

# **Argus** US Products

Issue 18-72 | Monday 16 April 2018

## **OVERVIEW**

 May light, sweet crude futures decreased by \$1.17/bl to \$66.22/bl. Nymex RBOB gasoline futures today fell by 2.55¢/ USG to \$2.0399/USG, while Nymex ultra-low sulfur diesel (ULSD) decreased by 2.99¢/USG to \$2.0703/bl.

• US Gulf coast gasoline prices relaxed after hitting their highest levels since Hurricane Harvey last week.

The Argus Renewable Volume Obligation (RVO) gained 0.06¢/USG to settle at 4.81¢/USG.

The inter-regional spread between US Gulf coast and New York Harbor ULSD prices grew to 5.23¢/USG, its widest since 6 February.

Gasoline prices in Los Angeles, San Francisco and Portland reached their highest levels since mid-2015 amid regional refinery issues.

Vessel traffic on the Mississippi river at New Orleans, Louisiana, was operating normally today following a closure last week to clean up a fuel spill.

Marathon Petroleum plans to add 78 stores in upstate New York to its Speedway retail brand under a purchase expected to close this year.

## Contents

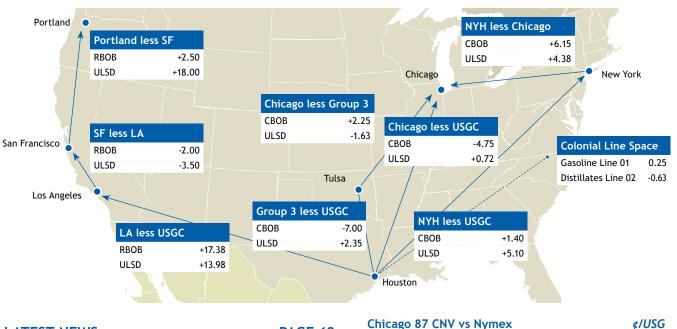
Gasoline	3
Distillates	7
Biofuels and blending components	12
Feedstocks and residual fuel oil	15
Latest news	18
Announcements	21

# MARKET SUMMARY

Price				¢/USC
	New York	Houston	Chicago	Los Angeles
	new rork	nouscon	enicago	Los Angeles
CBOB/suboctane	199.14	197.74	192.99	216.4
RBOB	202.84	201.12	202.99	218.4
87 conv	203.49	201.99	192.99	
Ethanol	156.75	154.90	146.40	162.7
Jet fuel	210.03	201.03	201.53	211.0
ULSD	207.66	202.56	203.28	215.2
Bunker fuel \$/t	382.50	355.00		379.5
Differential to Nym	iex			¢/US(
	New York	Houston	Chicago	Los Angele
CBOB/suboctane	-4.85	-6.25	-11.00	+12.5
RBOB	-1.15	-2.88	+10.00*	+14.5
87 conv	-0.50	-2.00	-11.00	
Jet fuel	+3.00	-6.00	-5.50	+4.0
ULSD	+0.63	-4.48	-3.75	+8.2
Bunker fuel \$/t	-5.66	-10.02		-6.1
Bunker fuel \$/t *Basis Chicago CBOB	-5.66	-10.02		-6.1
*Basis Chicago CBOB	-5.66	-10.02		
· · · · ·	_		Chicago	¢/US0
*Basis Chicago CBOB	-5.66 New York	-10.02 Houston	Chicago	¢/US(
*Basis Chicago CBOB	_		Chicago	¢/US Los Angele
*Basis Chicago CBOB Change on day	New York	Houston	Chicago	¢/USe Los Angele +0.4
*Basis Chicago CBOB Change on day CBOB/suboctane	New York +6.25	Houston -2.73	Chicago	¢/USe Los Angele +0.4
*Basis Chicago CBOB Change on day CBOB/suboctane RBOB	New York +6.25 +9.95	Houston -2.73 -3.30	Chicago	¢/US Los Angele +0.4 +0.4
*Basis Chicago CBOB Change on day CBOB/suboctane RBOB 87 conv	New York +6.25 +9.95 -3.55	Houston -2.73 -3.30 -2.98		¢/US Los Angele +0.4 +0.4
*Basis Chicago CBOB Change on day CBOB/suboctane RBOB 87 conv Ethanol	New York +6.25 +9.95 -3.55 -0.50	Houston -2.73 -3.30 -2.98 -1.97		
*Basis Chicago CBOB Change on day CBOB/suboctane RBOB 87 conv Ethanol Jet fuel	New York +6.25 +9.95 -3.55 -0.50 -1.99	Houston -2.73 -3.30 -2.98 -1.97 -3.39		¢/USG Los Angele +0.4 +0.4 -1.9
*Basis Chicago CBOB Change on day CBOB/suboctane RBOB 87 conv Ethanol Jet fuel ULSD	New York +6.25 +9.95 -3.55 -0.50 -1.99 -2.62 nc	Houston -2.73 -3.30 -2.98 -1.97 -3.39 -3.22		¢/USA Los Angele +0.4 +0.4 -1.9 -2.7 -5.5
*Basis Chicago CBOB Change on day CBOB/suboctane RBOB 87 conv Ethanol Jet fuel ULSD Bunker fuel \$/t	New York +6.25 +9.95 -3.55 -0.50 -1.99 -2.62 nc	Houston -2.73 -3.30 -2.98 -1.97 -3.39 -3.22		¢/USA Los Angele +0.4 +0.4 +0.4 -1.9 -2.7 -5.5 ¢/USA
*Basis Chicago CBOB Change on day CBOB/suboctane RBOB 87 conv Ethanol Jet fuel ULSD Bunker fuel \$/t CME Nymex future	New York +6.25 +9.95 -3.55 -0.50 -1.99 -2.62 nc	Houston -2.73 -3.30 -2.98 -1.97 -3.39 -3.22 -12.50		¢/USA Los Angele +0.4 +0.4 +0.4 -1.9 -2.7 -5.5 ¢/USA ULS
*Basis Chicago CBOB Change on day CBOB/suboctane RBOB 87 conv Ethanol Jet fuel ULSD Bunker fuel \$/t CME Nymex future Month	New York +6.25 +9.95 -3.55 -0.50 -1.99 -2.62 nc	Houston -2.73 -3.30 -2.98 -1.97 -3.39 -3.22 -12.50 RBOB		¢/USA Los Angele +0.4 +0.4 +0.4 -1.9 -2.7 -5.5 ¢/USA ULS 207.0
*Basis Chicago CBOB Change on day CBOB/suboctane RBOB 87 conv Ethanol Jet fuel ULSD Bunker fuel \$/t CME Nymex future: Month May	New York +6.25 +9.95 -3.55 -0.50 -1.99 -2.62 nc	Houston -2.73 -3.30 -2.98 -1.97 -3.39 -3.22 -12.50 RBOB 203.99		¢/USA Los Angele +0.4 +0.4 +0.4 -1.9 -2.7 -5.5 ¢/USA ULS 207.0 206.1
*Basis Chicago CBOB Change on day CBOB/suboctane RBOB 87 conv Ethanol Jet fuel ULSD Bunker fuel \$/t CME Nymex future: Month May Jun	New York +6.25 +9.95 -3.55 -0.50 -1.99 -2.62 nc	Houston -2.73 -3.30 -2.98 -1.97 -3.39 -3.22 -12.50 RBOB 203.99 204.44		¢/US Los Angele +0.4 +0.4 +0.4 -1.9 -2.7 -5.5 ¢/US 207.0 206.1 205.5
*Basis Chicago CBOB Change on day CBOB/suboctane RBOB 87 conv Ethanol Jet fuel ULSD Bunker fuel \$/t CME Nymex futures Month May Jun Jul	New York +6.25 +9.95 -3.55 -0.50 -1.99 -2.62 nc	Houston -2.73 -3.30 -2.98 -1.97 -3.39 -3.22 -12.50 RBOB 203.99 204.44 203.89		¢/US0 Los Angele +0.4 +0.4 -1.9 -2.7

# ARGUS MARKET MAP

¢/USG



# LATEST NEWS

**PAGE 18** 

## Infrastructure

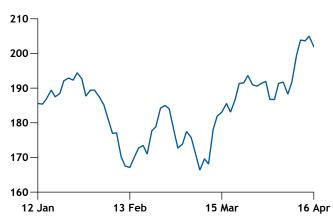
- Mississippi river traffic resumes
- Shell restarts Zydeco pipeline section
- Pasadena refinery pollution equipment upsets

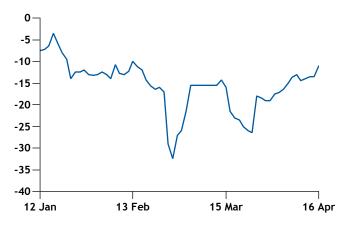
## Industry

- Refinery issues boost US West coast gasoline
- Marathon to buy 78 New York retail stores
- Mexico imports 81pc of gasoline demand in Feb
- Argentina eyes Canadian biodiesel market
- Minas Gerais state sees record ethanol output
- Glencore wins PetroEcuador diesel contract

## 87M Colonial cash

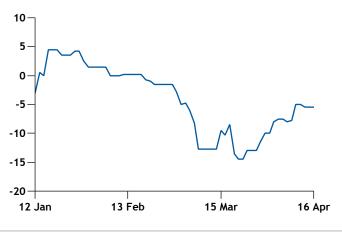












Licensed to: Jessica Laskosky, Argus Media Inc (New York)



#### Atlantic coast

US Atlantic coast RBOB differentials fell on Monday amid weakened regional demand.

Prompt Region 2 RBOB traded at May Nymex  $-1.15 \notin /USG$ , as differentials fell lower than the previous session by  $0.35 \notin /USG$  on average. The market was in contango past the prompt timeframe with generic RBOB for any April discussed at May Nymex  $-0.9 \notin /USG$ .

Regular 7.8 RVP CBOB was offered at May Nymex -4.75¢/ USG and valued at May Nyemx -4.85¢/USG, equal to the last trade value from the previous session.

Regular 9.0 RVP CBOB was offered and valued at May Nymex  $-8 \notin$ /USG, slightly weaker than the last session.

Premium Region 2 RBOB was offered and valued at May Nymex +13.5¢/USG, while premium 7.8 and 9.0 RVP CBOB were unchanged at May Nymex +14.75¢/USG and +10¢/USG, respectively.

Colonial offline M2 was valued at May Nymex  $-0.5 \notin$ /USG based on an offer level, weaker by 1 $\notin$ /USG than the previous session. The curve was flat with a cycle 16 to cycle 18 roll done at flat.

Colonial offline A2 was unchanged at May Nymex -6¢/USG amid a lack of bidding or selling interest.

The 3-2-1 Brent crack spread in the US Atlantic coast settled at \$13.3544/bl as the price of Brent crude fell slightly.

#### Gulf coast

The value of gasoline in the US Gulf coast slid lower Monday as both the May Nymex RBOB basis and regional differentials posted losses, easing outright prices off from their highest levels in more than 7 months.

Differentials in the region were weaker across most grades, with only 9.0 RVP premium CBOB (D2) breaking this pattern, gaining  $0.25 \notin/USG$  as prompt trade was done at May Nymex RBOB +4 $\notin/USG$ .

Valuations were mostly range-bound, with trade occurring at or below the previous session's levels.

The 9.0 RVP regular CBOB (A2) was marginally weaker in

CME Nymex F	RBOB			
Price			Crack spre	ad
Month	¢/USG	±	Month	\$/Ы
May	203.99	-2.55	May	+19.46
Jun	204.44	-2.42	Jun	+19.66
Jul	203.89	-2.44	Jul	+19.69

Atlantic coast				¢/USC
	Basis	Differential	Price	3
New York waterborne				
87 conv inc duty 9.0	May	-0.75/-0.25	203.24-203.74	-3.55
87 conv ex duty 9.0	May	-7.24/-6.74	196.75-197.25	-3.61
Reg CBOB inc duty 7.8	May	-3.45/-3.25	200.54-200.74	+6.25
Reg CBOB ex duty 7.8	May	-9.94/-9.74	194.05-194.25	+6.18
Reg RBOB inc duty R2	May	+0.25/+0.45	204.24-204.44	-2.90
Reg RBOB ex duty R2	May	-6.24/-6.04	197.75-197.95	-2.96
89 conv inc duty 9.0			207.97-208.47	-3.20
Prem RBOB inc duty R2	May	+14.90/+15.10	218.89-219.09	-2.68
93 conv inc duty 9.0	May	+12.75/+13.25	216.74-217.24	-2.55
Boston waterborne				
Reg RBOB R2	May	+1.23/+1.48	205.22-205.47	-2.90
Colonial Linden				
87 conv M Cycle 17 9.0	May	-0.75/-0.25	203.24-203.74	
89 conv Cycle 17 9.0			207.88-208.55	
93 conv V Cycle 16 9.0	May	+12.50/+13.50	216.49-217.49	
Reg CBOB Cycle 17 9.0	May	-6.75/-5.25	197.24-198.74	
Reg RBOB Cycle 16 9.0	May	+2.00/+2.25	205.99-206.24	
New York barge				
Reg CBOB dead prompt 7.8	May	-4.95/-4.75	199.04-199.24	-2.5
Reg CBOB prompt 7.8	May	-4.95/-4.75	199.04-199.24	-2.5
Reg CBOB dead prompt 9.0	May	-8.25/-7.75	195.74-196.24	-2.9
Reg CBOB prompt 9.0	May	-8.25/-7.75	195.74-196.24	-2.9
Reg RBOB dead prompt R2	May	-1.25/-1.05	202.74-202.94	-3.0
Reg RBOB prompt R2	May	-1.25/-1.05	202.74-202.94	-2.9
Prem CBOB dead prompt 7.8	May	+14.50/+15.00	218.49-218.99	-2.5
Prem CBOB prompt 7.8	May	+14.50/+15.00	218.49-218.99	-2.5
Prem CBOB dead prompt 9.0	May	+9.75/+10.25	213.74-214.24	-2.5
Prem CBOB prompt 9.0	May	+9.75/+10.25	213.74-214.24	-2.5
Prem RBOB dead prompt R2	May	+13.25/+13.75	217.24-217.74	-2.6
Prem RBOB prompt R2	May	+13.25/+13.75	217.24-217.74	-2.6
Buckeye	may	13.23, 13.73	217.2120.71	2.0
Reg CBOB dead prompt 7.8	May	-4.95/-4.75	199.04-199.24	-2.5
Reg CBOB prompt 7.8	May	-4.95/-4.75	199.04-199.24	-2.5
Reg CBOB dead prompt 9.0	May	-8.25/-7.75	195.74-196.24	-2.9
Reg CBOB grompt 9.0	May	-8.25/-7.75	195.74-196.24	-2.9
Reg RBOB dead prompt R2	May	-1.25/-1.05	202.74-190.24	-3.0
Reg RBOB prompt R2	May	-1.25/-1.05	202.74-202.94	-2.9
Prem CBOB dead prompt 7.8	May	+14.50/+15.00	218.49-218.99	-2.5
Prem CBOB prompt 7.8	May	+14.50/+15.00	218.49-218.99	-2.5
		+9.75/+10.25	213.74-214.24	-2.5
Prem CBOB dead prompt 9.0	May		213.74-214.24	
Prem CBOB prompt 9.0	May	+9.75/+10.25		-2.5
Prem RBOB dead prompt R2	May	+13.25/+13.75	217.24-217.74	-2.68
Prem RBOB prompt R2	May	+13.25/+13.75	217.24-217.74	-2.68
Laurel		0 25/775	105 74 404 24	2.01
Reg CBOB 9.0	May	-8.25/-7.75	195.74-196.24	-2.95
Prem CBOB 9.0	May	+9.75/+10.25	213.74-214.24	-2.5
Reg RBOB R2	May	-0.75/-0.55	203.24-203.44	-2.90



Delivered Florida			¢/USG
	Origin	Price	±
Port Everglades, Florida			
Reg CBOB A 9.0	USGC	200.60	-2.72
Prem CBOB D 9.0	USCG	216.10	-2.30
Tampa, Florida			
Reg CBOB A 9.0	USGC	200.05	-2.73
Prem CBOB D 9.0	USCG	215.55	-2.30

Delivered South Americ	a		\$/m3
	Origin	Price	±
Santos, Brazil			
87 conv ex-RVO	USGC	548.42	-8.04
Eurobob Oxy	ARA	519.74	-5.56
Paranagua, Brazil			
87 conv ex-RVO	USGC	548.83	-8.04
Eurobob Oxy	ARA	520.18	-5.56
Itaqui, Brazil			
87 conv ex-RVO	USGC	539.50	-8.04
Eurobob Oxy	ARA	512.03	-5.56
Suape, Brazil			
87 conv ex-RVO	USGC	540.35	-8.04
Eurobob Oxy	ARA	511.38	-5.55
Montevideo, Uruguay			
87 conv ex-RVO	USGC	545.06	-8.04
Eurobob Oxy	ARA	516.40	-5.55
Buenos Aires, Argentina			
87 conv ex-RVO	USGC	546.04	-8.05
Eurobob Oxy	ARA	517.46	-5.56

daily comparison, with trades occurring between May Nymex RBOB -12¢/USG and -11¢/USG. Differentials for 9.0 RVP 87 conventional (M2) fell more sharply, with deals for cycle 22 material occurring from May Nymex RBOB -7¢/USG down to -7.5¢/USG.

Forward structure for A2 held in a mild backwardation, with cycle rolls trading about  $0.25 \notin$ /USG backwards per cycle. On the other hand, the conventional M2 forward curve was seen flat for the foreseeable future.

VOC-controlled regular RBOB (F1) and premium RBOB (H1) fell the most of out of any grades Monday, shedding  $0.75 \notin/USG$  and  $1.5 \notin/USG$ , respectively. Traders for the former were done at May Nymex RBOB -3 $\notin/USG$  and -2.75 $\notin/USG$ .

Gasoline line space values rebounded Monday amid the day's softer differentials, with trade for cycle 22 space being done at +0.25¢/USG. This lifted values by 0.5¢/USG in daily comparison.

Gulf coast				¢/USC
	Basis	Differential	Price	ł
Colonial				
87 conv M 9.0 Cycle 22	May	-7.50/-7.00	196.49-196.99	-2.9
Weighted average		-7.16	196.83	
87 conv M 9.0 Cycle 23	May	-7.50/-7.00	196.49-196.99	-2.9
Reg RBOB F R1 Cycle 22	May	-3.00/-2.75	200.99-201.24	-3.3
Weighted average		-2.88	201.11	
Reg RBOB F R1 Cycle 23	May	-3.00/-2.75	200.99-201.24	-3.3
Reg CBOB A 9.0 Cycle 22	May	-12.00/-11.00	191.99-192.99	-2.7
Weighted average		-11.52	192.47	
Reg CBOB A 9.0 Cycle 23	May	-12.25/-11.25	191.74-192.74	-2.7
89 conv 9.0			200.78-201.28	-2.9
Prem CBOB D 9.0 Cycle 22	May	+3.50/+4.50	207.49-208.49	-2.3
93 conv V 9.0 Cycle 22	May	+4.75/+5.25	208.74-209.24	-2.9
93 conv V 9.0 Cycle 23	May	+4.75/+5.25	208.74-209.24	-2.9
Prem RBOB R1 Cycle 22	May	+9.50/+10.50	213.49-214.49	-4.0
Prem RBOB R1 Cycle 23	May	+9.50/+10.50	213.49-214.49	-4.0
Colonial Line Space				
Gasoline Line 01 Cycle 22			0.00/0.50	+0.5
Weighted average			0.25	
Waterborne				
Reg CBOB A 9.0	May	-10.75/-9.75	193.24-194.24	-2.7
87 conv M 9.0	May	-6.25/-5.75	197.74-198.24	-2.9
89 conv 9.0			202.03-202.53	-2.9
Prem CBOB 9.0	May	+4.75/+5.75	208.74-209.74	-2.3
93 conv V 9.0	May	+6.00/+6.50	209.99-210.49	-2.9
Waterborne ex-RVO				
Reg CBOB A 9.0	May	-15.56/-14.56	188.43-189.43	-2.7
87 conv M 9.0	May	-11.06/-10.56	192.93-193.43	-3.0
89 conv 9.0			197.22-197.72	-3.0
93 conv V 9.0	May	+1.19/+1.69	205.18-205.68	-3.04
see distillates section for Col		02 assessment		

see distillates section for Colonial Line 02 assessment

weighted average is volume-weighted average of deals done during the entire trading day

Gulf coast supplementa	ગ			¢/USG
	Basis	Differential	Price	±
Colonial				
87 conv M 7.8 Cycle 22	May	-2.25/-1.75	201.74-202.24	-2.98
Weighted average		-2.00	201.99	
Reg CBOB A 7.8 Cycle 22	May	-6.75/-5.75	197.24-198.24	-2.73
Weighted average		-6.25	197.74	
89 conv 7.8			206.03-206.53	-2.98
Prem CBOB D 7.8 Cycle 22	May	+8.75/+9.75	212.74-213.74	-2.30
93 conv V 7.8 Cycle 22	May	+10.00/+10.50	213.99-214.49	-2.98
Waterborne				
Reg CBOB A 7.8	May	-5.50/-4.50	198.49-199.49	-2.73
87 conv M 7.8	May	-1.00/-0.50	202.99-203.49	-2.98
89 conv 7.8			207.28-207.78	-2.98
Prem CBOB 7.8	May	+10.00/+11.00	213.99-214.99	-2.30
93 conv V 7.8	May	+11.25/+11.75	215.24-215.74	-2.98
Waterborne ex-RVO				
Reg CBOB A 7.8	May	-10.31/-9.31	193.68-194.68	-2.79
87 conv M 7.8	May	-5.81/-5.31	198.18-198.68	-3.04
89 conv 7.8			202.47-202.97	-3.04
Prem CBOB 7.8	May	+5.19/+6.19	209.18-210.18	-2.36
93 conv V 7.8	May	+6.44/+6.94	210.43-210.93	-3.04
see distillates section for Cold	nial Line	02 assessment		

see distillates section for Colonial Line 02 assessment

weighted average is volume-weighted average of deals done during the entire trading day



#### **Midcontinent**

The midcontinent gasoline cash differentials pushed higher on Monday.

The rise came as the Nymex RBOB contract weakened and amid reports that Phillips 66's 356,000 b/d Wood River joint-venture refinery in Roxana, Illinois flared over the weekend.

The generic CBOB rallied 3¢/USG to May Nymex -11¢/USG.

The Wolverine and BCX markets were slow to trade but assessed higher, in-line with the moves made in the generic market.

Suboctane V grade in Group Three rose  $0.25 \neq /USG$  with the market at May Nymex  $-13.25 \neq /USG$ .

The premium grades in the midcontinent were actually slightly weaker compared to the lower octane gasoline values.

RBOB's premium to the CBOB market was unchanged for all locations.

#### West coast

California CARBOB differentials firmed on Monday amid a refinery hiccup in southern California.

Los Angeles prompt CARBOB traded at May Nymex +14¢/ USG and +15¢/USG, moving differentials up by 3¢/USG from Friday. A trade was also heard at May Nymex +14.75¢/USG. Cash prices edged higher by 0.5¢/USG to close at \$2.19/USG. May CARBOB was heard traded at June Nymex +13¢/USG, also lifting differentials up by 3¢/USG. Prices gained 0.6¢/USG to \$2.17/USG.

A breakdown led to increased flaring at Andeavor's 363,500 b/d Los Angeles refining complex in California.

Increased flaring at Andeavor is expected to conclude by 3am ET on 18 April, according to the filing.

Prompt San Francisco CARBOB was heard traded at a 2¢/ USG discount to its Los Angeles counterpart. Cash differentials gained 4.5¢/USG and prices moved up by about 2¢/USG.

In the Pacific northwest, a process unit upset led to increased flaring over the weekend at Phillips 66's 101,000 b/d refinery in Ferndale, Washington. BP also reported increased flaring last week amid turnaround work at its 222,700 b/d Cherry Point refinery in Blaine, Washington.

Despite the refinery disruptions, Portland suboctane gasoline softened on Monday. Prompt suboctane gasoline traded at May Nymex +15¢/USG, a penny lower than Friday's levels. Cash prices fell by 3.6¢/USG to \$2.19/USG and remained about 17pc higher than year-ago levels.

Midcontinent				¢/USG
	Basis	Differential	Price	±
Group 3				
Suboctane V 8.5 prompt	May	-13.50/-13.00	190.49-190.99	-2.30
Weighted average		-13.25	190.74	
Suboctane V 8.5 any Apr	May	-13.25/-12.75	190.74-191.24	-2.30
91 conv A 8.5 prompt	Suboct V	+21.75/+22.25	212.49-212.99	-2.80
Chicago				
Reg CBOB 9.0 3rd Apr	May	-11.25/-10.75	192.74-193.24	
Reg CBOB 9.0 1st May	Jun	-11.25/-10.75	193.19-193.69	
87 conv 9.0 3rd Apr	May	-11.25/-10.75	192.74-193.24	
87 conv 9.0 1st May	Jun	-11.25/-10.75	193.19-193.69	
89 conv 9.0			201.93-202.60	-0.49
91 conv 9.0 3rd Apr	87	+26.00/+27.00	218.99-219.99	
91 conv 9.0 1st May	87	+26.00/+27.00	219.44-220.44	
Reg RBOB R2 3rd Apr	CBOB	+9.75/+10.25	202.74-203.24	
Reg RBOB R2 1st May	CBOB	+9.75/+10.25	203.19-203.69	
Prem RBOB R2 3rd Apr	RBOB	+28.00/+28.50	230.99-231.49	
Chicago BCX				
Reg CBOB 9.0 3rd Apr	May	-8.50/-7.50	195.49-196.49	
Reg RBOB R2 3rd Apr	CBOB	+2.00/+3.00	205.99-206.99	
Chicago Wolverine				
Reg CBOB 9.0 3rd Apr	May	-9.00/-8.00	194.99-195.99	

West coast				¢/USG
	Basis	Differential	Price	±
Los Angeles				
Reg CARBOB 5.99 Apr	May	+14.00/+15.00	217.99-218.99	+0.45
Weighted average		+14.67	218.66	
Reg CARBOB 5.99 May	Jun	+12.50/+13.50	216.94-217.94	+0.58
Prem CARBOB 5.99 Apr	CARBOB	+15.00/+17.00	233.49-235.49	+0.45
Suboctane 9.0 Apr	May	+12.00/+13.00	215.99-216.99	+0.45
Reg AZRBOB 8.0 Apr	CARBOB	-2.00/0.00	216.49-218.49	+0.45
Prem AZRBOB 8.0 Apr	CARBOB	+14.00/+16.00	232.49-234.49	+0.45
San Francisco				
Reg CARBOB 5.99 Apr	May	+12.00/+13.00	215.99-216.99	+1.95
Prem CARBOB 5.99 Apr	CARBOB	+23.50/+24.50	239.99-240.99	+1.95
San Francisco waterbone				
Reg CARBOB 6.0 Apr	May	+13.50/+14.50	217.49-218.49	+1.95
Reg CARBOB ex-RVO 6.0 Apr	May	+8.69/+9.69	212.68-213.68	+1.89
Portland				
Suboctane 9.0 Apr	May	+14.50/+15.50	218.49-219.49	-3.55



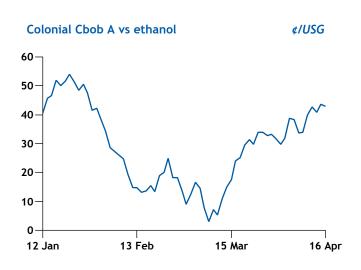
#### Assessment rationale

The Argus US Atlantic coast prompt RBOB barge assessment was based on a prompt barge trade value. The low and high values were set at May Nymex RBOB -1.25/USG and -1.05¢/ USG, respectively.

The US Gulf coast regular CBOB A 9.0 RVP market met the volume minimums needed to calculate the VWA in accordance with the methodology. The VWA price for regular CBOB A 9.0 RVP was set at the May Nymex RBOB contract -11.52¢/USG. The US Gulf coast regular RBOB F market was set at the May Nymex RBOB contract -3¢/USG to -2.75¢/USG, even with the low and high trades for regular RBOB F.

The US Gulf coast 87 conventional M 9.0 RVP market met the volume minimums needed to calculate the VWA in accordance with the methodology. The VWA price for 87 conventional M 9.0 RVP was set at the May Nymex RBOB contract -7.16¢/USG. The low and high prices for 87 conventional M 7.8 RVP (M1) were set at the May Nymex RBOB contract -2.25¢/USG and -1.75¢/USG given an 87 conventional M 9.0 RVP (M2) assessment of May Nymex RBOB contract -7.5¢/USG to -7¢/USG and an M2/M1 regrade valued at +5.25¢/USG.

Trade for Chicago generic CBOB at May Nymex  $-11 \notin /USG$  was the basis of the assessment.



Gulf coast deals			
Grade	Timing	Price	Volume
Colonial A2	22nd Cycle	-12.00	25
	22nd Cycle	-11.85	50
	22nd Cycle	-11.75	25
	22nd Cycle	-11.75	25
	22nd Cycle	-11.50	25
	22nd Cycle	-11.50	60
	22nd Cycle	-11.25	25
	22nd Cycle	-11.25	25
	22nd Cycle	-11.00	25
	22nd Cycle	-11.00	25
	22nd Cycle	C23+0.25	25
	22nd Cycle	C23+0.25	25
	22nd Cycle	C23+0.25	50
	22nd Cycle	C24+0.50	25
	22nd Cycle	C24+0.50	50
	22nd Cycle	C24+0.50	50
	23rd Cycle	C24+0.25	150
	24th Cycle	-12.25	50
	24th Cycle	-12.00	50
Colonial M2	22nd Cycle	-7.50	25
	22nd Cycle	-7.10	25
	22nd Cycle	-7.10	25
	22nd Cycle	-7.10	25
	22nd Cycle	-7.00	25
	22-24th Cycles	-7.50	75
	23-24th Cycles	-7.75	100
	24th Cycle	C30 0.00	25
Colonial F1	22nd Cycle	-3.00	25
	22nd Cycle	-2.75	25
Colonial D2	22nd Cycle	+4.00	25
	22nd Cycle	+4.00	25
Colonial H1	22nd Cycle	+10.00	25
Colonial line space 01	22nd Cycle	+0.25	25
	22nd Cycle	+0.25	25

Atlantic coast deals						
Grade	Timing	Price		Volume		
F2	19-20 Apr	May-1.15	33	barge		
M2	c16	c180.00	42	roll		

Midcontinent deals			
Grade	Timing	Price	Volume
MPL Sub-octane V (9 RVP)	Prompt	May-13.25	10
Chicago area CBOB (9 RVP)	Prompt	May-11.00	20

West coast deals			
Grade	Timing	Price	Volume
LA 84 Carbob	Apr	May+14.00	25
	Apr	May+15.00	50
Portland 84 Conv	Apr	May+15.00	10



#### Atlantic coast

Jet fuel differentials in the New York Harbor gained on Monday, while cash prices dipped with the Nymex.

Buckeye pipeline jet fuel traded at May Nymex ULSD +3¢/ USG, about 1¢/USG firmer than where Friday's differentials settled. Colonial pipeline jet fuel traded about 0.38¢/USG firmer, between May Nymex +2.25¢/USG and Nymex +2.5¢/ USG.

Market sources indicated that jet fuel differentials were firming amid an increase in demand.

US Atlantic coast ultra-low sulphur diesel (ULSD) differentials were mostly stable on Monday, with the exception of the barge market, which firmed.

ULSD barge and Colonial pipeline material were both offered at May Nymex ULSD +1¢/USG. Bids did not emerge for Colonial pipeline material but stood at May Nymex ULSD +0.25¢/USG for the barge.

ULSD on the Buckeye pipeline system was bid and offered between May Nymex ULSD  $+0.5 \notin/USG$  and  $+1 \notin/USG$ , unchanged session-on-session. ULSD on the Laurel pipeline was offered at May Nymex ULSD  $+0.5 \notin/USG$ , stable to where values stood the previous session.

Ultra-low sulphur heating oil (ULSH) differentials fell during Monday's trade session. Buckeye pipeline ULSH traded at May Nymex ULSD -3.25¢/USG, while barge and Colonial ULSH was offered at May Nymex ULSD -3¢/USG.

ULSD and ULSH cash prices both fell on Monday, while the Nymex decreased by 2.99¢/USG to \$2.0703/bl.

The 500ppm heating oil market saw mixed directional movement in differentials. Barge 500ppm heating oil traded at May Nymex ULSD -6.35¢/USG, about 0.6¢/USG weaker than where Friday's differentials stood.

Laurel pipeline 500ppm heating oil saw offers at May Nymex ULSD -2.5¢/USG, while Buckeye volumes were offered at May Nymex ULSD -3.5¢/USG.

The 2,000ppm heating oil market saw moderate gains in differentials. Barge high sulphur heating oil traded at May

CME Nymex ultra low-sulfur diesel					
Price			Crack spre	ad	
Month	¢/USG	±	Month	\$/Ы	
May	207.03	-2.99	May	+20.73	
Jun	206.12	-2.93	Jun	+20.37	
Jul	205.51	-2.91	Jul	+20.37	

Atlantia anat				
Atlantic coast	<b>D</b> :	Diff. It I		¢/USG
	Basis	Differential	Price	1
New York waterborne				
Heating oil	May	-13.50/-13.00	193.53-194.03	-2.24
ULSD	May	+0.25/+1.00	207.28-208.03	-2.62
Jet	May	+2.75/+3.25	209.78-210.28	-1.99
Kerosine	May	+12.25/+12.75	219.28-219.78	-2.99
ULSK	May	+14.00/+15.00	221.03-222.03	-2.99
Boston waterborne				
HO 500ppm	May	-9.38/-9.13	197.66-197.91	-2.24
New York barge				
Heating oil prompt	May	-13.50/-13.00	193.53-194.03	-2.24
Heating oil any Apr	May	-13.50/-13.00	193.53-194.03	-2.24
ULSHO	May	-3.50/-3.00	203.53-204.03	-3.24
HO 500ppm	May	-6.60/-6.10	200.43-200.93	-3.59
ULSD prompt	May	+0.25/+1.00	207.28-208.03	-2.62
ULSD any Apr	May	+0.25/+1.00	207.28-208.03	-2.62
Jet	May	+2.75/+3.25	209.78-210.28	-1.99
Kerosine	May	+12.00/+13.00	219.03-220.03	-2.99
ULSK	May	+14.00/+15.00	221.03-222.03	-2.99
Buckeye	-			
ULSHO	May	-3.50/-3.00	203.53-204.03	-3.24
HO 500ppm	May	-4.00/-3.50	203.03-203.53	-2.99
ULSD	May	+0.50/+1.00	207.53-208.03	-2.99
Jet	May	+2.75/+3.25	209.78-210.28	-1.99
Kerosine	May	+12.00/+13.00	219.03-220.03	-2.99
Laurel				
HO 500ppm	May	-3.00/-2.50	204.03-204.53	-2.74
ULSD	May	0.00/+0.50	207.03-207.53	-2.99
Jet	May	+2.75/+3.25	209.78-210.28	-1.99
Colonial Linden				
ULSHO Cycle 18	May	-3.50/-3.00	203.53-204.03	-2.99
HO 500ppm Cycle 17	May	-4.00/-3.00	203.03-204.03	-2.74
HO 77 Cycle 17	May	-14.50/-13.25	192.53-193.78	-2.87
ULSD Cycle 18	May	+0.50/+1.00	207.53-208.03	-2.99
Jet 54 Cycle 18	May	+2.25/+2.50	209.28-209.53	-2.62
Gulf coast				¢/115G

Gulf coast				¢/USG
	Basis	Differential	Price	±
Colonial				
ULSHO 67 Cycle 23	May	-9.25/-8.20	197.78-198.83	-3.22
Heating oil 77 Cycle 23	May	-18.00/-17.25	189.03-189.78	-3.87
Weighted average		-17.63	189.40	
Heating oil 77 Cycle 24	May	-18.00/-17.25	189.03-189.78	-3.87
ULSD 62 Cycle 23	May	-4.75/-4.20	202.28-202.83	-3.22
Weighted average		-4.53	202.50	
ULSD 62 Cycle 24	May	-4.75/-4.20	202.28-202.83	-3.17
Jet 54 Cycle 23	May	-6.25/-5.75	200.78-201.28	-3.39
Weighted average		-5.93	201.10	
Jet 54 Cycle 24	May	-6.50/-5.75	200.53-201.28	-3.39
Kerosine 55 Cycle 23	May	-6.00/-5.50	201.03-201.53	-3.39
Kerosine 55 Cycle 24	May	-6.25/-5.50	200.78-201.53	-3.27
Colonial Line Space				
Distillates Line 02 Cycle 23			-1.00/-0.25	+0.25
Waterborne				
Heating oil	May	-16.75/-16.00	190.28-191.03	-3.87
ULSD 62	May	-3.50/-2.95	203.53-204.08	-3.22
ULSD 62 ex-RVO	May	-8.31/-7.76	198.72-199.27	-3.28
Jet 54	May	-5.00/-4.50	202.03-202.53	-3.39
Kerosine 55	May	-4.75/-4.25	202.28-202.78	-3.39
see gasoline section for Colon	ial Line O	1 assessment: weig	hted average is vo	lume-

see gasoline section for Colonial Line 01 assessment; weighted average is volume weighted average of deals done during the entire trading day



Delivered Florida			¢/USG
	Origin	Price	±
Port Everglades, Florid	a		
ULSD 62	USGC	210.66	-3.22
Jet 54	USCG	209.14	-3.39
Tampa, Florida			
ULSD 62	USGC	210.12	-3.21
Jet 54	USCG	208.59	-3.39
	aries III CD av DVO		¢/m 2

Delivered South Amerie	ca, ULSD ex-RVO		\$/m3
	Origin	Price	±
Santos, Brazil	USGC	554.46	-8.67
Paranagua, Brazil	USGC	554.95	-8.67
Itaqui, Brazil	USGC	543.77	-8.68
Suape, Brazil	USGC	544.79	-8.67
Montevideo, Uruguay	USGC	550.43	-8.68
Buenos Aires, Argentina	USGC	551.61	-8.67

Nymex ULSD -13.25¢/USG. Colonial high sulphur heat ended the session between May Nymex ULSD -14.5¢/USG and -13.25¢/ USG.

The 3-2-1 Brent crack spread rose on Monday, by \$2.8274/bl to \$13.3544/bl.

# **Gulf coast**

Diesel prices along the US Gulf coast declined Monday as the May Nymex ULSD futures weakened and prompt differentials traded at their lowest in a month.

Ultra-low sulphur diesel (ULSD) prices fell to  $202.6 \neq /USG$ , declining by  $3.22 \neq /USG$  from the 11-week high reached on Friday.

Differentials for ULSD on the 23rd cycle traded from May Nymex -4.75¢ to -4.2¢/USG, 0.23¢/USG below levels traded on Friday.

The inter-regional spread between US Gulf coast and New York Harbor ULSD prices grew to 5.23¢/USG, its widest since 6 February.

The spread must be at least 5.26¢/USG to cover the cost of shipping on the Colonial pipeline from its origin in Pasadena, Texas to Colonial Pipeline's Linden, New Jersey terminal in order for the arbitrage to be workable on paper.

Jet fuel prices along the US Gulf coast fell to their lowest in a week, declining to  $201.03 \notin/USG$  for a loss of  $3.39 \notin/USG$  on scheduling day of the 23rd cycle.

Prompt differentials to the May Nymex ULSD futures con-

Midcontinent				¢/USG
	Basis	Differential	Price	±
Group 3				
ULSD X prompt	May	-2.25/-2.00	204.78-205.03	-3.12
Weighted average		-2.17	204.86	
ULSD X any Apr	May	-2.00/-1.75	205.03-205.28	-3.12
Jet Q prompt	May	-3.75/-2.75	203.28-204.28	-3.24
Chicago				
ULSD 3rd Apr	May	-4.00/-3.50	203.03-203.53	
ULSD 1st May	Jun	-3.75/-3.25	202.37-202.87	
Jet 3rd Apr	May	-6.00/-5.00	201.03-202.03	
Jet 1st May	Jun	-6.00/-5.00	200.12-201.12	
Chicago BCX				
ULSD BCX 3rd Apr	May	-3.75/-3.25	203.28-203.78	
Chicago Wolverine				
ULSD 3rd Apr	May	-4.00/-3.50	203.03-203.53	
West coast				¢/USG
	Basis	Differential	Price	±
Los Angeles	Basis	Differential	Price	
Los Angeles Carb ULSD Apr	<b>Basis</b> May	Differential +7.75/+8.75	Price 214.78-215.78	
-				±
Carb ULSD Apr		+7.75/+8.75	214.78-215.78	±
Carb ULSD Apr Weighted average	May	+7.75/+8.75 +8.25	214.78-215.78 215.28	± -2.74
Carb ULSD Apr Weighted average EPA ULSD Apr	May May	+7.75/+8.75 +8.25 +9.00/+10.00	214.78-215.78 215.28 216.03-217.03	± -2.74 -2.74
Carb ULSD Apr Weighted average EPA ULSD Apr Jet Apr	May May	+7.75/+8.75 +8.25 +9.00/+10.00 +3.50/+4.50	214.78-215.78 215.28 216.03-217.03 210.53-211.53	± -2.74 -2.74
Carb ULSD Apr Weighted average EPA ULSD Apr Jet Apr Weighted average	May May	+7.75/+8.75 +8.25 +9.00/+10.00 +3.50/+4.50	214.78-215.78 215.28 216.03-217.03 210.53-211.53	± -2.74 -2.74
Carb ULSD Apr Weighted average EPA ULSD Apr Jet Apr Weighted average LAX	May May May	+7.75/+8.75 +8.25 +9.00/+10.00 +3.50/+4.50 +4.00	214.78-215.78 215.28 216.03-217.03 210.53-211.53 211.03	± -2.74 -2.74 -1.99
Carb ULSD Apr Weighted average EPA ULSD Apr Jet Apr Weighted average LAX Jet Apr	May May May	+7.75/+8.75 +8.25 +9.00/+10.00 +3.50/+4.50 +4.00	214.78-215.78 215.28 216.03-217.03 210.53-211.53 211.03	± -2.74 -2.74 -1.99
Carb ULSD Apr Weighted average EPA ULSD Apr Jet Apr Weighted average LAX Jet Apr San Francisco	May May May May	+7.75/+8.75 +8.25 +9.00/+10.00 +3.50/+4.50 +4.00 +3.25/+4.25	214.78-215.78 215.28 216.03-217.03 210.53-211.53 211.03 210.28-211.28	± -2.74 -2.74 -1.99 -1.99
Carb ULSD Apr Weighted average EPA ULSD Apr Jet Apr Weighted average LAX Jet Apr San Francisco Carb ULSD Apr	May May May May	+7.75/+8.75 +8.25 +9.00/+10.00 +3.50/+4.50 +4.00 +3.25/+4.25 +5.50/+6.50	214.78-215.78 215.28 216.03-217.03 210.53-211.53 211.03 210.28-211.28 212.53-213.53	± -2.74 -1.99 -1.99 -2.99
Carb ULSD Apr Weighted average EPA ULSD Apr Jet Apr Weighted average LAX Jet Apr San Francisco Carb ULSD Apr EPA ULSD Apr	May May May May May	+7.75/+8.75 +8.25 +9.00/+10.00 +3.50/+4.50 +4.00 +3.25/+4.25 +5.50/+6.50 +5.50/+6.50	214.78-215.78 215.28 216.03-217.03 210.53-211.53 211.03 210.28-211.28 212.53-213.53 212.53-213.53	± -2.74 -2.74 -1.99 -1.99 -2.99 -2.99
Carb ULSD Apr Weighted average EPA ULSD Apr Jet Apr Weighted average LAX Jet Apr San Francisco Carb ULSD Apr EPA ULSD Apr Jet Apr	May May May May May	+7.75/+8.75 +8.25 +9.00/+10.00 +3.50/+4.50 +4.00 +3.25/+4.25 +5.50/+6.50 +5.50/+6.50	214.78-215.78 215.28 216.03-217.03 210.53-211.53 211.03 210.28-211.28 212.53-213.53 212.53-213.53	± -2.74 -2.74 -1.99 -1.99 -2.99 -2.99
Carb ULSD Apr Weighted average EPA ULSD Apr Jet Apr Weighted average LAX Jet Apr San Francisco EPA ULSD Apr EPA ULSD Apr Jet Apr San Francisco waterborne	May May May May May May May	+7.75/+8.75 +8.25 +9.00/+10.00 +3.50/+4.50 +4.00 +3.25/+4.25 +5.50/+6.50 +5.50/+6.50 +2.00/+3.00	214.78-215.78 215.28 216.03-217.03 210.53-211.53 211.03 210.28-211.28 212.53-213.53 212.53-213.53 209.03-210.03	± -2.74 -2.74 -1.99 -1.99 -2.99 -2.99 -1.99
Carb ULSD Apr Weighted average EPA ULSD Apr Jet Apr Weighted average LAX Jet Apr San Francisco Carb ULSD Apr EPA ULSD Apr Jet Apr San Francisco waterborne Carb ULSD Apr	May May May May May May May	+7.75/+8.75 +8.25 +9.00/+10.00 +3.50/+4.50 +4.00 +3.25/+4.25 +5.50/+6.50 +5.50/+6.50 +2.00/+3.00 +10.04/+11.04	214.78-215.78 215.28 216.03-217.03 210.53-211.53 211.03 210.28-211.28 212.53-213.53 212.53-213.53 209.03-210.03 214.03-215.03	± -2.74 -2.74 -1.99 -1.99 -2.99 -2.99 -1.99 -2.9

tract weakened ahead of the change to cycle 24 tomorrow, trading from  $-6.25 \notin/USG$  to  $-5.75 \notin/USG$  to set the midpoint at a 13-day low of  $-6 \notin/USG$ .

The spread between US Gulf coast and New York Harbor jet fuel prices grew to its widest in three months on Monday, at  $8.38 \notin$ /USG.

US Gulf coast heating oil prices declined by 3.87 ¢/USG on the newly-prompt 23rd cycle, reaching a 10-day low of 189.41 ¢/USG.

Prompt differentials fell to a two-week low of -17.63¢/USG following the change to cycle 23, 0.88¢/USG below levels seen



on Friday for the then-prompt 22nd cycle.

More favorable arbitrage opportunities and weaker prompt differentials lifted the value of distillates shipping space on the Colonial pipeline for the first time this month, to a 12-day high of  $-0.63 \notin/USG$ .

## Midcontinent

Diesel in Group Three was slightly stronger Monday but liquidity was generally thin for all distillates in the midcontinent.

Early trades put Group Three's X grade at May Nymex -2.5¢ and -2¢/USG.

Chicago diesel was gauged at -3.75¢/USG for generic material, down 0.75¢/USG from Friday. Wolverine was assessed at May Nymex -3.75¢/USG and BCX ULSD was called May -3.5¢/ USG.

Jet fuel in the Group was down  $0.25 \notin/USG$  with the cash differentials pegged at May Nymex  $-3 \notin/USG$ .

Chicago's jet fuel market was static at May -5.5¢/USG.

#### West coast

Distillates differentials in Los Angeles firmed on Monday, though prices fell across the board in step with the softening Nymex.

Los Angeles prompt jet fuel traded at May Nymex  $+4\notin/USG$ and was heard traded at  $+3.5\notin/USG$ . Cash differentials gained a penny while prices fell by  $2\notin/USG$  to  $$2.11\notin/USG$ . Prices have retreated since 11 April when they reached a near three-year high at \$2.17/USG.

Prompt EPA diesel in Los Angeles traded at May Nymex  $+9.5 \notin/USG$ , edging differentials up by  $0.25 \notin/USG$ . Prices fell by  $2.74 \notin/USG$  to 2.17/USG. Since 11 April, EPA diesel has commanded a  $1.25 \notin/USG$  premium to CARB diesel.

Los Angeles May CARB diesel was bid at June Nymex +7.5¢/ USG and offered at +8.5¢/USG.

April CARB diesel in San Francisco traded at May Nymex +6¢/USG. Cash differentials remained unchanged from Friday, and prices fell by 3¢/USG. EPA diesel also traded at May Nymex +6¢/USG.

In the Pacific northwest, April ULSD traded at May Nymex +24¢/USG. Cash differentials were steady on the day and prices fell by 3¢/USG to \$2.31/USG.

Gulf coast deals			
Grade	Timing	Price	Volum
Colonial 62	23rd Cycle	-4.75	2
	23rd Cycle	-4.75	2
	23rd Cycle	-4.75	2
	23rd Cycle	-4.75	2
	23rd Cycle	-4.75	2
	23rd Cycle	-4.70	2
	23rd Cycle	-4.70	2
	23rd Cycle	-4.65	2
	23rd Cycle	-4.65	2
	23rd Cycle	-4.65	2
	23rd Cycle	-4.65	2
	23rd Cycle	-4.65	2
	23rd Cycle	-4.65	2
	23rd Cycle	-4.65	2
	23rd Cycle	-4.60	2
	23rd Cycle	-4.60	2
	23rd Cycle	-4.30	2
	23rd Cycle	-4.30	2
	23rd Cycle	-4.25	2
	23rd Cycle	-4.25	2
	23rd Cycle	-4.25	5
	23rd Cycle	-4.25	5
	23rd Cycle	-4.20	2
	23rd Cycle	C24 0.00	2
Colonial 54	23rd Cycle	-6.25	2
	23rd Cycle	-6.25	2
	23rd Cycle	-6.00	2
	23rd Cycle	-6.00	2
	23rd Cycle	-6.00	2
	23rd Cycle	-6.00	2
	23rd Cycle	-6.00	2
	23rd Cycle	-6.00	5
	23rd Cycle	-5.85	2
	23rd Cycle	-5.85	2
	23rd Cycle	-5.85	2
	23rd Cycle	-5.75	2
	23rd Cycle	-5.75	2
	23rd Cycle	-5.75	7
		C24 0.00	2
	23rd Cycle	CL- 0.00	
	23rd Cycle	C24 0.00	
	23rd Cycle		5
	•	C24 0.00	5 5 2



#### Assessment rationale

The US Atlantic coast 62 grade Colonial pipeline prompt market did not trade. An offer set the high value at May Nymex ULSD +1¢/USG and the assessed low value at May Nymex ULSD +0.5¢/USG.

The US Atlantic coast ULSD Buckeye pipeline prompt market did not trade. An offer set the high value at May Nymex ULSD +1¢/USG and a bid set the low value at May Nymex ULSD +0.5¢/USG.

The US Atlantic coast ULSD barge market did not trade. An offer set the high value at May Nymex ULSD +1¢/USG and a bid set the assessed low value at May Nymex ULSD +0.25¢/USG. The US Gulf coast ULSD market met the volume minimums needed to set the low and high prices according to the methodology. The low and high prices for ULSD were set at the May Nymex ULSD contract -4.75¢/USG and -4.2¢/USG.

US Gulf coast heating oil did not trade. The highest bid and the lowest offer set the day's range from May Nymex ULSD -18¢/USG to -17.25¢/USG.

The US Atlantic coast 67 grade prompt Colonial pipeline market did not trade. An offer set the high value at May Nymex ULSD -3¢/USG and the assessed low value at May Nymex ULSD -3.5¢/USG.

The US Atlantic coast jet Buckeye pipeline prompt market met the volume minimum required to set the midpoint value according to methodology. The market was assessed between May Nymex ULSD +2.75¢/USG and +3.25¢/USG.

The US Atlantic coast 54 grade Colonial pipeline prompt market met the volume minimum required to set the high and low value according to methodology. The market was assessed between May Nymex ULSD +2.25¢/USG and +2.5¢/USG.

The US Atlantic coast jet barge market did not trade. In absence of liquidity, the market was assessed between May Nymex ULSD +2.75¢/USG and +3.25¢/USG, at parity to the barge market, unchanged from where the relationship between markets last stood.

The US Gulf coast jet fuel market met the volume minimums needed to set the low and high prices according to the methodology. The low and high prices for jet fuel were set at the May Nymex ULSD contract  $-6.25 \notin$ /USG and  $-5.75 \notin$ /USG.

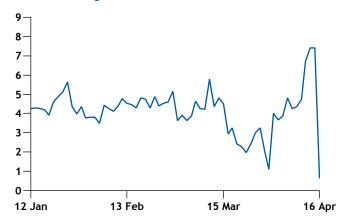
Atlantic coast deals				
Grade	Timing	Price	Volume	
Heat 2,000ppm	20-Apr	May-13.25	25 Barge	
Heat 500ppm	18-20 Apr	May-6.35	25 CPL	
ULSD	C20	May+1.00	25 CPL	
	C21	May+1.00	25 CPL	
ULSH	04-20-18	May-3.25	15 BPL	
	20-22 Apr	May-3.25	30 BPL	
Jet	23-25 Apr	May+3.00	25 BPL	
	23-25 Apr	May+3.00	25 BPL	
	C18	May+2.50	25 CPL	
	C18	May+2.25	25 CPL	

Midcontinent de	als		
Grade	Timing	Price	Volume
MPL ULSD X	Prompt	May -2.00	10
	Prompt	May -2.25	10
	Prompt	May -2.25	10

West coast deals			
Grade	Timing	Price	Volume
LA Jet	Apr	May+4.00	25
SF Carb ULSD	Apr	May+6.00	15
SF EPA ULSD	Apr	May+6.00	10
LA EPA ULSD	Apr	May+9.50	25
Portland EPA ULSD	Apr	May+24.00	10



¢/USG



Copyright © 2018 Argus Media group

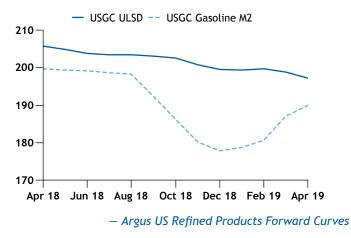
# **CLEAN PRODUCT FORWARD CURVES**

Physical				¢/USG
Timing	Basis	Differential	Price	±
87 conv M Colonial Linden				
Cycle 17	May	-0.75/-0.25	203.24-203.74	-3.55
Cycle 18	May	-0.75/-0.25	203.24-203.74	-3.55
Cycle 19	May	-0.75/-0.25	203.24-203.74	-3.33
Reg CBOB A Colonial Linden	may	-0.757-0.25	203.24-203.74	
Cycle 17	May	-6.75/-5.25	197.24-198.74	-2.55
Cycle 18	May	-6.75/-5.25	197.24-198.74	-2.55
Cycle 19	May	-6.75/-5.25	197.24-198.74	2.55
Reg RBOB New York barge	may	0.757 5.25	177.24 170.74	
Prompt	May	-1.25/-1.05	202.74-202.94	+9.95
10 days forward	May	-1.10/-0.90	202.89-203.09	-2.65
15 days forward	Jun	-1.45/-1.20	202.99-203.24	-2.45
20 days forward	Jun	-1.30/-1.05	203.14-203.39	-2.23
Any Apr	May	-1.05/-0.75	202.94-203.24	-2.45
Prem RBOB New York barge	may	-1.05/-0.75	202.74-203.24	-2.45
Prompt	May	+13.25/+13.75	217.24-217.74	+8.95
10 days forward		+13.25/+13.75	217.24-217.74	-2.68
15 days forward	May Jun	+13.23/+13.75	217.24-217.74	-2.68
20 days forward	Jun	+12.80/+13.30	217.24-217.74	-2.68
87 conv Colonial M	Juli	+12.00/+13.30	217.24-217.74	-2.00
Cycle 22	May	7 50 / 7 00	196.49-196.99	2.09
Cycle 23	May May	-7.50/-7.00 -7.50/-7.00	196.49-196.99	-2.98 -2.98
		-7.50/-7.00	196.49-196.99	-2.98
Cycle 24 Cycle 25	May Jun	-7.95/-7.45	196.49-196.99	-2.98
Reg CBOB Colonial A	Juli	-7.95/-7.45	190.49-190.99	-2.90
Cycle 22	May	-12.00/-11.00	191.99-192.99	-2.73
•	May	-12.25/-11.25	191.74-192.74	-2.73
Cycle 23 Cycle 24	May	-12.50/-11.50	191.49-192.49	-2.98
Cycle 25	May Jun	-12.95/-11.95	191.49-192.49	-2.98
Heating oil New York barge	Juli	-12.95/-11.95	191.49-192.49	-2.90
	May	-13.50/-13.00	193.53-194.03	-2.24
Prompt 10 days forward	May	-13.50/-13.00	193.53-194.03	-2.24
15 days forward	May Jun	-12.59/-12.09	193.53-194.03	-2.24
20 days forward	Jun	-12.59/-12.09	193.53-194.03	-2.24
			193.53-194.03	-2.24
Any Apr	May	-13.50/-13.00	193.33-194.03	-2.24
Heating oil 75 Colonial Linden Cycle 17	May	-4.00/-3.00	203.03-204.03	-2.74
Cycle 18	May	-4.00/-3.00	203.03-204.03	-2.74
Cycle 19	May	-4.00/-3.00	203.03-204.03	-2.74
ULSH Colonial Linden	May	-4.007-3.00	203.03-204.03	
Cycle 18	May	-3.50/-3.00	203.53-204.03	-2.99
Cycle 19	May	-3.50/-3.00	203.53-204.03	-2.99
Cycle 20	May	-3.50/-3.00	203.53-204.03	-2.77
ULSD New York barge	may	-3.30/-3.00	203.33-204.03	
Prompt	May	+0.25/+1.00	207.28-208.03	-2.62
10 days forward	May	+0.25/+1.00	207.28-208.03	-2.62
15 days forward	Jun	+0.25/+1.00	207.28-208.03	-2.62
20 days forward	Jun	+1.16/+1.91	207.28-208.03	-2.62
Any Apr		+0.25/+1.00	207.28-208.03	-2.62
ULSD Colonial Linden	Мау	0.23/+1.00	207.20-200.03	-2.02
Cycle 18	May	+0.50/+1.00	207.53-208.03	-2.99
Cycle 18 Cycle 19	May	+0.50/+1.00	207.53-208.03	
Cycle 20	May May	+0.50/+1.00	207.53-208.03	-2.99
Cycle 20	may	0.30/+1.00	201.33-200.03	

Physical (continued)				¢/USG
Timing	Basis	Differential	Price	±
Jet New York barge				
Prompt	May	+2.75/+3.25	209.78-210.28	-1.99
10 days forward	May	+2.50/+3.00	209.53-210.03	-2.14
15 days forward	Jun	+3.16/+3.66	209.28-209.78	-2.29
20 days forward	Jun	+2.91/+3.41	209.03-209.53	-2.44
Jet Colonial Linden				
Cycle 18	May	+2.25/+2.50	209.28-209.53	-2.62
Cycle 19	May	+2.00/+2.25	209.03-209.28	-2.37
Cycle 20	May	+1.75/+2.00	208.78-209.03	-2.24
Kerosine New York barge				
Prompt	May	+12.00/+13.00	219.03-220.03	-2.99
10 days forward	May	+12.00/+13.00	219.03-220.03	-2.99
15 days forward	Jun	+12.91/+13.91	219.03-220.03	-2.99
20 days forward	Jun	+12.91/+13.91	219.03-220.03	-2.99
Heating oil Colonial 77				
Cycle 23	May	-18.00/-17.25	189.03-189.78	-3.87
Cycle 24	May	-18.00/-17.25	189.03-189.78	-3.87
Cycle 25	Jun	-17.09/-16.34	189.03-189.78	-3.87
Cycle 26	Jun	-17.09/-16.34	189.03-189.78	
Heating oil Colonial 77 Linder	ı			
Cycle 17	May	-14.50/-13.25	192.53-193.78	-2.87
Cycle 18	May	-14.50/-13.25	192.53-193.78	-2.87
Cycle 19	May	-14.50/-13.25	192.53-193.78	
ULSD Colonial 62				
Cycle 23	May	-4.75/-4.20	202.28-202.83	-3.22
Cycle 24	May	-4.75/-4.20	202.28-202.83	-3.17
Cycle 25	Jun	-3.84/-3.29	202.28-202.83	-3.12
Cycle 26	Jun	-3.84/-3.29	202.28-202.83	-3.07
Jet Colonial 54				
Cycle 23	May	-6.25/-5.75	200.78-201.28	-3.39
Cycle 24	May	-6.50/-5.75	200.53-201.28	-3.39
Cycle 25	Jun	-5.84/-4.84	200.28-201.28	-3.27
Cycle 26	Jun	-6.09/-4.84	200.03-201.28	-3.14

#### Refined products swaps

¢/USG





# **BIOFUELS AND BLENDING COMPONENTS**

#### Ethanol

US ethanol values declined Monday as the blendstock was pressured by lower CBOT corn futures and a weaker Nymex RBOB gasoline contract.

At the Kinder Morgan Argo hub near Chicago, prompt barrels fell by  $2\notin$  as they were valued at  $146\notin/USG$  early in the session before trading at  $146.8\notin/USG$  in the afternoon. The prompt/April anys roll was traded at  $-0.5\notin/USG$ . The April/May any roll was talked to either side of  $-0.25\notin/USG$ , but transactions were not reported.

In the New York Harbor, April barges fell by  $0.5 \notin/USG$  as the April barge/paper spread was valued at +9.5 $\notin/USG$  before they were talked to either side of 157.5 $\notin/USG$ .

Chicago Rule 11 railcars for next week's shipment were traded between 146.5¢/USG and 147¢/USG, down by 1.25¢/USG from prior session.

In North Little Rock, railcars for this week's shipment were heard traded at  $156 \notin /USG$ .

On the west coast, NorCal railcars carrying sub-70 carbon intensity material was for this week shipment was offered at  $173 \notin /USG$ . Washington railcars shipping this week offered at  $162 \notin /USG$ , but bids were not reported.

Tier III, 13 Apr \$/mn USG credit			
	Low	High	±
Early	50.00	70.00	nc
Standard	2300.00	2700.00	nc

			¢/RIN
Today	±	Prior day	5-day avg
22.50	-1.00	23.50	21.50
1.50	nc	1.50	1.50
21.00	-1.00	22.00	20.00
26.50	nc	26.50	24.95
1.50	nc	1.50	1.50
25.00	nc	25.00	23.45
-10.00	nc	-10.00	-10.00
-10.00	nc	-10.00	-10.00
-6.00	+1.00	-7.00	-6.55
	22.50 1.50 21.00 26.50 1.50 25.00 -10.00 -10.00	22.50 -1.00 1.50 nc 21.00 -1.00 26.50 nc 1.50 nc 25.00 nc -10.00 nc -10.00 nc	22.50         -1.00         23.50           1.50         nc         1.50           21.00         -1.00         22.00           26.50         nc         26.50           1.50         nc         1.50           25.00         nc         25.00           -10.00         nc         -10.00           -10.00         nc         -10.00

Ethanol			¢/USG
	Low	High	±
Chicago			
Argo in-tank prompt	146.00	146.80	-1.97
Weighted average		146.80	
Argo in-tank any Apr	146.50	147.30	-1.72
Rule 11 rail prompt	146.50	147.00	-1.25
New York Harbor			
Barge any Apr	156.00	157.50	-0.50
US Gulf coast/south			
Houston barge/rail	154.00	155.80	-1.97
Tampa rail	164.00	166.80	-1.97
Atlanta rail	156.00	157.80	-1.97
Dallas rail	152.00	154.30	-1.97
Nebraska			
Union Pacific rail	134.50	137.00	-0.75
BNSF rail	134.00	136.50	-0.75
Los Angeles			
Low-carbon intensity rail	161.75	163.75	nc
Brazil			
fob anhydrous \$/m3	491.00	559.00	-8.50
fob anhydrous BRL/m3	1,682.85	1,915.92	-19.37
fob hydrous \$/m3	430.00	496.00	-12.00
fob hydrous BRL/m3	1,473.78	1,699.99	-32.43
del anhydrous \$/m3	446.00	466.00	-4.50
del anhydrous BRL/m3	1,528.62	1,597.17	-7.00
Biodiesel			¢/USG
	Difforontial	Prico	

	Differential	Price	±		
New York Harbor rail					
B100 SME May	+88.50/+90.50	295.53-297.53	-5.24		
B99 SME May	-21.00/-19.00	186.03-188.03	-5.99		
Houston rail/barge					
B100 SME May	+84.50/+93.50	291.53-300.53	-2.24		
B99 SME May	-25.00/-16.00	182.03-191.03	-2.99		
Chicago In-tank transfer Argo					
B100 SME May	+86.50/+93.50	293.53-300.53	-4.24		
B99 SME May	-23.00/-16.00	184.03-191.03	-4.99		

RINs			¢/RIN		
	Low	High	±		
Renewable fuel (ethanol)					
2017	29.50	31.50	+1.50		
2018	36.00	37.00	+0.50		
Weighted average		36.46			
Biomass-based diesel					
2017	52.00	54.00	+0.50		
2018	62.00	64.00	+0.50		
Cellulosic biofuels					
2017	249.00	251.00	nc		
2018	246.00	248.00	+2.50		
Advanced biofuels					
2017	50.50	52.50	+0.50		
2018	60.50	62.50	+0.50		
Renewable volume obligation (RVO) ¢/USG					
2017		4.13	+0.13		
2018		4.81	+0.06		



# **BIOFUELS AND BLENDING COMPONENTS**

#### Brazil

Brazil's ethanol markets deflated Monday as hydrous quotes fell back in São Paulo along with the anhydrous specification on the export market.

Hydrous ethanol cargoes were down \$12 on the session to \$430-496/m<sup>3</sup>, tracking weaker domestic values as selling pressure intensified in Sao Paulo where ex-mill truckloads retreated R34/m<sup>3</sup> lower to R1,838/m<sup>3</sup> inc-tax.

Anhydrous fob Santos quotes were down \$12/m<sup>3</sup> to \$430-496/m<sup>3</sup>, pressured by the real's devaluation against the US dollar. Import markets fell \$5/m<sup>3</sup> to \$446-466/m<sup>3</sup>, mirroring losses on CBOT corn ethanol futures.

## **RINs**

RIN prices edged higher Monday amid thin buying interest in the marketplace.

The Argus Renewable Volume Obligation (RVO) gained  $0.06 \notin USG$  to settle at  $4.81 \notin USG$ .

The current year ethanol D6 RINs were up by  $0.5 \notin$ /RIN as they were traded between  $36 \notin$ /RIN and  $37 \notin$ /RIN. The the prioryear D6 RINs were traded between  $30 \notin$  and  $30.5 \notin$ /RIN, while the E17/E18 spread was traded at  $-6 \notin$ /RIN.

The current year biomass-based biodiesel D4 RINs were up 0.5¢ as they were traded at 63¢/USG, while the B18/E18 spread finished flat at 26.5¢/RIN.

Futures		
	Settlement	±
CBOT ethanol ¢/USG		
May 18	147.30	-1.50
Jun 18	146.70	-1.50
Jul 18	146.90	-1.50
Aug 18	147.10	-1.50
CBOT corn ¢/bushel		
May 18	382.50	-3.75
Jul 18	391.00	-3.50
Sep 18	398.25	-3.25
Dec 18	407.25	-3.50
CBOT soybean oil ¢/lb		
May 18	31.18	-0.30
Jul 18	31.45	-0.30
Aug 18	31.58	-0.31
Sep 18	31.76	-0.30
CBOT soybeans ¢/bushel		
May 18	1,042.00	-12.25
CBOT soybean meal \$/t		
May 18	377.80	-5.00

Biofuel spreads					
bioract spreads		_		Diff	erential
				Bill	
Ethanol crush \$/bu					+0.30
Heating oil-soybea	n oil ¢/U	5G			-0.27
Ethanol forward					¢/USG
	r cur ves		Chicago	NL	ew York
			Chicago	IN	-w tork
Apr			146.50-147.30	156.0	0-157.50
May			146.75-147.55		0-157.50
Jun			146.75-147.55	155.5	0-157.00
Jul			147.00-147.80	155.5	0-157.00
Blendstocks					¢/USG
	Basis		Differential	Price	±
Alloulate					
Alkylate NY barge ex duty	May		+12.10/+12.60	216.09-216.59	-2.55
Houston	May 87 NLT		+23.00/+24.00	219.74-220.74	-2.55
Raffinate	07 NLI	7 I.VF	+23.00/+24.00	217.74-220.74	-1.40
Houston	87 NLT 9	9 RVP	-29.50/-28.50	167.24-168.24	-3.98
Reformate	OF ITEL	,	27.307 20.30	107.21 100.21	5.70
NY barge ex duty	May		+29.50/+30.50	233.49-234.49	-2.55
Houston	87 NLT	9 RVP	+38.50/+39.50	235.24-236.24	-1.98
Carbon					
Vintage	Del	Bid	Ask	Price	±
-				The	-
California carbon a		, ,		=	
2018	Apr 18	14.64	14.70	14.67	nc
2018	Dec 18	15.04	15.10	15.07	nc
2019	Dec 19	15.56	15.74	15.65	nc
CCA price ¢/USG		Winter 11.79		Summer	
Regular CARBOB Month index Mar		11.79	nc	11.82 11.87	nc -0.07
Midgrade CARBOB		11.79	nc	11.79	-0.07 nc
Month index Mar		11.77	lic	11.84	-0.07
Prem CARBOB		11.80	nc	11.77	nc
Month index Mar		11.00	lic	11.82	-0.07
ULSD				15.02	nc
Month index Mar				15.08	-0.09
Quebec carbon pri	ce for ga	soline, die	esel CA¢/l		
Gasoline				4.14	nc
Gasoline month ind	dex Mar			4.27	+0.09
Diesel				5.15	-0.01
Diesel month index				5.32	+0.12
California low-carb	on fuel c		, .		
LCFS		142.00	148.00	145.00	nc
VWA MTD					141.10
Number of trades Volume MTD	WID				10,000
Oregon low-carbor	fuel cro	dits (ICES	5) \$/t		10,000
LCFS	nuet cie	50.00	60.00	55.00	-5.00
LCFS premium per	carbon i			55.00	5.00
Ethanol				1.18	nc
<b>D</b> . 1. 1					

Biodiesel

CARBOB

ULSD

LCFS cost for gasoline, diesel ¢/USG



1.83

9.72

6.96

nc

nc

nc

# **BIOFUELS AND BLENDING COMPONENTS**

The current year cellulosic ethanol D3 RINs were traded at  $247 \notin USG$ , gaining  $2.5 \notin /RIN$  from prior session.

#### **Biodiesel**

US biodiesel outright prices finished lower Monday as the front month ULSD contract eased off a 10-week high, while higher D4 RINs prices limited losses.

The front month ULSD contract slid nearly 3¢/USG to close at 207.03¢/USG, while the current year D4 RINs gained 0.5¢/RIN to settle at 63¢/RIN.

Blend margins eased off their highest level since 27 February 2015 as the heating oil/soybean oil (HOBO) spread dropped  $1 \notin$  to close at  $-27 \notin$ /USG.

In New York, RIN-less and credit-less B99 SME material was heard traded at Nymex  $-20 \notin/USG$ , dropping by  $3 \notin/USG$  from previous session. The B100 premiums fell  $2.25 \notin/USG$  to end at Nymex  $+89.5 \notin/USG$ .

In Houston, B100 premiums gained 0.75¢/USG to end at Nymex +89¢/USG.

#### Argentina

Argentinian soybean oil premiums posted modest gains Monday in a light trading session, while paper markets in Chicago retreated.

Export differentials for May added  $0.08 \notin /lb$  to CBOT  $2.83 \notin /lb$  in daily comparison. Agricultural markets in Chicago retreated  $0.30 \notin /lb$  to  $31.18 \notin /lb$  for May contracts. On the June to July front premiums ticked up  $0.03 \notin /lb$  to  $2.25 \notin /lb$ .

Biodiesel markets dropped as both RED and EPA-certified product fell \$5/t to 695/t and \$759/t, respectively.

## California carbon

California Carbon Allowances (CCAs) were unchanged today, opening the week in moderate trading.

The vintage 2018 CCAs for delivery in the prompt month held at \$14.67/metric tonne after trading twice for 700,000t. The December-delivery contract remained at \$15.07/t and traded six times for 650,000t.

California Low-Carbon Fuel Standard remained at \$145/t, with no trades today.

Ethanol deals			'000 bl
Grade	Timing	Price	Volume
Chicago Argo	18-28 Apr	146.80	5
	18-28 Apr	146.80	5
	18-28 Apr	146.80	5
	18-28 Apr	146.80	5
	18-28 Apr	146.80	5
	18-28 Apr	146.80	5
	Prompt	Apr any-0.5	5
Chicago Rule 11	17-21 Apr	146.50	4
	17-21 Apr	146.50	4
	17-21 Apr	146.50	4
	17-21 Apr	146.50	4
	17-21 Apr	146.50	4
	17-21 Apr	146.50	4

RINS deals			
Grade	Timing	Price	Volume
Biodiesel	2017	51.00	75
	2018	62.50	200
	2018	63.00	200
	2018	63.00	500
Cellulosic	2018	247.00	250
Ethanol	2017	30.00	5000
	2017	30.50	500
	2018	36.00	5000
	2018	36.50	1000
	2018	36.50	1000
	2018	36.50	500
	2018	37.00	1000
	2018	37.00	500
	2018	37.00	1000
	2018	37.00	500
	2018	37.00	500
	2018	37.00	500

#### **Blending components**

Higher octane gasoline blendstock cash differentials posted gains in the US Gulf coast on Monday.

Alylate was up  $1.5 \notin$ /USG at US Gulf coast gasoline pipeline mean (PLM) +23.5  $\notin$ /USG.

Reformate was also stronger at PLM +39¢/USG.

The raffinate market declined 1¢/USG to PLM -29¢/USG.



# FEEDSTOCKS AND RESIDUAL FUEL OIL

#### Assessment rationale

In the absence of trade, bids or offers, the last assessed bid and offer for Houston B99 SME at Nymex  $-25 \notin/USG$  and Nymex  $-16 \notin/USG$ , or Nymex  $+84.5 \notin/USG$  and Nymex  $+93.5 \notin/USG$  when including RINs and the assessed value for a retroactive blenders' tax credit (BTC), was used to set the range for the Argus Houston B100 SME assessment. The value was calculated using the day's B18 midpoint of  $63 \notin/RIN$ , multiplied by 1.5, adding the assessed BTC 50:50 split value of  $15 \notin$  and subtracting the last assessed B99 SME bid and offer value.

A polling of available market participants was used to set the morning low, and verified trades at 146.8¢/USG were used to set the high, setting the range for the *Argus* prompt Argo ITT assessment.

A polling of available market participants was used to set the low, while the midpoint of a bid-ask spread from the afternoon was used to set the high for the *Argus* New York Harbor barge assessment.

#### Vacuum gasoil

VGO differentials to crude oil futures crept higher Monday amid moderately active trading.

Selling indications trended higher quickly as the week opened despite weaker fluid catalytic cracker (FCC) margins.

Buying interest started the day at publication-related levels while offers were well featured above previously assessed values, but at least a couple of deals were subsequently rumored done at stronger prices later in the day.

A major with an on-going turnaround at its Gulf coast refinery was heard looking to buy low sulphur VGO barges. However, some sources indicated this requirement later out around mid-May.

Low sulphur VGO barge offers were reported no lower than May Nymex +\$13/bl, fob Gulf coast basis.

Trader selling interest for 0.35pc sulphur, 185 aniline, 1000 nitrogen VGO was heard at May Nymex +\$13/bl, fob Houston.

Prices were also robust on the Mississippi River, with a barge of unspecified quality low sulphur VGO purportedly sold above May Nymex +\$13/bl delivered on the River later in the day. This deal was not confirmed.

High sulphur VGO discussions bore better details, but again business done could not be verified.

A trader was offering 1.6pc sulphur, 177 aniline, 750 nitrogen VGO barge at May Nymex +\$11.5/b, fob Houston, up \$0.5/

	Basis	Differential	Price
Differential to	NTI Ś/IJ		
0.5% cargo	May	+13.00/+13.50	79.22-79.72
0.5% barge	May	+12.75/+13.25	78.97-79.47
1.0% cargo	May	+12.25/+13.00	78.47-79.22
1.0% barge	May	+12.00/+12.75	78.22-78.97
2.0% cargo	May	+11.75/+12.25	77.97-78.47
2.0% barge	May	+11.50/+12.00	77.72-78.22
Differential to	o 70:30 87 conv/heating o	oil ¢/USG	
0.5% cargo	-	-7.17/-5.98	188.62-189.81
0.5% barge		-7.77/-6.58	188.02-189.21
1.0% cargo		-8.96/-7.17	186.83-188.62
1.0% barge		-9.55/-7.77	186.24-188.02
2.0% cargo		-10.15/-8.96	185.64-186.83
2.0% barge		-10.74/-9.55	185.05-186.24
Differential to	o 70:30 87 conv/ULSD ¢/L	ISG	
0.5% cargo		-11.11/-9.92	188.62-189.81
0.5% barge		-11.71/-10.52	188.02-189.21
1.0% cargo		-12.90/-11.11	186.83-188.62
1.0% barge		-13.49/-11.71	186.24-188.02
2.0% cargo		-14.09/-12.90	185.64-186.83
2.0% barge		-14.68/-13.49	185.05-186.24
70:30 formula	as ¢/USG		
87 conv wate	rborne/heating oil	-3.24	195.50-196.08
87 conv wate	rborne/ULSD	-3.04	199.48-199.99

Naphtha barge Gulf coast					
	Basis	Differential	Price		
Heavy (40 N+A) ¢/USG	87 NLT 9 RVP	-31.00/-28.00	166.99-169.99		
Heavy (40 N+A) \$/t			594.48-605.16		
Full range ¢/USG	87 NLT 9 RVP	-35.00/-32.00	162.99-165.99		
Full range \$/t			591.65-602.54		
LSR/LV ¢/USG	C5	+3.00/+6.50	152.00-157.63		
LSR/LV \$/t			604.96-627.37		
Natural gasoline ¢/USG			149.00-151.13		
Natural gasoline \$/t			625.80-634.73		

Light cycle oil ¢/USG					
	Basis	Differential	Price	±	
0.5% sulphur	HO pipe	+1.50/+2.00	190.91-191.41	-3.61	
2.0 % sulphur	HO pipe	+1.00/+1.50	190.41-190.91	-3.11	

CME Nymex		
	Price	±
WTI crude \$/bl		
May	66.22	-1.17
Jun	66.20	-1.13
Jul	65.94	-1.06
Henry Hub natural gas \$/mmBtu		
Мау	2.752	+0.02
Jun	2.784	+0.02



# FEEDSTOCKS AND RESIDUAL FUEL OIL

#### bl from Friday's selling indication.

Another trader was heard offering high sulphur VGO up to May Nymex +\$12/bl on the Mississippi River. This was subsequently heard sold, without confirmation. Reports of high sulphur VGO buying interest at May Nymex +\$11.75/bl later emerged, but was not confirmed.

A major was widely expected to be seeking high sulphur VGO in Louisiana, but no firm requirement was noted to this end on Monday.

Light cycle oil (LCO) activity appeared to have stalled Monday following business done at Gulf coast pipeline heating oil (GC PLM HSD) done last Friday at  $+2 \notin$ /USG delivered basis Gulf coast. No new negotiations were fielded Monday. Prices were assessed stable.

#### Naphtha

Heavy N+A naphtha differentials inched higher Monday in reported business and a weakened Gulf coast waterborne conventional 9 RVP (GC WBM M2) gasoline pricing basis.

Multiple heavy virgin naphtha (HVN) sellers were heard in the market, but specific discussions were not readily revealed.

Premium quality HVN with higher N+A was reportedly offered in the low 20s ¢/USG discounts to the GC WBM M2, but buying interest was far apart in the high 20s ¢/USG discounts on a delivered basis.

Reports of HVN done around GC WBM M2 -28¢/USG delivered Gulf coast were lacking in details and confirmation.

No new discussions were fielded for full-range N+A naphtha. Calcasieu-quality full-range N+A naphtha was bid in the GC WBM M2 mid 30s¢/USG late last week, to no avail. Full-range quality continued to be pegged around a 4¢/USG discount to the heavy grade.

Light naphtha pricing remained poorly defined as offers outpaced demand over the prior trading sessions. Robust natural gasoline (C5) values also tended to suppress buying interest, making bids hard to discover. Assessments were deemed unchanged without fresh numbers heard Monday.

## Fuel oil

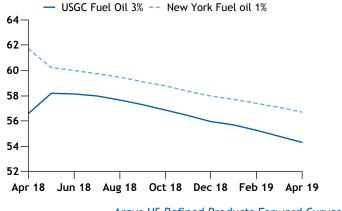
US residual fuel oil demand strengthened in response to prices declining, tracing crude.

There was a bid and an offer for 3pc sulphur residual fuel oil in New York Harbor at \$57.50/bl and at \$57.75/bl, respectively.

		_		_
Residual fuel	oil			\$/Ы
			Price	±
New York water	borne			
0.3% low pour			73.36-73.52	-0.79
0.3% high pour			71.35-71.55	-0.75
1%			60.85-61.05	-0.75
3%			57.50-57.75	-0.80
Gulf coast water	borne			
3%			56.06-56.16	-0.49
RMG			57.45-57.55	-0.55
Bunker fuel				
	Price	±	Price	±
	180cst		380cst	
New York	435.00-441.00	0.00	380.00-385.00	0.00
Philadelphia			388.50-392.50	0.00
Houston	416.00-428.00	-15.00	350.00-360.00	-12.50
Los Angeles	460.00-465.00	-7.00	377.50-381.50	-5.50
Seattle	469.00-474.00	-6.50	400.81-404.75	-5.72

#### Residual fuel oil swaps

¢/USG



<sup>-</sup> Argus US Refined Products Forward Curves

Three 3.5pc sulphur residual fuel oil barge cargoes were reported sold for loading in the US Gulf - two at \$57.45/bl and one at \$57.55/bl. The front-third month US Gulf high-sulphur fuel oil swaps moved into a 5c/bl backwardation from a 10c/bl contango on Friday.

Page 16 of 22

# FEEDSTOCKS AND RESIDUAL FUEL OIL

#### Marine fuels

North American bunker assessments mostly dropped tracing crude on Monday.

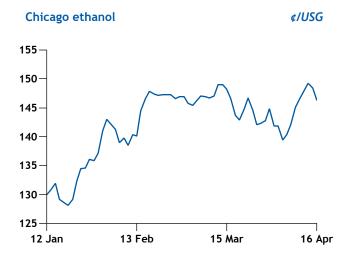
In Houston, two high-sulphur 380cst clips for less than 450t each both sold at \$350-360/t ex-wharf. High-sulphur 380cst and MGO were indicated at \$365/t and \$605-635/t ex-wharf, respectively.

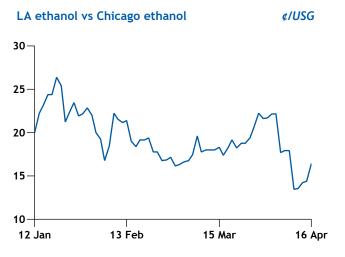
A clip for 300t of high-sulphur 380cst sold at \$370/t exwharf. A lot for 180t of high-sulphur 380cst with 60t of MGO went for \$365/t and \$595/t ex-wharf, respectively. There were two MGO lots reported sold - 160t at \$605/t ex-wharf and 85t at \$700/t delivered. MGO was indicated as low as \$560/t exwharf in New Orleans.

West coast bunker assessments declined on Monday tracing crude. Los Angeles was assessed the cheapest port on the west coast. The Los Angeles - Singapore high-sulphur 380cst differential was pegged at a rare discount for the California bunkering port. One supplier indicated heavy bunker fuel and MGO prices flat in Vancouver, British Columbia despite normal availabilities. In Tacoma, Washington smaller-size inquiries for MGO were heard quoted at \$785/t delivered. On Friday night MGO was rumored selling at around \$785/t ex-wharf in San Francisco.

#### Assessment rationale

New York Harbor 1pc sulphur residual fuel oil was assessed at \$60.85-61.05/bl. There were no bids, offers or deals reported. The assessment declined by 75c/bl tracing front month swaps. US Gulf 3.5pc sulphur residual fuel oil was assessed at \$57.45-57.55/bl. The high and the low of the assessment were established by the price range of three barge cargoes reported sold for loading in the Gulf.







Licensed to: Jessica Laskosky, Argus Media Inc (New York)

#### **INFRASTRUCTURE NEWS**

#### Mississippi river traffic resumes

Vessel traffic on the Mississippi river at New Orleans, Louisiana, was operating normally today following a closure last week to clean up a fuel spill.

The US Coast Guard reopened traffic 13 April at 5:30pm ET after shutting the river from mile marker 101 to mile marker 91 on 11 April.

The river is a major thoroughfare for metals, fertilizers, dry bulk, crude and fuels.

#### Shell restarts Zydeco pipeline section

Shell has restarted a section of the Zydeco crude pipeline system in Texas and Louisiana after a power issue caused a shut down over the weekend.

The 20-inch section of the Zydeco line from Houston, Texas, to Port Neches, Louisiana, and the 22-inch section from Port Neches to Houma, Louisiana, were shut on 14 April, according to a shipper notice.

The line was put back in service yesterday after power was restored to the Port Neches pump station.

The same section of Zydeco was out of service for about seven weeks earlier this year for planned maintenance. That work was needed to further investigate the cause of a small leak in June 2017 near Erath, Louisiana, which spilled 23 gallons of crude.

Zydeco is a key outlet for moving crude on the Texas Gulf coast to refiners in Louisiana.

# Pasadena refinery pollution equipment upsets

Pollution-control equipment associated with a gasolineproducing unit malfunctioned over the weekend at Pasadena Refining's 100,000 b/d refinery in Pasadena, Texas.

An electrostatic precipitator stack (ESP) associated with a fluid catalytic cracking (FCC) unit malfunctioned on 14 April, according to a filing to state environmental monitors.

The incident resulted in roughly 28 hours of increased emissions beginning at 12:40pm ET. The refiner issued an allclear to a community alert system at 6:03pm ET on 15 April.

ESPs remove particulate and other contaminants from refinery emissions. FCCs convert gasoil primarily to gasoline blendstocks.

#### Phillips Wood River process unit malfunctions

A process unit upset led to increased flaring over the weekend at Phillips 66's 356,000 b/d Wood River joint-venture refinery in Roxana, Illinois. The unit malfunctioned at 3pm ET on 14 April, according to a filing to state hazardous materials monitors. The cause of the upset and the unit involved were not identified.

Phillips 66 operates the refinery in a joint venture with Canadian integrated firm Cenovus.

#### Andeavor Anacortes reports increased flaring

Andeavor reported a week and a half of increased flaring recently at its 120,000 b/d refinery in Anacortes, Washington.

Increased flaring began on 29 March and ended on 8 April, according to a filing to regional air quality monitors.

The cause of the flaring was not listed.

#### BP Cherry Point in turnaround mode

BP reported increased flaring last week amid turnaround work at its 222,700 b/d Cherry Point refinery in Blaine, Washington.

Increased and intermittent flaring was reported on 10 and 11 April, according to filings to regional air quality monitors. Emissions are ongoing.

The facility was "in turnaround mode," according to the filing.

#### Phillips 66 Ferndale reports unit upset

A process unit upset led to increased flaring over the weekend at Phillips 66's 101,000 b/d refinery in Ferndale, Washington.

Increased flaring began at 7:08pm ET on 15 April and is ongoing, according to a filing to regional air quality monitors.

Phillips did not identify the unit or units involved.

#### Chevron Richmond reports pump failure

A pump failure resulted in increased flaring over the weekend at Chevron's 250,000 b/d refinery in Richmond, California.

Chevron reported the pump failure at 1:20am ET on 15 April, according to a filing to state hazardous materials monitors.

The cause of the failure was not identified.

#### Andeavor Los Angeles reports breakdown

A breakdown led to increased flaring this morning at Andeavor's 363,500 b/d Los Angeles refining complex in California.

The refiner notified regional air quality monitors of a breakdown in the Carson end of the facility at 11:23am today. Increased flaring is expected to conclude by 3am ET on 18 April, according to the filing.

Andeavor did not identify the unit or units involved in the breakdown.



## **INDUSTRY NEWS**

#### Refinery issues boost US West coast gasoline

Gasoline prices in Los Angeles, San Francisco and Portland reached their highest levels since mid-2015 amid regional refinery issues.

California gasoline markets firmed this morning amid a breakdown that led to increased flaring at Andeavor's 363,500 b/d Los Angeles refining complex in California. Los Angeles prompt CARBOB traded up to  $14.75 \notin/USG$  above the May Nymex, up from  $11.5 \notin/USG$  on 13 April. Last week, CARBOB prices reached \$2.22/USG, their highest level since June 2015. This month to date, prices averaged \$2.17/USG, about 19pc higher than the same time last year.

San Francisco CARBOB reached 2.18/USG last week, a level unseen since 12 June 2015. The product was heard traded this morning at a 2¢/USG discount to its Los Angeles counterpart.

Increased flaring at Andeavor is expected to conclude by 3am ET on 18 April, according to the filing.

In the Pacific northwest, a process unit upset led to increased flaring over the weekend at Phillips 66's 101,000 b/d refinery in Ferndale, Washington. BP also reported increased flaring last week amid turnaround work at its 222,700 b/d Cherry Point refinery in Blaine, Washington.

Portland suboctane gasoline closed on 13 April at \$2.23/ USG, a 32-month high. This month to date, Portland suboctane gasoline prices have averaged \$2.16/USG, about 16pc higher than the same time last year.

#### Marathon to buy 78 New York retail stores

Marathon Petroleum plans to add 78 stores in upstate New York to its Speedway retail brand under a purchase expected to close this year.

The US independent refiner will acquire 78 stores in the Syracuse, Rochester and Buffalo markets from Petr-All Petroleum Consulting Corp.

"These stores will enhance our existing network and expand our brand presence in a key growth market for Speedway," Speedway president Tony Kenney said.

Petr-All could not be immediately reached for comment.

Speedway operates 2,740 stores in 21 states. Marathon has pushed east from its refineries in midcontinent and US Gulf coast, picking up 1,245 Hess stores in 2015 as part of a \$2.87bn acquisition that included trucking and terminals.

#### Mexico imports 81pc of gasoline demand in Feb

A record 81pc of Mexico's gasoline demand was met by imports in February, according to energy ministry (Sener) data, another sign of the troubles faced by the country's refineries.

Mexico imported 638,280 b/d of gasoline in February, up 8pc percent from January and

20pc from a year ago.

Mexico's February gasoline demand was 788,000 b/d. The 81pc of gasoline demand met by imports is a 4 point increase from the 77pc met in January, and a nine point increase from the 72pc average for all of 2017.

Diesel imports of 277,500 b/d in February also set a record, meeting 74pc of Mexico's 375,000 b/d demand, up 2 points from 72pc in January and a six point increase from the 68pc average for all of 2017.

Independent fuel imports have also been on the rise data from the energy secretary shows, totaling 296,000 bl in February, or about 9,866 b/d. That's a 77pc increase from January. A year ago February independent companies imported 8,000 bl total.

Independent diesel imports were even higher in February, at 1.24mn bl (41,333 b/d), accounting for 15.2pc of total diesel imports.

The rise in imports is caused by low utilization rates at state-run Pemex's six refineries, which used only 34pc of their combined total capacity on average during February, a 24 point drop from the 58pc usage ratio of February 2017.

The 190,000 b/d Maderro refinery had the lowest utilization rate - 19pc - as the facility undergoes maintenance. The 220,000 b/d Salamanca refinery had the highest utilization rate, at 71pc, but was still far from meeting international operating standards or US average utilizations that stand at more than 90pc.

Gasoline production by Mexico's state-owned Pemex hit a new low in February at 164,100 b/d, a a 46.4pc drop from a year ago and a 12.4pc decrease from January.

Diesel production in February was at 94,700 b/d, more than 30pc less than in January and down 50pc compared with February 2017.

Mexico is the 6th largest fuel market in the world including non-OECD countries, behind the US, China, Japan, Russia and Canada. This has prompted interest from international companies, such as BP, Chevron, Exxon, Shell and Total, to continue



## **INDUSTRY NEWS**

exporting fuels and start selling oil products.

#### Argentina eyes Canadian biodiesel market

Argentina recently started exporting biodiesel to Canada in a sign of what could be an emerging market for the sector that has been hit hard by US anti-dumping and anti-subsidy duties.

Ecofuel, a joint venture between the firms Bunge and AGD, exported 29,000t of soybean-based biodiesel to Canada in March and will carry out another export of the same size this month, according to Gustavo Idigoras, an Argentinian biofuels analyst who works as a consultant for local biodiesel chamber Carbio.

"It is an emerging market and we still have to see whether it can become a sustained and consolidated market. For now these are merely isolated operations and there are still no signs this will be a market that will keep growing," Idigoras said.

One key issue that will prevent Canada from becoming a big buyer of Argentinian biofuel is that soybean-based biodiesel, which is the only type of biodiesel that Argentina produces, freezes at at higher temperatures than rapeseed biodiesel, which is the most common in Canada.

Considering Canada's cold climate, Argentina's soybeanbased biodiesel would only be appealing during the warmer summer months.

Weather restrictions aside, Canada is not a big enough market to make up for the loss of the US.

"In the best case scenario, it will become another Peru," said Idigoras. Argentina has exported as much as 200,000 t/yr to the South American country.

In comparison, the US received 90pc of the 1.63mn t of biodiesel that Argentina sold abroad in 2016.

Exports of Argentinian biodiesel to the US froze in September 2017, when duties as high as 72.28pc were imposed on the biofuel.

Argentina's government told biodiesel industry leaders that it would raise the issue of the duties with US vice president Mike Pence in Lima during the Summit of the Americas that ended on 14 April. It is not clear if president Mauricio Macri or his staff discussed the matter with Pence.

Argentina is set to decide before the end of the month whether it will file an official complaint with the World Trade Organization over the US duties, which Carbio has characterized as "unjustified and illegal." Argentina has previously successfully appealed to the WTO to fight against duties on Argentinian biodiesel imposed by the European Union in November 2013, which launched a years-long trade battle.

#### Minas Gerais state sees record ethanol output

Ethanol output from the Brazilian state of Minas Gerais is forecast to reach a record 3bn liters (51,697 b/d) in 2018-19, up 11pc from 2.7bn l last season.

Minas Gerais, Brazil's third-largest sugar cane-producing state, is nonetheless expected to see flat cane production of around 65mn tons, according to the state cane industry association Siamig.

The improved outlook for Brazil's ethanol sector overall comes as hydrous ethanol demand in the state has increased.

Hydrous ethanol sales in Minas Gerais more than doubled in the first two months of the year to 313.6mn l, compared to 154.0mn l in the same two-month period of 2017.

The wholesale price for gasoline, the principal rival for ethanol at the pump, is currently 32pc higher than on 1 July last year, according to data compiled by Brazil's leading sugar and ethanol producer Unica. As a result, retail gasoline prices are hovering near record highs.

Minas Gerais will benefit from new investments in the sector directed at reopening two mills that suspended operations during the crisis. A total of 11 mills suspended operations, largely because of gasoline price subsidies in 2010-14.

Siamig said crushing at the two mills will resume in 2020 but investments are starting now with the planting of new cane this season and next.

The two mills, which were the assets of the larger Joao Lyra milling group, were won in auction in late 2017. The mills were declared insolvent by local bankruptcy courts in 2014.

The 1.85mn t/yr Trialcool mill in Canapolis was won by Companhia Mineira de Acucar e Alcool (CMAA) on 7 December for R133.9mn (\$39.15mn). CMAA, which already operates two other mills in the region, will invest R100mn to reactivate Trialcool.

The second mill, 1.7mn t/yr Vale do Paranaiba in Capinopolis, was acquired by the Japungu Group for R206.4mn. The mill will receive R95mn in investment.

The two acquisitions come as profit margins for ethanol improve and new long-term renewable fuel targets take effect under the recently passed Renovabio biofuel regulations.



# **INDUSTRY NEWS**

#### **Glencore wins PetroEcuador diesel contract**

State-owned PetroEcuador awarded Glencore a contract to supply 2.4mn bl of No 2 diesel with less than 5,000ppm sulfur content.

The supply will be divided into 10 shipments of 240,000 bl each, for delivery starting on 1-3 May.

Glencore offered a \$3.64/bl premium to the US Gulf coast No 2 diesel price, outbidding Vitol, Trafigura, BB Energy and

# Phillips 66.

In December Glencore won a tender to supply 960,000 bl of No 2 diesel at a premium of \$4.28/bl.

On 25 April PetroEcuador will receive bids in a tender to purchase 3.12mn bl of 93-octane gasoline. The supply will be divided into 13 shipments of 240,000 bl each. Bids will be indexed to the US Gulf coast unleaded 87 price.

#### **ANNOUNCEMENTS**

#### Group Three RVP set for shift

Beginning 1 May, Argus' RVP for Group Three gasoline will undergo a seasonal shift.

The assessment for sub-octane V-grade gasoline (PA1853820), for any-month sub-octane V-grade gasoline (PA1267721) and for premium 91-octane A-grade gasoline in Group Three (PA391520) will transition to RVP 9. Please contact David Ruisard at david.ruisard@argusmedia.com or 713-429-6306 with questions or comments.

#### **Replacing USGC gasoline forward cycles**

Argus is shifting its pipeline forward cycle assessments for several US Gulf coast gasoline assessments.

Effective 4 April, *Argus* will assess pipeline forward cycles for 9.0 RVP material during the summer season when *Argus* assesses 9.0 RVP and 7.8 RVP specifications concurrently.

*Argus* will terminate and replace the pipeline forward cycle assessments for its "lowest RVP" quotes for regular CBOB Colonial A, premium CBOB Colonial D, 87 octane conventional Colonial M and 93 octane conventional Colonial V and replace them with forward cycles for the "lowest RVP not 7.8 or 7.0" quotes. *Argus Argus* will last publish pipeline forward cycle assessments for its "lowest RVP" quotes on 3 April.

For a complete list of affected codes and continuous forwards, please contact datahelp@argusmedia.com.

For further details, please contact Paul Dahlgren at paul. dahlgren@argusmedia.com or +1 713 429 6324.

#### USAC RVP changes announced

Effective cycle 15 on Colonial pipeline in the US Atlantic coast: Argus assessments for 93 conventional V-grade (PA0004398,

#### Argus Assessment Rationale Database

For prices used in financial benchmarks, Argus publishes daily explanations of the assessment rationale with supporting data. This information is available to permissioned subscribers and other stakeholders.

Subscribers to this report via Argus Direct or MyArgus may access the database here.

Other subscribers may request access here or contact us by email at sales@argusmedia.com.

#### **ANNOUNCEMENT**

#### Argus successfully completes annual losco assurance review

*Argus* has completed the sixth external assurance review of its price benchmarks covering crude, products, biofuels, thermal coal, coking coal, natural gas, biomass and petrochemicals benchmarks. The review was carried out by professional services firm PwC. Annual independent, external reviews of oil benchmarks are required by international regulatory group losco's Principles for Oil Price Reporting Agencies, and losco encourages extension of the reviews to non-oil benchmarks.

For more information and to download the review visit our website http://www.argusmedia.com/About-Argus/How-We-Work/



PA0004379) will be for 9.0 RVP (V2).

Effective cycle 17 on Colonial pipeline in the US Atlantic coast: *Argus* assessments for 87 conventional M-grade (PA0004396, PA0004377) will be for 9.0 RVP (M2).

Effective cycle 17 on Colonial pipeline in the US Atlantic coast: *Argus* assessments for 87 CBOB A-grade (PA0018530, PA0018529) will be for 9.0 RVP (A2).

Effective cycle 15 on Colonial pipeline in the US Atlantic coast: *Argus* assessments for regular RBOB F-grade (PA0019881, PA0019880) will be for F1.

Effective 16 April: *Argus* assessments for US Atlantic coast barge and Buckeye pipeline dead prompt and prompt regular RBOB (PA0011736, PA0004400, PA0011727, PA0004381, PA0011740, PA0004401, PA0011731, PA0004382) will be for Region 2 RBOB.

Effective 16 April: *Argus* assessments for US Atlantic coast barge and Buckeye pipeline dead prompt and prompt premium RBOB (PA0011737, PA0004403, PA0011728, PA0004384, PA0011741, PA0011732, PA0004411, PA0004392) will be for Region 2 RBOB.

Effective 16 April: *Argus* assessments for US Atlantic coast barge and Buckeye pipeline dead prompt and prompt regular CBOB (PA0011734, PA0005502, PA0012003, PA0008839, PA0011725, PA0005504, PA0011738, PA0006587, PA0012004, PA0008841, PA0011729, PA0006588) will be for 7.8 and 9.0 RVP CBOB.

Effective 16 April: *Argus* assessments for US Atlantic coast barge and Buckeye pipeline dead prompt and prompt premium CBOB (PA0011735, PA0005503, PA0012005, PA0008840, PA0011726, PA0005505, PA0011739, PA0006590, PA0012006, PA0008842, PA0011730, PA0006591) will be for 7.8 and 9.0 RVP CBOB.

Please contact David Ruisard at david.ruisard@argusmedia. com or 713-429-6306 or Stephanie Rau at stephanie.rau@argusmedia.com or 713-429-6356 with questions or comments.



Argus US Products is published by Argus Media group

#### Registered office

Lacon House, 84 Theobald's Road, London, WC1X 8NL Tet: +44 20 7780 4200 email: sales@argusmedia.com ISSN: 1086-2498

Copyright notice Copyright © 2018 Argus Media group.

All rights reserved.

All intellectual property rights in this publication and the information published herein are the exclusive property of Argus, and/or its licensors (including exchanges) and may only be used under licence from Argus. Without limiting the foregoing, by accessing this publication you agree that you will not copy or reproduce or use any part of its contents (including, but not limited to, single prices or any other individual items of data) in any form or for any purpose whatsoever except under valid licence from Argus. Further, your access to additional fees and/or execution of a separate agreement, whether directly with the exchanges or via Argus.

#### Trademark notice

ARGUS, ARGUS MEDIA, the ARGUS logo, ARGUS US PRODUCTS, other ARGUS publication titles and ARGUS index names are trademarks of Argus Media Limited. Visit www.argusmedia.com/ trademarks for more information.

#### Disclaimer

The data and other information published herein (the "Data") are provided on an "as is" basis. Argus and its licensors (including exchanges) make no warranties, express or implied, as to the accuracy, adequacy, timeliness, or completeness of the Data or fitness for any particular purpose. Argus and its licensors (including exchanges) shall not be liable for any loss, claims or damage arising from any party's reliance on the Data and disclaim any and all liability related to or arising out of use of the Data to the full extent permissible by law. **Publisher** Adrian Binks

**CEO Americas** Euan Craik

Chief operating officer Matthew Burkley

Global compliance officer Jeffrey Amos

Commercial manager Karen Johnson

Managing editor Jim Kennett

Editor: David Ruisard Tel: +1 713 429 6306 houstonproducts@argusmedia.com

#### Customer support and sales Technical queries technicalsupport@argusmedia.com

All other queries support@argusmedia.com

Houston, US Tel: +1 713 968 0000 New York. US Tel: +1 646 376 6130

Washington DC, US Tel: + 1 202 775 0240

London, UK Tel: +44 20 7780 4200 Astana, Kazakhstan Tel: +7 7172 72 92 94 Beijing Tel: +86 10 8535 7682 Dubai Tel: +971 4434 5112 Moscow, Russia Tel: +7 495 933 757 Rio de Janeiro, Brazil Tel: +55 21 2548 0817

Singapore Tel: +65 6496 9966 Tokyo, Japan Tel: +81 3 3561 1805

Petroleum illuminating the markets



