.66	190.08	41.42

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2019 Preview: IMO 2020 Looms Large Over Distillate Market

With less than a year to go before IMO 2020 regulations go into effect, anticipation of their potential impact on the U.S. Gulf Coast distillate market has many market participants wondering how prices and basis levels will be affected, and when.

In its December Short Term Energy Outlook, the Energy Information Administration (EIA) warned about the "uncertainty and complexity" surrounding the IMO 2020 regulations which call for the global shipping industry to reduce sulfur emissions in its consumption of marine fuel.

EIA examined the various options that ship operators have for complying with the regulation, which include switching to a newly compliant, low-sulfur bunker fuel. However, the agency said that the cost, availability and specifications of a new fuel for use in marine engines remains uncertain.

Another option is to install scrubbers on vessels to remove sulfur from the ships' exhaust. Even if scrubbers become widely used, the price and availably of high-sulfur fuels after 2020 remains uncertain, the EIA report stated. Clarksons Platou, a ship brokering company, has said that scrubbers have been adopted by an average of 7.5% of vessels across three major shipping sectors.

The EIA noted the new regulations pose a "significant challenge" for global petroleum refineries, as removing sulfur from marine bunker fuel can be an expensive and capital-intensive process.

"If scrubbers become widely adopted, higher-sulfur residual oils might still be used, potentially reducing the value of existing and new refining units capable of upgrading the residual oils," the EIA report said.

Barclays Capital has, however, downplayed the possibility of non-compliance with IMO 2020 due to ship insurance concerns. The bank noted that few to no ship owners would be willing to risk losing ship insurance coverage by violating the mandate.

With the IMO 2020 mandate fast approaching, many Gulf Coast distillate market players are grappling with how the regulations will impact spot trading.

"Ultra-low, middle distillates in the USGC will see an increased demand as we move closer to 2020," a source said. "IMO regs require much less sulfur, and USGC refined jet is mostly ULSK [ultra-low-sulfur kerosene], because the majority of USGC refiners hydrotreat their jet."

The source added that going forward, Gulf Coast ULSK streams should be more sought-after for fuel blending to meet IMO specs.

"Look for more imports of typical 54-grade while the 'near zero sulfur' USGC refined jet fuel gets soaked up for blending and exports until more ultra-low distillate refining capacity comes on stream by [the] end of 2020," the source added.

Another Gulf Coast trade source believes the IMO 2020 regulations may already be priced into the market.

"In general, forward cash markets are within $.0010 of the swaps quotes. To the extent the variables are 'normal' I do not expect the basis for ULSD to vary more than $.0200 either side of the current forward swaps," the source said.

"What the swaps do indicate is that fourth quarter 2019 probably has some impact of IMO 2020 built in. Otherwise, I would expect fourth quarter to be close to -.0750. I would also expect by the end of first-quarter 2020, the market will realize that the impact of IMO 2020 is not as great as perceived in late 2019."

There is also considerable attention focused on distillate demand as 2019 rolls forward.

"We expect a colder (year on year) Northern Hemisphere winter, which should add 300,000 to 400,000 b/d of middle distillate demand; supportive for refining margins and throughput," Macquarie Capital said in a report.

"We still expect distillate demand to outpace supply during the period, off an already tight Q4 2018 base," said London-based consultancy Energy Aspects. "(But) the biggest challenge from IMO 2020 is the need to wipe out huge amounts of surplus HSFO output. IMO can't just be about raising clean product cracks, because this will enable simple refineries to stay in business. Most of the work needs to happen at the dirty end of the barrel in order to drive simple refineries with high HSFO yields out of business."

After Gulf Coast ULSD spot prices started 2018 at around $1.95/gal, cash values were set to finish the year around some of their lowest levels since 2017. Notably, ULSD prices had fallen by more than 14% since the start of the year while basis levels have been fairly steady, sticking close to the trends seen over the past several years.

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Jet Fuel Demand Holds Strong in Early 2019

U.S. jet fuel market watchers are turning their attention to IMO 2020 and the impacts that the shipping fuel mandate could have on prices and trading.

There has also been a considerable amount of attention lately on the strong jet fuel consumption by U.S. airlines. The annual pace of demand growth in jet fuel has outdistanced that of gasoline and diesel fuel.

Recent statistics by the EIA show U.S. jet fuel demand growth of about 2.3%, a figure that remained consistently above 2% throughout 2018, with fuel consumption averaging about 1.75 million b/d.

On a global scale, jet fuel demand growth has doubled the pace of the U.S. consumption increase, averaging closer to 4% annually for the past several years.

During 2019, growth in U.S. jet fuel consumption is expected to continue to outpace gasoline's. However, jet fuel's rate of consumption growth may be rivaled by diesel's as global oil markets transition to the realities of IMO 2020 which requires ships to lower their sulfur emissions. Some vessels will install scrubbers to "clean" high-sulfur fuel as it's used, while others will burn low-sulfur fuel oil or use diesel.

Most experts have agreed that the mandate – effective on Jan. 1, 2020 – will increase global demand for diesel fuel.

A source told OPIS that Gulf Coast ultra-low-sulfur diesel and middle distillates – including jet fuel – will see increased demand moving toward 2020 and higher prices.

"I think we'll see USGC 54-grade move to a 2-3cts/gal premium over 62-grade between now and Fall of 2019," the source said. "Also, the NYMEX differential on these products both should trade at least another 5cts higher than present by May, and move towards NYMEX 'flat' by the end of 2019."

Looking back to December 2017, U.S. jet fuel demand (as measured by weekly deliveries of fuel to the market) set a record, according to the EIA. During that month, jet fuel demand hit 2.108 million b/d, which marked the first time ever that weekly jet fuel usage topped 2 million b/d.

For context, only once in 2018 did U.S. jet fuel consumption top 2 million b/d, and that took place in August 2018, when it reached 2.006 million b/d.

Nevertheless, jet fuel consumption in 2018 topped 1.9 million b/d for more weeks than at any other time in U.S. history, according to the EIA. On five occasions, U.S. jet fuel consumption came in above the 1.9 million b/d mark. Also, the number of times it perched above 1.8 million b/d in 2018 was also the most ever.

OPIS projects that U.S. jet fuel demand will continue to grow in 2019 and would only be stopped by a global economic slowdown. Growth in passenger traffic in the U.S. and abroad, along with higher demand for freight deliveries, will continue to drive that growth.

IHS Markit on several occasions in 2018 issued special reports on jet fuel, each time expressing confidence that demand will continue to be robust over the coming years.

By 2040, IHS Markit projects that global jet fuel demand will climb from 8% of total refined product demand in 2017, to more than 10%. The global market is expected to reach 9.5 million b/d by 2040, up from 7.45 million b/d in 2018, IHS Markit experts predict.

Most of that growth will be driven outside of the U.S., although America remains the biggest consumer of fuel, so it will remain a critical contributor to that expansion.

U.S. refiners have also continued to make a concentrated effort to ramp up jet fuel production.

While total jet fuel production in 2018 never topped the vaunted 2 million b/d mark to match demand, it did top 1.9 million b/d on a regular basis during the summer months, averaging 1.96 million b/d in August 2018, which was a monthly record.

Moving forward, it is reasonable to believe U.S. jet fuel production will remain robust in 2019, as refiners keep pace

In Crude Oil Markets

U.S. Crude Oil Buying Prices ($bbl)

	West Texas Intermediate	West Texas Sour	Louisiana Sweet	Change in Week	Effective Date
Plains Marketing	61.25	58.90	59.75	-0.75	1/31
Conoco/Phillips	61.35	59.89	60.10	-0.88	1/31
Sunoco	61.25	56.25	59.75	-1.00	1/31
Shell Trading	61.30	61.64	59.75	-0.90	1/31

Crude Oil Crack Spreads

			Crack Value	Crack Spread	Change from Last Week
NY Harbor	Brent 3:2:1	FEB	$61.66	$6.75	-$0.78
	*Bakken 3:2:1	FEB	$61.66	$4.62	$0.98
	NYMEX 3:2:1	FEB	$60.93	$14.39	-$0.54
Chicago	WTI 2:1:1	FEB	$56.44	$9.90	-$1.90
	*WCS 2:1:1	FEB	$56.44	$19.28	$1.89
USGC	LLS 3:2:1	FEB	$57.45	$3.16	$0.86
	WTI 3:2:1	FEB	$57.45	$12.37	-$0.44
USWC	ANS 3:2:1	FEB	$67.89	$15.95	-$1.69

Note: Prompt Crack Spreads calculated as of 1/2/19. *Calendar month average of prompt WTI futures used to derive spot crude price.

with both domestic demand growth and an export market that has more than doubled for U.S. refiners over the last several years.

U.S. jet fuel exports consistently average more than 200,000 b/d, easily double the export rates of any prior year.

Notably, twice in 2018 U.S. jet fuel exports topped 300,000 b/d, setting a record of 359,000 b/d in March 2018, only to be surpassed by the 377,000 b/d rate set in October 2018, EIA data shows.

Comparing U.S. exports of jet fuel with imports, it becomes evident that the U.S. has become a net exporter of fuel, with much of the material going to South America.

Refinery expansions and high utilization rates, driven by normal demand growth and IMO 2020 requirements, should mean sufficient production of jet fuel in the U.S. and worldwide to satisfy demand requirements.

However, infrastructure issues, including sufficient disruption capacity in terms of pipelines and storage, remain some of the biggest concerns for airlines as they compete with other transportation sectors for supply space.

Views on oil pricing for 2019 have already begun to take shape. The general view is that higher crude oil production from the U.S. and other areas will help to offset the late 2018 decision by OPEC and Russia to reduce output to help control a building surplus.

U.S. jet fuel prices will likely outperform crude oil, with strong crack spreads evident most of the year. However, if crude prices remain subdued as many project, U.S. jet fuel prices are not expected to top their highest rates of 2018, which peaked in October when the OPIS U.S. spot average hit $2.40/gal.

Given where U.S. jet fuel prices were finishing 2018 – near their cheapest levels all year – it would take a 30% spike in prices in 2019 to match the 2018 highs. That's not impossible, but it's also not predicted.

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Current EIA Statistics

Gasoline	Current	Last Week	3-Yr Avg
PADD 1 Inventories	61,100	60,300	59,000
PADD 2 Inventories	54,300	53,100	50,333
PADD 3 Inventories	89,200	85,700	81,167
PADD 4 Inventories	7,200	7,000	7,533
PADD 5 Inventories	28,300	27,100	29,267

ULSD	Current	Last Week	3-Yr Avg
PADD 1 Inventories	33,300	31,600	48,100
PADD 2 Inventories	30,900	27,500	27,600
PADD 3 Inventories	34,600	31,800	35,867
PADD 4 Inventories	3,800	3,400	3,700
PADD 5 Inventories	11,600	11,000	11,467

Crude Oil	Current	Last Week	3-Yr Avg
PADD 1 Inventories	13,300	11,900	13,567
PADD 2 Inventories	130,300	129,200	144,400
Cushing Inventories	41,900	41,300	59,467
PADD 3 Inventories	229,900	229,300	232,700
PADD 4 Inventories	22,200	22,400	22,800
PADD 5 Inventories	45,700	48,600	52,533

Inventories	Current	Last Week	3-Yr Avg
Crude	441,400	441,400	466,000
Gasoline	240,000	233,100	227,233
ULSD	114,200	105,200	127,000
HS Distillate	10,600	10,300	12,900

Oil Output (b/d)	Current	Last Week	3-Yr Avg
Lower 48	11,200	11,200	8,729
Alaska	495	497	521

Refinery (b/d)	Current	Last Week	3-Yr Avg
Gross Input	18,077	17,694	17,155
Mogas Output	9,637	10,338	10,005
ULSD Output	5,139	5,059	4,819

Exports (b/d)	Current	Last Week	3-Yr Avg
Weekly Mogas*	872	851	828
Weekly Distillate*	1,222	1,406	1,161
Monthly Mogas	1,037	857	533
Monthly Distillate	1,316	1,310	1,335

Imports (b/d)	Current	Last Week	3-Yr Avg
Crude	7,392	7,656	8,008
Mogas	314	509	423
Distillate	195	204	232

Demand (b/d)	Current	Last Week	3-Yr Avg
Mogas	8,623	9,348	9,108
4-week Avg	9,063	9,126	9,171
Distillate	3,203	4,242	3,729
4-Week Avg	4,200	4,409	3,907

Statistics are in thousands of bbl or thousands of b/d. *Weekly figures are EIA estimates.

Production, Supply Find Late-Year Mismatch

The latest weekly EIA data presented a big mismatch between U.S. refinery runs and fuel demand, leading to some outsized builds in gasoline and distillate.

Numbers for the week ended Dec. 28 had total product supplied at 19.056 million b/d, which was the softest demand reading since the week of June 1. Sagging demand is not unusual for this time of year, but totals for 2018 (and 2017) were commonly higher (20 million-21 million b/d).

Demand declines in the marquee products were large. The gasoline number (8.623 million b/d, down more than 8%) was the lowest of 2018. Distillate demand fell by more than 1 million b/d to 3.203 million b/d, making it the lowest seen since Jan. 6, 2017.

At the same time, U.S. refiners often run as much crude and feedstocks as they can end-year, ahead of planned maintenance and 2018 was no different. Gross inputs jumped to 18.077 million b/d, which was the strongest run rate since early September.

Production from those hefty inputs tilted toward distillate; output registered at 5.991 million b/d, just 1,000 b/d shy of the all-time high in 2017 (hit during the last week of that year). Gasoline production stepped down, to 9.637 million b/d.

Despite the large rise in distillate inventories (9.529 million bbl), the product's year-on-year deficit held at more than 9 million bbl. The build in gasoline inventories wasn't far behind at 6.89 million bbl. Increase on the East Coast was light, perhaps due to most of the week's decrease in U.S. imports taking place in PADD 1. At the same time, U.S. exports of gasoline ticked higher, to 872,000 b/d.

In a repeat of the previous week, U.S. crude stocks were virtually unchanged. While refiners tend to avoid filling crude tanks at end-year for tax purposes, inventories haven't moved much over the last four weeks. That contrasts with the 12-million-bbl slide seen in the last two weeks of 2017.

Not surprisingly, crude imports fell (to 7.4 million b/d), as did exports of oil (to 2.2 million b/d). However, exports at 2 million b/d appear firmly fixed as a floor for the outbound trade heading into 2019, considering the fact that in the last 16 weeks exports have dipped below 2 million b/d just three times.

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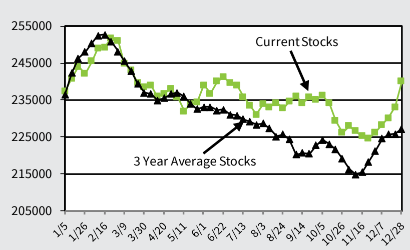
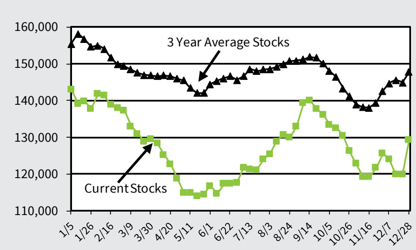
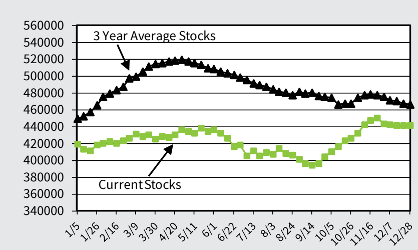
Gasoline Stocks



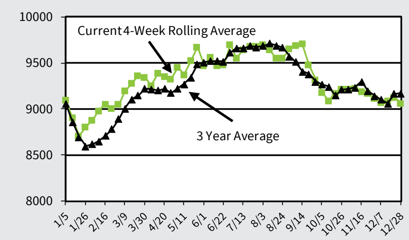
Distillate Stocks



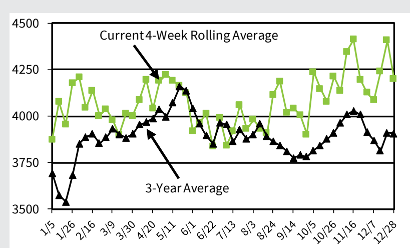
Crude Stocks



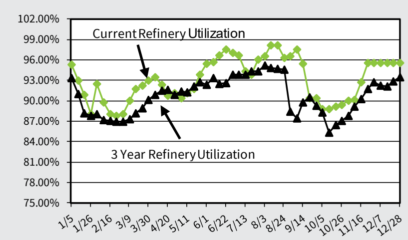
Gasoline Consumption



Distillate Consumption



Refinery Utilization



PADD 1 Northeast

NORTHEAST SPOT-RACK-RETAIL MARGINS

National Index	Gasoline	▲ Last Wk.	Diesel	▲ Last Wk.
Retail	246.66	-3.80	316.63	-3.32
Net	185.67	-3.79	220.50	-5.62
Wholesale	143.06	1.04	173.59	-5.86
Rack-Retail Margin	42.61	-4.83	46.91	0.24
NY Spot	135.21	0.42	170.06	-3.55
Regional Spot-Rack Margin	7.85	0.62	3.53	-2.31
Regional Spot-Retail Margin	50.46	-4.21	50.44	-2.07

Note: All prices are averages in cts/gal

- New England heating oil marketers continue to get $2.75-$2.95/gal at retail, maintaining some of the widest profit margins of the decade.
- BJ's has seen gasoline volumes soar thanks to posting retail prices that are often 25-40cts/gal below c-store prices.
- Problems at the Philadelphia Energy Solutions refinery – specifically limping fluid catalytic cracking units – are crimping domestically produced gasoline supplies in the Middle Atlantic.

PADD 1 Southeast

SOUTHEAST SPOT-RACK-RETAIL MARGINS

National Index	Gasoline	▲ Last Wk.	Diesel	▲ Last Wk.
Retail	210.10	-4.82	291.52	-3.50
Net	155.77	-5.22	204.48	-3.85
Wholesale	132.79	0.60	170.31	-4.89
Rack-Retail Margin	22.98	-5.83	34.17	1.03
NY Spot	135.21	0.42	170.06	-3.55
Regional Spot-Rack Margin	-2.42	0.18	0.25	-1.34
Regional Spot-Retail Margin	20.56	-5.64	34.42	-0.30

Note: All prices are averages in cts/gal

- Retail gasoline prices in Lower Atlantic states began 2019 with average numbers some 23-32cts/gal below where they commenced 2018.
- Gulf Coast spot gasoline prices soared some 15cts/gal in the first three business days of 2019, dissolving about one third of retailer margins.
- Bulk ethanol in the Southeast cost about 20cts/gal more than gasoline blendstock as the year began, and it would take a doubling of RIN values to price an 88-octane E15 gasoline attractively.

PADD 2 Midwest

MIDWEST SPOT-RACK-RETAIL MARGINS

National Index	Gasoline	▲ Last Wk.	Diesel	▲ Last Wk.
Retail	200.45	-7.60	285.34	-5.24
Net	150.60	-7.28	192.51	-6.37
Wholesale	129.07	0.83	161.73	-6.35
Rack-Retail Margin	21.52	-8.11	30.77	-0.02
Chicago Spot	122.06	2.57	146.81	-9.99
Regional Spot-Rack Margin	7.01	-1.74	14.92	3.64
Regional Spot-Retail Margin	28.54	-9.85	45.70	3.62

Note: All prices are averages in cts/gal

- Chicago jet fuel differentials hit a multiyear low on Jan. 3 after product was confirmed traded at a 20cts/gal discount to NYMEX ULSD.
- FCC downtime at Valero's McKee refinery in Texas was expected to last until at least Jan. 7 after a late-December unplanned outage due to a leak, according to market sources.
- On Jan. 2, Chicago ULSD differentials fell to their weakest level versus NYMEX since early 2015, according to OPIS data. Values have been assessed at a discount since late November, steadily widening since Thanksgiving.

PADD 3 Gulf Coast

GULF COAST SPOT-RACK-RETAIL MARGINS

National Index	Gasoline	▲ Last Wk.	Diesel	▲ Last Wk.
Retail	194.43	-4.14	281.86	-3.70
Net	154.01	-4.03	190.23	-5.56
Wholesale	131.68	0.33	169.53	-5.56
Rack-Retail Margin	22.33	-4.37	20.70	0.00
Gulf Coast Spot	127.81	3.32	160.56	-0.99
Regional Spot-Rack Margin	3.87	-2.99	8.97	-4.57
Regional Spot-Retail Margin	26.20	-7.35	29.67	-4.57

Note: All prices are averages in cts/gal

- One of two diesel hydrotreaters at ExxonMobil's Beaumont refinery last week experienced a process unit upset, according to a filing with the Texas Commission on Environmental Quality.
- Gulf Coast spot prices were ending 2018 at some of their lowest levels in at least a year, but last week began to rally back from those levels.
- Petrobras, a major importer of U.S.-produced diesel and jet fuel from the Gulf Coast, hiked its domestic diesel price by 2.5% last week, the company announced.

PADD 4 Rockies

National Index	Gasoline	▲ Last Wk.	Diesel	▲ Last Wk.
Retail	241.49	-6.09	306.32	-3.41
Net	194.09	-6.09	205.80	-4.93
Wholesale	140.85	-1.76	179.39	-5.03
Rack-Retail Margin	53.24	-4.33	26.41	0.11
Group 3 Spot	124.56	1.02	161.06	-3.30
Regional Spot-Rack Margin	16.29	-2.78	18.33	-1.73
Regional Spot-Retail Margin	69.53	-7.11	44.74	-1.63

Note: All prices are averages in cts/gal

- With the exception of Colorado, where average rack gasoline prices were flattening, Rockies gas prices continue to slip. Most cities in the region have seen prices slip by 5cts to 7cts/gal.
- State retail fuel averages were down across the board, but amid softening rack averages, the average rack-to-retail margins have continued their incredible run. The strongest gross margins were in Wyoming, where gasoline and diesel margins were above 90cts/gal

PADD 5 West Coast

National Index	Gasoline	▲ Last Wk.	Diesel	▲ Last Wk.
Retail	317.30	-3.87	339.84	-4.34
Net	252.00	-3.68	236.16	-7.72
Wholesale	190.11	-7.85	185.37	-7.70
Rack-Retail Margin	61.89	4.17	50.79	-0.02
LA Spot	160.06	-3.48	170.81	-1.99
Regional Spot-Rack Margin	30.05	-4.37	14.56	-5.71
Regional Spot-Retail Margin	91.94	-0.20	65.35	-5.73

Note: All prices are averages in cts/gal

- Shell Anacortes is planning a February turnaround that includes downtime for at least the FCC, a market source told OPIS.
- Cash basis differentials for L.A. CARBOB gasoline weakened by 6.5cts/gal to plus 18cts/gal on Jan. 3, influenced by refiner selling.
- API data for the week ended Dec. 28 reportedly showed that PADD5 gasoline stocks inched up by 38,000 bbl, to 28.5 million bbl, and distillates stocks increased by 342,000 bbl, to 12.3 million bbl.

Appeals Court Denies Request for Injunction Against Further SREs

A U.S. appeals court in late December refused to grant a request filed by a group of biofuel producers for an emergency moratorium barring EPA from granting any further small refinery exemptions (SREs) under the Renewable Fuel Standard (RFS) until it rules on a legal challenge to the waivers. The court, however, also declined EPA's motion to dismiss the case.

The group, which calls itself the Producers of Renewables United for Integrity Truth and Transparency, in July sued EPA in the U.S. Court of Appeals for the District of Columbia Circuit over the agency's approval of nearly 50 SREs for the 2016 and 2017 compliance years, actions that biofuel groups said allowed refiners to reduce their RFS obligations by more than 2 billion gal over that two-year period. The group's acronym, PRUITT, is an apparent dig at former EPA Administrator Scott Pruitt, who led the agency when the waivers were granted earlier in 2018.

Producers United, which did not disclose its member organizations in court filings, in the same November injunction request asked the court to block the refineries from using any of the Renewable Identification Numbers (RINs) they now have as a result of the waivers. The petitioner claimed those RINs were "invalid" and said they duplicate previously existing credits that EPA – in violation of its own rules – allowed for the reinstatement of expired of RINs in order to "make up" credits the small refineries retired to comply with RFS blending requirements before their SRE requests were granted. The petitioner also referred to the expired RIN reinstatements as "unretiring" them.

The court, in denying Producers United's request for the emergency stay, said the group had "not satisfied the stringent requirements or an injunction pending court review."

At the same time, the court declined to dismiss the case, a request filed by EPA on Dec. 4, instead sending it to a merits panel and setting a March 27 deadline for briefs.

In a Dec. 17 filing with the court, Producers United said that "without a stay, EPA will continue to undermine the [RFS] program through improper implementation of [SREs], causing irreparable harm to the biofuels industry."

The case involves sensitive information on both sides. At least one document – filed by the petitioner – has been filed under seal, with the court issuing guidelines for who can see the document and how much, if any of it, may be shared.

That document is said to be a declaration from one of the petitioner's members supporting the petitioner's case for the emergency injunction against EPA. On the other side of the case, EPA has argued that it cannot divulge the names of the refineries that received the exemptions because doing so may require it to reveal "confidential business information" (CBI).

Producers United said in a Dec. 14 brief that "EPA has not identified when or how the public was informed, prior to this litigation, that a small refinery can 'unretire' or revive [RINs] or the basis for doing so. This is not just EPA applying or interpreting its regulations; it is EPA creating entirely new authority for generating and using RINs for RFS compliance."

At the time Producers United asked for the injunction, EPA was considering 23 SRE petitions, 15 of them for the 2018 compliance year. As of Dec. 31, EPA's website indicated it was considering a total of 30 petitions – 22 for the 2018 compliance year, seven for 2017 and one for 2016.

EPA said last Monday on its website that some employees are on furlough because of the partial government shutdown, and that it would not be updating its website during the shutdown.

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SELECTED REFINERY FEEDSTOCKS PRICES

	U.S. Gulf Coast	West Coast (Los Angeles Basis)
	Wk. Avg	**Wk. Avg**
NAPHTHA	117.275	N/A
DOM. NAPHTHA	117.775	N/A
PAR. NAPHTHA#	404.225	N/A
DOM. FR NAPHTHA	114.775	N/A
LT.CYCLE	153.813	139.438
LS LT CYCLE	156.063	N/A
ST.RUN H.S.*	45.100	N/A
ST.RUN L.S.*	56.788	N/A
CARGO L.S. VGO	147.094	N/A
CARGO Med. VGO	146.794	N/A
CARGO H.S. VGO	146.494	N/A
BARGE L.S. VGO	145.756	155.325
BARGE Med. VGO	145.756	N/A
BARGE H.S. VGO	146.500	151.325

Prices U.S. cts/gal except where noted.
*Prices shown in U.S. $/bbl. # Prices shown in U.S. $/MT

Methodology: OPIS spot weekly averages are calculated by averaging the daily averages, adding each low and high for each business day and dividing by the total.

SPOT MARKET PRICES

ETHANOL
(in U.S. $/gal.)

	Wk Avg.
Chicago	1.2409
Chicago Rule 11	1.2641
New York	1.4200
Gulf Coast	1.3400
Dallas	1.3638
Tampa	1.4975
Nebraska	1.1875
Los Angeles	1.4875
San Francisco	1.4875
Phoenix	1.3975

MTBE/ALKYLATES

	Wk Avg.
MTBE	1.7000
Alkylate	1.5720

U.S. ETHANOL RIN VALUES
(in U.S. $/gal.)

	Wk Avg.
Current	0.21563
Previous	0.18406

Methodology: OPIS spot weekly averages are calculated by averaging the daily averages, adding each low and high for each business day and dividing by the total.

For more detailed daily Ethanol, RIN and MTBE pricing, please see OPIS Ethanol and Biodiesel Information Service or call 1-888-301-2645.

Ethanol Spot Values Tick Up in New Year

U.S. bulk ethanol markets flexed a little muscle last week as 2019 commenced but they did so amid the slow and disjointed physical trading that often emerges amid extended breaks and end-of-year posturing.

Weekly EIA data was again subject to a lengthy delay that left many spot players reluctant to engage the market without a look at the latest fuel supply and demand numbers. The federal agency is not impacted by the budget impasse between the President and Congress, but the New Year's holiday schedule meant that data normally available at midweek would not be published until Friday.

Heading into the latter half of last week, spot ethanol trading in Chicago had nearby values pushing $1.25/gal for in-tank transfers available this week. That had nearby ethanol values climbing as much as 3cts from end-of-2018 trading and picking up 8cts from the lows reached before Christmas. In fact, the new year kicked off with some of the highest spot ethanol values seen in Chicago since the Thanksgiving break.

Dead-prompt talks in Chicago also indicated $1.245-$1.25/gal, which appeared a bit firmer than any-January trading at $1.245/gal. Still, Chicago contango to the next month remained in place with any-February material talked over $1.275/gal by the middle of last week. Any-March physical talks suggested it would take more than $1.29/gal to make a deal.

Values for nearby ethanol in Chicago led the way higher in the New Year, but with supplies in the region still stubbornly heavy the market began 2019 much as it had spent the latter half of 2018, as the most depressed ethanol market in the U.S.

Some New York Harbor ethanol for January via barge traded at $1.41/gal with some material also lately talked around a 17cts premium to the swaps contract. The last seen indicated $1.42/gal on the barge and more or less kept Harbor values in the firmer range established over late December.

FOB railcars in the Midwest remained at a standstill last week, with little trading done on either side of New Year's Day amid a wide talking range. Cars on the Union Pacific line out of Nebraska were bid at $1.17/gal while offers loitered around $1.20/gal.

Westbound markets revealed California railcars finding little interest from buyers or sellers as 2019 started up. Washington cars traded at $1.43/gal for shipping last week. At the same time, product headed to Salt Lake City was reported moving at $1.41/gal and then later, up to 1.4350/gal.

Weak petroleum markets and wavering corn values through most of December certainly weighted on ethanol values through most of last month, but over the last week those markets stabilized and even started to gain some ground. Still, an extended rally might be a lot to ask from still-plump ethanol markets with nearby March corn up less than 2cts since Christmas and gains in gasoline futures even more scant over that time.

Maintaining the modest post-Christmas ethanol price momentum further into January may heavily depend on how EIA reads the ethanol supply and output situation for most of the last week of December, so it is not surprising that trade remained subdued as players awaited the holiday-delayed report.

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L.A. E10 Weakens; Still Towers Among U.S. Markets

Los Angeles 10%-ethanol-blended gasoline (E10) saw the only price decline in the U.S. last week, but it remains well above the next nearest market.

L.A. CARBOB values fell about 3.50cts to $1.57/gal, quite a ways from levels that nearly topped $2/gal in mid-December. Ethanol, on the other hand, rose the most of any U.S. bulk market (3.50cts) to reach $1.4850/gal. E10 values dropped 3cts to $1.5383/gal, but the grade is still some 20cts higher than the strongest market east of the Rockies. Margins for blenders in L.A. narrowed by 45pts, but at 3.23cts/gal they are still the best in the nation.

E10 prices elsewhere were varied. In New York, they picked up almost a penny to $1.3378/gal, which was the smallest jump among markets but which made the region the most expensive market outside the West Coast. Meanwhile, Chicago E10 continued as the lowest-priced, despite a 2.25cts gain, at $1.1670/gal. Gulf Coast E10 straddled the middle at $1.2350/gal, up almost 3cts on the week.

Margins for blenders east of the Rockies fell short of those seen in the West. In both Chicago and New York, blenders saw margins around 1.75cts/gal, while Gulf Coast blenders saw the slimmest margins at just 1.42cts/gal.

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Energy Transfer's Mariner East 2 NGL Pipeline Finally Starts Up

Energy Transfer LP said on Dec. 29 that its Mariner East 2 natural gas liquids (NGLs) pipeline is in service, available for both interstate and intrastate service.

OPIS notes that the project has been delayed a few times due to sinkholes and environmental protests. The new pipeline is expected to increase NGL exports out of Marcus Hook, Pa. Incremental export volume on the East Coast could tighten NGL supply availability in the Midwest during the peak demand period in winter.

The 350-mile NGL pipeline transports domestically produced ethane, propane and butane east from processing plants in Ohio across West Virginia and Pennsylvania to Energy Transfer's Marcus Hook Industrial Complex in Delaware County, Pa., where the NGLs are stored for distribution to local, domestic and waterborne markets.

Mariner East 2 is part of Energy Transfer's Mariner East system of pipelines designed to provide much-needed NGL takeaway capacity for the Marcellus and Utica Shale production areas in eastern Ohio, West Virginia and western Pennsylvania.

The Mariner East 2X pipeline, which parallels Mariner East 2, is expected to be in service in late 2019, the company said.

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U.S. & CANADA LP-GAS WEEKLY AVERAGES

Mont Belvieu

	PROPANE*	I. BUTANE*	N. BUTANE*	ISOBUTANE*	N. GASOLINE*
Weekly Average	63.8594	76.3750	68.1875	79.8594	95.9375

	PROPANE**	N. BUTANE**	ISOBUTANE**	N. GASOLINE**	NGL BASKET**
Weekly Average	62.9688	75.6250	79.8594	92.5625	55.4272

	OTHER PROPANE**	OTHER N.BUTANE**	OTHER ISOBUTANE**
Weekly Average	63.4375	75.6250	79.8594

	E-P MIX	N.G. (RIVER)	PURITY ETHANE	OTHER N.GASOLINE
Weekly Average	28.2500	98.5625	30.1250	94.1875

Conway InWell

	PROPANE	N. BUTANE	ISOBUTANE	N. GASOLINE	ETHANE (in E-P)
Weekly Average	56.8125	71.0313	85.2500	84.0625	20.2500

Conway In-Line

	PROPANE	N. BUTANE	ISOBUTANE	N. GASOLINE	ETHANE (in E-P)
Weekly Average	56.9063	71.0313	85.2500	84.0625	20.2500

Bushton

	PROPANE KM	N.BUTANE KM	ISOBUTANE KM	N.GAS KM	ETHANE KM
Weekly Average	56.8125	71.0313	85.2500	84.0625	20.2500

NOTE: MAPC prices are now designated as In-Well, **NON-TET, *TET=LDH

Louisiana

FOB Napoleonville Area

	PROPANE	N. BUTANE	ISOBUTANE	N. GASOLINE	PUR. ETHANE	E-P MIX
Weekly Average	45.9688	75.6250	88.4844	90.4375	27.6250	26.7500

FOB Geismer/Sorrento Area

	PROPANE	N. BUTANE	ISOBUTANE	N. GASOLINE	PUR. ETHANE
Weekly Average	56.9688	80.6250	73.3594	98.3125	32.6250

Los Angeles

	PROPANE	N. BUTANE	BUTANE MIX	ISOBUTANE
Weekly Average	125.5000	110.6250	110.6250	114.8750

Bakersfield

	PROPANE	N. BUTANE	BUTANE MIX	N. GASOLINE
Weekly Average	122.8750	98.6875	98.6875	112.9688

San Franscisco

	PROPANE	N. BUTANE	BUTANE MIX	ISOBUTANE
Weekly Average	124.3750	110.6250	110.6250	114.8750

Other LP-Gas Markets

Sarnia

	PROPANE	N. BUTANE	ISOBUTANE
Weekly Average	80.0000	68.1875	76.8594

Edmonton

	PROPANE	N. GASOLINE	FIELD GRADE BUTANE***
Weekly Average	26.8125	100.3391	10.2813

Hattiesburg

	IN-LINE PROPANE	STORAGE PROPANE
Weekly Average	67.1250	67.1250

Methodology: OPIS LP-Gas spot weekly averages are calculated by averaging the daily "Any" averages, Friday - Thursday. ***Formerly N. BUTANE

2019 Preview: Europe LPG Discounts to Naphtha Set to Remain Entrenched

European LPG prices are expected to continue trading at strong discounts to naphtha through 2019 with more U.S. LPG due to hit global markets, keeping LPG in the petrochemical feedstock slate.

2018 was a year in which northwest Europe propane prices climbed to a four-year high on the coattails of buoyant crude oil in October, only to be followed by a dramatic selloff in the next two months that resulted in propane losing a third of its value. OPIS propane CIF ARA peaked at $645/metric ton (mt) on Oct. 1 as Brent futures reached $84.15/bbl, before tumbling to $405/mt on Nov. 30 as the crude marker dropped to $58.87/bbl.

Despite outright price volatility, the market has looked relatively balanced over the year. Cash differentials assessed by OPIS have stayed within small premiums and discounts (except for seasonal adjustments in April-May), and the prompt structure witnessed to be mostly flat throughout.

Propane came back into favor as a petrochemical cracker feedstock in 2018, once more enjoying heavy discounts to naphtha after a relative hiatus in 2H 2017.

Northwest Europe propane prices have trended with OPIS Mont Belvieu propane markers in the U.S. Gulf which, as a value against crude, eased back into the 50s percentage band of West Texas Intermediate from a post-shale era high of above 80% in October-November 2017.

Propane's discount to naphtha in northwest Europe was continuously in the triple digits from February to June, sinking to a low of minus $159/mt on April 24, a 25% discount to the heavier grade at the time, although propane has since recovered to minus $31.50/mt of naphtha (92%) in the run-up to winter.

"For Europe in 2019 and into 2020, we expect another period of low LPG prices relative to crude oil and naphtha, incentivizing strong price-sensitive cracking right through next winter," said Keefer Douglas, director of NGLs in EMEA, IHS Markit. "This is being driven by resurgent supply growth in the United States, coupled with somewhat slower demand growth in China. The resulting length in the market should keep plenty of propane and butane available in Europe."

Douglas told OPIS he expects annual consumption totals in Europe in 2019 to be a little bit higher than in 2016, "but probably not much higher because crackers were already pushing against the ceiling then."

New gas-based petrochemical plants planned for Europe will not be ready until 2022 at the earliest following a string of investment announcements last year.

Borealis said in October that it is going ahead with the 750,000-mt/year propane dehydrogenation (PDH) plant in Antwerp, Belgium, which is scheduled to start up in 1H 2022. Ineos is building a comparable PDH plant and a 1 million-mt/year gas cracker at a yet-to-be announced location in northwest Europe. The PDH plant is planned for 2023 commissioning. In Poland, Grupa Azoty is targeting the end of 2022 to start commercial production at its 400,000-mt/year PDH unit in Police. The project includes an expansion to the company's seaborne import facilities, with U.S. supply being eyed.

No major production changes are anticipated in Europe's other main import sources in 2019. The North Sea continued to be the dominant supplier to northwest Europe during 2018, making up 53% of LPG imports through late December, according to IHS Waterborne data.

In Norway – the largest LPG exporter in Europe – NGL output narrowly missed forecasts in 2018 due to technical glitches. The latest data from the Norwegian Petroleum Directorate indicated that average production in 2018 was 336,000 b/d, 1.9% or 7,000 b/d under the agency's initial's predictions.

In 2019, scheduled works on gas installations will impact the North Sea producer's gas processing plants at Kollsnes and Karsto at intervals over spring and summer, peaking toward end-August.

Meanwhile, inland LPG and product distribution from the ARA in 2018 was hampered by an unprecedentedly long period of low water levels at the Rhine river. Barge access to areas of southwest Germany was restricted at the most severe time during August-October, leading storage terminals and chemical manufacturers to seek alternative transport options and reduce plant operations. Players in Europe's chemical market fear that the situation along the Rhine will not improve sooner than the first quarter of 2019.

Butane Values Struggle

The northwest Europe butane market was similarly weaker against naphtha in 2018, for most of the year trading in the 80s percentage band of CIF NWE naphtha. OPIS butane CIF ARA fell to a discount to propane in mid-November, which widened to $72.50/t by Dec. 13.

Butane cargo flows from northwest Europe to the Mediterranean trickled lower in 2018, stranding more product in northern Europe. That came as U.S. exports to the Mediterranean jumped by 1 million mt from 2017 to 2.7 million mt in January-October 2018. U.S. butane exports rose substantially last year, from May onward consistently topping 500,000 mt/month.

Trade flows may turn again after the construction of Ineos' new 135,000-cbm butane tank in Antwerp – said to be the largest in Europe – which is slated for 2019 completion. The storage will allow Ineos to transport LPG from the U.S. and around the world on Very Large Gas Carriers (VLGCs) into Antwerp. From there Ineos can either trade butane within Europe, or move product onto new 3,000-mt barges the group has ordered to supply its inland naphtha cracker in Cologne, Germany, via the Rhine.

U.S. Exports Push On

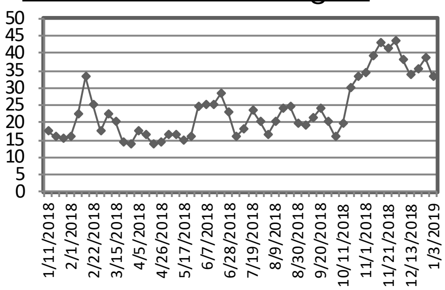
In 2019, new LPG exports will flow from Marcus Hook, Pa., now that Mariner East 2 is in service. The NGL pipeline

In Retail Markets

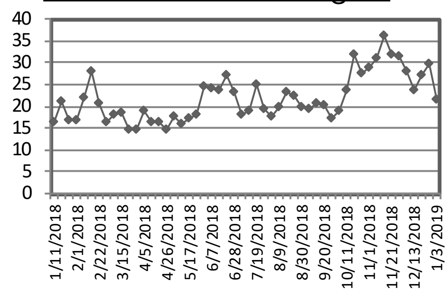
Current Margins By PADD vs Year-to-Date Margins

	Current Week				Year-To-Date			
PADD	**Retail**	**Net**	**Rack**	**Margin**	**Retail**	**Net**	**Rack**	**Margin**
PADD 1	226.97	170.72	137.69	33.02	227.24	171.01	137.61	33.40
PADD 2	200.45	150.60	129.07	21.52	200.64	150.69	128.99	21.70
PADD 3	194.43	154.01	131.68	22.33	194.64	154.20	131.66	22.54
PADD 4	241.49	194.09	140.85	53.24	241.79	194.40	140.90	53.50
PADD 5	317.30	252.00	190.11	61.89	317.56	252.25	190.35	61.90
National	**223.29**	**170.87**	**139.29**	**31.58**	**223.55**	**171.10**	**139.27**	**31.83**

PADD 1
Rack-To-Retail Margins



PADD 2
Rack-To-Retail Margins



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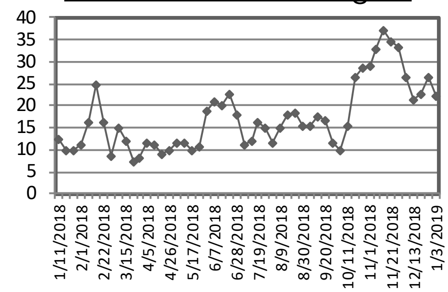
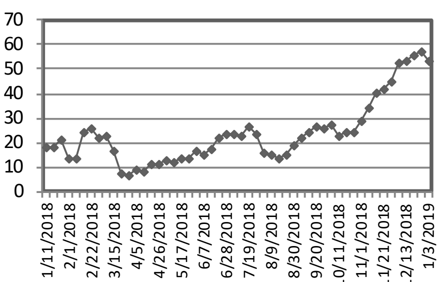
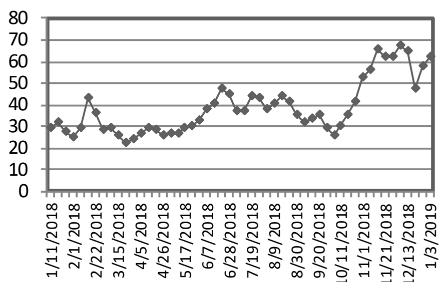
Rack-To-Retail Margins



PADD 4
Rack-To-Retail Margins



PADD 5
Rack-To-Retail Margins



project, which links production in the Appalachian region to the East Coast terminal, is favorably positioned for exports to Europe and the Mediterranean.

According to market sources, a European chemicals manufacturer is one of around six companies with a term contract out of Marcus Hook.

The ongoing U.S.-China trade war will keep pressure on the U.S. export market in 2019 as it propelled a redirection in trade flows last year. Beginning in August 2018, after China imposed 25% retaliatory tariffs on U.S. goods, the Far East country stopped taking all U.S. propane, IHS Waterborne data indicate. China imported 3.76 million mt of U.S. LPG in 2017, absorbing 13% of U.S. exports. The metric then plunged to 963,000 mt as of late 2018.

As a consequence, the U.S. has placed more LPG in Europe, South Korea and Southeast Asia, while China has relied on increased volumes from the Middle East in addition to picking up cargoes from less-conventional sources such as Australia and Argentina.

Export economics in the FOB U.S. Gulf Coast market generally fared better in 2018 than in previous years, particularly in the second half. Spot resale premiums, as reported to OPIS, traded for the most part in the 5.0-7.5cts/gal range over Mont Belvieu, compared to the 3.5-6.5cts/gal largely seen in 2017. Cargo cancellations at U.S. Gulf Coast export terminals, which were reported at similar numbers to the previous year in the mid-high 30s, mostly took place in the first and second quarters.

Heading into the new year, the U.S. arbitrage to Asia and Europe remained workable but tenuous, with spot resale premiums assessed at 4.5-5.5cts/gal over Mont Belvieu. Export rates are expected to remain high, helped by an easing in VLGC freight rates, although talk of a few lifting cancellations surfaced for December 2018.

According to IHS Markit's Keefer Douglas, the export market remains the key driver in global LPG trade going forward. "The story for Europe, and the world as a whole really, revolves around how much more U.S. LPG can get pushed into existing European crackers, and how much must find a home in Asia," Douglas said.

OPIS Europe LPG & Naphtha staff

U.S. Reseller Propane Prices

Wkly Propane Contract Avgs.

CONWAY, KS
AVERAGE 62.43

DIXIE PL
ALBANY, GA
AVERAGE 74.46

ALMA, GA
AVERAGE 75.10

CHERAW, SC
AVERAGE 76.42

DEMOPOLIS, AL
AVERAGE 72.76

HATTIESBURG, MS
AVERAGE 71.79

LEXINGTON, SC
AVERAGE 75.49

MILNER, GA
AVERAGE 74.17

OPELIKA, AL
AVERAGE 73.59

RALEIGH/APEX, NC
AVERAGE 77.51

ONEOK PL
BUSHTON, KS
AVERAGE 63.13

CLEAR LAKE, IA
AVERAGE 70.32

CORALVILLE, IA
AVERAGE 70.22

DES MOINES, IA
AVERAGE 69.59

LEMONT, IL
AVERAGE 69.58

MORRIS, IL
AVERAGE 68.50

PLATTSMOUTH, NE
AVERAGE 67.21

ROBINSON, IL
AVERAGE 81.75

ROCKFORD, IL
AVERAGE 71.94

TAMPICO, IL
AVERAGE 70.66

TUSCOLA, IL
AVERAGE 71.95

WYNNEWOOD, OK
AVERAGE 80.00

EAST TEXAS, TX
AVERAGE 84.00

KANEB PL
GENEVA, NE
AVERAGE 66.08

NORFOLK, NE
AVERAGE 67.61

NORTH PLATTE, NE
AVERAGE 68.26

Wkly Propane Contract Avgs.

ROCK RAPIDS, IA
AVERAGE 67.38

WOLSEY, SD
AVERAGE 69.57

YANKTON, SD
AVERAGE 67.60

SUPERIOR, WI
AVERAGE 77.10

CHEROKEE PL
WOOD RIVER, IL
AVERAGE 77.10

WOOD RIVER REF, IL
AVERAGE 75.00

LOS ANGELES, CA
AVERAGE 135.25

ARCADIA, TX
AVERAGE 84.00

MT. LAUREL, MT
AVERAGE 80.00

MAPCO PL
ALEXANDRIA, MN
AVERAGE 77.10

CANTRIL, IA
AVERAGE 68.00

CLAY CENTER, KS
AVERAGE 64.08

COFFEYVILLE, KS
AVERAGE 87.80

DUBUQUE, IA
AVERAGE 70.11

FARMINGTON, IL
AVERAGE 69.82

GREENWOOD, NE
AVERAGE 65.35

IOWA CITY, IA
AVERAGE 68.83

JACKSON, MN
AVERAGE 69.18

JANESVILLE, WI
AVERAGE 71.20

KEARNEY, MO
AVERAGE 65.71

LECOMPTON, KS
AVERAGE 65.65

MANKATO, MN
AVERAGE 68.85

MILWAUKEE, WI
AVERAGE 73.60

MOBERLY, MO
AVERAGE 67.01

MONEE, IL
AVERAGE 67.55

OGDEN, IA
AVERAGE 67.81

Wkly Propane Contract Avgs.

PINE BEND, MN
AVERAGE 70.45

PINE BEND REF, MN
AVERAGE 71.00

ROSEMOUNT, MN
AVERAGE 70.19

SANBORN, IA
AVERAGE 67.58

WHITING, IA
AVERAGE 66.19

GRANGER, WY
AVERAGE 80.60

HILITE, WY
AVERAGE 70.10

MENTOR, MN
AVERAGE 72.80

IGNACIO, CO
AVERAGE 80.85

OPAL, WY
AVERAGE 77.60

FT. LUPTON, CO
AVERAGE 86.60

MT. BELVIEU, TX
AVERAGE 78.64

LITTLE ROCK, AR
AVERAGE 93.30

PACIFIC NORTHWEST -
ANACORTES
AVERAGE 102.10

PACIFIC NORTHWEST -
TACOMA
AVERAGE 104.60

PACIFIC NOR
AVERAGE 103.35

TEPPCO
COSHOCTON, OH
AVERAGE 91.70

DUBOIS, PA
AVERAGE 91.92

GREENSBURG, PA
AVERAGE 90.98

LIGHT, AR
AVERAGE 95.33

ONEONTA, NY
AVERAGE 94.46

PRINCETON, IN
AVERAGE 83.88

SELKIRK, NY
AVERAGE 96.34

TODHUNTER, OH
AVERAGE 88.84

WATKINS GLEN, NY
AVERAGE 92.26

Wkly Propane Contract Avgs.

TIOGA, ND
AVERAGE 61.43

WEST TEXAS -
SLAUGHTER
AVERAGE 84.10

WEST TEXAS
AVERAGE 84.10

WILLIAMS PL
CANTON, SD
AVERAGE 72.50

CARTHAGE, MO
AVERAGE 87.80

RAPID RIVER, MI
AVERAGE 77.10

WATERTON, AB
AVERAGE 69.10

LEBANON, IN
AVERAGE 89.25

COCHIN
BENSON, MN
AVERAGE 76.50

LITTLE KNIFE, ND
AVERAGE 63.85

MANDAN, ND
AVERAGE 69.35

ST. CLAIR, MI
AVERAGE 71.75

MARYSVILLE, MI
AVERAGE 73.65

BAKERSFIELD, CA
AVERAGE 134.67

JUNCTION CITY, WI
AVERAGE 68.75

SHEERIN, TX
AVERAGE 77.00

TOPEKA, KS
AVERAGE 64.97

SAN FRANCISCO, CA
AVERAGE 133.67

ROCKIES - BILLINGS
AVERAGE 80.50

ROCKIES - CASPER
AVERAGE 77.35

ROCKIES
AVERAGE 78.93

TULSA, OK
AVERAGE 75.10

WOODHAVEN, MI
AVERAGE 90.75

Wkly Propane Contract Avgs.

CORPUS CHRISTI, TX
AVERAGE 83.00

FT. MADISON, IA
AVERAGE 68.26

EL DORADO, KS
AVERAGE 65.60

CATLETTSBURG, KY
AVERAGE 90.50

LIMA, OH
AVERAGE 89.62

HOBBS, NM
AVERAGE 83.60

CALUMET, OK
AVERAGE 76.60

GRIFFITH, IN
AVERAGE 69.80

INVER GROVE HEI, MN
AVERAGE 71.62

HUNTINGTON, IN
AVERAGE 72.21

BRIDGEPORT, TX
AVERAGE 78.35

GREEN BAY, WI
AVERAGE 76.60

GREELEY, CO
AVERAGE 86.60

PORTLAND OR -
PORTLAND
AVERAGE 98.10

PORTLAND OR
AVERAGE 98.10

Wkly Propane Contract Avgs.

Prices shown are for FOB terminal in cts/gal excluding taxes and discounts

U.S. Residual Fuel Prices

OPIS Weekly Residual Fuel (No.6 Oil) Spot Market Periscope

NY Harbor Barge Cargo

All values are cargo quantity

	Friday (12/28)	Monday (12/31)	Tuesday (01/01)	Wednesday (01/02)	Thursday (01/03)	Wk Avg.
NO.6 Oil 0.3% High Pour	60.05-60.15	60.75-60.85	Holiday	62.30-62.40	63.65-63.75	61.737
NO.6 Oil 1.0%	49.85-49.95	50.55-50.65	Holiday	52.10-52.20	53.45-53.55	51.538
NO.6 Oil 3.0%	48.55-48.65	49.25-49.35	Holiday	50.80-50.90	52.15-52.25	50.237

Gulf Coast Cargo

All prices are in $/bbl

	(12/28)	(12/31)	(01/01)	(01/02)	(01/03)	Wk Avg.
NO.6 Oil 3.0%	47.45-47.55	48.15-48.25	Holiday	49.75-49.85	51.20-51.30	49.187

U.S.-Canadian Rack Comparisons

	UNL	ULSD No.2	ULSD No.1
Albany, NY	-- --	176.01	201.30
Buffalo, NY	-- --	177.21	217.27
Warren, PA	-- --	135.63	-- --
Detroit, MI	149.08	141.70	202.10
Grand Forks, ND	144.00	163.75	199.35
Seattle, WA	182.00	157.50	180.90

	UNL	ULSD No.2	ULSD No.1
Montreal	165.33	215.16	229.35
Sarnia	150.30	187.32	197.62
Toronto	154.48	194.28	204.58
Vancouver	199.01	201.52	214.04
Winnipeg	162.27	195.39	202.35

U.S. net rack low market posting in cts/gal vs. Canadian low rack market postings in cts/gal after conversion by currency/volume factors. Approximately 3.785 liters comprise a U.S. gallon. Divide U.S. terms by 2.37 to convert to Canadian cts/liter. Canadian rack postings are offered as a barometer of market values and rarely reflect actual transacted prices.

Residual Fuel Rack Postings

All prices are in $/bbl, rack, unless otherwise noted. (B) indicates barge quantities, (C) indicates cargo quantities. Percent signs (%) indicate sulfur levels.

Company %	No.4	%	No.5	%	No.6
BOSTON, MA					
Global 0.50%	82.40			0.50%	76.20
1.00%	78.40			1.00%	68.20
				1.50%	61.90
				2.00%	61.20
				2.20%	57.60

Company %	No.4	%	No.5	%	No.6
QUINCY, MA					
Sprague0.50%	91.03			0.50%	86.74
NEW HAVEN, CT					
Buckley				0.50%	85.08
0.50%	90.48				

Company %	No.4	%	No.5	%	No.6
PORTLAND, ME					
Global 1.00%	78.50			2.00%	61.50
PROVIDENCE, RI					
Sprague1.00%	0.00				

Monthly U.S. Crude Production

All volumes shown in thousands of b/d. Source: Form EIA-914

Region/State	Oct-18	Sep-18	Oct-17
PADD1			
Pennsylvania	19	19	22
W. Virginia	45	42	30
PADD2			
Kansas	93	94	97
N. Dakota	1,369	1,338	1,184
Ohio	81	79	54
Oklahoma	575	571	497

Region/State	Oct-18	Sep-18	Oct-17
PADD3			
Arkansas	13	14	14
Louisiana	125	124	135
N.Mexico	772	739	519
Texas	4,701	4,683	3,776
Offshore GOM	1,742	1,771	1,477

Region/State	Oct-18	Sep-18	Oct-17
PADDs 4,5			
California	464	464	469
Colorado	497	475	409
Montana	60	61	55
Utah	106	109	97
Wyoming	250	258	221

Note: Weekly EIA production estimates for Alaska and Lower 48 can be found in the table on page 7.

In Jet Markets

Delta Provides Guidance for Final Quarter of 2018

Delta Air Lines expects its Q4 2018 earnings per share to be in the range of $1.25-$1.30, putting them at the upper end of guidance provided in October. Total revenue growth is expected to be 7% – excluding third-party refinery sales – on 4% capacity growth and total unit revenue growth of approximately 3%.

Non-fuel unit costs are expected to be down about 0.5% year over year as cost control initiatives, fleet upgrades, and other measures take hold.

Fuel price per gallon is anticipated at $2.38-$2.43/gal, or about 10 cents below earlier guidance. Delta said that the timing of inventory purchases and the Monroe refinery turnaround offset a portion of the benefit from the decline in fuel prices.

Mark-to-market adjustments on Delta's fuel hedges will add about 4cts/gal to the price of fuel, Delta reported.

The airline noted that third-party refinery sales took place roughly at the cost of their product so "the margin on these sales is de minimis."

The refinery earned Delta more than $100 million for the first three quarters of 2018, bringing the number of profitable quarters since Q1 2017 to seven.

Delta said it returned $560 million to shareholders through dividends and share repurchases in Q4, for a total of $2.5 billion in 2018.

In terms of traffic, Delta reported that revenue passenger miles in December rose 5.4%, with domestic miles growing 7% and international 2.6%.

December load factor was flat at 84.2% and year-to-date load factor dropped ten points to 85.5%.

Finally, U.S. spot jet fuel prices opened the first week of 2019 with mixed results. Refinery selling in Chicago kept that market the cheapest in the country. In fact, Chicago prices plunged to where they were discounted to the U.S. Gulf Coast by 12cts/gal.

Benjamin Brockwell, bbrockwell@opisnet.com

In Jet Markets

Aviation Gasoline U.S. Price Index

(Avgas prices in U.S. cts/gal)

Location	Price
Aberdeen, SD	314.96
Akron/Canton, OH	298.70
Albuquerque, NM	276.79
Anniston/Oxford, AL	289.43
Ardmore, OK	275.60
Argo, IL	244.00
Bar Harbor, ME	299.22
Baton Rouge, LA	244.81
Billings, MT	259.00
Burlington, VT	290.65
Chicago, IL	244.00
Colorado Springs, CO	278.47
Columbia, MO	271.98
Columbus, OH	280.70
Dallas Metro, TX	273.92
Dallas/Ft. Worth, TX	273.92
Des Moines, IA	271.85
Enid, OK	269.74
Ft. Dodge, IA	317.56
Ft. Smith, AR	277.10
Harlingen, TX	283.33
Houston, TX	228.00
Jefferson City, MO	272.62
Kansas City, KS	231.00
Knoxville, TN	281.05
Lexington, KY	294.32
Louisville, KY	296.08
Lubbock, TX	271.49
Mason Cty/Clr.Lk., IA	314.10
Minneapolis, MN	262.50
Missoula, MT	321.70
Muskegon, MI	276.85
Norfolk, VA	250.00
Oklahoma City, OK	268.55
Omaha, NE	274.64
Orlando, FL	274.13
Paducah, KY	290.82
Pasco, WA	328.50
Phoenix, AZ	280.16
Pierre, SD	318.46
Pn Bnd/FlntHlsRs, MN	262.50
Ponca City, OK	259.02
Portland, ME	253.00
Portland, OR	284.00
Rapid City, SD	311.52
Richmond, CA	268.21
Rogers, AR	279.01
Salt Lake City, UT	309.31
San Angelo, TX	300.25
San Francisco, CA	268.21
Seattle, WA	270.00
Shreveport, LA	275.22
St. Louis, MO	282.67
Toledo, OH	295.90
Tulsa, OK	273.71
Tyler, TX	225.50
West Memphis, AR	266.00
Wichita, KS	270.00
National Average	278.01

Commercial Airline Jet Fuel Ranges

(Contract prices into major airline storage in cts/gal, ex-taxes and discounts)

	LOW	HIGH	AVG	DEL. SPOT
ALBANY, NY	174.29	174.29	174.29	----
ATLANTA, GA	160.96	167.44	164.20	165.34
AUSTIN, TX	164.69	164.69	164.69	164.59
BALTIMORE, MD	162.96	163.94	163.45	165.34
BANGOR, ME	180.58	180.58	180.58	----
BATON ROUGE, LA	167.44	192.61	180.03	164.34
BIRMINGHAM, AL	----	----	----	166.34
BOND-MIAMI, FL	164.94	164.94	164.94	----
BOSTON, MA	175.58	175.58	175.58	167.34
BUFFALO, NY	179.08	181.58	180.33	180.74
CHARLESTON, SC	163.91	163.91	163.91	164.84
CHARLOTTE, NC	162.71	167.44	165.08	164.84
DALLAS METRO, TX	163.44	163.44	163.44	163.84
DC/DULLES, VA	163.44	163.44	163.44	164.69
FT. LAUDERDALE, FL	164.44	168.14	166.34	169.34
GREENSBORO, NC	162.91	167.44	165.18	165.34
GULF COAST, TX	197.15	197.15	197.15	162.59
HARTFORD, CT	177.99	177.99	177.99	175.74
HOOKER'S PT., FL	163.44	163.94	163.69	167.34
HOUSTON, TX	163.44	186.31	174.88	164.34
JFK, NY	173.58	173.58	173.58	167.34
LINDEN, NJ	----	----	----	166.59
LITTLE ROCK, AR	176.39	176.39	176.39	165.34
MIAMI, FL	164.44	164.44	164.44	169.84
MOBILE, AL	168.86	174.44	171.65	166.34
NASHVILLE, TN	----	----	----	165.59
NEW ORLEANS, LA	162.94	162.94	162.94	164.59
NEWARK, NJ	173.08	173.08	173.08	166.59
NEWBURGH, NY	180.58	180.58	180.58	180.74
NORFOLK, VA	167.44	167.44	167.44	165.59
ORLANDO, FL	164.94	194.52	174.88	170.34
PHILADELPHIA, PA	175.33	175.33	175.33	165.84
PITTSBURGH, PA	176.58	176.58	176.58	176.99
PORTLAND, ME	186.45	186.45	186.45	178.99
PT. EVERGLADES, FL	----	----	----	166.34
RALEIGH/APEX, NC	167.64	167.64	167.64	165.34
RICHMOND, VA	164.91	167.94	166.43	164.59
ROANOKE, VA	168.44	168.44	168.44	165.84
ROCHESTER, NY	179.83	179.83	179.83	180.74
SAN ANTONIO, TX	165.69	165.69	165.69	164.34
SAVANNAH, GA	164.01	164.01	164.01	159.34
SHREVEPORT, LA	189.53	189.53	189.53	166.34
SYRACUSE, NY	----	----	----	180.49
TAMPA, FL	171.60	171.60	171.60	166.84
WILMINGTON, NC	----	----	----	159.34
Contract Avg. East/Gulf Coast			**171.94**	
AKRON/CANTON, OH	193.89	193.89	193.89	167.34
CHATTANOOGA, TN	171.44	171.44	171.44	159.34
CHICAGO, IL	----	----	----	169.84
CINCINNATI, OH	165.19	165.19	165.19	166.89
CLEVELAND, OH	165.26	165.26	165.26	166.34
COLUMBIA, MO	207.88	207.88	207.88	166.59
COLUMBUS, OH	165.14	193.64	179.39	167.59
DAYTON, OH	165.04	165.04	165.04	165.84
DES MOINES, IA	159.21	159.21	159.21	166.84
DETROIT, MI	159.73	161.73	160.56	168.84
FARGO, ND	----	----	----	159.34
GREEN BAY, WI	----	----	----	169.34
INDIANAPOLIS, IN	163.54	163.54	163.54	168.84
KANSAS CITY, KS	158.86	158.86	158.86	166.59
LEXINGTON, KY	----	----	----	----
LOUISVILLE, KY	168.91	168.91	168.91	167.84
MEMPHIS, TN	164.44	164.44	164.44	165.84
MILWAUKEE, WI	163.61	163.61	163.61	168.34
MINNEAPOLIS, MN	----	----	----	169.59
OKLAHOMA CITY, OK	175.09	194.11	184.60	165.84
OMAHA, NE	158.91	200.18	179.55	167.34
RAPID CITY, SD	202.38	202.38	202.38	159.34
SALINA, KS	----	----	----	159.34
SIOUX FALLS, SD	----	----	----	159.34
ST. LOUIS, MO	190.21	190.21	190.21	165.94
TOPEKA, KS	----	----	----	159.34
TULSA, OK	170.04	193.72	181.88	165.09
WICHITA, KS	177.89	177.89	177.89	159.34
Contract Avg. Midwest			**175.19**	
AMARILLO, TX	193.62	193.62	193.62	----
ANCHORAGE, AK	163.26	163.26	163.26	179.39
BOISE, ID	186.48	186.48	186.48	----
BROWNSVILLE, TX	196.54	196.54	196.54	----
COLORADO SPRINGS, CO	201.23	201.23	201.23	----
DALLAS/FT. WORTH, TX	160.76	190.47	175.62	----
DENVER, CO	----	----	----	169.84
EL PASO, TX	168.44	172.81	170.63	----
HONOLULU, HI	162.61	162.61	162.61	181.14
LAS VEGAS, NV	165.75	165.75	165.75	175.64
LOS ANGELES, CA	194.30	196.80	195.55	171.74
LUBBOCK, TX	194.26	194.26	194.26	----
PHOENIX, AZ	186.30	186.30	186.30	175.64
PORTLAND, OR	----	----	----	173.14
SALT LAKE CITY, UT	183.94	183.94	183.94	186.34
SAN DIEGO, CA	----	----	----	174.14
SAN FRANCISCO, CA	169.73	169.73	169.73	173.39
SEATTLE, WA	166.45	170.98	168.72	177.14
SPARKS/RENO, NV	174.18	174.18	174.18	----
SPOKANE, WA	180.98	180.98	180.98	----
TUCSON, AZ	171.64	171.64	171.64	177.14
Contract Avg. Rocky Mt/West Coast			**180.06**	

U.S. Jet Fuel Inventory Picture

(figures in 1,000 b/d)

	Current Week	Last Week	Last Year
	12/28/18	**12/21/18**	**12/29/17**
Total Imports	26	66	289
Total US Distillates	**129,400**	**119,900**	**138,834**
Total Jet Kero Stocks (1000 bbls)			
U.S. Total	40,700	40,500	40,649
PADD 1	9,100	8,300	10,046
PADD 2	7,200	7,200	6,747
PADD 3	14,200	14,800	13,088
PADD 4	700	700	808
PADD 5	**9,500**	**9,400**	**9,960**