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Argus White Paper: Argus US Clean Products Prices Explained

Does Market Liquidity Matter?

The market price with the greatest integrity is the one based on the greatest liquidity. Liquidity matters because it is the foundation for accuracy.

As a result, Argus refined products prices in the US incorporate every spot trade available in the trading day, not a few select deals at the close (see table). Our clean product prices represent the low and high, and volume-weighted averages of deals done.

In the US clean products markets, the exchanges provide the fixed prices, and the cash markets trade at differentials to this moving target. The industry has asked Argus to index the differentials we collect to the settlement price as published by the exchange, because it represents the deepest, broadest, and most easily hedged fixed-price value available. As a service firm, Argus provides prices as a tool for use in a broad hedging program, applying a pricing methodology that aligns with how companies actually trade oil.

By any measure, refined products prices have become more volatile. Volatility in the basis differential price is best resolved by using broad market average prices to represent the entire day – prices based on all the liquidity available. One approach is to benchmark the entire day to a single moment in time. But this actually exacerbates the volatility by exaggerating the price movement between days. Liquidity-based market averages are the best alternative.

Participant diversity in a market also guarantees that the interests of producers, consumers, or intermediaries are fairly represented in price formation. Argus prices include deals by all classes of trade that are active in the markets.

US refiners, marketers, end users, and traders are integrating Argus prices throughout their organizations. The industry is rapidly forming a consensus that an entire-day mean or a volume-weighted average differential price embeds within it the bona fide volatility of the day, the greatest diversity of participants, and the full volume of transactions. Applying that differential price to the futures settlement adds strength to strength. You cannot have integrity without liquidity.

Gulf coast deals		5 May 2015	
Grade	Timing	Price	Volume
Colonial A2	27th Cycle	-22.50	25
	27th Cycle	-22.50	25
	27th Cycle	-22.25	25
	27th Cycle	-22.25	25
	27th Cycle	-22.25	50
	27th Cycle	-22.00	25
	27th Cycle	-22.00	25
	27th Cycle	-22.00	25
	27th Cycle	-22.00	50
	27th Cycle	C28 0.00	25
	27th Cycle	C28 0.00	25
	27th Cycle	C28 0.00	50
	27th Cycle	C28 0.00	50
	27th Cycle	C28 0.00	50
	27th Cycle	C28 0.00	50
Colonial M1	27th Cycle	-8.75	25
	27th Cycle	-8.00	25
	27th Cycle	C28 0.00	50
Colonial M2	27th Cycle	-19.00	25
	27th Cycle	-18.75	100
	27th Cycle	-18.50	25
	27th Cycle	-18.00	25
	27th Cycle	C28-0.25	125
	27th Cycle	C28 0.00	25
	27th Cycle	C28 0.00	50
	27th Cycle	C30-0.25	50
	28th Cycle	C30 0.00	75
	30th Cycle	C36+0.75	50
Colonial F1	27th Cycle	-8.50	25
	27th Cycle	-8.50	25
	27th Cycle	-8.50	25
	27th Cycle	-8.50	25
	27th Cycle	-8.50	25
	27th Cycle	-8.50	25
	27th Cycle	-8.50	25
	27th Cycle	-8.25	25
	27th Cycle	C28 0.00	25
	27th Cycle	50-1.00	25
Colonial S0	27th Cycle	-8.50	25
Colonial V2	27th Cycle	+8.00	25
Colonial line space 01	27th Cycle	+5.00	25
	27th Cycle	+5.25	25
Explorer 4C	27th Cycle	-7.00	25

Petroleum

illuminating the markets

Argus Captures the Entire Day

The US clean products market is a rateable market, based on constant pipeline flows and all-day refining operations. The spot markets reflect this physical reality by trading throughout the business day. For refined products in the US, Argus publishes the low and the high of deals done. Argus also provides volume-weighted averages of deals done in the actively traded Colonial pipeline spot market for gasoline, diesel, heating oil and jet fuel (see box on p3).

Argus values transparency, so we publish the price and volume of every deal we discover through the entire trading day (see tables on p1 and p3). This allows you to cross check the deals against the prices. And Argus is committed to verifying deal prices, counter-parties and volumes.

Not all markets trade actively, so in these markets Argus publishes an intelligent range of trade. In less active markets, Argus looks to assess the range within which product could have traded, based on bids and offers throughout the day, movements in similar grades and extensive polling of market participants.

The Market-on-Close

In contrast, the competing methodology assesses clean product prices based exclusively on deals done in a narrow window ending at 3:15pm EST. This market-on-close (MOC) methodology marks the value at the moment it is assessed, but reflects only a small subset of the day's activity. The industry trades far less in the MOC window than throughout the entire day.

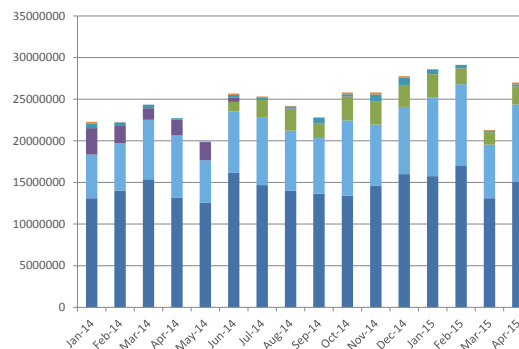
Trades in the window are only done to hedge exposure to the index or to set the value of index-linked business. Trades done throughout the day are transacted to manage the legitimate physical forces of supply and demand.

The resulting window price deviates significantly from the mean and the weighted average of deals done for the entire day. This divergence has opened up new risks for the industry, risks that many are either unwilling or unequipped to hedge.

Further compounding this risk, the MOC differentials are applied not to the Nymex settlement price but to an assessment of futures value at 3:15. After-hours futures trading can never match the liquidity and usefulness of the Nymex settlement. Financial crude and products markets remain inextricably bound together at the 2:30 settlement. Refiners using the competing index can no longer use the Nymex TAS mechanism as a means of hedging index exposure. The long-term solution to this hedging problem is to use Argus pricing for clean products.

Gulf coast deals		5 May 2015	
Grade	Timing	Price	Volume
Colonial 77	25th Cycle	-19.25	25
	25th Cycle	-19.25	25
	25th Cycle	-19.00	50
	25th Cycle	-18.75	25
	25th Cycle	-17.50	25
	25th Cycle	C26+0.25	25
Colonial 62	25th Cycle	-4.00	25
	25th Cycle	-4.00	25
	25th Cycle	-4.00	25
	25th Cycle	-3.95	25
	25th Cycle	-3.85	25
	25th Cycle	-3.85	25
	25th Cycle	-3.85	25
	25th Cycle	-3.80	25
	25th Cycle	-3.80	25
	25th Cycle	-3.75	25
	25th Cycle	-3.75	25
	25th Cycle	-3.70	25
	25th Cycle	-3.70	25
	25th Cycle	-3.70	25
	25th Cycle	-3.70	25
	25th Cycle	-3.65	25
	25th Cycle	-3.50	25
	25th Cycle	-3.50	25
25th Cycle	-3.50	50	
25th Cycle	C26+0.35	25	
25th Cycle	C26+0.50	25	
25th Cycle	C26+0.50	25	
25th Cycle	C26+0.50	25	
25th Cycle	C26+0.60	25	
Colonial 54	25th Cycle	-11.25	25
	25th Cycle	-11.25	25
	25th Cycle	-11.25	25
	25th Cycle	-11.00	25
	25th Cycle	-11.00	25
	25th Cycle	-11.00	25
	25th Cycle	-11.00	25
	25th Cycle	-11.00	25
	25th Cycle	-10.75	25
	25th Cycle	-10.75	25
	25th Cycle	-10.50	25
	25th Cycle	-10.25	25
	25th Cycle	-10.00	25
	25th Cycle	-10.00	25
	25th Cycle	C26 0.00	25
25th Cycle	C26+0.25	25	
25th Cycle	C26+0.25	25	
25th Cycle	C26+0.25	25	
25th Cycle	C26+0.25	25	
Line 2 space	C25	-0.50	25

COLONIAL DISTILLATE SPOT MARKET VOLUME (BARRELS PER DAY AVERAGE)



The Argus Alternative

Term contracts for both bulk and terminal-level supply were originally signed on the assumption that the index reflected the aggregate of the entire day’s trade and was based on the futures settlement. Internal transfer prices were established on the understanding that the index reflected a fair average of the spot volumes transacted by many counterparties in an open market.

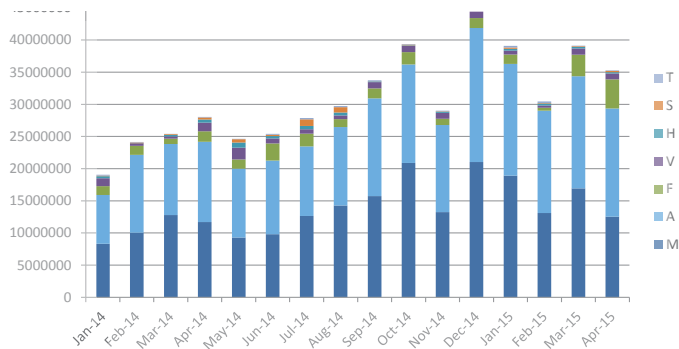
Argus is now the source for this type of index. Switching to Argus is viewed by many not as switching, but simply going back to where they began.

US refiners are converting much of their business now to an Argus basis. US midstream and marketing firms are also diversifying their term contracts to include Argus. Many companies were already familiar with Argus prices since the European gasoline market changed to Argus indexation after the introduction of MOC. Argus is the primary price index in the US domestic crude oil markets for grades such as LLS, WTS, and Mars. As a result, the Argus Sour Crude Index™ (ASC™) was chosen by Middle East exporters to index sales to the US.

Those interested in hedging with swaps also find that the entire-day approach works best. The Nymex has listed several Argus Gulf coast clean product swaps on ClearPort as a result of customer demand for these new instruments.

Using Argus prices – which are based on millions of barrels traded per day – better serves the general interest of the refinery, the end-user and the risk manager. Using Argus puts you in the center of market liquidity. And liquidity matters.

COLONIAL GASOLINE SPOT MARKET VOLUME (BARRELS PER DAY AVERAGE)



Atlantic coast deals			5 May 2015	
Grade	Timing	Price	Volume	
RBOB F2	5 May	Jun+0.25	50	KMI
	10 May	Jun0.00	25	BPL
CBOB 9.0	11-12 May	Jun-15.45	25	BPL 141e
	10-15 May	Jun-16.25	55	fob Philadelphia
	12-13 May	Jun-16.75	25	LPL 141L
	15-16 May	Jun-16.75	30	LPL 142L
	15-16 May	Jun-16.75	25	LPL 142L
CBOB 7.8	14-15 May	Jun-10.00	25	BPL 142e
87 conv M2	C23	Jun-10.00	25	CPL

Midcontinent deals			
Grade	Timing	Price	Volume
Group Three V	Prompt	Jun-17.00	25
	Prompt	Jun-17.50	10
	20-May	Any May0.00	25

West coast deals			
Grade	Timing	Price	Volume
LA 84 Carbob	May	Jun+29.00	25
	May	Jun+30.00	25
	May	Jun+30.00	25
	May	Jun+30.00	25
	May	Jun+30.00	25
	May	Jun+30.00	25
	May	Jun+31.00	25
	May	Jun+32.00	25
	May	Jun+32.00	25
	May	Jun+35.00	25
	May	Jun+35.00	25
	May	Jun+38.00	25
	May	Jun+45.00	25
	May	Jun+48.00	25
	May	Jun+50.00	25
	Jun	Jul+21.00	25
	Jun	Jul+21.00	25
	Jun	Jul+22.50	25
	Jun	Jul+23.00	25
Jun	Jul+23.00	25	
Jun	Jul+24.00	25	
Jun	Jul+24.50	25	
Jun	Jul+24.50	25	
Portland 84 Conv	May	Jun+23.00	20

Argus Volume-Weighted Averages

Argus publishes volume-weighted averages of prompt cycle deals done for the following Colonial pipeline grades:

- 87 M grade Gasoline (lowest RVP)
- 87 M grade 9 RVP Gasoline (summer supplemental)
- Ultra Low Sulphur Diesel 61 grade
- Heating Oil 88 grade
- Jet Fuel 54 grade

Who is Argus?

Argus is an independent media organisation with over 700 full time staff. It is headquartered in London and has offices in each of the world's principal commodity centres. Its main activities comprise publishing market reports containing price assessments, market commentary and news, and business intelligence reports that analyse market and industry trends.

Argus is a leading provider of data on prices and fundamentals, news, analysis, consultancy services and conferences for the global crude, oil products, LPG, natural gas, electricity, coal, emissions, bioenergy, fertilizer, petrochemical, metals and transportation industries. Data provided by Argus are widely used for indexation of physical trade. Companies, governments and international agencies use Argus information for analysis and planning purposes.

Many more resources on Argus clean products can be found at www.argusmedia.com/Oil-Products. You can find the complete Argus pricing methodology, which explains how we arrive at our prices and all volume, location, and quality assumptions behind the prices. You may also sign up for a free trial of the Argus US Products report.

Argus North American Swaps available on CME Clearport®

Recent concerns over counterparty risk are prompting many firms to clear swaps on CME ClearPort®. The following Argus settled swaps are currently available to trade on ClearPort, with more expected to be added soon.

Refined Products

<u>AW</u>	<u>Gulf Coast Gasoline (Argus) Calendar Swap</u>
<u>AF</u>	<u>Gulf Coast Jet (Argus) Calendar Swap</u>
<u>AI</u>	<u>Gulf Coast Ultra Low Sulfur Diesel (ULSD) (Argus) Calendar Swap</u>
<u>GSI</u>	<u>Biodiesel SME Houston B-100 (Argus) Swap Futures</u>
<u>4U</u>	<u>Gulf Coast Heating Oil (Argus) Swap Futures</u>
<u>4Y</u>	<u>NY Jet Fuel (Argus) Swap Futures</u>
<u>5U</u>	<u>New York Jet Fuel (Argus) vs. Heating Oil Spread Swap Futures</u>
<u>5Y</u>	<u>NY ULSD (Argus) Swap Futures</u>
<u>7U</u>	<u>Gulf Coast Heating Oil (Argus) vs. Heating Oil Spread Swap Futures</u>
<u>7Y</u>	<u>NY ULSD (Argus) vs Heating Oil Spread Swap Futures</u>
<u>CK</u>	<u>Gulf Coast Gasoline Crack Spread (Argus) Swap</u>
<u>CF</u>	<u>Gulf Coast ULSD Crack Spread (Argus) Swap</u>
<u>IU</u>	<u>Jet Up-Down (Argus) Swap</u>
<u>US</u>	<u>Ultra Low Sulfur Diesel (ULSD) Up-Down (Argus) Swap</u>
<u>UZ</u>	<u>Gasoline Up-Down (Argus) Swap</u>



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