

# Crude Oil Marketwire

Volume 44 / Issue 181 / September 14, 2023

## Key benchmarks (\$/barrel)

			Mid	Change
<i>(PGA page 2210)</i>				
Dubai (Nov)	PCAA00	93.84-93.86	93.850	-0.050
Dubai (Dec)	PCAAU0	92.84-92.86	92.850	+0.190
Dubai (Jan)	PCAAV0	91.74-91.76	91.750	+0.170
MEC (Nov)	AAWSA0	93.84-93.86	93.850	-0.050
MEC (Dec)	AAWSB0	92.84-92.86	92.850	+0.190
MEC (Jan)	AAWSC0	91.74-91.76	91.750	+0.170
Brent/Dubai (Nov)	AAJMS0	-1.17/-1.15	-1.160	+0.020
<i>(PGA page 1212)</i>				
Brent (Dated)	PCAS00	95.10-95.11	95.105	+1.720
Dated North Sea Light	AAOFD0	95.10-95.11	95.105	+1.720
Dated Brent (CIF)	PCAKM0		95.990	+1.645
Brent (Nov)	PCAAQ0	93.65-93.67	93.660	+1.540
Brent (Dec)	PCAA00	92.96-92.98	92.970	+1.520
Brent (Jan)	PCARR0		92.100	+1.490
Sulfur de-escalator	AAUXL0		0.15	
Oseberg QP (Sep)	AAXDW0		1.1051	
Oseberg QP (Oct)	AAXD00		0.9832	
Ekofisk QP (Sep)	AAXDY0		1.0163	
Ekofisk QP (Oct)	AAXDZ0		0.8910	
Troll QP (Sep)	ATFNB0		1.5719	
Troll QP (Oct)	ATFNA0		1.2809	
<i>(PGA page 210)</i>				
Platts AGS	AGSAA0		92.460	+1.840
WTI FOB USGC Decades Avg	ADECA0		92.460	+1.840
WTI (Oct)	PCACG0	90.15-90.17	90.160	+1.640
WTI (Nov)	PCACH0	89.60-89.62	89.610	+1.730
WTI (Dec)	AAGIT0	88.80-88.82	88.810	+1.700
Light Houston Sweet	AAXE00		91.910	+1.840
Light Houston Sweet M2	AAURY0		91.210	+1.730
LOOP Sour (Oct)	AALSM01		90.310	+1.640
LOOP Sour (Nov)	AALSM02		89.610	+1.730
LOOP Sour (Dec)	AALSM03		88.760	+1.550
Bakken	AAAPP0		88.360	+1.720
Eagle Ford Marker	AAAYJ0		88.010	+1.740
ACM* (Oct)	AAQH00	89.40-89.42	89.410	+2.390
ACM* (Nov)	AAQH00	88.70-88.72	88.710	+2.480
ACM* (Dec)	AAQHP0	87.85-87.87	87.860	+2.300

\*Americas Crude Marker.

## Forward Dated Brent (\$/barrel) (PGA page 1250)

			Mid	Change
North Sea Dated strip	AAKWH0	94.02-94.04	94.030	+1.605
Mediterranean Dated strip	AALDF0	93.99-94.01	94.000	+1.595
33-63 Day Dated strip	AALJ00	93.14-93.16	93.150	+1.515
BTC Dated strip	AAUF10	93.92-93.93	93.925	+1.595
15-45 Day Dated strip	AALGM0	93.71-93.73	93.720	+1.600
30-60 Day Dated strip	AAXRK0	93.22-93.24	93.230	+1.515
North Sea CIF Dtd strip	AAHXE0		93.985	+1.595
23-63 Day Dated Strip	ADBRA0		93.300	+1.515

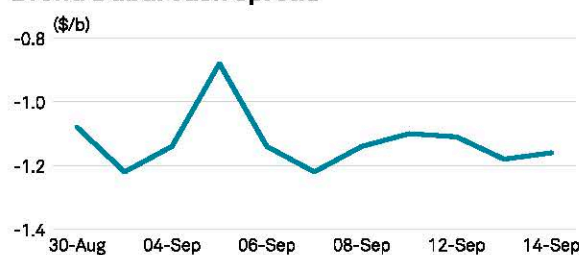
## Brent/WTI spreads and EFPs (PGA page 218)

			Mid	Change
Brent/WTI 1st	AALAU00	4.10/4.12	4.110	+0.160
Brent/WTI 2nd	AALAV00	4.21/4.23	4.220	+0.140
Brent/WTI 3rd	AALAY00		4.250	+0.140
Brent EFP (Nov)	AAGVX00	0.05/0.07	0.060	+0.030
Brent EFP (Dec)	AAGVY00	0.10/0.12	0.110	+0.050
Brent EFP (Jan)	AAMVY00		0.110	+0.050
WTI EFP (Oct)	AAGVT00	-0.01/0.01	0.000	0.000
WTI EFP (Nov)	AAGVU00	-0.01/0.01	0.000	0.000
WTI EFP (Dec)	AAGVV00	-0.01/0.01	0.000	0.000

## Middle East (\$/barrel)

			Mid	Change
<i>(PGA page 2210)</i>				
Oman (Nov)	PCABS00	93.89-93.91	93.900	0.000
Oman (Dec)	AAHZF00	92.89-92.91	92.900	+0.240
Oman (Jan)	AAHZH00	91.79-91.81	91.800	+0.220
Upper Zakum (Nov)	AAOUQ00	93.83-93.87	93.850	-0.050
Murban (Nov)	AAKNL00	95.10-95.14	95.120	+0.220
Murban (Dec)	MBNSA00		94.120	+0.460
Murban (Jan)	MBNSB00		93.020	+0.440
Al Shaheen	AAPEV00	93.88-93.92	93.900	-0.030
<b>Spread vs Dubai</b>				
Dubai	DBDDC00		2.100	-0.220
Oman	DBDOC00		2.150	-0.170
Murban	AARBZ00		3.370	+0.050
Al Shaheen	AAPEW00	2.10-2.20	2.150	-0.200
Upper Zakum	DBDUZ00		2.100	-0.220
<b>Quality Premiums</b>				
Murban QP	AASVA00		0.0000	
<i>(PGA page 2658)</i>				
Dubai Swap (Oct)	AAHBM00	92.83-92.87	92.850	+0.190
Dubai Swap (Nov)	AAHBN00	91.73-91.77	91.750	+0.170
Dubai Swap (Dec)	AAHB000	90.65-90.69	90.670	+0.150

## Brent/Dubai cash spread



Source: S&P Global Commodity Insights

## Market Commentary

### Platts Middle East Sour Crude Daily Market Analysis

- Medium sour complex inches higher
- Nov loading ESPO under discussions

Cash differentials in the sour crude complex continued their upward trajectory Sept. 14, with spot activity for the November-loading cycle well underway.

Latest trade levels for the medium sour Upper Zakum into China were heard at premiums in the \$2.20s/b to Dubai, up from \$2.05-\$2.10/b premiums traded earlier in the week.

On light sour, two stems of Das Blend were heard sold into Japan at premiums of \$2.20-\$2.30/b to Dubai.

*(continued on page 3)*

## Contents

Platts Oil Mideast Sour Crude Convergences .....	4
Platts Middle East Sour Crude Bids, Offers, Trades .....	4
Platts Dubai Derivatives Bids Summary .....	5
Platts Dubai Derivatives Offers Summary .....	5
Platts Dubai Derivatives Trades Summary .....	6
Platts Dubai Derivatives Exclusions .....	6
Platts Asia Pacific Sweet Crude Daily Market Analysis .....	6
Platts Asia Light Sweet Crude Bids, Offers, Trades .....	8
Platts North Sea Crude Daily Market Analysis .....	8
Platts North Sea Dated Brent, BFOE, CFD Bids, Offers, Trades .....	9
Platts WTI Midland Crude DAP Europe Bids, Offers, Trades .....	14
Platts Mediterranean & Black Sea Sweet Crude Daily Commentary ..	16
Platts NWE and Med Urals Sour Crude Daily Market Analysis .....	17

## Asia Pacific and Middle East crude assessments (\$/barrel)

(Asia MOC)						(Asia MOC)				(Asia close)				(London close)				
API		Code		Mid	Change	Code	Mid	Change	Code	Mid	Change	Code	Mid	Change	Code	Mid	Change	
<b>Condensate</b>																		
NW Shelf	61.9	PCAGX00	84.09-84.13	84.110	+0.120	Diff to Dubai				Diff to Asian Dated Brent				Diff to Asian Dated Brent				
Ichthys FC	48.9	ICFCA00		94.060	+0.020													
DFC	56.82	ADFCA00	89.63-89.67	89.650	+0.220	ADFCB00	-2.15/-2.05	-2.100	+0.050	AAPAI00	-7.700	+0.100	AAPAH00	85.070	+1.620	ADFCD00	90.610	+1.720
Qatar LSC	56.9	AARB000	89.03-89.07	89.050	+0.220	AARB000	-2.75/-2.65	-2.700	+0.050	ICFCB00	2.250	0.000	AARBA00	90.010	+1.720	AARAU00	85.560	+1.720
South Pars	57.4	AARAV00	84.58-84.62	84.600	+0.220	AARAX00	-7.20/-7.10	-7.150	+0.050	ADFC000	-2.160	+0.200	AARAU00	85.560	+1.720			
						Diff to ICP				AARBC00	-2.760	+0.200	AAPBD00	81.620	+1.620			
Senipah	54.4	AAEOE00	80.64-80.68	80.660	+0.120	AAE0K00	-6.20/-6.10	-6.150	+0.050	AARAW00	-7.210	+0.200	(PGA page 2215)					
<b>Light crude</b>																		
Cossack	47.7	PCAGZ00	89.69-89.73	89.710	+0.020	Diff to ICP				Diff to Asian Dated Brent				Diff to Asian Dated Brent				
Tapis	45.2	PCACB00	97.69-97.73	97.710	+0.120													
Belida	45.1	PCAF000	84.29-84.33	84.310	+0.020	PCAFM00	-3.15/-3.05	-3.100	0.000	AAPAC00	-2.100	0.000	AAPAB00	90.670	+1.520	AAOV000	98.670	+1.620
Kutubu	44.3	PCAFJ00	89.54-89.58	89.560	+0.020					AAOZ000	5.900	+0.100	AAPBP00	85.270	+1.520	AAPAD00	90.520	+1.520
Attaka	42.3	PCAAJ00	84.19-84.23	84.210	+0.020	PCAAK00	-3.85/-3.75	-3.800	0.000	AAPBQ00	-7.500	0.000	AAPB000	85.170	+1.520	AAPBF00	89.220	+1.620
Ardjuna	38	PCACQ00	88.24-88.28	88.260	+0.120	PCACR00	-1.05/-0.95	-1.000	+0.050	AAPAE00	-2.250	0.000	AAPBR00	99.220	+1.620			
Banyu Urip	32	PCAFQ00		98.260	+0.120	PCAQ000		3.200	+0.050	AAPBC00	-7.600	0.000	(PGA page 2216)					
						Diff to Dubai				AAPBG00	-3.550	+0.100	AAREN00	82.960	+1.670			
Sakhalin Blend	45.5	AARB000	81.98-82.02	82.000	+0.170	AARCN00	-9.80/-9.70	-9.750	0.000	AAPBU00	6.450	+0.100	(PGA page 2217)					
ESPO M1	34.8	AARWF00	87.23-87.27	87.250	+0.170	AASEU00	-4.55/-4.45	-4.500	0.000	AARDN00	-9.810	+0.150	AAPAN00	88.660	+1.670	AAOZX00	101.770	+1.620
ESPO M2	34.8	AAWFE00	85.95-85.99	85.970	+0.150	AAWFG00	-4.75/-4.65	-4.700	0.000	AAPAO00	-4.110	+0.150	AAOZX00	101.770	+1.620	AAPAR00	101.470	+1.620
Sokol	39.7	AASCJ00	87.68-87.72	87.700	+0.170	AASCK00	-4.10/-4.00	-4.050	0.000	AAOZY00	9.000	+0.100	AAPAP00	104.720	+1.620	AASCN00	103.620	+1.620
Kikeh	34.9	AAUHU00	100.79-100.83	100.810	+0.120					AAPAS00	8.700	+0.100	(PGA page 2218)					
Miri Light	32.3	PCABQ00	100.49-100.53	100.510	+0.120	Diff to ICP				AAPAQ00	11.950	+0.100	AARAS00	98.520	+1.620	AAPAJ00	101.920	+1.620
Labuan	32	PCABL00	103.74-103.78	103.760	+0.120	PCABB00	3.70/3.80	3.750	0.000	AASCM00	10.850	+0.100	AAPAF00	90.470	+1.620	AAPAL00	90.520	+1.220
Kimanis	38.6	AASCL00		102.660	+0.120					Diff to Asian Dated Brent				AAPAV00	92.470	+1.520		
<b>Medium crude</b>																		
Su Tu Den	36.8	AARAR00	97.54-97.58	97.560	+0.120	Diff to ICP				Diff to Asian Dated Brent				Diff to Asian Dated Brent				
Bach Ho	40.7	PCAHY00	100.94-100.98	100.960	+0.120													
Nanhai	40	PCAFR00	89.49-89.53	89.510	+0.120													
Nile Blend	33.9	AAPLC00	89.54-89.58	89.560	-0.280													
Daqing	32.2	PCAAZ00	91.49-91.53	91.510	+0.020													
<b>Heavy crude</b>																		
Dar Blend	25	AARAB00	89.59-89.63	89.610	-0.280	Diff to ICP				Diff to Asian Dated Brent				Diff to Asian Dated Brent				
Shengli	24.2	PCABY00	94.29-94.33	94.310	+0.020													
Duri	20.8	PCABA00	97.64-97.68	97.660	+0.020													
Vincent	18.3	AARAK00		102.060	+0.020													

## Delivered - Asia spot crude assessments (\$/barrel) (PGA page 2238)

US Delivered - Asia Spot Crudes				Diff to Dubai				Diff to Asian Dated Brent			
WTI Midland (DES Singapore)	WTMSA00	94.820	+0.200	WTMSD00	3.650	+0.050	WTMSB00	3.300	+0.150		
WTI Midland (DES Yeosu)	WTMYA00	94.820	+0.200	WTMYD00	4.150	+0.050	WTMYB00	3.800	+0.150		
<b>Brazil Delivered - Asia Spot Crudes</b>				LUQDD00				LUQDB00			
Tupi (DES Qingdao)	LUQDA00	94.820	+0.150	LUQDD00	4.150	0.000	LUQDB00	3.800	+0.100		

**Middle East spot assessments (\$/barrel) (PGA page 2220)**

			Mid	Change		Spread vs Dubai	Mid	Change		Spread vs OSP	Mid	Change
Umm Lulu	AUFAA00		95.220	+0.220	DBDUL00		3.470	+0.050				
Das Blend	AAXOF00	94.40-94.44	94.420	+0.120	DBDDB00		2.670	-0.050				
Qatar Land	AAKNP00	93.63-93.67	93.650	+0.200	QALDA00		1.900	+0.030	AAKUJ00	0.25/0.35	0.300	0.000
Qatar Marine	AAKNR00	93.03-93.07	93.050	-0.050	QAMDA00		1.300	-0.220	AAKUH00	0.20/0.30	0.250	-0.050
Banoco Arab Medium	AAKNT00	93.88-93.92	93.900	-0.050					AAKUD00	-1.00/-0.90	-0.950	-0.150
Basrah Medium M1	BSMAM01	-	94.680	-0.030					BSMBM01		0.000	-0.250
Basrah Medium M2	BSMAM02	-	93.350	-0.050					BSMBM02		-0.050	-0.150
Basrah Heavy M1	AALZC00	-	91.680	-0.080					AALZJ00		0.400	-0.300
Basrah Heavy M2	AALZD00	-	90.300	-0.100					AALZK00		0.400	-0.200

This follows four cargoes of Umm Lulu sold earlier in the week at premiums in the \$3.10s/b to Dubai, to Asian refiners.

Rongsheng is seeking an unspecified volume of crude for November loading or December delivery into Zhoushan, China through a tender that closed Sept. 14.

Still on tenders, Iraq's SOMO is offering 2 million barrels of Basrah Heavy for Oct. 28-30 loading from the southern oil terminals through a tender closing Sept. 18.

One trade source attributed the strength to market participants now seeing Chinese macro economic concerns not having a huge impact on oil demand, while overall supply-side fundamentals remained underpinned by additional voluntary cuts at Saudi Arabia and Russia.

This was on top of an uptick in activity following a lull and medium grades now appearing tighter than earlier expected.

The International Energy Agency had said in its latest monthly report that with the recent extension of output cuts by Saudi Arabia and Russia of a combined 1.3 million b/d through year-end, global oil markets face steep deficits through the end of the year.

"From September onward, the loss of OPEC+ production, led by Saudi Arabia, will drive a significant supply shortfall through the fourth quarter. Unwinding cuts at the start of 2024 would shift the balance to a surplus. However, oil stocks will be at uncomfortably

**Asian market parity prices (\$/barrel) (PGA page 2280)**

			(Asia close)		(London close)	
			Mid	Change	Mid	Change
Minas	PCAB000		88.090	+0.125	AAPAZ00	89.050 +1.625
Cinta	PCAAX00		76.255	+0.055	AAPBJ00	77.215 +1.555
Widuri	PCAFE00		73.465	+0.080	AAPBN00	74.425 +1.580
Cambay	AMPPA00		91.890	-0.235		
Ravva	AMPPB00		99.315	+0.095		
Rajasthan	AMPPC00		89.030	-0.055		

**Asian Crude Indices (\$/barrel) (PGA page 2206)**

16:30 Singapore		Interim Asian Close	Diff to Dated Brent	Final London Close
Asian Dated Brent (ADB)	AAXPG00	93.955		
ADB Strip Asia	AARBV00	91.810	AARBX00	92.770
ADB Strip Middle East	AARBW00	91.810	AARBY00	92.770
ADB Strip M3	ADBS003	91.020		

For definitions see <http://www.platts.com/IM.Platts.Content/MethodologyReferences/MethodologySpecs/Crude-oil-methodology.pdf>

low levels, increasing the risk of another surge in volatility that would be in the interest of neither producers nor consumers, given the fragile economic environment," the IEA said.

An expected rise in global oil demand of 1.5 million b/d in the second half of 2023 over H1 will eclipse supply by 1.24 million b/d, it said.

On Far East Russian ESPO Blend grade, discussions on November-loading cargoes by Russian producer Surgut were heard ongoing. One trade source expected the cargoes to be concluded at discounts in the mid-\$3s/b to Dubai on FOB basis — similar to the October cycle.

**Platts Mideast Sour Crude Daily Rationales & Exclusions****Dubai Mo01 <PCAAT00> assessment rationale:**

The November cash Dubai assessment on Sept. 14 took into consideration trades for cash Dubai partials at \$93.85/b towards the end of the Platts Market on Close assessment process.

**Oman Blend Mo01 <PCABS00> assessment rationale:**

The November cash Oman assessment on Sept. 14 took into consideration values heard in the broader market.

Exclusions: No market data was excluded from the Middle East sour crude Market on Close assessment process.

## Platts Oil Mideast Sour Crude Convergences

None reported.

## Platts Middle East Sour Crude Bids, Offers, Trades

Bids:

PLATTS DUBAI: NOV23: VITOL BIDS 25KB AT \$93.80  
 PLATTS DUBAI: NOV23: PHILLIPS 66 BIDS 25KB AT \$93.75 AND WITHDRAWS DURING EXTENSION  
 PLATTS DUBAI: NOV23: BP BIDS 25KB AT \$93.65  
 PLATTS DUBAI: NOV23: MITSUI BIDS 25KB AT \$93.55

PLATTS DUBAI: NOV23: TRAFIGURA BIDS 25KB AT \$93.50

PLATTS DUBAI: NOV23: PETROCHINA BIDS 25KB AT \$93.40

PLATTS DUBAI: NOV23: GUNVOR NO LONGER BIDS AFTER TRADE

Offers:

PLATTS DUBAI: NOV23: UNIPEC OFFERS 25KB AT \$93.90 AND WITHDRAWS DURING EXTENSION  
 PLATTS DUBAI: NOV23: PETROCHINA OFFERS 25KB AT \$93.95 AND WITHDRAWS DURING EXTENSION  
 PLATTS DUBAI: NOV23: BP OFFERS 25KB AT \$94.00  
 PLATTS DUBAI: NOV23: PHILLIPS 66 OFFERS 25KB AT \$94.15

PLATTS DUBAI: NOV23: GUNVOR OFFERS 25KB AT \$94.35

PLATTS DUBAI: NOV23: TRAFIGURA OFFERS 25KB AT \$94.35

PLATTS DUBAI: NOV23: VITOL OFFERS 25KB AT \$94.50

PLATTS DUBAI: NOV23: EXXONMOBIL NO LONGER OFFERS AFTER TRADE

PLATTS DUBAI: NOV23: RELIANCE NO LONGER OFFERS AFTER TRADE

Trades:

## North Sea spot crude assessments (\$/barrel) (PGA page 1212)

			Mid	Change	Spread vs fwd Dated Brent		Mid	Change
Dated Brent Diff					AAXEZ00	1.07/1.08	1.075	+0.115
BNB	AAVJA00	95.28-95.30	95.290	+1.765	AAVJB00	1.25/1.27	1.260	+0.160
Forties	PCADJ00	95.18-95.19	95.185	+1.790	AAGWZ00	1.15/1.16	1.155	+0.185
Oseberg	PCAEU00	97.18-97.20	97.190	+1.785	AAGXF00	3.15/3.17	3.160	+0.180
Ekofisk	PCADI00	97.00-97.02	97.010	+1.785	AAGXB00	2.97/2.99	2.980	+0.180
Troll	AAWEX00	97.60-97.62	97.610	+1.785	AAWEY00	3.57/3.59	3.580	+0.180
FOB N Sea WTI Midland	ALNDA00		95.220	+1.645	ALNDB00		1.190	+0.040
Statfjord	PCAE00	96.82-96.84	96.830	+1.755	AAGXD00	2.79/2.81	2.800	+0.150
Flotta Gold	PCACZ00	95.02-95.04	95.030	+1.705	AAGXH00	0.99/1.01	1.000	+0.100
Duc	AAWEZ00	96.12-96.14	96.130	+1.755	AAWFL00	2.09/2.11	2.100	+0.150
Grane Blend	PCALA00		95.630	+1.705	PCALB00		1.600	+0.100
Johan Sverdrup	AJSVA00		95.530	+1.705	AJSVB00		1.500	+0.100
Statfjord (CIF)	AASAS00	97.88-97.89	97.885	+1.745	AASAT00	3.89/3.91	3.900	+0.150
Gullfaks (CIF)	AASAU00	98.38-98.39	98.385	+1.795	AASAV00	4.39/4.41	4.400	+0.200
Alvheim (CIF)	ALVHA00		98.435	+1.745	ALVHB00		4.450	+0.150
Asgard (CIF)	ASGCA00		96.385	+1.745	ASGCB00		2.400	+0.150
North Sea basket	AAGIZ00	96.16-96.18	96.170	+1.780				
North Sea Dated Strip	AAKWH00	94.02-94.04	94.030	+1.605				
European Sour Crude Index	CSBEA00		95.535	+1.705	CSBEB00		1.505	+0.100
					Spread vs fwd CIF Dated Brent			
Dated Brent (CIF)	AAVJG00		95.990	+1.645	AAVJF00		2.005	+0.050
BNB (CIF)	PCAKP00		96.780	+1.755	AAVJC00		2.795	+0.160
Forties (CIF)	PCAKR00		96.230	+1.785	AAHXC00		2.245	+0.190
Oseberg (CIF)	PCAKT00		98.125	+1.770	AAHXD00		4.140	+0.175
Ekofisk (CIF)	PCAKV00		97.845	+1.775	AAHXB00		3.860	+0.180
Troll (CIF)	AAXJO00		98.550	+1.770	AAXJN00		4.565	+0.175
WTI Midland (CIF)	WMCRD00		96.000	+1.630	WMCRB00		2.015	+0.035
North Sea CIF Dated Strip	AAHXE00		93.985	+1.595				

## Freight Adjustment Factors

(\$/barrel)		Change
Sullom Voe-Rotterdam	FSVRM00	1.2743 -0.0118
Hound Point-Rotterdam	FHPRM00	0.8938 -0.0080
Sture-Rotterdam	FSTRM00	0.8155 -0.0072
Teesside-Rotterdam	FTSRM00	0.7254 -0.0063
Mongstad-Rotterdam	FMGRM00	0.8209 -0.0072
North Sea-Rotterdam	FSFRM00	0.8174 -0.0072
(%)		
FAF Weighting	FAFWA00	0.80

## European US Spot Crude Assessments (\$/barrel) (PGA page 1238)

			Mid	Change	Spread vs fwd Dated Brent		Mid	Change
WTI Midland (DAP Rotterdam)	AWTIC00		95.255	+1.520	AWTID00		1.955	+0.005
WTI Midland (DAP Augusta)	AWTIA00		95.905	+1.520	AWTIB00		2.605	+0.005
Eagle Ford 45 (DAP Rotterdam)	AEFAC00		94.355	+1.520	AEFAD00		1.055	+0.005
Eagle Ford 45 (DAP Augusta)	AEFAA00		95.005	+1.520	AEFAB00		1.705	+0.005

PLATTS DUBAI: NOV23: RELIANCE SELLS TO GUNVOR\* 25KB AT \$93.80 (08:29:42)

PLATTS DUBAI: NOV23: GUNVOR BUYS FROM EXXONMOBIL\* 25KB AT \$93.85 (08:29:51)

PLATTS DUBAI: NOV23: GUNVOR BUYS FROM RELIANCE\* 25KB AT \$93.85 (08:29:56)

PLATTS DUBAI: NOV23: VITOL BUYS FROM EXXONMOBIL\* 25KB AT \$93.85 (08:30:00)

PLATTS DUBAI: NOV23: PETROCHINA SELLS TO GUNVOR\* 25KB AT \$93.85 (08:30:04)

This assessment commentary applies to the following market data codes: Dubai M1 <PCAAT00>, Oman M1 <PCABS00>

## Platts Dubai Derivatives Bids Summary

BIDS ON CLOSE

NO BIDS REPORTED  
WITHDRAWALS

NO WITHDRAWALS REPORTED

Platts' End-of-Day assessments for Dubai derivatives prices can be found on PPA2606.

Platts Oil Paper Bids, Offers and Trade Page Index found on <PGA4000>

Platts has defined standards for entities it considers to be related and verifies through a variety of inputs whether counterparties in reported trades meet these criteria.

## Platts Dubai Derivatives Offers Summary

OFFERS ON CLOSE

NO OFFERS REPORTED  
WITHDRAWALS

NO WITHDRAWALS REPORTED

Platts' End-of-Day assessments for Dubai derivatives prices can be found on PPA2606.

## Dated Brent/BFOE swaps (\$/barrel) (PGA page 1214)

Week	Week Date		Brent CFD*	Mid	Change	Dated Brent swap	Mid	Change		
CFD Week 1	(Dec)	Sep 18-22	PCAKA00	1.69/1.71	1.700	-0.090	AAJNV00	94.66/94.68	94.670	+1.430
CFD Week 2	(Dec)	Sep 25-29	PCAKC00	1.30/1.32	1.310	-0.150	AAJOS00	94.27/94.29	94.280	+1.370
CFD Week 3	(Dec)	Oct 02-06	PCAKE00	1.01/1.03	1.020	-0.150	AAJOU00	93.98/94.00	93.990	+1.370
CFD Week 4	(Dec)	Oct 09-13	PCAKG00	0.81/0.83	0.820	-0.110	AAJOW00	93.78/93.80	93.790	+1.410
CFD Week 5	(Dec)	Oct 16-20	AAGLU00	0.62/0.64	0.630	-0.090	AAJPC00	93.59/93.61	93.600	+1.430
CFD Week 6	(Dec)	Oct 23-27	AAGLV00	0.43/0.45	0.440	-0.080	AAJPE00	93.40/93.42	93.410	+1.440
CFD Week 7	(Dec)	Oct 30-03	AALCZ00	0.24/0.26	0.250	-0.080	AALAW00	93.21/93.23	93.220	+1.440
CFD Week 8	(Dec)	Nov 06-10	AALDA00	0.05/0.07	0.060	-0.080	AALAX00	93.02/93.04	93.030	+1.440

Brent Swaps Weeks 1 to 8 are differentials to Brent Mo02 (Dec) PCAAR00 found on page 1.

## Dated Brent/Brent Frontline Swaps (DFL) (\$/barrel) (PPE page 1614)

	Swaps	Change	DFL	Change		
Balance month* (Sep 23)	BDLM00	94.580	+1.570	ABWFZ00	1.020	+0.070
Month 1 (Oct 23)	BDLM001	93.610	+1.560	AAEAA00	0.790	+0.090
Month 2 (Nov 23)	BDLM002	92.770	+1.520	AAEAB00	0.820	+0.080
Month 3 (Dec 23)	BDLM003	91.940	+1.430	AAEAC00	0.880	+0.050
Month 4 (Jan 24)	BDLM004	90.940	+1.320	AAEAD00	0.760	+0.010

\*Balance month swaps are assessed from the 1st through the 20th of the month.

## Cash BFOE intraday assessments (\$/barrel) (PGA page 1216)

	Cash BFOE	Change	Inter-Month Spread
<b>10:30 London Time</b>			
BFOE M1 (Nov)	PBCAAM1	92.470	-0.280
BFOE M2 (Dec)	PBCAAM2	91.790	-0.220
BFOE M3 (Jan)	PBCAAM3	90.960	-0.180
<b>12:30 London Time</b>			
BFOE M1 (Nov)	PBCABM1	93.080	+0.390
BFOE M2 (Dec)	PBCABM2	92.360	+0.420
BFOE M3 (Jan)	PBCABM3	91.510	+0.440
<b>14:30 London Time</b>			
BFOE M1 (Nov)	PBCACM1	93.350	+0.980
BFOE M2 (Dec)	PBCACM2	92.640	+0.980
BFOE M3 (Jan)	PBCACM3	91.780	+0.950
<b>16:30 London Time</b>			
BFOE M1 (Nov)	PCAAQ00	93.660	+1.540
BFOE M2 (Dec)	PCAAR00	92.970	+1.520
BFOE M3 (Jan)	PCARR00	92.100	+1.490
<b>19:30 London Time</b>			
BFOE M1 (Nov)	PBCADM1	NA	-
BFOE M2 (Dec)	PBCADM2	NA	-
BFOE M3 (Jan)	PBCADM3	NA	-

Platts Oil Paper Bids, Offers and Trade Page Index found on <PGA4000>

Platts has defined standards for entities it considers to be related and verifies through a variety of inputs whether counterparties in reported trades meet these criteria.

## Platts Dubai Derivatives Trades Summary

### TRADES SUMMARY

NO TRADES REPORTED

Platts' End-of-Day assessments for Dubai derivatives prices can be found on PPA2606.

Platts Oil Paper Bids, Offers and Trade Page Index found on <PGA4000>

Platts has defined standards for entities it considers to be related and verifies through a variety of inputs whether counterparties in reported trades meet these criteria.

## Platts Dubai Derivatives Exclusions

Exclusions: No market data was excluded from the September 14, 2023 Dubai derivatives assessment process.

## Platts Asia Pacific Sweet Crude Daily Market Analysis

- Initial cargo emerges for Australia's light sweet Cossack crude
  - Indonesia's Pertamina purchases US WTI Midland crude via spot tender
- On light sweet crudes, one cargo of Australia's Cossack crude held by BP was heard scheduled for loading over Nov. 20-24, market sources shared.

In August, there had been no October-loading cargoes of the grade due to scheduled turnarounds. The last heard trade level for Cossack crude was for

## Urals/ESPO spot assessments (\$/barrel) (PGA page 1220)

			Mid	Change	Spread vs fwd Dated Brent	Mid	Change
Urals (Rotterdam)	PCAFW00	83.65-83.69	83.670	+1.595	AAGXJ00	-10.34/-10.32	-10.330 0.000
Urals (Mediterranean)	PCACE00	84.53-84.56	84.545	+1.595	AAGXX00	-9.46/-9.45	-9.455 0.000
Urals FOB Novo Suez	AAGZS00	81.38-81.42	81.400	+1.595	AAHPH00	-12.61/-12.59	-12.600 0.000
Urals FOB Novo Afra	AAOTH00	81.08-81.12	81.100	+1.595	AAOTL00	-12.91/-12.89	-12.900 0.000
Urals (Ex-Baltic)	AAGZT00	81.18-81.22	81.200	+1.595	AAHPI00	-12.81/-12.79	-12.800 0.000
Urals (Primorsk)	AAWVH00	81.18-81.22	81.200	+1.595	AAWVI00	-12.81/-12.79	-12.800 0.000
Urals RCMB (Recombined)	AALIN00	85.64-85.66	85.650	+1.720			
ESPO (FOB Kozmino)	AARWD00	88.11-88.13	88.120	+1.470	AARWE00	-4.66/-4.64	-4.650 -0.050
KEBCO (CIF Augusta)	KBCOA00		94.300	+1.595	KBCOB00		0.300 0.000
KEBCO (CIF Rotterdam)	KBCOC00		94.300	+1.595	KBCOD00		0.300 0.000
KEBCO (FOB Novo)	KBCOE00		90.855	+1.595	KBCOF00		-3.145 0.000
KEBCO (FOB Ust-Luga)	KBCOG00		91.735	+1.595	KBCOH00		-2.265 0.000
Urals (DAP India)	DWCUA00		88.810	+1.560	DWCUB00		-4.800 0.000
KEBCO/Russian Urals	AKEBA00		9.755	0.000			
					<b>Spread vs Dubai</b>		
Urals (DAP India)	AURLA00					-4.900	+0.060
					<b>Number of days</b>		
Observed Delivery Factor	AODFA00			6			

## Urals Med/NWE CFD assessments (\$/barrel)

			Urals CFD	Mid	Change
<b>Mediterranean (PPE page 1617)</b>					
Urals Med CFD (Oct)	AAMDU00		-9.46/-9.45	-9.455	0.000
Urals Med CFD (Nov)	AAMEA00		-9.46/-9.45	-9.455	0.000
Urals Med CFD (Dec)	UMCM003		-9.46/-9.45	-9.455	0.000
<b>Northwest Europe (PPE page 1617)</b>					
Urals NWE CFD (Oct)	UNCM001		-10.34/-10.32	-10.330	0.000
Urals NWE CFD (Nov)	UNCM002		-10.34/-10.32	-10.330	0.000
Urals NWE CFD (Dec)	UNCM003		-10.34/-10.32	-10.330	0.000
<b>Mediterranean (PPE page 1617)</b>					
CPC Blend CFD (Oct)	AAOFX00			-1.050	0.000
CPC Blend CFD (Nov)	AAOFY00			-1.100	0.000
CPC Blend CFD (Dec)	AAOFZ00			-1.150	0.000

## Mediterranean spot crude assessments (\$/barrel)

			Mid	Change	Spread vs fwd Dated Brent	Mid	Change
<b>Azeri and BTC (PGA page 1222)</b>							
Azeri Lt CIF	AAGZX00	100.51-100.54	100.525	+1.795	AAHPM00	6.59/6.61	6.600 +0.200
Azeri Lt FOB Ceyhan Suez	AAUFM00	99.77-99.79	99.780	+1.795	AAUFN00	5.85/5.86	5.855 +0.200
Azeri Lt FOB Ceyhan Afra	AAUFK00	99.54-99.57	99.555	+1.825	AAUFL00	5.62/5.64	5.630 +0.230
Azeri Lt FOB Supsa	AATHM00	98.87-98.90	98.885	+1.795	AATHN00	4.95/4.97	4.960 +0.200
BTC FOB Ceyhan	AAUFH00	99.65-99.68	99.665	+1.805	AAUFJ00	5.73/5.75	5.740 +0.210
<b>Black Sea (PGA page 1220)</b>							
Sibenan Light CIF	AAGZW00	86.53-86.56	86.545	+1.595	AAHPK00	-7.46/-7.45	-7.455 0.000
CPC Blend CIF	AAGZU00	93.01-93.04	93.025	+1.595	AAHPL00	-0.91/-0.89	-0.900 0.000
CPC Blend FOB Suez	AALVX00	90.23-90.25	90.240	+1.595	AALVZ00	-3.69/-3.68	-3.685 0.000
CPC Blend FOB Afra	AAOFV00	89.76-89.78	89.770	+1.595	AAOFW00	-4.16/-4.15	-4.155 0.000
Additional War Risk Premium	AHARA00		1.700	0.000			
<b>Middle East &amp; North Africa (PGA page 1234)</b>							
Suez Blend	PCACA00	93.18-93.22	93.200	+1.595	AAGYD00	-0.81/-0.79	-0.800 0.000
Es Sider	PCACO00	95.06-95.09	95.075	+1.795	AAGYH00	1.14/1.16	1.150 +0.200
Kirkuk	AAEJD00	92.18-92.22	92.200	+1.595	AAGYF00	-1.81/-1.79	-1.800 0.000
Iranian Light FOB Kharg Island (Med)	ATLKA00		95.630	+1.525	AIHK00		1.630 -0.070
Iranian Heavy FOB Kharg Island (Med)	AIHKA00		93.180	+1.525	AIHKB00		-0.820 -0.070
Saharan Blend	AAGZY00	94.41-94.44	94.425	+1.795	AAHPN00	0.49/0.51	0.500 +0.200

August-loading barrels, sold by Woodside Energy to Ampol, at discounts of around \$5.50/b to Dated Brent crude assessments, FOB, sources said.

Indonesia's Pertamina was also heard to have purchased US WTI Midland crude via a spot tender that closed yesterday. Further details of the tender were not immediately available.

Elsewhere, valuations for November-loading cargoes of Australia's North West Shelf condensate have emerged, at discounts ranging from the \$6s/b to \$7s/b to the Platts Dated Brent crude assessments, FOB.

Market participants stated that prices of regional condensates will be largely affected by the number of Qatari condensates available in the market.

"It really depends on how many cargoes [of Qatari condensate] are there," an Asia-based trader said.

QatarEnergy had issued a spot tender offering November-loading Low Sulfur Condensate in 500,000-barrel cargo parcels via a tender that closed Sept. 13. The results of the tender had not yet emerged, according to market participants.

"If you compare condensates compared to last month, I think it's weaker but not a big drop, splitter economics are still okay even if naphtha cracks have weakened," another trader stated.

The second-month naphtha swap crack against Dubai crude swaps averaged minus \$16.95/b as of the Sept. 13 Asian close, down from the August average of minus \$15.50/b, S&P Global Commodity Insights data showed.

### Platts Asia Light Sweet Crude Daily Rationale & Exclusions

**ESPO FOB Kozmino Mo01 Spore vs Dubai Mo01 <AASEU00> assessment rationale:** The ESPO M1 November assessment on Sept. 14 took into consideration latest trade indications heard in the broader market.

Exclusions: No market data was excluded from the Asia Pacific Crude Market on Close assessment process.

### West African spot crude assessments (\$/barrel) (PGA page 1230)

WAF Index	AWAFA00	Mid	Change	Spread vs fwd Dated Brent	Mid	Change		
		97.205	+1.590		3.975	+0.075		
<b>Nigeria Spot Crude Assessments</b>								
Bonny Light	PCAIC00	95.76-95.80	95.780	+1.515	AAGXL00	2.54/2.56	2.550	0.000
Qua Iboe	PCATD00	97.01-97.05	97.030	+1.515	AAGXN00	3.79/3.81	3.800	0.000
Forcados	PCABC00	97.46-97.50	97.480	+1.815	AAGXP00	4.24/4.26	4.250	+0.300
Agbami	AAQZB00	92.51-92.55	92.530	+1.515	AAQZC00	-0.71/-0.69	-0.700	0.000
Escravos	AAEIZ00	98.76-98.80	98.780	+1.515	AAGXR00	5.54/5.56	5.550	0.000
Brass River	AAEJH00	95.36-95.40	95.380	+1.515	AAGXV00	2.14/2.16	2.150	0.000
Akpo	PCNGA00	92.51-92.55	92.530	+1.515	PCNGB00	-0.71/-0.69	-0.700	0.000
Bonga	PCNGC00	98.51-98.55	98.530	+1.515	PCNGD00	5.29/5.31	5.300	0.000
Usan	AAXUQ00		92.130	+1.515	AAXUR00		-1.100	0.000
Erha	AAXUO00		98.030	+1.515	AAXUP00		4.800	0.000
Egina	AFONA00		99.580	+1.515	AFONB00		6.350	0.000
<b>Angola spot crude assessments (\$/barrel) (PGA page 1232)</b>								
Cabinda	PCAFD00	95.76-95.80	95.780	+1.415	AAGXT00	2.54/2.56	2.550	-0.100
Nemba	AAQYZ00	93.41-93.45	93.430	+1.515	AAQZA00	0.19/0.21	0.200	0.000
Dalia	AAQYX00	94.16-94.20	94.180	+1.515	AAQYY00	0.94/0.96	0.950	0.000
Girassol	AASNL00	96.86-96.90	96.880	+1.515	AASJD00	3.64/3.66	3.650	0.000
Hungo	AASLI00	93.81-93.85	93.830	+1.515	AASJF00	0.59/0.61	0.600	0.000
Kissanje	AASLK00	94.71-94.75	94.730	+1.615	AASJE00	1.49/1.51	1.500	+0.100
Pazflor	PCNGG00	94.16-94.20	94.180	+1.515	PCNGH00	0.94/0.96	0.950	0.000
Plutonio	PCNGI00	94.21-94.25	94.230	+1.615	PCNGJ00	0.99/1.01	1.000	+0.100
<b>Ghana spot crude assessments (PGA page 1230)</b>								
Jubilee	AAXUS00		95.480	+1.565	AAXUT00		2.250	+0.050
<b>Republic of Congo spot crude assessments</b>								
Djeno	PCNGE00	92.96-93.00	92.980	+1.515	PCNGF00	-0.26/-0.24	-0.250	0.000
<b>Chad spot crude assessments</b>								
Doba	AAXUU00		92.080	+1.615	AAXUV00		-1.150	+0.100

### West Africa market parity prices (\$/barrel) (PGA page 1270)

		Mid	Change	Spread vs fwd Dated Brent	Mid	Change
Abo Blend	AAXTL00	96.650	+1.585	ABOOM00	3.420	+0.070
Aje	APIRP00	95.590	+1.660	APIRA00	2.360	+0.145
Amenam Blend	AAXTI00	93.915	+1.500	AMENA00	0.685	-0.015
Antan Blend	APIRQ00	98.790	+1.595	APIRB00	5.560	+0.080
Asaramatoru	AAXTV00	95.070	+1.595	ASARA00	1.840	+0.080
CJ Blend	APIRR00	98.740	+1.685	APIRC00	5.510	+0.170
EA Blend	AAXTJ00	98.420	+1.590	AEABL00	5.190	+0.075
Ebok	APIRS00	89.055	+1.055	APIRD00	-4.175	-0.460
Eremor	APIRT00	89.240	+0.950	APIRE00	-3.990	-0.565
Ima	APIRU00	93.105	+1.885	APIRF00	-0.125	+0.370
Jones Creek Blend	APIRV00	93.575	+1.315	APIRG00	0.345	-0.200
Okono Blend	APIRW00	97.150	+1.635	APIRH00	3.920	+0.120
Okoro	APIRX00	96.095	+1.630	APIRI00	2.865	+0.115
Okwori	APIRY00	98.875	+1.675	APIRJ00	5.645	+0.160
Otakikpo	APIRZ00	93.995	+1.665	APIRK00	0.765	+0.150
Oyo	APRIA00	96.460	+1.710	APIRL00	3.230	+0.195
Pennington	APRIB00	95.155	+1.615	APIRM00	1.925	+0.100
Rabi Light	ARABA00	91.535	+1.310	ARABB00	-1.695	-0.205
Sankofa	APRIC00	89.735	+1.350	APIRN00	-3.495	-0.165
TEN	AAXTW00	92.630	+1.500	ATENM00	-0.600	-0.015

## Platts Asia Light Sweet Crude Bids, Offers, Trades

Bids: NIL

Offers: NIL

Trades: NIL

This assessment commentary applies to the following market data code: ESPO M1 vs Dubai M2 <AASEU00>

## Platts North Sea Crude Daily Market Analysis

- September loading North Sea cargoes cleared well: traders
- Firm sentiment for the North Sea Market in October

An overall bullish sentiment surrounded the North Sea crude market Sept. 14, with the physical market looking tight moving into Q4, traders said.

September loading cargoes of North Sea crudes were clearing well, with one trader citing “refiners seeking barrels in a high margin environment”.

Cracks for products across the barrel have been rising over recent days.

Looking at prompt availability of Forties, one trader said the grade was completely cleared for September. “If any prompt barrels are available, they may have to discount hard,” another trader said.

Grades in the sweeter range also were seen to be trading higher. Dated Brent basket grade Ekofisk was heard last traded around a \$3.40/b premium to Dated Brent for an October-loading cargo, and regional sweet Gullfaks was said to have traded above a \$5/b premium to Dated Brent.

Despite some wider market bearishness heard recently, based on US Gulf coast refinery turnaround season, forecast adjustments from OPEC+ and IEA seem to have strengthened sentiment.

“Given the various forecasts of Q4 crude draws, I can’t see diffs coming off to hard” one trader said.

## West Africa market parity prices (continued)

		Mid	Change	Spread vs fwd Dated Brent	Mid	Change
Ukpokiti	APRID00	96.590	+1.625	APIR000	3.360	+0.110
Yoho Light	AAXTK00	97.150	+1.685	AYOH000	3.920	+0.170
Zafiro	AAXTU00	99.155	+1.550	AZAFB00	5.925	+0.035

## US West Coast Crude Assessments (\$/barrel) (PGA page 214)

		Mid	Change	Spread to NYMEX WTI CMA	Mid	Change		
ANS/Long Beach	PCAAD00	95.87–95.91	95.890	+1.570	AAGIX00	7.37/7.39	7.380	-0.110
				Spread to ICE BRENT CMA				
ANS/Long Beach				AANSA00			3.897	-0.003

## US spot crude assessments (\$/barrel) (PGA pages 210 & 214)

		Mid	Change		Mid	Change
Mars (Oct)	AAMBR00	90.40–90.42	90.410	+1.640		
Mars (Nov)	AAMBU00	89.70–89.72	89.710	+1.730		
Mars (Dec)	AAMBX00	88.85–88.87	88.860	+1.550		
Mars/WTI (Oct)	AAGWH00	0.24/0.26	0.250	0.000		
Mars/WTI (Nov)	AAKTH00	0.09/0.11	0.100	0.000		
Mars/WTI (Dec)	AAMBO00	0.04/0.06	0.050	-0.150		
LOOP/WTI (Oct)	AALOM01		0.150	0.000		
LOOP/WTI (Nov)	AALOM02		0.000	0.000		
LOOP/WTI (Dec)	AALOM03		-0.050	-0.150		
LOOP/Mars (Oct)	AALPM01		-0.100	0.000		
LOOP/Mars (Nov)	AALPM02		-0.100	0.000		
LOOP/Mars (Dec)	AALPM03		-0.100	0.000		
WTI-Delta	AAEJK00	0.79/0.81	0.800	-0.080		
P-Plus WTI	PCACI00	4.17/4.19	4.180	-0.080		
P-5 WTI*	AAFEN00		86.740	+1.690		

\*P-5 WTI is a crude oil postings-based index. Posted prices by the following companies are used in the index: ConocoPhillips, Plains, Energy Transfer, Shell, and Valero. The index will not be calculated until all postings are submitted each day. If a posting is submitted the following day the P-5 WTI Average will update in the database.

		Mid	Change	Spread vs 1st line WTI	Mid	Change		
WTI (Midland)	PCACJ00	91.70–91.72	91.710	+1.740	AAGVZ00	1.54/1.56	1.550	+0.100
WTS (1st month)	PCACK00	91.00–91.02	91.010	+1.740	AAGWB00	0.84/0.86	0.850	+0.100
WTI MEH	AAYRG00		91.910	+1.840	AAYRH00		1.750	+0.200
Bonito	PCAIE00	90.25–90.27	90.260	+1.640	AAGWF00	0.09/0.11	0.100	0.000
SGC	AASOI00	89.40–89.42	89.410	+2.390	AASOJ00	-0.76/-0.74	-0.750	+0.750
Poseidon	AABHK00	89.40–89.42	89.410	+1.890	AAGWL00	-0.76/-0.74	-0.750	+0.250
LLS (1st month)	PCABN00	92.60–92.62	92.610	+1.890	AAGWN00	2.44/2.46	2.450	+0.250
HLS (1st month)	PCABD00	91.50–91.52	91.510	+1.640	AAGWP00	1.34/1.36	1.350	0.000
Wyoming Sweet	PCACM00	89.30–89.32	89.310	+1.740	AAGWR00	-0.86/-0.84	-0.850	+0.100
Thunder Horse	AAWZK00	92.30–92.32	92.310	+1.790	AAWZL00	2.14/2.16	2.150	+0.150



In the paper market, Brent CFD structure remained backwardated as sentiment mirrored the prompt bullishness felt in the physical market.

### Platts North Sea Dated Brent, BFOE, CFD Assessment Rationales & Exclusions

#### Dated Brent <PCAAS00> assessment rationale:

Of the six grades in the Dated Brent basket, Forties and WTI Midland was seen in the Platts Market on Close assessment process. Brent was assessed 15 cents/b higher Sept. 24 to Oct. 13, with a 1 cent/day contango structure rolled over back-end dates, reflecting strengthening market fundamentals. Forties was assessed in a flat structure Sept. 24 to Oct. 5, using an outstanding bid Oct. 4-6. Oct. 5-14 was assessed in a 2 cents/day backwardated structure using a structure heard indicated during the day. Oseberg, Ekofisk and Troll were assessed 15 cents/b higher in a 1 cent/day contango structure Sept. 24 to Oct. 14, reflecting strengthening sweet market fundamentals. FOB WTI Midland was assessed higher reflecting a higher CIF Rotterdam assessment and a lower freight adjustment factor on the day. CIF WTI Midland was assessed unchanged Sept. 26 to Oct. 6. Oct. 6-14 was assessed in a 1 cent/day contango structure reflecting structure demonstrated in Dated Brent Basket grades. WTI Midland was the most competitive grade in the Dated Brent assessment Sept. 24 to Oct. 2, while Forties was the most competitive grade Oct. 3-14.

#### Johan Sverdrup FOB North Sea (AJSVA00, AJSVB00) assessment rationale:

Johan Sverdrup was assessed unchanged Sept. 24 to Oct. 14 with flat structure rolled over back end dates reflecting steady market fundamentals and in the absence of indications testing the Sept. 13 assessments.

#### BFOE (PCAAQ00-PCAR00,PCARR00) assessment rationale:

November Cash BFOE was assessed using an

### US spot crude assessments (continued)

						<u>Spread vs 2nd line WTI</u>		
WTI MEH (2nd month)	AAXXE00		91.210	+1.730	AAYYA00	1.600	0.000	
WTI Midland (2nd month)	AAYZA00		91.010	+1.730	AAXXF00	1.400	0.000	
WTS (2nd month)	AAURG00	90.35-90.37	90.360	+1.830	AAURH00	0.74/0.76	0.750	+0.100
LLS (2nd month)	AAURC00	92.10-92.12	92.110	+1.930	AAURD00	2.49/2.51	2.500	+0.200
HLS (2nd month)	AAURE00	91.00-91.02	91.010	+1.680	AAURF00	1.39/1.41	1.400	-0.050
						<u>Spread vs NYMEX WTI CMA</u>		
WCS ex-Cushing	AAWTY00	80.90-80.92	80.910	+1.970	AAWTZ00	-8.46/-8.44	-8.450	+0.250
WCS ex-Nederland	AAYAY00		81.960	+1.970	AAYAX00		-7.400	+0.250
Bakken Williston	AAXPP00		88.360	+1.720	AASRX00		-1.000	0.000
Bakken Guernsey	AASRR00	89.30-89.32	89.310	+1.720	AASRV00	-0.06/-0.04	-0.050	0.000
Bakken Clearbrook	AASRU00	91.25-91.27	91.260	+1.720	AASRW00	1.89/1.91	1.900	0.000
Bakken USGC Pipe	ABAKA00		92.160	+1.820	ABAKB00		2.800	+0.100
						<u>FOB USGC Spread vs NYMEX WTI Strip</u>		
Platts AGS	AGSAA00		92.460	+1.840	AGSAC00		3.060	+0.140
Bakken	ABAKC00		92.460	+1.840	ABAKD00		3.060	+0.140
Eagle Ford Crude	AAYAT00		91.560	+1.840	AAYAU00		2.160	+0.140
Eagle Ford Condensate	AAYAR00		90.060	+1.840	AAYAS00		0.660	+0.140
WTI	AAYBA00		92.460	+1.840	AAYAZ00		3.060	+0.140
						<u>WTI FOB USGC vs WTI MEH (by decade)</u>		
WTI FOB USGC First Decade	ADECB00		92.460	+1.840	ADECD00		0.550	0.000
WTI FOB USGC Second Decade	ADECE00		92.460	+1.840	ADECG00		0.550	0.000
WTI FOB USGC Third Decade	ADECH00		92.460	+1.840	ADECI00		0.550	0.000
WTI FOB USGC Decades Average	ADECA00		92.460	+1.840				
						<u>WTI FOB USGC vs Dated Brent Basis (by decade)</u>		
Platts AGS	AGSAB00		-1.320	+0.040	ADECC00		-1.240	+0.110
Bakken	ABAKE00		-1.320	+0.040	ADECF00		-1.240	+0.110
Eagle Ford Crude	AEFCA00		-2.220	+0.040	ADECI00		-1.240	+0.110
Eagle Ford Condensate	AEFCE00		-3.720	+0.040				
WTI	AWTUA00		-1.320	+0.040				
						<u>Global Benchmarks at US Close</u>		
Americas Dated Brent	AAQBF00	95.160-95.180	95.170	+1.920	ADECK00		-0.450	+0.200
					ADECL00		-0.450	+0.200
					ADECM00		-0.450	+0.200

outstanding offer. December Cash BFOE was assessed using an outstanding bid. January Cash BFOE was assessed using a November/December EFP roll heard during the day.

#### CFD (PCAKA00-AALDA00) assessment rationale:

Sept. 18-22 was assessed using an outstanding bid. Sept. 25-29 was assessed using a Sept. 25-29 versus Oct. 2-6 CFD roll heard during the day. Oct. 2-6 was assessed using an outstanding offer. Oct. 9-13 was assessed using an outstanding bid. Oct. 16-10 was assessed using an Oct. 16-10 versus Oct. 9-13 CFD roll

heard during the day.

Exclusions: None

Platts is part of S&P Global Commodity Insights

### Platts North Sea Dated Brent, BFOE, CFD Bids, Offers, Trades

Bids:

North Sea:

FOB BASIS HOUND POINT: PLATTS NSEA FORTIES: OCTOBER 4-6: GUNVOR BIDS 700000.0B AT DTD \$115...

CIF BASIS ROTTERDAM: PLATTS NSEA WTI  
MIDLAND: OCTOBER 14-18: OCCIDENTAL OFFERS  
700000.OB AT DTD \$2.30 ...  
CASH BFOE:  
PLATTS CASH BFOE: DEC23: PETROINEOS BIDS  
100KB AT \$92.96  
BRENT CFDS:  
PLATTS BRENT DIFF: SEP18-SEP22 (NOV): DARE  
BIDS 100KB AT \$1.00  
PLATTS BRENT DIFF: SEP18-SEP22 (NOV):  
MERCURIA BIDS 100KB AT \$0.95  
PLATTS BRENT DIFF: SEP18-SEP22 (NOV): ONYX  
BIDS 100KB AT \$0.80  
PLATTS BRENT DIFF: SEP18-SEP22 (NOV): DV  
TRADING BIDS 100KB AT \$0.80  
PLATTS BRENT DIFF: SEP25-SEP29 (NOV): DARE  
BIDS 100KB AT \$0.60  
PLATTS BRENT DIFF: SEP25-SEP29 (NOV):  
MERCURIA BIDS 100KB AT \$0.60  
PLATTS BRENT DIFF: SEP25-SEP29 (NOV): ONYX  
BIDS 100KB AT \$0.55  
PLATTS BRENT DIFF: SEP25-SEP29 (NOV): DV  
TRADING BIDS 100KB AT \$0.50  
PLATTS BRENT DIFF: SEP25-SEP29 (NOV):  
PETROCHINA BIDS 100KB AT \$0.50  
PLATTS BRENT DIFF: OCT2-OCT6 (DEC): DV  
TRADING BIDS 100KB AT \$0.96  
PLATTS BRENT DIFF: OCT2-OCT6 (DEC): ONYX BIDS  
100KB AT \$0.95  
PLATTS BRENT DIFF: OCT2-OCT6 (DEC): DARE BIDS  
100KB AT \$0.92  
PLATTS BRENT DIFF: OCT2-OCT6 (DEC): MERCURIA  
BIDS 100KB AT \$0.90  
PLATTS BRENT DIFF: OCT2-OCT6 (DEC):  
PETROCHINA BIDS 100KB AT \$0.85  
PLATTS BRENT DIFF: OCT9-OCT13 (DEC): DV  
TRADING BIDS 100KB AT \$0.81  
PLATTS BRENT DIFF: OCT9-OCT13 (DEC): ONYX BIDS  
100KB AT \$0.80

### US domestic crude assessments London close (\$/barrel) (PGA page 1240)

			Mid	Change	Spread to		Mid	Change
WTI (Oct)	AAQAR00	90.12-90.14	90.130	+1.300	NYMEX light sweet crude	-0.01/0.01	0.000	0.000
WTI (Nov)	AAQAT00	89.54-89.56	89.550	+1.380		-0.01/0.01	0.000	0.000
WTI (Dec)	AAQAV00	88.74-88.76	88.750	+1.380		-0.01/0.01	0.000	0.000
					Spread to			
					same-month cash WTI			
WTI MEH (Oct)	AAYRZ00		91.680	+1.300			1.550	0.000
WTI MEH (Nov)	AAXYD00		91.150	+1.530			1.600	+0.150
LLS (Oct)	AAQBB00	92.57-92.59	92.580	+1.550		2.44/2.46	2.450	+0.250
LLS (Nov)	AAQBD00	92.04-92.06	92.050	+1.580		2.49/2.51	2.500	+0.200
MARS (Oct)	AAQAX00	90.37-90.39	90.380	+1.300		0.24/0.26	0.250	0.000
MARS (Nov)	AAQAZ00	89.64-89.66	89.650	+1.380		0.09/0.11	0.100	0.000

### Americas close (\$/barrel) (PGA page 210)

			Mid	Change
Americas Dated Brent	AAQBF00	95.16-95.18	95.170	+1.920

Americas Dated Brent reflects market value for Dated Brent at 2:30pm Eastern Time.

### US crude assessments Singapore close (\$/barrel) (PGA page 2208)

			Mid	Change
LOOP Sour (Oct)	AAZDA00		89.470	-0.180
LOOP Sour (Nov)	AAZDB00		88.670	-0.160
LLS (Oct)	AAZDC00		91.520	-0.180
LLS (Nov)	AAZDD00		90.970	+0.040
Southern Green Canyon	AAZDE00		87.820	-0.430
WTI MEH (Oct)	AAZDF00		90.870	-0.180
WTI MEH (Nov)	AAZDG00		90.270	-0.010

### CFR North Asia Assessments Singapore Close (\$/barrel) (PGA page 2202)

			Mid	Change
Dubai CFR North Asia	PCAQA00		95.140	-0.040
Oman CFR North Asia	PCAQJ00		95.180	+0.010
Upper Zakum CFR North Asia	PCAQB00		95.110	-0.040
Qatar Marine CFR North Asia	PCAQC00		94.320	-0.040
Murban CFR North Asia	PCAQE00		96.330	+0.220
Basrah Medium CFR North Asia	BASNA00		94.650	-0.040
ESPO CFR North Asia	PCAQD00		89.620	+0.170
Forties CFR North Asia	PCAQF00		96.945	-0.185
Dalia CFR North Asia	PCAQG00		95.635	-0.130
WTI MEH CFR North Asia	PCAQH00		95.530	-0.180
LOOP Sour CFR North Asia	PCAQI00		93.130	-0.180

PLATTS BRENT DIFF: OCT9-OCT13 (DEC): MERCURIA  
BIDS 100KB AT \$0.80

PLATTS BRENT DIFF: OCT9-OCT13 (DEC): CHEVRON  
BIDS 100KB AT \$0.75

PLATTS BRENT DIFF: OCT9-OCT13 (DEC): DARE BIDS  
100KB AT \$0.72

PLATTS BRENT DIFF: OCT16-OCT20 (DEC): DV  
TRADING BIDS 100KB AT \$0.55

PLATTS BRENT DIFF: OCT16-OCT20 (DEC): DARE  
BIDS 100KB AT \$0.55

PLATTS BRENT DIFF: OCT16-OCT20 (DEC):  
MERCURIA BIDS 100KB AT \$0.55

PLATTS BRENT DIFF: OCT16-OCT20 (DEC): ONYX  
BIDS 100KB AT \$0.45

Offers:

NORTH SEA:

FOB BASIS HOUND POINT: PLATTS NSEA FORTIES:  
OCTOBER 4-6: GUNVOR BIDS 700000.0B AT DTD \$1.15 ...

CIF BASIS ROTTERDAM: PLATTS NSEA WTI  
MIDLAND: OCTOBER 14-18: OCCIDENTAL OFFERS  
700000.0B AT DTD \$2.30 ...

CASH BFOE:

PLATTS CASH BFOE: NOV23: MERCURIA OFFERS  
100KB AT \$93.67

IMPLIED: PLATTS CASH BFOE SPREAD: NOV23/  
DEC23: MERCURIA OFFERS 100KB AT \$0.71

BRENT CFDS:

PLATTS BRENT DIFF: SEP18-SEP22 (NOV): DV  
TRADING OFFERS 100KB AT \$1.10

PLATTS BRENT DIFF: SEP18-SEP22 (NOV): DARE  
OFFERS 100KB AT \$1.25

PLATTS BRENT DIFF: SEP18-SEP22 (NOV): ONYX  
OFFERS 100KB AT \$1.30

PLATTS BRENT DIFF: SEP25-SEP29 (NOV): DV  
TRADING OFFERS 100KB AT \$0.70

PLATTS BRENT DIFF: SEP25-SEP29 (NOV): OMV  
OFFERS 100KB AT \$0.70

PLATTS BRENT DIFF: SEP25-SEP29 (NOV): UNIPEC  
OFFERS 100KB AT \$0.75

PLATTS BRENT DIFF: SEP25-SEP29 (NOV): DARE  
OFFERS 100KB AT \$0.80

### Canadian spot crude cargo assessments (\$/barrel) (PGA page 230)

			Mid	Change		Spread vs fwd Dated Brent	Mid	Change
Hebron	AHEBA00		92.400	+1.565	AHEBC00		-0.750	+0.050
Terra Nova	AAJUH00	94.93-94.97	94.950	+1.565	AAJUJ00	1.79/1.81	1.800	+0.050
Hibernia	AAJJK00	95.18-95.22	95.200	+1.565	AAJKM00	2.04/2.06	2.050	+0.050
White Rose	AAVJX00	95.93-95.97	95.950	+1.565	AAVJY00	2.79/2.81	2.800	+0.050

The published spreads for Canadian cargo assessments reflect the market value at which these grades are trading versus Dated Brent around loading time. The spreads and fixed price assessments reflect a typical forward loading window of 33-63 days forward. For further explanation see www.platts.com.

### Canadian spot crude assessments (\$/barrel) (PGA page 230)

			Mid	Change		Spread vs Canada basis	Mid	Change
Lloyd Blend	AALRK00	71.65-71.67	71.660	+1.970	AALRP00	-17.71/-17.69	-17.700	+0.250
Mixed Sweet	AALRR00	85.55-85.57	85.560	+0.920	AALRV00	-3.81/-3.79	-3.800	-0.800
Light Sour Blend	AALRX00	85.90-85.92	85.910	+1.320	AALSD00	-3.46/-3.44	-3.450	-0.400
Midale	AAUCC00	84.15-84.17	84.160	+1.320	AAUCE00	-5.21/-5.19	-5.200	-0.400
Condensates	AALSF00	88.15-88.17	88.160	+1.720	AALSJ00	-1.21/-1.19	-1.200	0.000
Syncrude Sweet Prem.	AASOK00	92.95-92.97	92.960	+1.070	AASOM00	3.59/3.61	3.600	-0.650
WCS Hardisty	AAPPN00	70.95-70.97	70.960	+1.970	AAPPP00	-18.41/-18.39	-18.400	+0.250
Cold Lake Hardisty	AASZX00	70.80-70.82	70.810	+1.970	AASZZ00	-18.56/-18.54	-18.550	+0.250
WTI CMA (1st mo)	AAVSN00		89.360	+1.720				

### Latin American assessments (\$/barrel) (PGA page 280)

			Mid	Change	Diff to WTI strip	Diff to Futures Brent strip	Diff to Dated Brent strip	
Escalante	PCAGC00	90.38-90.42	90.400	+1.585	PCAG000	1.285	AAXB000 -2.100	AAXAX00 -2.905
Medanito	AMTOA00		88.000	+1.585	AMTOC00	-1.115	AMTOB00 -4.500	AMTOD00 -5.305
Santa Barbara	AAITD00	92.39-92.44	92.415	+1.930	AAITJ00	3.300	AAXBU00 -0.085	AAXAZ00 -0.890
Loreto	PCAGH00	84.94-84.99	84.965	+1.580	PCAGQ00	-4.150	AAXBV00 -7.535	AAXBG00 -8.340
Oriente	PCADE00	85.84-85.89	85.865	+1.580	PCAGU00	-3.250	AAXBW00 -6.635	AAXBH00 -7.440
Napo	AAMCA00	83.69-83.74	83.715	+1.580	AAMCD00	-5.400	AAXBX00 -8.785	AAXBIO0 -9.590
Tupi	ATUPA00		94.100	+1.635	ATUPC00	4.985	ATUPB00 1.600	ATUPD00 0.795
Marlim	AAITF00	88.53-88.57	88.550	+1.585	AAITL00	-0.565	AAXBY00 -3.950	AAXBJO0 -4.755
Castilla Blend	AAVEQ00	85.68-85.72	85.700	+1.585	AAVEQ01	-3.415	AAXBZ00 -6.800	AAXBKO0 -7.605
Vasconia	PCAGI00	89.18-89.22	89.200	+1.585	PCAGR00	0.085	AAXCB00 -3.300	AAXBN00 -4.105
Mesa 30	AAITB00	90.28-90.32	90.300	+1.635	AAITH00	1.185	AAXCC00 -2.200	AAXB000 -3.005
Liza	ALIZA00		94.305	+1.675	ALIZD00	5.190	ALIZC00 1.805	ALIZB00 1.000
Unity Gold	AUNIA00		94.505	+1.675	AUNIC00	5.390	AUNIB00 2.005	AUNID00 1.200
Latin America WTI strip	AAXB000		89.115					
Latin America Futures Brent strip	AAXBQ00		92.500					
Latin America Dated Brent strip	AAXBR00		93.305					

### Latin America market parity prices (\$/barrel) (PGA page 270)

		Mid	Change
Maya	AAYMP00	85.353	+1.685
Merey 16	AMERA00	85.664	+1.745

### Platts euro-denominated assessments (€/barrel) (PGA page 1252)

			Mid	Change
<b>European crude oil benchmarks</b>				
Dated Brent	AAPYR00	89.170-89.180	89.175	+2.249
Dated Brent (CIF)	PCAKN00		90.005	+2.185
Urals (Mediterranean)	AAPYS00	79.260-79.290	79.273	+2.060
<b>US crude oil benchmarks</b>				
WTI (Oct)	AAPYT00	84.500-84.520	84.510	+1.824
WTI MEH (Oct)	AAYSA00		85.963	+1.834
Mars (Oct)	AAPYU00	84.740-84.750	84.744	+1.825

Euro/US\$ forex rate: 1.0665. Platts Euro denominated crude oil assessments are based on market values and a Euro/US\$ forex rate at 4:30 PM local London time.

PLATTS BRENT DIFF: SEP25-SEP29 (NOV):  
 PETROCHINA OFFERS 100KB AT \$0.90  
 PLATTS BRENT DIFF: OCT2-OCT6 (DEC): CHEVRON  
 OFFERS 100KB AT \$1.03  
 PLATTS BRENT DIFF: OCT2-OCT6 (DEC): UNIPEC  
 OFFERS 100KB AT \$1.05  
 PLATTS BRENT DIFF: OCT2-OCT6 (DEC): OMV  
 OFFERS 100KB AT \$1.05  
 PLATTS BRENT DIFF: OCT2-OCT6 (DEC):  
 PETROCHINA OFFERS 100KB AT \$1.05  
 PLATTS BRENT DIFF: OCT2-OCT6 (DEC): DV  
 TRADING OFFERS 100KB AT \$1.05  
 PLATTS BRENT DIFF: OCT2-OCT6 (DEC): DARE  
 OFFERS 100KB AT \$1.10  
 PLATTS BRENT DIFF: OCT2-OCT6 (DEC): ONYX  
 OFFERS 100KB AT \$1.15  
 PLATTS BRENT DIFF: OCT9-OCT13 (DEC): DARE  
 OFFERS 100KB AT \$0.85  
 PLATTS BRENT DIFF: OCT9-OCT13 (DEC): UNIPEC  
 OFFERS 100KB AT \$0.85  
 PLATTS BRENT DIFF: OCT9-OCT13 (DEC): OMV  
 OFFERS 100KB AT \$0.90  
 PLATTS BRENT DIFF: OCT9-OCT13 (DEC): DV  
 TRADING OFFERS 100KB AT \$0.95  
 PLATTS BRENT DIFF: OCT9-OCT13 (DEC):  
 PETROCHINA OFFERS 100KB AT \$0.95  
 PLATTS BRENT DIFF: OCT9-OCT13 (DEC): ONYX  
 OFFERS 100KB AT \$1.00  
 PLATTS BRENT DIFF: OCT16-OCT20 (DEC): DV  
 TRADING OFFERS 100KB AT \$0.75  
 PLATTS BRENT DIFF: OCT16-OCT20 (DEC): DARE  
 OFFERS 100KB AT \$0.85  
 Trades:  
 NORTH SEA:  
 None  
 CASH BFOE:  
 PLATTS CASH BFOE: NOV23: BP BUYS FROM  
 MERCURIA\* 100KB AT \$93.70 (15:29:38)  
 PLATTS CASH BFOE: NOV23: UNIPEC SELLS TO  
 GUNVOR\* 100KB AT \$93.71 (15:29:51)

### Ruble-denominated Russian assessments (Rb/barrel) (PGA page 1224)

			Mid	Change
<b>Russian crude oil benchmarks</b>				
Urals FOB Novorossiysk	AAUJP00	7853.170-7857.030	7855.100	+185.839
Urals FOB Baltic	AAUJQ00	7833.870-7837.730	7835.800	+185.759
Urals FOB Novorossiysk 80kt	AAUJR00	7824.220-7828.080	7826.150	+185.719
Urals CIF Mediterranean	AAUJS00	8157.150-8160.040	8158.593	+187.098
Urals CIF Rotterdam	AAUJT00	8072.230-8076.090	8074.155	+186.747

US\$/Ruble forex rate: 96.5000. Platts Ruble denominated crude oil assessments are based on market values and a US\$/Ruble forex rate at 4:30 PM local London time.

### Platts CAD-denominated Canada spot crude assessments (C\$/cu m) (PGA page 232)

			Mid	Change
Lloyd Blend	AALRM00	609.084-609.254	609.169	+15.060
Mixed Sweet	AALRT00	727.246-727.416	727.331	+5.773
Light Sour Blend	AALRZ00	730.221-730.391	730.306	+9.175
Midale	AAUCD00	715.344-715.514	715.429	+9.216
Condensates	AALSH00	749.348-749.518	749.433	+12.530
Syncrude Sweet	AASOL00	790.152-790.322	790.237	+6.873
WCS Hardisty	AAPP000	603.133-603.304	603.219	+15.078
Cold Lake Hardisty	AASZY00	601.858-602.028	601.943	+15.081

### Daily US\$ vs EURO exchange rate (PGA page 1151)

		Mid	Change
September 14, 2023	AAFCN00	1.0665	-0.008

### Asia close Brent and WTI spot assessments (\$/barrel) (PGA page 2210)

			Mid	Change
Brent (Nov)	PCAJG00	92.67-92.71	92.690	-0.030
Brent (Dec)	PCAJI00	91.96-92.00	91.980	+0.020
Brent (Jan)	PCAJ000		91.130	+0.050
WTI (Oct)	AAFFU00	89.30-89.34	89.320	-0.180
WTI (Nov)	AAFFW00	88.65-88.69	88.670	-0.110
WTI (Dec)	AAFFY00	87.85-87.89	87.870	-0.050

### Oman OSPs and derivatives (\$/barrel) (PGA pages 2658 & 2210)

			Mid	Change
Oman/Dubai Swap (Oct)	AAIHJ00	0.03/0.07	0.050	+0.050
Oman/Dubai Swap (Nov)	AAIHL00	0.03/0.07	0.050	+0.050
Oman/Dubai Swap (Dec)	AAIHN00	0.03/0.07	0.050	+0.050
Oman Swap (Oct)	AAHZP00	92.88-92.92	92.900	+0.240
Oman Swap (Nov)	AAHZR00	91.78-91.82	91.800	+0.220
Oman Swap (Dec)	AAHZT00	90.70-90.74	90.720	+0.200

### Daily OPEC Basket Price (\$/barrel) (PGA page 207)

		Mid	Change
September 12, 2023	AAEUQ00	94.090	+0.970

PLATTS CASH BFOE: NOV23: CHEVRON SELLS TO GUNVOR\* 100KB AT \$93.73 (15:29:57)

IMPLIED: PLATTS CASH BFOE: NOV23/DEC23: VITOL BUYS FROM MARKET 100KB AT \$0.71 (PLATTS CASH BFOE: NOV23: VITOL BUYS FROM MERCURIA AT \$93.70; PLATTS CASH BFOE: DEC23: VITOL SELLS TO GUNVOR AT \$92.99 (15:29:45)

IMPLIED: PLATTS CASH BFOE: NOV23/DEC23: VITOL BUYS FROM MARKET 100KB AT \$0.71 (PLATTS CASH BFOE: NOV23: VITOL BUYS FROM MERCURIA AT \$93.67; PLATTS CASH BFOE: DEC23: VITOL SELLS TO PETROINEOS AT \$92.96 (15:29:54)

BRENT CFDS:

PLATTS BRENT DIFF: OCT9-OCT13 (DEC): VITOL SELLS TO DV TRADING\* 100KB AT \$0.81 (15:28:58)

This assessment commentary applies to the following market data codes: Dated Brent <PCAS00> CFD Week 1 <PCAKA00> CFD Week 2 <PCAKC00> Brent Mo01 <PCAAQ00> CFD Week 3 <PCAKE00> Brent Mo02 <PCAR00> CFD Week 4 <PCAKG00> Brent Mo03 <PCARR00> CFD Week 5 <AAGLU00> CFD Week 6 <AAGLV00> CFD Week 7 <AALCZ00> CFD Week 8 <AALDA00> Johan Sverdrup FOB North Sea <AJSVA00> Johan Sverdrup FOB North Sea vs North Sea Dtd Strip <AJSVB00>

## Platts WTI Midland Crude DAP Europe Assessment Rationale & Exclusions

WTI Crude DAP Europe <AWTIC00> assessment rationale:

WTI DAP Rotterdam was assessed unchanged between Oct. 4 and Nov. 12, with a flat structure rolled over back-end dates in the absence of indications testing the Sept. 13 assessment. There were no bids, offers or trades in the Platts Market on Close assessment process for DAP WTI Midland.

WTI Crude DAP Augusta <AWTIA00> assessment rationale:

## Futures Settlements

		Settlement	Change	Low	High	Volume*	Open interest	PNT****
<b>NYMEX Light Sweet crude (\$/barrel) (PGA page 705)</b>								
Oct 23	NMCL001	90.16	+1.64	88.68	90.50	281946	179005	
Nov 23	NMCL002	89.61	+1.73	88.04	89.90	226378	278662	
Dec 23	NMCL003	88.81	+1.70	87.27	89.08	127602	246053	
Jan 24	NMCL004	87.90	+1.63	86.43	88.12	45989	126937	
Total	NMCL000					882667		XNCLP00 22035
<b>ICE Brent (\$/barrel) (PGA page 704)</b>								
Nov 23	ICLL001	93.70	+1.82	92.02	93.95	342944	414870	
Dec 23	ICLL002	92.94	+1.74	91.32	93.17	307752	476312	
Jan 24	ICLL003	92.07	+1.68	90.52	92.28	134429	259517	
Feb 24	ICLL004	91.17	+1.60	89.68	91.36	56793	131146	
Total	ICLL000					1077839		XILLP00 23990
<b>ICE WTI (\$/barrel) (PGA page 704)</b>								
Oct 23	ICIC001	90.16	+1.64	88.74	90.50	47127	39583	
Nov 23	ICIC002	89.61	+1.73	88.17	89.91	67546	95806	
Dec 23	ICIC003	88.81	+1.70	87.48	89.08	80127	124949	
Jan 24	ICIC004	87.90	+1.63	86.73	88.09	50746	45179	
Total	ICIC000					293594		XIICP00 15815
<b>ICE BWAIVE (\$/barrel) (PGA page 704)</b>								
BWAIVE data refer to previous day.								
Nov 23	XIBW001	92.22						
Dec 23	XIBW002	91.49						
<b>DME Oman crude (\$/barrel)** (PGA pages 702 &amp; 2710)</b>								
Nov 23	XDOA001	93.86	+0.04			1791		
Nov 23	DMOQ001	94.93	+1.88	93.80	94.93	1805	10944	
Dec 23	DMOQ002	94.17	+1.80	94.17	94.17	998	12	
Jan 24	DMOQ003	93.30	+1.77	93.30	93.30	998	0	
Feb 24	DMOQ004	92.55	+1.74	92.55	92.55	0	0	
Total Volume	DMOQ000					3615		XDOQP00 0
<b>IFAD Murban crude (\$/barrel) (PGA page 703)</b>								
Nov 23	AMIFA00	95.090						
Murban vs Dubai***	AMIFB00	3.340						
<b>NYMEX ULSD (\$/gal) (PGA page 705)</b>								
Oct 23	NMHO001	3.4815	+0.0461	3.3967	3.5092	46048	65097	
Nov 23	NMHO002	3.3956	+0.0515	3.3150	3.4178	55995	73435	
Dec 23	NMHO003	3.2478	+0.0507	3.1760	3.2639	35915	53032	
Jan 24	NMHO004	3.1641	+0.0505	3.1065	3.1764	16005	37323	
Total	NMHO000					184525		XNHOP00 7945
<b>NYMEX RBOB unleaded gasoline (\$/gal) (PGA page 705)</b>								
Oct 23	NMRB001	2.7427	+0.0043	2.7337	2.7703	46546	81422	
Nov 23	NMRB002	2.6794	+0.0164	2.6595	2.6991	63519	112839	
Dec 23	NMRB003	2.5873	+0.0214	2.5651	2.6038	31098	72565	
Jan 24	NMRB004	2.5373	+0.0232	2.5178	2.5512	12591	41471	
Total Volume	NMRB000					170655		XNRBP00 5412
<b>NYMEX Natural Gas (\$/MMBtu) (PGA page 705)</b>								
Oct 23	NMNG001	2.708	+0.028	2.697	2.823	137840	139012	
Nov 23	NMNG002	2.983	-0.004	2.975	3.088	92297	241275	
Dec 23	NMNG003	3.411	-0.025	3.400	3.518	33040	74023	
Jan 24	NMNG004	3.668	-0.016	3.651	3.752	32952	103200	
Total Volume	NMNG000					370499		XNNGP00 7033

WTI DAP Augusta was assessed unchanged owing to the steadiness in the DAP Rotterdam differential. There were no bids, offers or trades in the Platts MOC.

Exclusions: None

Platts is part of S&P Global Commodity Insights

## Platts WTI Midland Crude DAP Europe Bids, Offers, Trades

Bids: None

Offers: None

Trades: None

This assessment commentary applies to the following market data codes: WTI Midland DAP basis Rotterdam <AWTIC00> WTI Midland DAP basis Rotterdam vs Fwd Dated Brent <AWTID00> WTI Midland DAP basis Augusta <AWTIA00> WTI Midland DAP basis Augusta vs Fwd Dated Brent <AWTIB00>

## Futures Settlements (continued)

	Settlement	Change	Low	High	Volume*	Open interest	PNT****
<b>ICE low sulfur gasoil (\$/mt)</b> (PGA page 704)							
Oct 23	ICL0001	1010.50	+20.75	985.25	1017.50	105701	168407
Nov 23	ICL0002	971.25	+18.25	949.00	977.75	88800	104706
Dec 23	ICL0003	930.75	+16.00	911.50	938.00	76501	124400
Jan 24	ICL0004	911.75	+15.00	894.00	917.75	23738	48448
Total Volume	ICL0000					362650	XILOP00 4585

	Settlement	Change	Low	High	Volume*	Open interest	PNT****
<b>ICE Midland WTI American Gulf Coast (\$/barrel)</b> (PGA page 704)							
Oct 23	IHO001	91.97	+1.78	91.41	92.24	353	5772
Nov 23	IHO002	91.26	+1.79	90.21	91.47	2889	5549
Dec 23	IHO003	90.35	+1.75	89.30	90.57	1176	4815
Jan 24	IHO004	89.40	+1.68	89.40	89.40	55	3871

\*Volume, open interest and PNT reflect prior trading day. PNT reflect volume for Privately Negotiated Trades or off-exchange. \*\*Oman settlements are Post Close settlements. \*\*\*IFAD Murban spread to 1st Line (Nov 23) Platts Dubai crude futures. \*\*\*\*Privately Negotiated Trade values found on PGA page 710

## Futures at Platts' Market on Close (\$/barrel) (PGA page 703)

	Singapore*		London*		Houston*		Singapore*		London*		Houston*		
<b>ICE Brent</b>													
Nov	XILLA01	92.66	AAYE00	93.60	AAQB00	93.66	M1	XNCLA01	89.32	AASCR00	90.13	NYCRM01	90.12
Dec	XILLA02	91.92	AAYET00	92.86	AAQB00	92.91	M2	XNCLA02	88.67	AASCS00	89.55	NYCRM02	89.59
Jan			AAXZY00	91.99	AAXZZ00	92.03	M3					NYCRM03	88.79
Feb			AAYAM00	91.10	AAYAL00	91.13	M4					NYCRM04	87.87
<b>Oman</b>													
Nov	XDOA001	93.86											
Volume	XDOAV01	1791											

\*Singapore and London MOC close at precisely 16:30 local time while Houston MOC closes at precisely 13:30 local time. MOC times are usually earlier on the day preceding major local holidays.

## Platts

S&P Global  
Commodity Insights

## Crude Oil Marketwire

Contact Client Services: ci.support@spglobal.com; Americas: +1-800-752-8878; Europe & Middle East: +44-20-7176-6111; Asia Pacific: +65-6530-6430

Trade Data: S&P Global Commodity Insights has defined standards for entities it considers to be related and verifies through a variety of inputs whether counterparties in reported trades meet these criteria.

© 2023 by S&P Global Inc. All rights reserved.

S&P Global, the S&P Global logo, S&P Global Commodity Insights, and Platts are trademarks of S&P Global Inc. Permission for any commercial use of these trademarks must be obtained in writing from S&P Global Inc.

You may view or otherwise use the information, prices, indices, assessments and other related information, graphs, tables and images ("Data") in this publication

only for your personal use or, if you or your company has a license for the Data from S&P Global Commodity Insights and you are an authorized user, for your company's internal business use only. You may not publish, reproduce, extract, distribute, retransmit, resell, create any derivative work from and/or otherwise provide access to the Data or any portion thereof to any person (either within or outside your company, including as part of or via any internal electronic system or intranet), firm or entity, including any subsidiary, parent, or other entity that is affiliated with your company, without S&P Global Commodity Insights' prior written consent or as otherwise authorized under license from S&P Global Commodity Insights. Any use or distribution of the Data beyond the express uses authorized in this paragraph above is subject to the payment of additional fees to S&P Global Commodity Insights.

S&P Global Commodity Insights, its affiliates and all of their third-party licensors disclaim any and all warranties, express or implied, including, but not limited to, any warranties of merchantability or fitness for a particular purpose or use as to the Data, or the results obtained by its use or as to the performance thereof. Data in this publication includes independent and verifiable data collected from actual market participants. Any user of the Data should not rely on any information and/or assessment contained therein in making any investment, trading, risk management or other decision. S&P Global Commodity Insights, its affiliates and their third-party licensors do not guarantee the adequacy, accuracy, timeliness

and/or completeness of the Data or any component thereof or any communications (whether written, oral, electronic or in other format), and shall not be subject to any damages or liability, including but not limited to any indirect, special, incidental, punitive or consequential damages (including but not limited to, loss of profits, trading losses and loss of goodwill).

ICE index data and NYMEX futures data used herein are provided under S&P Global Commodity Insights' commercial licensing agreements with ICE and with NYMEX. You acknowledge that the ICE index data and NYMEX futures data herein are confidential and are proprietary trade secrets and data of ICE and NYMEX or its licensors/suppliers, and you shall use best efforts to prevent the unauthorized publication, disclosure or copying of the ICE index data and/or NYMEX futures data.

Permission is granted for those registered with the Copyright Clearance Center (CCC) to copy material herein for internal reference or personal use only, provided that appropriate payment is made to the CCC, 222 Rosewood Drive, Danvers, MA 01923, phone +1-978-750-8400. Reproduction in any other form, or for any other purpose, is forbidden without the express prior permission of S&P Global Inc. For article reprints contact: The YGS Group, phone +1-717-505-9701 x105 (800-501-9571 from the U.S.).

For all other queries or requests pursuant to this notice, please contact S&P Global Inc. via email at ci.support@spglobal.com.

**Reported spot cash transactions** (PGA page 3)

Trans. Date	Cargo / Spread Dates	Cargo Load Range / CFD Week	CFD Roll Week	Crude Grade(s)	Reported Status	Outright / Diff. Price (\$/barrel)	Basis	Barrels	Seller	Buyer
<b>Platts Americas</b>										
09/14/2023	October			HLS	Heard	1.35	Cash WTI			
09/14/2023	October			Liza	Heard	1.00	Dated Brent			
09/14/2023	October			Mars	Heard	0.05	Cash WTI			
09/14/2023	October			Mixed Sweet (MSW) Edmonton	Heard	-3.80	NYMEX WTI CMA			
09/14/2023	October			Poseidon	Heard	-1.00	Mars			
09/14/2023	October			SGC (Southern Green Canyon)	Heard	-0.75	Cash WTI			
09/14/2023	October			Syncrude Sweet Premium (SSP) Edmonton	Heard	3.60	NYMEX WTI CMA			
09/14/2023	October			Thunder Horse	Heard	2.15	Cash WTI			
09/14/2023	October			WCS Hardisty	Heard	-18.40	NYMEX WTI CMA			
09/14/2023	October			WTI Houston	Heard	1.75	Cash WTI			
09/14/2023	October			WTI Midland	Heard	1.50	Cash WTI			
09/14/2023	October			WTI Midland	Heard	1.55	Cash WTI			
<b>Platts Asia</b>										
9/14/2023	November	1 30		Das Blend	Heard	2.25	Dubai	500,000	Glencore	Eneos
9/14/2023	November			Dubai Partial	Done	93.85		25,000	ExxonMobil	Vitol
9/14/2023	November			Dubai Partial	Done	93.80		25,000	Reliance	Gunvor
9/14/2023	November			Dubai Partial	Done	93.85		25,000	Reliance	Gunvor
9/14/2023	November			Dubai Partial	Done	93.85		25,000	PetroChina	Gunvor
9/14/2023	November			Dubai Partial	Done	93.85		25,000	ExxonMobil	Gunvor
9/14/2023	November	1 30		Umm Lulu	Heard	3.10	Dubai	500,000	Unknown	PTT
9/14/2023	November	1 30		Umm Lulu	Heard	3.10	Dubai	500,000	Unknown	PetroChina
9/14/2023	November	1 30		Umm Lulu	Heard	3.10	Dubai	500,000	Unknown	SK Energy
9/14/2023	November	1 30		Umm Lulu	Heard	3.10	Dubai	500,000	Unknown	SK Energy
9/14/2023	November	1 30		Upper Zakum	Heard	2.27	Dubai	500,000	Unknown	Unipet
9/14/2023	November	1 30		Upper Zakum	Heard	2.27	Dubai	500,000	Unknown	Unipet
<b>Platts EMEA</b>										
09/14/2023	October	9 13		Brent CFD	Done	0.81	Cash BFOE Dec	100000	Vitol	DV Trading
09/14/2023	December			Cash BFOE	Done	92.96		100000	Vitol	Petrolneos
09/14/2023	November			Cash BFOE	Done	93.70		100000	Mercuria	Vitol
09/14/2023	November			Cash BFOE	Done	93.73		100000	Chevron	Gunvor
09/14/2023	December			Cash BFOE	Done	92.99		100000	Vitol	Gunvor
09/14/2023	November			Cash BFOE	Done	93.70		100000	Mercuria	BP
09/14/2023	November			Cash BFOE	Done	93.67		100000	Mercuria	Vitol
09/14/2023	November			Cash BFOE	Done	93.71		100000	Unipet	Gunvor

Please note that all deals that are stated as "Done" were reported and published through the Platts Market on Close assessment process. Deals that are stated as "Reported" were not reported through the MOC, and may reflect transactions that were reported before or after the MOC process. Platts seeks to confirm non-MOC information to the fullest extent possible prior to publication. <ASCII-WIN>

**Reported spot cash transactions** (PGA page 3)

Trans. Date	Cargo / Spread Dates	Cargo Load Range / CFD Week	CFD Roll Week	Crude Grade(s)	Reported Status	Outright / Diff. Price (\$/barrel)	Basis	Barrels	Seller	Buyer
<b>Platts Americas</b>										
09/14/2023	October			HLS	Heard	1.35	Cash WTI			
09/14/2023	October			Liza	Heard	1.00	Dated Brent			
09/14/2023	October			Mars	Heard	0.05	Cash WTI			
09/14/2023	October			Mixed Sweet (MSW) Edmonton	Heard	-3.80	NYMEX WTI CMA			
09/14/2023	October			Poseidon	Heard	-1.00	Mars			
09/14/2023	October			SGC (Southern Green Canyon)	Heard	-0.75	Cash WTI			

**Reported spot cash transactions** (PGA page 3)

Trans. Date	Cargo / Spread Dates	Cargo Load Range / CFD Week	CFD Roll Week	Crude Grade(s)	Reported Status	Outright / Diff. Price (\$/barrel)	Basis	Barrels	Seller	Buyer
09/14/2023	October			Syncrude Sweet Premium (SSP) Edmonton	Heard	3.60	NYMEX WTI CMA			
09/14/2023	October			Thunder Horse	Heard	2.15	Cash WTI			
09/14/2023	October			WCS Hardisty	Heard	-18.40	NYMEX WTI CMA			
09/14/2023	October			WTI Houston	Heard	1.75	Cash WTI			
09/14/2023	October			WTI Midland	Heard	1.50	Cash WTI			
09/14/2023	October			WTI Midland	Heard	1.55	Cash WTI			
<b>Platts Asia</b>										
9/14/2023	November	1 30		Das Blend	Heard	2.25	Dubai	500,000	Glencore	Eneos
9/14/2023	November			Dubai Partial	Done	93.85		25,000	ExxonMobil	Vitol
9/14/2023	November			Dubai Partial	Done	93.80		25,000	Reliance	Gunvor
9/14/2023	November			Dubai Partial	Done	93.85		25,000	Reliance	Gunvor
9/14/2023	November			Dubai Partial	Done	93.85		25,000	PetroChina	Gunvor
9/14/2023	November			Dubai Partial	Done	93.85		25,000	ExxonMobil	Gunvor
9/14/2023	November	1 30		Umm Lulu	Heard	3.10	Dubai	500,000	Unknown	PTT
9/14/2023	November	1 30		Umm Lulu	Heard	3.10	Dubai	500,000	Unknown	PetroChina
9/14/2023	November	1 30		Umm Lulu	Heard	3.10	Dubai	500,000	Unknown	SK Energy
9/14/2023	November	1 30		Umm Lulu	Heard	3.10	Dubai	500,000	Unknown	SK Energy
9/14/2023	November	1 30		Upper Zakum	Heard	2.27	Dubai	500,000	Unknown	Unipet
9/14/2023	November	1 30		Upper Zakum	Heard	2.27	Dubai	500,000	Unknown	Unipet
<b>Platts EMEA</b>										
09/14/2023	October	9 13		Brent CFD	Done	0.81	Cash BFOE Dec	100000	Vitol	DV Trading
09/14/2023	December			Cash BFOE	Done	92.96		100000	Vitol	Petrolneos
09/14/2023	November			Cash BFOE	Done	93.70		100000	Mercuria	Vitol
09/14/2023	November			Cash BFOE	Done	93.73		100000	Chevron	Gunvor
09/14/2023	December			Cash BFOE	Done	92.99		100000	Vitol	Gunvor
09/14/2023	November			Cash BFOE	Done	93.70		100000	Mercuria	BP
09/14/2023	November			Cash BFOE	Done	93.67		100000	Mercuria	Vitol
09/14/2023	November			Cash BFOE	Done	93.71		100000	Unipet	Gunvor

Please note that all deals that are stated as "Done" were reported and published through the Platts Market on Close assessment process. Deals that are stated as "Reported" were not reported through the MOC, and may reflect transactions that were reported before or after the MOC process. Platts seeks to confirm non-MOC information to the fullest extent possible prior to publication.

## Platts Mediterranean & Black Sea Sweet Crude Daily Commentary

- Cargoes clearing swiftly across major Med grades
  - Market largely unaffected by Libyan port closures
- Trade continued apace throughout the Mediterranean sweet crude market Sept. 14 with cargoes clearing swiftly underpinned by strong demand and healthy refining margins.
- October-loading crudes proved well supported, led

by Azerbaijan's Azeri Light whose value was said to be approaching \$7/b premiums to Dated Brent through the day — the highest since January.

The grade has so far shrugged off a marginally longer October-loading program after September trade slowed towards the end of the previous cycle.

Downstream, middle distillate cracks rallied sharply through the week, compounding demand after emerging softness at the end of the September trade cycle prompted some cautious bearishness for

October barrels.

Among competing grades, recent disruption to Libyan ports was not judged to have a meaningful impact physical differentials in the region given the short-lived nature of the disruption. No major disruption was seen to loadings, according to traders.

Libya reopened four major oil ports on the day, after they were closed because of a powerful storm that destroyed cities and killed thousands, port agent Al Omran International Maritime Agencies said Sept. 13.



The eastern ports of Brega, Es Sider and Ras Lanuf were brought back online on Sept. 12, while Zueitina port reopened on the morning of Sept. 13, Al Omran said.

Meanwhile CPC Blend, consolidated a strong start to the October trading cycle as Mediterranean buyers backed up early arbitrage volumes absorbed by east Asia.

Cargoes have continued to clear swiftly through October with some seeing the majority of cargoes already sold, though sentiment varied.

A marginally longer October loading program, about 160,000 b/d higher than September, has so far not proved a balancing factor, more than offset by steady demand.

## Platts NWE and Med Urals Sour Crude Daily Market Analysis

- European sour fundamentals steady as sweets rally
- Iraq's SOMO seek requests for 2024 crude allocations

European sour fundamentals proved steady Sept. 14, with differentials for leading grades well supported but losing ground to a quickly firming sweet market.

"Johan Sverdrup values have been fairly steady," one trader said. October-loading differentials have rallied following a September cycle characterized by excess supply length and a moderate overhang quickly pushing differentials down from all time highs.

A firm rally throughout the sweet complex has re-opened the spread to sour grades, after as Johan Sverdrup was briefly seen at a premium to grades such as Ekofisk for the first time on record in the recent the August trading cycle.

Still, Johan Sverdrup remained elevated by historical standards, with market participants continuing to emphasize tightness in European sour supplies heading into the final months of the year.

Nonetheless some challenges remained,

particularly from longer-haul arbitrage barrels further down the curve. "Brazilian and Guyanese has been very competitive, more for end October/November barrels," the trader said.

Elsewhere in the sour complex, Iraq's SOMO was seeking requests for 2024 crude allocations for its Basrah Medium, Basrah Heavy and Kirkuk crudes, according to a document seen by S&P Global Commodity Insights.

All requests must be sent to SOMO by the Oct. 15, SOMO said. "Requests will be considered subject to the total availability of crude oil."

## Platts EMEA Urals and Med Brent Crude Daily Rationales & Exclusions

**Urals CIF Augusta differential <AAGXX00>**

**assessment rationale:**

Urals CIF Augusta was assessed unchanged. There were no bids or offers in the Platts Market on Close assessment process. The Urals CIF Augusta differential was assessed using a net-forward to the Urals FOB Aframax and Suezmax assessment. The FOB differentials were assessed unchanged.

**Urals CIF Med <PCACE00> assessment rationale:**

The Urals CIF Mediterranean assessment reflected the value of the Mediterranean Dated Brent Strip (AALDF00) plus the Urals CIF Augusta differential assessment (AAGXX00).

**Urals RCMB (Recombined) <AALIN00> assessment rationale:**

The Urals RCMB (Recombined) assessment reflected the value of the Platts Dated Brent assessment (PCAAS00) plus the Urals CIF Augusta differential assessment (AAGXX00).

**Urals CIF Rdam <PCAFW00> assessment rationale:**

Urals CIF Rotterdam was assessed unchanged. There were no bids or offers in the Platts Market on Close assessment process. The Urals CIF Rotterdam differential was assessed as a net-forward to the Urals FOB Baltic assessment. The FOB differentials were

assessed unchanged.

**Med Dated Brent Strip 13-28 Day <AALDF00> assessment rationale:**

The Mediterranean Dated Brent Strip reflected the value of Forward Dated Brent 13-28 days ahead of the day of publication. Forward Dated Brent is assessed as a function of Platts assessments of second-month Cash BFOE (PCAR00) and BFOE CFD differentials (PCAKA00, PCAKC00, PCAKE00, PCAKG00, AAGLU00, AAGLV00, AALCZ00).

**CPC Blend CIF Augusta vs BTC Dtd Strip <AAHPL00> assessment rationale:**

CPC Blend was assessed unchanged reflecting divergent heard values on the day and supportive fundamentals.

Exclusions: None

Platts is part of S&P Global Commodity Insights

## Platts EMEA Urals & Med Brent Crude Bids, Offers, Trades

Bids: None

Offers: None

Trades: None

This assessment commentary applies to the following market data codes: Urals CIF Med <PCACE00>> Urals CIF Rdam <PCAFW00> ESPO FOB Kozmino Mo01 London <AARWD00> CPC CIF Augusta Diff <AAHPL00>

## Platts West African Crude Daily Commentary

- Lackluster buying softens offers in Nigeria
- Europe-bound Angolan crude exports total 9.8 mil barrels in Aug

In the West African crude market Sept. 14, offers for remaining Nigerian barrels scheduled to load in October have started to be cut by sellers with traders suggesting a softening in sentiment.

Spot cargoes were not moving, with little interest at higher values, sources said.

"Indications [in Nigeria] have started to be adjusted downwards, some by as much as \$1/b," one West African trader said. "As a result, we are not seeing the same crazy numbers we saw two weeks ago. Those higher offers were [unrealistic] with almost the entire menu of Nigeria still available."

A second trader agreed with the reversal of sentiment, noting that the softening in offers could be indicative of sellers realizing buyers were not willing to pay up. "[The complex] does not look too supported to me," they said.

Trading activity involving Congolese grade Djeno was described by a third WAF trader as slow, with as many as four spot cargoes unsold out of an October program of seven. Offers for the grade were being shown to the wider market at a small premium to Dated Brent, the third trader said.

August-loading Angolan crude exports to Europe were steady month on month at 9.8 million barrels, with both July and August having the highest monthly export totals since February, according to S&P Global Commodities at Sea data.

Spain is set to receive 2.9 million barrels of Angolan crude loaded in August, the highest of any European nation, across 1.9 million barrels of Dalia crude and 1 million barrels of Palanca.

France is set to take 2.4 million barrels, followed by the Netherlands and Italy at 2 million barrels apiece.

Overall, the 9.8 million barrels of Angolan crude headed for Europe represents 28% of the country's August crude exports, CAS data showed, with 21.1 million barrels headed to China alone.

### Platts West African Crude Daily Rationale & Exclusions

Of the four crudes in the Nigerian basket, Forcados was assessed 30 cents/b higher while Bonga, Bonny Light and Qua Iboe were assessed unchanged. There

were no bids, offers or trades in the Platts Market on Close assessment process.

Qua Iboe FOB Nigeria <PCAID00>

Bonny Light FOB Nigeria London <PCAIC00>

Forcados FOB Nigeria <PCABC00>

Bonga FOB Nigeria <PCNGC00>

Exclusions: None

Platts is part of S&P Global Commodity Insights

### Platts West African Crude Bids, Offers, Trades

Bids: None

Offers: None

Trades: None

This assessment commentary applies to the following market data code: WAF Index <AWAFB00> The WAF Index is calculated using the following market data codes: Qua Iboe FOB Nigeria <PCAID00> Bonny Light FOB Nigeria London <PCAIC00> Forcados FOB Nigeria <PCABC00> Bonga FOB Nigeria <PCNGC00>

### Platts US Pipeline Crude Daily Commentary

- US Gulf Coast crude differentials edge higher
  - Oil futures settle above \$90/b
- Crude differentials on the US Gulf Coast edged slightly higher Sept. 14 amid surging oil futures.
- Platts assessed physical West Texas Intermediate crude at Midland, Texas, at cash WTI plus \$1.55/b, up 10 cents from the previous session.
- WTI crude at the Magellan East Houston terminal climbed 20 cents to WTI plus \$1.75/b after sources reported it trading at that level.
- As for sour, Platts assessed October Thunder Horse up 15 cents to WTI plus \$2.15/b.
- October Poseidon barrels rose 25 cents to WTI minus 75 cents/b, while Mars remained unchanged at WTI plus 25 cents/b for the third consecutive session.
- NYMEX WTI futures settled above \$90/b for the

first time since November on Sept. 14 as strong US economic data underscored tight global supply outlooks.

NYMEX October WTI rose \$1.64 to \$90.16/b and ICE November Brent climbed \$1.82 to \$93.70/b.

US retail sales jumped 0.6% in August, US Commerce Department data showed Sept. 14, exceeding market expectations of a 0.1% bump. The positive retail data pointed to a strong US consumer, analysts said, and cooled concerns that persistent high inflation data seen Sept. 13 portended a near-term slowdown in energy demand.

The ICE US Dollar Index, which has been trading lower overnight following the hotter-than-expected inflation report, rallied back above 105 on the strong retail sales print and was on pace to close at a fresh six-month high.

The latest federal government data showed US crude stocks up 4 million barrels to 420.6 million barrels, reversing a four-week downturn.

Platts is part of S&P Global Commodity Insights.

### Platts US Gulf Coast Export Crude Daily Commentary

- Platts AGS gets boost from futures
  - Arb open into Northwest Europe
- Platts American GulfCoast Select (AGS) jumped nearly \$2/b Sept. 14, as arbitrage opportunities for crude exports remained open into Northwest Europe.
- Platts assessed AGS up \$1.84/b day on day to \$92.46/b. It was assessed at a \$3.06/b premium to the NYMEX WTI strip, a 14-cent rise from the previous session.
- The AGS discount to the forward Dated Brent strip narrowed by 4 cents, from \$1.36/b to \$1.32/b.
- NYMEX WTI futures settled above \$90/b for the first time since November on Sept. 14 as strong US economic data underscored tight global supply outlooks.

NYMEX October WTI settled up \$1.64 at \$90.16/b and ICE November Brent climbed \$1.82 higher to \$93.70/b.

Data released Sept. 14 by S&P Global Commodity Insights showed the WTI Magellan East Houston crude arbitrage versus Forties open into Northwest Europe by \$1.26/b.

The arb has been open all summer, by just pennies in June and July, but expanding to around \$1.20/b in August and September. It reached its widest point, at \$1.46/b, on Sept. 11.

Still, US crude exports dropped nearly 2 million b/d to 3.1 million b/d last week, according to the latest federal government data. The last time they were reported lower was in early August, at 2.36 million b/d.

The four-week rolling average for exports fell 377,000 to 4.2 million b/d.

Platts is part of S&P Global Commodity Insights.

### Platts Canadian Pipeline Crude Daily Commentary

- WCS Hardisty up 25 cents/b on final day of Oct trading cycle
- NYMEX WTI settles above \$90/b

Prices for Western Canadian crude were mixed Sept. 14 as crude futures values rose to their highest levels of the year.

NYMEX WTI futures settled above \$90/b for the first time since November. NYMEX October WTI settled up \$1.64 at \$90.16/b and ICE November Brent climbed \$1.82 higher to \$93.70/b.

The market was lifted by positive retail data, strong US consumer demand and cooled concerns over high inflation.

Western Canadian Select's discount to the NYMEX WTI CMA rose 25 cents to be assessed at minus \$18.40/b, based on a trade heard last done at that level.

Platts assessed Syncrude Sweet Premium 65 cents

lower at WTI CMA plus \$3.60/b, based on a trade reported.

Platts assessed Mixed Sweet 80 cents lower at WTI CMA minus \$3.80/b, based on a trade.

Platts is part of S&P Global Commodity Insights.

### Platts Latin American Crude Daily Commentary

- Tupi heard to trade above \$4/b to Dated Brent, delivered
- Unity Gold talked at a 20 cent/b premium to Liza Latin American crude prices rose sharply Sept. 14 along with benchmark futures, with Dated Brent climbing to a 10-month high of \$95.105/b, up \$1.72/b.

Brazil's Tupi, which is typically traded against Dated Brent, was assessed at \$94.10/b on an outright basis, up \$1.64/b on the day. A trader familiar with Tupi trading levels said some cargoes for December delivery into China had been at levels higher than a premium of \$4/b to November Dated Brent.

Based on that information, Platts assessed Tupi on an outright basis at a premium of 80 cents/b to the Dated Brent strip, little changed on the day.

Elsewhere in the region, sources said the last information on Guyana's Liza was that it had traded at a premium of \$1/b to Dated Brent for October loading on an FOB basis, which is where it was assessed. Sources also said that, due to a production issue with the Liza FPSO, some shipments that had been meant to load in September had been pushed into the October cycle, information that Platts could not independently verify.

Platts assessed Guyana's Unity Gold at a premium of \$1.20/b on an FOB basis against Dated Brent, after sources continued to talk the crude at a 20 cents/b premium over Liza.

Platts is part of S&P Global Commodity Insights.

## Subscriber Notes

### Platts seeks notification of change to entity information

All entities participating in the Market on Close assessment process are requested to inform Platts, part of S&P Global Commodity Insights, of any change to relevant information including but not limited to its supervised status by an EU competent authority, its bilateral trading capabilities and the personnel authorized to provide market information to Platts for the purpose of the MOC process.

Some Platts assessments are in scope of European Benchmark Regulations (EBMR) and applicable regulatory requirements are dependent on stated criteria, including the proportion of contributions to a price assessment by entities supervised by an EU competent authority. This question is required of all reviewed participants and may be posed during an acceptance review or an event-driven review. Entities should notify Platts if there are any changes to its regulatory oversight for commodity trading.

Platts asks that you please notify [PriceGroup@SPGlobal.com](mailto:PriceGroup@SPGlobal.com) of any changes. For questions or comments please notify [PriceGroup@SPGlobal.com](mailto:PriceGroup@SPGlobal.com) and [PL\\_EMBR@spglobal.com](mailto:PL_EMBR@spglobal.com).

For more information on EMBR regulation as it pertains to Platts, please see: <https://www.spglobal.com/platts/en/about-platts/regulatory-engagement> and for more information on Platts Benchmark statements: <https://www.spglobal.com/platts/en/our-methodology/methodology-specifications/oil/benchmark-statements>.

### Unipeck UK Company Ltd to join EMEA - Crude BFOE Cash MOC

Unipeck UK Company Ltd has advised Platts, part of S&P Global Commodity Insights, that it would like to participate in the Platts Market on Close assessment process(es) for EMEA - Crude BFOE Cash.

Platts has reviewed Unipet UK Company Ltd and will consider information from the entity in the assessment process(es) for EMEA - Crude BFOE Cash, subject at all times to adherence with Platts editorial standards.

Platts will publish all relevant information from Unipet UK Company Ltd accordingly.

Platts welcomes all relevant feedback regarding MOC participation. Platts considers bids, offers and transactions by all credible and credit-worthy parties in its assessment processes. For comments and feedback, please contact Platts editors at [Europe\\_crude@spglobal.com](mailto:Europe_crude@spglobal.com) and [market\\_integrity\\_review@spglobal.com](mailto:market_integrity_review@spglobal.com).

#### Platts invites feedback on its Asia Pacific and Middle East Crude Oil methodology guide

As part of its commitment to open and transparent pricing and product specifications, Platts, part of S&P Global Commodity Insights, would like to invite feedback on its Asia Pacific and Middle East Crude Oil methodology, specifically the guidelines described in the methodology guide posted online here: [https://www.spglobal.com/commodityinsights/plattscontent/\\_assets/\\_files/en/our-methodology/methodology-specifications/apag-crude-methodology.pdf](https://www.spglobal.com/commodityinsights/plattscontent/_assets/_files/en/our-methodology/methodology-specifications/apag-crude-methodology.pdf)

Platts reviews all methodologies annually to ensure they continue to reflect the physical markets under assessment, and regularly assesses the relevance of methodologies through continuous contact with the market. Feedback on methodologies is always welcomed by Platts.

Please send all comments, feedback, and questions to [asia\\_crude@spglobal.com](mailto:asia_crude@spglobal.com) and [pricegroup@spglobal.com](mailto:pricegroup@spglobal.com). For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing. Platts will consider all comments received and will make comments not marked as confidential available

upon request.

#### Platts confirms Seaway Texas City Terminal has been included in Dated Brent and Cash BFOE assessment process

Platts, part of S&P Global Commodity Insights, included Seaway Texas City Terminal for WTI Midland crude oil into its Dated Brent and Cash BFOE Market on Close assessment process on June 6, 2023.

The inclusion of Seaway Texas City Terminal was first proposed in a subscriber note published on March 9, 2023. A decision note was published on June 6, 2023. Platts has reviewed and approved the terminal based on the criteria found here.

Sellers would be able to nominate WTI Midland meeting Platts specification loaded from Seaway Texas City or any of the other terminals listed below for inclusion into the Dated Brent and Cash BFOE assessment process.

Owner	Terminal Name	Location
Pin Oak Terminals	Pin Oak Corpus Christi Terminal	Corpus Christi
NuStar	Texas North Beach Terminal	Corpus Christi
Flint Hills Resources	FHR Ingleside Terminal	Corpus Christi
Buckeye Partners	South Texas Gateway Terminal	Corpus Christi
Plains	Eagle Ford Terminals Corpus Christi	Corpus Christi
EPIC	EPIC Crude Terminal	Corpus Christi
Buckeye Partners	Buckeye Texas Hub Terminal	Corpus Christi
Enbridge	Enbridge Ingleside Energy Center	Corpus Christi
Magellan	Seabrook Logistics Terminal	Houston
Energy Transfer Partners	Energy Transfer Houston Terminal	Houston
Enterprise	Enterprise Houston Ship Channel Terminal	Houston
Enterprise	Seaway Texas City Terminal	Houston

Please send all feedback to [pricegroup@spglobal.com](mailto:pricegroup@spglobal.com) and [europe\\_crude@spglobal.com](mailto:europe_crude@spglobal.com).

For written comments, please provide a clear indication if they are not intended for publication by Platts for public viewing.

#### Platts to include Seaway Texas City Terminal into Brent complex assessment process for June

Platts, part of S&P Global Commodity Insights, will include Seaway Texas City Terminal as a loading terminal for WTI Midland crude oil into its Dated Brent and Cash BFOE Market on Close assessment process for June deliveries.

Sellers would be able to nominate WTI Midland meeting Platts specification loaded from Seaway Texas City Terminal for inclusion into the Dated Brent/Cash BFOE assessment process starting with the June 2023 delivery period.

The terminal, in Texas City, Texas, is wholly owned by Seaway Crude Holdings LLC, L.P., a joint venture between Enterprise Seaway L.P. and Enbridge Holdings (Seaway) L.L.C.

The terminal has two docks which can fit up to a VLCC size vessel and 4 million barrels of storage capacity for crude oil.

Platts decision to include WTI Midland into the Brent complex, and clarification of the review process by which loading terminals are included in the assessment process, can be found here.

Please send all feedback to [PriceGroup@spglobal.com](mailto:PriceGroup@spglobal.com) and [Europe\\_Crude@spglobal.com](mailto:Europe_Crude@spglobal.com).

For written comments, please provide a clear indication if they are not intended for publication by Platts for public viewing.

#### Platts proposes to launch CIF Rotterdam Johan Sverdrup assessment Nov. 1

As part of its commitment to provide insight into new trade flows, Platts, part of S&P Global Commodity Insights proposes to launch an assessment for Johan Sverdrup on a CIF Rotterdam basis, both on an outright basis as well as a differential to North Sea CIF Dated Brent Strip from Nov. 1.

The new assessments will complement Platts existing assessments of Johan Sverdrup FOB

Mongstad (Platts symbol: AJSVA00) and differential to forward Dated Brent (Platts symbol: AJSVB00).

Since Russia's invasion of Ukraine and ensuing import ban on all seaborne Russian crude oil to the European Union from Dec. 5, 2022, Johan Sverdrup has become a heavier, sourer, baseload crude in Northwest Europe, according to vessel-tracking data seen by Platts.

The proposal follows requests from market participants for a delivered Northwest Europe Johan Sverdrup assessment to bring greater transparency to the value of sour crude delivered into the region in the absence of Russian Urals inflows.

Platts existing FOB Johan Sverdrup assessments, launched on Dec. 1, 2019, reflect 700,000-barrel cargoes loading from the Mongstad terminal 10 days to a month ahead.

The proposed CIF Rotterdam Johan Sverdrup assessments would reflect 700,000 barrel cargoes for delivery into Rotterdam 12 days to a month ahead.

In line with Platts existing North Sea grade CIF Rotterdam assessments, the CIF Rotterdam Johan Sverdrup assessment would reflect deliveries in the UK Continent (UKC) range from Gibraltar up to but not including the Baltic Sea.

Platts publishes North Sea crude CIF Rotterdam

bids, offers and trades pricing on a 2-1-2 around deemed Bill of Lading (B/L) basis as standard.

Platts views the journey from Mongstad to Rotterdam, for both Troll and Johan Sverdrup, to be two days.

Johan Sverdrup has an API of 28 degrees and a sulfur content of 0.80%, according to assays seen by Platts.

The grade is a joint venture between Norway's Equinor, Aker BP, Total and Lundin, with Equinor acting as the terminal operator.

Please send all feedback, comments or questions to [europa\\_crude@spglobal.com](mailto:europa_crude@spglobal.com) and [pricegroup@spglobal.com](mailto:pricegroup@spglobal.com) Sept. 15.

For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing.

Platts will consider all comments received and will make comments not marked as confidential available to the public upon request.

#### **Platts to discontinue Mesa 30 and Santa Barbara crude price assessments**

Platts, a part of S&P Global Commodity Insights, will discontinue publishing price assessments for Venezuela's Mesa 30 and Santa Barbara crudes

effective Nov. 1 due to declining production and a lack of spot market activity.

Platts understands there is no spot-market activity for the Venezuelan grades Santa Barbara and Mesa 30. US sanctions have curtailed Venezuela production and trading activity, and market participants do not anticipate normal activity to resume. Market sources indicate there has been no spot trade of these grades in nearly a decade.

The discontinuation will affect the following codes:

	Outright	Diff to Dated Brent	Diff to Brent Strip	Diff to WTI Strip
Mesa 30	AAITB00	AAXB000	AAXCC00	AAITH00
Santa Barbara	AAITD00	AAXAZ00	AAXBU00	AAITJ00

The prices appear on Platts Global Alert page 280 and in Latin Wire, Crude Oil Marketwire and Oilgram Price Report.

Please send any feedback or questions to [Americas\\_crude@spglobal.com](mailto:Americas_crude@spglobal.com) and [pricegroup@spglobal.com](mailto:pricegroup@spglobal.com).

For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing.

Platts will consider all comments received and will make comments not marked as confidential available to the public upon request.

## Commodity Insights Analytics US Yields &amp; Netbacks Effective September 14, 2023 (\$/barrel)

## US Gulf Coast (PGA page 0833)

	Crack Yield	Freight	Crack Netback	Crude Price	Crack Margin
Agbami	AGGCY00 118.86	AGGFA00 2.55	AGGCN00 116.31	AAQZB00 92.53	AGGCM00 22.82
Arab Berri	BEGCY00 118.17	TDDAC00 1.32	BEGCN00 116.85	AAXT00 99.81	BEGCM00 17.04
Arab Heavy	AHGCY00 104.76	TDDAJ00 1.39	AHGCN00 103.38	AAAXDI00 97.91	AHGCN00 5.47
Arab Light	LIGCY00 113.77	TDDAR00 1.35	LIGCN00 112.42	AAAXCU00 97.66	LIGCM00 14.76
Arab Medium	MEGCY00 108.13	TDDAZ00 1.35	MEGCN00 106.78	AAAXDN00 98.36	MEGCM00 8.42
Bakken	BKGCY00 117.38	TDDRP00 7.78	BKGCN00 109.60	AAAXPP00 88.36	BKGCN00 21.24
Basrah Medium	BLGCV00 105.68	TDDBS00 1.96	BLGCN00 103.72	BSMAM01 94.68	BLGCM00 12.97
Bonny Light	YLGCV00 120.81	TDDBX00 2.78	YLGCN00 118.03	PCATC00 95.78	YLGCM00 21.29
Brent	BRGCY00 116.54	TDDCB00 2.30	BRGCN00 114.25	AAVJA00 95.29	BRGCM00 18.00
Cabinda	CBGCV00 113.59	TDDCF00 2.98	CBGCN00 110.61	PCAFD00 95.78	CBGCM00 13.87
Eagle Ford	EAGCV00 117.64			AAAYAT00 91.56	EAGCM00 26.08
Escalante	ECGCV00 105.80	TDDCV00 3.21	ECGCN00 102.59	PCAGC00 90.40	ECGCM00 11.29
Forties	FTGCV00 116.05	FTGFA00 2.12	FTGCN00 113.94	PCADJ00 95.19	FTGCM00 17.80
Isthmus	ISGCV00 114.16	TDDDJ00 1.14	ISGCN00 113.02	PDAT009 88.69	ISGCM00 24.33
LLS	LLGCV00 121.01	TDDQW00 0.55	LLGCN00 120.46	PCABN00 92.61	LLGCM00 27.85
Marlim	MLGCV00 110.58	TDDGK00 2.57	MLGCN00 108.01	AAITF00 88.55	MLGCM00 18.56
Mars	MRGCV00 110.27	TDDQY00 0.55	MRGCN00 109.72	AAMBR00 90.41	MRGCM00 19.31
Maya	MYGCV00 95.28	TDDDP00 1.18	MYGCN00 94.10	PDATS09 85.94	MYGCM00 8.16
Mesa	MSGCV00 111.61	TDDDV00 1.70	MSGCN00 109.92	AAITB00 90.30	MSGCM00 19.62
Olmecca	OLGCV00 117.51	TDDDY00 1.14	OLGCN00 116.37	PDATT09 88.74	OLGCM00 27.63
Poseidon	PDGCV00 110.07	PDGFA00 0.00	PDGCN00 110.07	AABHK00 89.41	PDGCM00 20.66
Saharan Blend	SHGCV00 117.74	TDDRD00 1.70	SHGCN00 116.05	AAGZY00 94.43	SHGCM00 20.66
Syncrude	SYGCV00 121.24	SYGFA00 8.52	SYGCN00 112.72	AASOK00 92.96	SYGCM00 19.76
Urals	URGCV00 112.61	TDDFM00 2.44	URGCN00 110.17	AAAVH00 81.20	URGCM00 28.01
WTI	WTGCV00 117.25			AAAYRG00 91.91	WTGCM00 25.34
WTS	WSGCV00 113.47	TDDRJ00 6.89	WSGCN00 106.58	PCACK00 91.01	WSGCM00 15.57

## US Gulf Coast (PGA page 0841)

	Coke Yield	Freight	Coke Netback	Crude Price	Coke Margin
Arab Heavy	AHGOY00 113.89	TDDAJ00 1.39	AHGON00 112.50	AAAXDI00 97.91	AHGM00 14.59
Arab Light	LIGOY00 116.78	TDDAR00 1.35	LIGON00 115.43	AAAXCU00 97.66	LIGM00 17.77
Arab Medium	MEGOY00 112.74	TDDAZ00 1.35	MEGON00 111.38	AAAXDN00 98.36	MEGM00 13.02
Basrah Heavy	BHGOY00 110.55	BHGFA00 2.03	BHGON00 108.52	AALZC00 91.68	BHGM00 21.81
Basrah Medium	BLGOY00 112.75	TDDBS00 1.96	BLGON00 110.79	BSMAM01 94.68	BLGM00 20.04
Cabinda	CBGOY00 115.53	TDDCF00 2.98	CBGON00 112.55	PCAFD00 95.78	CBGM00 15.82
Castilla Blend	CSGOY00 107.86	CSGFA00 1.78	CSGON00 106.08	AAVEQ00 85.70	CSGM00 20.38
LLS	LLGOY00 121.52	TDDQW00 0.55	LLGON00 120.97	PCABN00 92.61	LLGM00 28.36
Marlim	MLGOY00 116.15	TDDGK00 2.57	MLGON00 113.58	AAITF00 88.55	MLGM00 24.13
Mars	MRGOY00 114.95	TDDQY00 0.55	MRGON00 114.40	AAMBR00 90.41	MRGM00 23.99
Maya	MYGOY00 109.94	TDDDP00 1.18	MYGON00 108.75	PDATS09 85.94	MYGM00 22.81
Napo	NPGOY00 105.95	NPGFA00 3.33	NPGON00 102.63	AAMCA00 83.72	NPGM00 18.05
Oriente	ORGOY00 113.37	ORGFA00 3.15	ORGON00 110.22	PCADE00 85.87	ORMGM00 23.54
Urals	URGOY00 116.20	TDDFM00 2.44	URGON00 113.76	AAAVH00 81.20	URGM00 31.60
Vasconia	VCGOY00 118.48	VCGFA00 1.74	VCGON00 116.74	PCAGI00 89.20	VCGM00 27.54
WCS ex-Hardisty	WHGOY00 110.93	TDDRS00 8.50	WHGON00 102.43	AAPPN00 70.96	WHGM00 31.47
WCS ex-Nederland	WNGOY00 110.93	WCGFA00 0.00	WNGON00 110.93	AAAYAY00 81.96	WNGM00 28.97
WTS	WSGOY00 118.21	TDDRJ00 6.89	WSGON00 111.32	PCACK00 91.01	WSGM00 20.31

## Commodity Insights Analytics US Yields &amp; Netback (\$/barrel) (continued)

## US Midwest (PGA page 0823)

	Crack Yield	Freight	Crack Netback	Crude Price	Crack Margin
Bakken	BKTCY00 110.86	TDDR000 1.68	BKTCN00 109.18	AASRU00 91.26	BKTCM00 17.92
Syncrude	SYTCY00 113.38	TDDFP00 8.20	SYTCN00 105.18	AASOK00 92.96	SYTCM00 12.22
WTI	WTTCY00 110.79	TDDRG00 2.39	WTTCN00 108.40	PCACG00 90.16	WTTCM00 18.24
WTS	WSTCY00 108.52	TDDRI00 3.08	WSTCN00 105.44	PCACK00 91.01	WSTCM00 14.43

## US West Coast (PGA page 0843)

	Crack Yield	Freight	Crack Netback	Crude Price	Crack Margin
ANS	ANWCY00 148.17			PCAAD00 95.89	ANWCM00 52.28
Bakken	BKWCY00 159.54	TDDRT00 11.74	BKWCN00 147.79	AAAPP00 88.36	BKWCM00 59.43

## US Atlantic Coast (PGA page 0811)

	Crack Yield	Freight	Crack Netback	Crude Price	Crack Margin
Agbami	AGACY00 123.29	AGAF00 2.26	AGACN00 121.03	AAQZB00 92.53	AGACM00 27.54
Arab Light	LIACY00 117.19	TDDAU00 1.35	LIACN00 115.84	AAXCJ00 97.66	LIACM00 18.18
Bakken	BKACY00 123.27	TDDRN00 7.20	BKACN00 116.07	AAAPP00 88.36	BKACM00 27.71
Bonny Light	YLACY00 124.89	TDDBZ00 2.46	YLACN00 122.43	PCATC00 95.78	YLACM00 25.69
Brent	BRACY00 121.16	TDDCC00 2.30	BRACN00 118.86	AAVJA00 95.29	BRACM00 23.51
Cabinda	CBACY00 117.38	TDDCH00 2.66	CBACN00 114.71	PCAFD00 95.78	CBACM00 17.97
CPC Blend	CPACY00 122.17	CPAFA00 2.49	CPACN00 119.68	AALVX00 90.24	CPACM00 29.38
Forties	FTACY00 121.88	FTAFA00 2.12	FTACN00 119.76	PCADJ00 95.19	FTACM00 24.51
Saharan Blend	SHACY00 123.00	SHAFA00 1.49	SHACN00 121.51	AAGZY00 94.43	SHACM00 26.12
Urals	URACY00 116.42	URAF00 1.93	URACN00 114.50	AAWVH00 81.20	URACM00 32.34

## US Midwest (PGA page 0821)

	Coke Yield	Freight	Coke Netback	Crude Price	Coke Margin
WCS	WCTOY00 104.89	TDDRL00 8.56	WCTON00 96.33	AAPPN00 70.96	WCTOM00 25.37
WTS	WSTOY00 111.48	TDDRI00 3.08	WSTON00 108.40	PCACK00 91.01	WSTOM00 17.39

## US West Coast (PGA page 0841)

	Coke Yield	Freight	Coke Netback	Crude Price	Coke Margin
ANS	ANWOY00 154.40			PCAAD00 95.89	ANWOM00 58.51
Arab Light	LIWOY00 157.20	TDDAT00 1.35	LIWON00 155.85	AAXCJ00 97.66	LIWOM00 58.19
Arab Medium	MEWOY00 150.69	TDDBB00 1.35	MEWON00 149.34	AAAXDN00 98.36	MEWOM00 50.98
Basrah Heavy	BHWOY00 149.63	BHWFA00 2.51	BHWON00 147.12	AALZC00 91.68	BHWOM00 61.31
Basrah Medium	BLWOY00 151.70	TDDBW00 2.41	BLWON00 149.30	BSMAM01 94.68	BLWOM00 59.44
Castilla Blend	CSWOY00 151.21	CSWFA00 4.61	CSWON00 146.60	AAVEQ00 85.70	CSWOM00 60.03
Maya	MYWOY00 148.44	MYWFA00 2.70	MYWON00 145.74	AAUPK00 85.74	MYWOM00 60.00
Napo	NPWOY00 146.60	NPWFA00 4.04	NPWON00 142.56	AAMCA00 83.72	NPWOM00 57.98
Oriente	ORWOY00 152.58	TDDDEC00 3.82	ORWON00 148.76	PCADE00 85.87	ORWOM00 62.09
Vasconia	VOWOY00 163.17	VOWFA00 4.46	VOWON00 158.72	PCAGI00 89.20	VOWOM00 68.69

## Commodity Insights Analytics European Yields &amp; Netbacks Effective September 14, 2023 (\$/barrel)

## Northwest Europe (PGA page 1811)

	Crack Yield		Freight		Crack Netback		Crude Price		Crack Margin	
Agbami	AGNCY00	120.21	AGNFA00	2.18	AGNCN00	118.03	AAQZB00	92.53	AGNCM00	25.50
Arab Berri	BENCY00	120.12	BENFA00	1.32	BENCN00	118.80	AAAXDU00	101.10	BENCM00	17.70
Arab Heavy	AHNCY00	109.20	TDDAN00	1.39	AHNCN00	107.81	AAAXDH00	95.60	AHNCM00	12.21
Arab Light	LINCY00	116.84	TDDAV00	1.35	LINCN00	115.49	AAAXDK00	99.50	LINCM00	15.99
Arab Medium	MENCY00	111.64	TDDBD00	1.36	MENCN00	110.27	AAAXDM00	98.30	MENCM00	11.97
Azeri Light	ZLNCY00	121.44	TDDBI00	2.01	ZLNCN00	119.43	AATHM00	98.89	ZLNCM00	19.77
Basrah Medium	BLNCY00	110.99	TDDBU00	2.68	BLNCN00	108.31	BSMAM01	94.68	BLNCM00	14.36
Bonny Light	YLNCY00	122.89	YLNFA00	2.38	YLN CN00	120.51	PCAIC00	95.78	YLN CM00	24.73
Brent	BRNCY00	118.12	TDDCD00	2.01	BRNCN00	116.11	AAVJA00	95.29	BRNCM00	20.82
Cabinda	CBNCY00	114.19	TDDQR00	2.59	CBNCN00	111.61	PCAFD00	95.78	CBNCM00	15.83
CPC Blend	CPNCY00	118.79	CPNFA00	2.37	CPNCN00	116.43	AALVX00	90.24	CPNCM00	26.19
Dubai	DBNCY00	115.58	DBNFA00	2.52	DBNCN00	113.06	PCAAAT00	93.85	DBNCM00	17.37
Eagle Ford	EANCY00	119.23	EANFA00	3.50	EAN CN00	115.73	AAAYAT00	91.56	EAN CM00	24.23
Ekofisk	EKNCY00	119.82	TDDCT00	1.32	EKNCN00	118.50	PCADI00	97.01	EKNCM00	21.49
Forties	FTNCY00	118.52	TDDZE00	1.52	FTNCN00	116.99	PCADJ00	95.19	FTNCM00	21.81
Iran Heavy	BHNCY00	114.54	TDDDG00	2.64	BHNCN00	111.89	AIHKA00	93.18	BHNCM00	17.82
Johan Sverdrup	JSNCY00	116.28	JSNFA00	1.61	JSNCN00	114.67	AJSVA00	95.53	JSNCM00	19.14
Kirkuk	KRNCY00	115.72	TDDGH00	2.35	KRNCN00	113.37	AAEJD00	92.20	KRNCM00	17.42
LLS	LLNCY00	124.15	LLNFA00	3.66	LLNCN00	120.48	AAQBB00	92.58	LLNCM00	27.93
Maya	MYNCY00	102.93	MYNFA00	3.76	MYNCN00	99.18	AAQXE00	85.55	MYNCM00	13.63
Oman	OMNCY00	114.32	OMNFA00	2.48	OMNCN00	111.85	PCABS00	93.90	OMNCM00	16.12
Saharan Blend	SHNCY00	120.04	TDDGI00	1.55	SHNCN00	118.50	AAGZY00	94.43	SHNCM00	24.07
Urals*	URNCY00	117.54					PCAFW00	83.67	URNCM00	33.87
WTI MEH	WTNCY00	119.11	WTNFA00	3.55	WTNCN00	115.56	AAAYR00	91.68	WTNCM00	23.71

\*Indicates the crude price is a CIF value

## Mediterranean (PGA page 1821)

	Crack Yield		Freight		Crack Netback		Crude Price		Crack Margin	
Agbami	AGNCY00	118.42	AGMFA00	2.09	AGMCN00	116.33	AAQZB00	92.53	AGMCM00	23.80
Arab Heavy	AHMCY00	108.39	TDDAI00	1.39	AHMCN00	107.01	AAAXDH00	95.60	AHMCM00	12.76
Arab Light	LIMCY00	115.27	TDDAQ00	1.35	LIMCN00	113.92	AAAXDK00	99.50	LIMCM00	15.67
Arab Medium	MEMCY00	110.46	TDDAY00	1.37	MEMCN00	109.09	AAAXDM00	98.30	MEMCM00	11.84
Azeri Light*	ZLMCY00	119.71					AAGZX00	100.53	ZLMCM00	19.19
Basrah Medium	BLMCM00	109.62	TDDBR00	2.02	BLMCN00	107.60	BSMAM01	94.68	BLMCM00	13.66
Bonny Light	YLMCY00	120.98	YLMFA00	2.28	YLMCN00	118.70	PCAIC00	95.78	YLMCM00	22.92
Cabinda	CBMCM00	112.94	CBMFA00	2.49	CBMCN00	110.45	PCAFD00	95.78	CBMCM00	14.67
CPC Blend*	CPMCM00	117.07					AAGZU00	93.03	CPMCM00	24.04
Eagle Ford	EAMCY00	117.68	TNEIF00	3.74	EAMCN00	113.94	AAAYAT00	91.56	EAMCM00	22.44
Forties	FTMCM00	116.95	FTMFA00	1.95	FTMCN00	114.99	PCADJ00	95.19	FTMCM00	19.81
Iran Heavy	BHMCM00	113.34	TDDDF00	1.98	BHMCN00	111.36	AIHKA00	93.18	BHMCM00	17.28
Johan Sverdrup	JSMCM00	115.13	JSMFA00	2.07	JSMCN00	113.05	AJSVA00	95.53	JSMCM00	17.52
Kirkuk	KRMCM00	114.21	TDDFF00	1.38	KRMCN00	112.83	AAEJD00	92.20	KRMCM00	16.88
LLS	LLMCM00	122.21	LLMFA00	3.91	LLMCN00	118.30	AAQBB00	92.58	LLMCM00	25.75
Oman	OMMCM00	113.28	OMMFA00	1.82	OMMCN00	111.46	PCABS00	93.90	OMMCM00	15.74
Saharan Blend	SHMCM00	118.22	TDDFG00	1.19	SHMCN00	117.02	AAGZY00	94.43	SHMCM00	22.60
Urals*	URMCM00	114.43					PCACE00	84.55	URMCM00	29.89

## Commodity Insights Analytics Asian yields &amp; netbacks effective September 14, 2023 (\$/barrel)

## Singapore (PGA page 2811)

	Crack Yield		Freight		Crack Netback		Crude Price		Crack Margin	
Agbami	AGSCY00	108.76	AGSFA00	2.05	AGSCN00	106.72	AAQZB00	92.53	AGSCM00	15.13
Arab Berri	BESCY00	107.42	BESFA00	1.21	BESCN00	106.20	AAAXDV00	96.43	BESCM00	9.78
Arab Heavy	AHSCY00	97.30	TDDA000	1.25	AHSCN00	96.04	AAAXDG00	95.48	AHSCM00	0.57
Arab Light	LISCY00	105.18	TDDAM00	1.24	LISCN00	103.94	AAAXDJ00	97.38	LISCM00	6.56
Arab Medium	MESCY00	99.73	TDDBE00	1.25	MESCN00	98.48	AAAXDL00	97.23	MESCM00	1.26
Basrah Medium	BHSCY00	99.74	BHSFA00	1.30	BHSCN00	98.44	BSMAM01	94.68	BHSCM00	3.16
Bonny Light	YLSCY00	111.53	YLSFA00	2.20	YLSCN00	109.33	PCAIC00	95.78	YLSCM00	14.49
Cabinda	CBSCY00	107.38	TDDQS00	2.12	CBSCN00	105.25	PCAFD00	95.78	CBSCM00	10.41
Castilla	CSSCY00	89.43	CSSFA00	3.72	CSSCN00	85.71	AAVEQ00	85.70	CSSCM00	1.01
Dalia	DLSCY00	109.88	DLSFA00	2.19	DLSCN00	107.69	AAQYX00	94.18	DLSCM00	14.45
Dubai	DBSCY00	104.86	TDDCQ00	1.17	DBSCN00	103.69	PCAAAT00	93.85	DBSCM00	9.84
Duri	DRSCY00	105.27	TDDCR00	1.71	DRSCN00	103.56	PCABA00	97.66	DRSCM00	5.90
Eagle Ford	EASCY00	107.89	EASFA00	3.25	EASCN00	104.65	AAAYAT00	91.56	EASCM00	14.09
ESPO	ESSCY00	107.53	ESSFA00	1.55	ESSCN00	105.98	AARWF00	87.25	ESSCM00	18.73

\*Indicates the crude price is a CIF value

## Singapore (PGA page 2811)

	Crack Yield		Freight		Crack Netback		Crude Price		Crack Margin	
Forties	FTSCY00	106.12	TNEFD00	2.90	FTSCN00	103.22	PCADJ00	95.19	FTSCM00	8.98
Kimanis	KISCY00	119.65	KISFA00	1.54	KISCN00	118.11	AASCL00	102.66	KISCM00	15.45
LLS	LLSCY00	111.21	LLSFA00	3.38	LLSCN00	107.83	AAZDC00	91.52	LLSCM00	16.22
Mars	MRSCY00	102.89	MRSFA00	3.49	MRSCN00	99.40	AAMBR00	90.41	MRSCM00	9.99
Maya	MYSCY00	94.96	MYSFA00	3.66	MYSCN00	91.30	AAYXG00	87.48	MYSCM00	3.82
Minas	MNSCY00	108.93	TDDDX00	1.55	MNSCN00	107.37	PCAB000	88.09	MNSCM00	19.28
Oman	OMSCY00	101.06	TDDDE00	1.12	OMSCN00	99.94	PCABS00	93.90	OMSCM00	6.04
Qua lboe	QBSY00	112.18	QBSFA00	2.21	QBSCN00	109.98	PCAI000	97.03	QBSCM00	13.89
Saharan Blend	SHSCY00	105.42	SHSFA00	2.02	SHSCN00	103.40	AAGZY00	94.43	SHSCM00	9.10
Tapis	TPSCY00	109.47	TDDE000	1.52	TPSCN00	107.95	PCACB00	97.71	TPSCM00	10.24
Tupi*	LUSCY00	107.62					LUQDA00	94.82	LUSCM00	13.33
Urals	URSCY00	105.07	URSFA00	2.09	URSCN00	102.98	AAGZS00	81.40	URSCM00	22.52
WTI MEH	WTSCY00	107.54	WTSFA00	3.30	WTSCN00	104.24	AAZDF00	90.87	WTSCM00	13.33



# Crude Carbon Intensity

A daily supplement to Crude Oil Marketwire

## Platts crude carbon intensity assessments - grades, September 14, 2023 (PGA/PCR page 4206)

	Daily Carbon Intensity Premium		Monthly Carbon Intensity*		
	Symbol	\$/b	Symbol	Date	kg CO2 eq/b
<b>Africa</b> (PGA/PCR page 4206)					
Saharan Blend	AGIN600	0.36	AGIN040	Jul-23	26.04
<b>North America</b> (PGA/PCR page 4206)					
WTI Midland	WXTIC00	0.54	WXTIC40	Jul-23	38.76
<b>Europe</b> (PGA/PCR page 4206)					
Brent	BXREC00	0.86	BXREC40	Jul-23	61.84
Ekofisk	EXKOC00	0.32	EXKOC40	Jul-23	22.87
Forties	FXORC00	0.32	FXORC40	Jul-23	23.19
Oseberg	OXSEC00	1.22	OXSEC40	Jul-23	87.79
Troll	TXROC00	3.11	TXROC40	Jul-23	224.87
<b>Middle East</b> (PGA/PCR page 4206)					
Al-Shaheen	AGINC00	0.13	AGINK40	Jul-23	9.58
Arab Light	AGINF00	0.26	AGINN40	Jul-23	18.85
Das Blend	AGINE00	0.34	AGINM40	Jul-23	24.24
Dubai	AGINA00	0.37	AGINI40	Jul-23	26.37
Murban	AGINH00	0.32	AGINP40	Jul-23	23.11
Oman	AGINB00	0.27	AGINJ40	Jul-23	19.21
UpperZakum	AGIND00	0.18	AGINL40	Jul-23	12.87

Upstream CI values are modelled on a marginal basis and are published monthly. CI Premiums are assessed daily.

\*Upstream marginal CI value is assessed from the field to the storage terminal.

Details on the Platts methodology can be found at [spglobal.com/commodityinsights/](https://spglobal.com/commodityinsights/).

## Platts crude carbon intensity assessments - fields, September 14, 2023 (PGA page 4200)

	Daily Carbon Intensity Premium		Monthly Carbon Intensity*			Daily Transport Carbon Intensity Premium			Monthly Transport Carbon Intensity**		
	Symbol	\$/boe	Symbol	Date	kg CO2 eq/boe	Route	Symbol	\$/b	Symbol	Date	kg CO2 eq/b
<b>Asia Pacific &amp; Middle East Fields</b> (PGA/PCR page 4201)											
<b>China</b>											
Bozhong	BOZHC00	0.47	BOZHC40	Jul-23	33.80	Bohai Pengbo-Singapore	BOZHC10	0.06	BOZHC50	Jul-23	4.24
<b>India</b>											
Bombay High	MUMBC00	0.35	MUMBC40	Jul-23	25.19	Bombay High-Qingdao	MUMBC10	0.09	MUMBC50	Jul-23	6.80
<b>Iran</b>											
Marun	MARUC00	0.50	MARUC40	Jul-23	35.71	Kharg Island-Qingdao	MARUC10	0.12	MARUC50	Jul-23	8.96
<b>Iraq</b>											
Kirkuk	KIRKC00	0.61	KIRKC40	Jul-23	43.95	Ceyhan-R'dam	KIRKC10	0.06	KIRKC50	Jul-23	4.55
Rumaila	RUMAC00	0.30	RUMAC40	Jul-23	21.59	Al Basrah-Sikka	RUMAC10	0.03	RUMAC50	Jul-23	2.09

## Platts crude carbon intensity assessments - fields (continued) (PGA page 4200)

	Daily Carbon Intensity Premium		Monthly Carbon Intensity*			Daily Transport Carbon Intensity Premium			Monthly Transport Carbon Intensity**		
	Symbol	\$/boe	Symbol	Date	kg CO2 eq/boe	Route	Symbol	\$/b	Symbol	Date	kg CO2 eq/b
West Qurna-2	WESTC00	0.67	WESTC40	Jul-23	48.57	Al Basrah-Sikka	WESTC10	0.03	WESTC50	Jul-23	2.22
Zubair	ZUBAC00	0.61	ZUBAC40	Jul-23	43.91	Al Basrah-Sikka	ZUBAC10	0.03	ZUBAC50	Jul-23	2.09
<b>Kuwait</b>											
Burgan	BURGC00	0.23	BURGC40	Jul-23	16.85	Mina-Ulsan	BURGC10	0.13	BURGC50	Jul-23	9.31
<b>Oman</b>											
Oman Basin	AMRGF00	0.25	AMRGS40	Jul-23	18.23	Salalah-Tranmere	ASITF10	0.12	ASITS50	Jul-23	8.59
<b>Qatar</b>											
Al-Shaheen	AMRGE00	0.12	AMRGR40	Jul-23	8.73	Al-Shaheen-Singapore	ASITE10	0.08	ASITR50	Jul-23	5.63
Dukhan	DUKHC00	1.59	DUKHC40	Jul-23	115.04	Mesaieed-Singapore	DUKHC10	0.07	DUKHC50	Jul-23	5.03
<b>Saudi Arabia</b>											
Abu Hadriya	AMRGI00	0.25	AMRGV40	Jul-23	18.16	Ras Tanura-Ain Sukhna	ASITI10	0.02	ASITV50	Jul-23	1.27
Ghawar	GHWRC00	0.25	GHWRC40	Jul-23	17.70	Ras Tanura-Qingdao	GHWRC10	0.12	GHWRC50	Jul-23	8.33
Khurais	AMRGH00	0.25	AMRGU40	Jul-23	17.84	Ras Tanura-Ain Sukhna	ASITH10	0.02	ASITU50	Jul-23	1.20
Safaniya	SAFAC00	0.22	SAFAC40	Jul-23	15.52	Ras Tanura-Changxing	SAFAC10	0.13	SAFAC50	Jul-23	9.53
Zuluf	ZULUC00	0.31	ZULUC40	Jul-23	22.23	Ras Tanura-Changxing	ZULUC10	0.13	ZULUC50	Jul-23	9.24
<b>UAE</b>											
Abu Al Bukhoosh	AMRGM00	0.16	AMRGZ40	Jul-23	11.27	Zirku-Sikka	ASITM10	0.02	ASITZ50	Jul-23	1.65
El Bunduq	AMRGL00	0.50	AMRGY40	Jul-23	35.91	Zirku-Sikka	ASITL10	0.02	ASITY50	Jul-23	1.57
Falah	AMRGA00	0.14	AMRGN40	Jul-23	10.33	Falah-Kiire	ASITA10	0.14	ASITN50	Jul-23	10.36
Fateh	FATEC00	0.24	FATEC40	Jul-23	17.03	Fateh-Kiire	FATEC10	0.12	FATEC50	Jul-23	8.56
Lower Zakum	AMRGD00	0.16	AMRGQ40	Jul-23	11.58	Zirku-Sikka	ASITD10	0.02	ASITQ50	Jul-23	1.70
Murban	MURBC00	0.27	MURBC40	Jul-23	19.20	Fujairah-Chiba	MURBC10	0.12	MURBC50	Jul-23	8.55
Nasr	AMRGK00	0.21	AMRGX40	Jul-23	15.02	Zirku-Sikka	ASITK10	0.02	ASITX50	Jul-23	1.62
Rashid	AMRGB00	0.38	AMRGO40	Jul-23	27.29	Mina-Kiire	ASITB10	0.14	ASITQ50	Jul-23	10.17
Umm Shaif	AMRGJ00	0.31	AMRGW40	Jul-23	22.69	Zirku-Sikka	ASITJ10	0.02	ASITW50	Jul-23	1.60
Upper Zakum	AMRGC00	0.16	AMRGP40	Jul-23	11.58	Zirku-Zhoushan	ASITC10	0.13	ASITP50	Jul-23	9.05
<b>Africa Fields (PGA/PCR page 4202)</b>											
<b>Algeria</b>											
Hassi Messaoud	AMRGG00	0.31	AMRGT40	Jul-23	22.16	Skikda-Tranmere	ASITG10	0.03	ASITT50	Jul-23	2.07
<b>Angola</b>											
Girassol	GRSLC00	0.16	GRSLC40	Jul-23	11.81	Girassol-Qingdao	GRSLC10	0.18	GRSLC50	Jul-23	13.18
<b>Libya</b>											
Waha	WAHAC00	0.48	WAHAC40	Jul-23	34.64	Zawia-Augusta	WAHAC10	0.01	WAHAC50	Jul-23	0.44
<b>Nigeria</b>											
Agbami	AGBAC00	0.37	AGBAC40	Jul-23	26.75	Agbami-Paradip	AGBAC10	0.14	AGBAC50	Jul-23	10.25
Bonga	BONGC00	0.17	BONGC40	Jul-23	12.35	Bonga-R'dam	BONGC10	0.09	BONGC50	Jul-23	6.26
<b>Europe Fields (PGA/PCR page 4202)</b>											
<b>Azerbaijan</b>											
Azeri	AZERC00	0.25	AZERC40	Jul-23	18.10	Ceyhan-Sarroch	AZERC10	0.03	AZERC50	Jul-23	1.93
<b>Kazakhstan</b>											
Tengiz	TNGZC00	0.28	TNGZC40	Jul-23	20.32	Novo-R'dam	TNGZC10	0.06	TNGZC50	Jul-23	4.62
<b>Norway</b>											
Alvheim	ALVHC00	0.11	ALVHC40	Jul-23	7.84	Alvheim-Le Havre	ALVHC10	0.01	ALVHC50	Jul-23	0.85

## Platts crude carbon intensity assessments - fields (continued) (PGA page 4200)

	Daily Carbon Intensity Premium		Monthly Carbon Intensity*			Daily Transport Carbon Intensity Premium			Monthly Transport Carbon Intensity**		
	Symbol	\$/boe	Symbol	Date	kg CO2 eq/boe	Route	Symbol	\$/b	Symbol	Date	kg CO2 eq/b
Brage	BRAGC00	1.00	BRAGC40	Jul-23	72.30	Sture - Brofjorden	BRAGC10	0.01	BRAGC50	Jul-23	0.48
Edvard-Grieg	EDVAC00	0.06	EDVAC40	Jul-23	4.33	Edvard Grieg-Sarroch	EDVAC10	0.04	EDVAC50	Jul-23	2.97
Ekofisk	EKFSC00	0.38	EKFSC40	Jul-23	27.50	Teesside-R'dam	EKFSC10	0.01	EKFSC50	Jul-23	0.36
Embla	EMBLC00	0.07	EMBLC40	Jul-23	5.37	Teesside-R'dam	EMBLC10	0.01	EMBLC50	Jul-23	0.36
Fram	FRAMC00	0.36	FRAMC40	Jul-23	25.75	Mongstad-R'dam	FORTD10	0.01	FORTD50	Jul-23	0.84
Goliat	GOLIC00	0.03	GOLIC40	Jul-23	2.20	Goliat-R'dam	GOLIC10	0.02	GOLIC50	Jul-23	1.73
Grane	GRANC00	0.06	GRANC40	Jul-23	4.44	Sture-Immingham	GRANC10	0.01	GRANC50	Jul-23	0.63
Gullfaks	GULLC00	0.24	GULLC40	Jul-23	16.96	Gullfaks-Brofjorden	GULLC10	0.01	GULLC50	Jul-23	0.46
Heidrun	HEIDC00	0.17	HEIDC40	Jul-23	12.41	Heidrun-R'dam	HEIDC10	0.02	HEIDC50	Jul-23	1.22
Ivar-Aasen	IVARC00	0.03	IVARC40	Jul-23	2.45	Ivar Aasen-R'dam	IVARC10	0.01	IVARC50	Jul-23	0.80
Johan Sverdrup	JSVRC00	0.02	JSVRC40	Jul-23	1.58	Mongstad-R'dam	JSVRC10	0.01	JSVRC50	Jul-23	0.79
Oseberg	OSEBC00	0.27	OSEBC40	Jul-23	19.72	Sture-R'dam	OSEBC10	0.01	OSEBC50	Jul-23	0.69
Snorre	SNORC00	0.19	SNORC40	Jul-23	14.03	Snorre-Statfjord	SNORC10	0.00	SNORC50	Jul-23	0.14
Statfjord	STATC00	5.67	STATC40	Jul-23	409.11	Statfjord-R'dam	STATC10	0.01	STATC50	Jul-23	0.75
Troll	TROLC00	0.27	TROLC40	Jul-23	19.67	Mongstad-R'dam	TROLC10	0.01	TROLC50	Jul-23	0.79
Ula	ULACC00	0.66	ULACC40	Jul-23	47.82	Teesside-R'dam	ULACC10	0.01	ULACC50	Jul-23	0.37
Valhall	VALHC00	0.07	VALHC40	Jul-23	5.16	Valhall-R'dam	VALHC10	0.01	VALHC50	Jul-23	0.35
<b>United Kingdom</b>											
Alwyn North	ALWYC00	0.06	ALWYC40	Jul-23	4.38	Sullom Voe-R'dam	ALWYC10	0.01	ALWYC50	Jul-23	0.81
Arbroath	ARBRC00	0.12	ARBRC40	Jul-23	8.61	Houndpoint-R'dam	ARBRC10	0.01	ARBRC50	Jul-23	0.55
Auk	AUKCD00	0.58	AUKCC40	Jul-23	41.55	Teesside-R'dam	AUKCC10	0.01	AUKCC50	Jul-23	0.37
Brae	BRAEC00	0.15	BRAEC40	Jul-23	10.86	Houndpoint-R'dam	BRAEC10	0.01	BRAEC50	Jul-23	0.56
Bruce	BRUCC00	0.78	BRUCC40	Jul-23	56.02	Houndpoint-R'dam	BRUCC10	0.01	BRUCC50	Jul-23	0.56
Buzzard	BZRDC00	0.26	BZRDC40	Jul-23	18.99	Houndpoint-R'dam	BZRDC10	0.01	BZRDC50	Jul-23	0.53
Captain	CAPTC00	0.40	CAPTC40	Jul-23	29.01	Captain-Hamburg	CAPTC10	0.01	CAPTC50	Jul-23	0.72
Catcher	CATCC00	0.21	CATCC40	Jul-23	15.30	Catcher-R'dam	CATCC10	0.01	CATCC50	Jul-23	0.48
Clair	CLAIC00	0.14	CLAIC40	Jul-23	10.12	Clair-Stanlow	CLAIC10	0.01	CLAIC50	Jul-23	0.91
Clyde	CLYDC00	0.17	CLYDC40	Jul-23	11.96	Teesside-R'dam	CLYDC10	0.01	CLYDC50	Jul-23	0.37
Cormorant	CORMC00	0.80	CORMC40	Jul-23	57.89	Sullom Voe-R'dam	CORMC10	0.01	CORMC50	Jul-23	0.82
Everest	EVERC00	0.19	EVERC40	Jul-23	14.03	Houndpoint-R'dam	EVERC10	0.01	EVERC50	Jul-23	0.55
Forties	FORTC00	0.25	FORTC40	Jul-23	17.86	Houndpoint-R'dam	FORTC10	0.01	FORTC50	Jul-23	0.56
Gannet	GANNC00	0.24	GANNC40	Jul-23	17.56	Teesside-R'dam	GANNC10	0.01	GANNC50	Jul-23	0.38
Golden-Eagle	GOLDC00	0.29	GOLDC40	Jul-23	20.59	Golden Eagle-Grangemouth	GOLDC10	0.00	GOLDC50	Jul-23	0.14
Joanne	JOANC00	0.08	JOANC40	Jul-23	5.98	Teesside-R'dam	JOANC10	0.01	JOANC50	Jul-23	0.37
Judy	JUDYC00	0.36	JUDYC40	Jul-23	26.31	Teesside-R'dam	JUDYC10	0.01	JUDYC50	Jul-23	0.38
Kraken	KRAKC00	0.26	KRAKC40	Jul-23	18.47	Kraken-R'dam	KRAKC10	0.01	KRAKC50	Jul-23	0.80
Magnus	MAGNC00	0.16	MAGNC40	Jul-23	11.41	Sullom Voe-R'dam	MAGNC10	0.01	MAGNC50	Jul-23	0.81
Mariner	MARIC00	0.77	MARIC40	Jul-23	55.91	Mariner-Pascagoula	MARIC10	0.10	MARIC50	Jul-23	6.85
Nelson	NELSC00	0.13	NELSC40	Jul-23	9.58	Houndpoint-R'dam	NELSC10	0.01	NELSC50	Jul-23	0.55
Ninian	NINIC00	2.16	NINIC40	Jul-23	155.89	Sullom Voe-R'dam	NINIC10	0.01	NINIC50	Jul-23	0.83
Schiehallion	SCHIC00	0.24	SCHIC40	Jul-23	17.07	Schiellhallion-R'dam	SCHIC10	0.01	SCHIC50	Jul-23	0.85
Scott	SCOTC00	0.14	SCOTC40	Jul-23	10.01	Houndpoint-R'dam	SCOTC10	0.01	SCOTC50	Jul-23	0.55
Tiffany	TIFFC00	0.23	TIFFC40	Jul-23	16.47	Houndpoint-R'dam	TIFFC10	0.01	TIFFC50	Jul-23	0.55
Toni	TONIC00	0.23	TONIC40	Jul-23	16.90	Houndpoint-R'dam	TONIC10	0.01	TONIC50	Jul-23	0.55
<b>Russia</b>											
Samotlor	SAMOC00	0.40	SAMOC40	Jul-23	28.78	Primorsk-R'dam	SAMOC10	0.03	SAMOC50	Jul-23	1.97

**Platts crude carbon intensity assessments - fields** (continued) (PGA page 4200)

Daily Carbon Intensity Premium		Monthly Carbon Intensity*			Daily Transport Carbon Intensity Premium			Monthly Transport Carbon Intensity**			
Symbol	\$/boe	Symbol	Date	kg CO2 eq/boe	Route	Symbol	\$/b	Symbol	Date	kg CO2 eq/b	
<b>North America Fields</b>											
<b>Canada (PGA/PCR page 4204)</b>											
Bakken-Canada	BAKKC00	0.47	BAKKC40	Jul-23	33.92	Canada-USMW	BAKKC10	0.05	BAKKC50	Jul-23	3.91
Cold Lake	CDLKC00	1.16	CDLKC40	Jul-23	83.45	W Canada-USMW	CDLKC10	0.07	CDLKC50	Jul-23	4.86
CVE Christina Lake	CVECC00	0.62	CVECC40	Jul-23	44.39	Canada-USMW	CVECC10	0.07	CVECC50	Jul-23	4.86
Foster Creek	FOSTC00	0.83	FOSTC40	Jul-23	60.07	Canada-USGC	FOSTC10	0.08	FOSTC50	Jul-23	5.69
Hebron	HEBRC00	0.14	HEBRC40	Jul-23	9.77	Hebron-Canada	HEBRC10	0.12	HEBRC50	Jul-23	8.89
Hibernia	HIBEC00	0.41	HIBEC40	Jul-23	29.51	Hibernia-Canada	HIBEC10	0.14	HIBEC50	Jul-23	9.82
Jackfish	JACKC00	0.93	JACKC40	Jul-23	67.24	Canada-USMW	JACKC10	0.06	JACKC50	Jul-23	4.37
MEG Christina Lake	MEGCC00	0.81	MEGCC40	Jul-23	58.43	Canada-USGC	MEGCC10	0.08	MEGCC50	Jul-23	5.99
Montney Shale	MONTC00	0.38	MONTC40	Jul-23	27.40	Montney-Canada	MONTC10	0.01	MONTC50	Jul-23	0.81
Surmont	SURMC00	0.87	SURMC40	Jul-23	62.95	Canada-USGC	SURMC10	0.08	SURMC50	Jul-23	5.54
<b>United States (PGA/PCR page 4205)</b>											
Bakken	BAKNC00	0.27	BAKNC40	Jul-23	19.17	Beaumont-R'dam	BAKNC10	0.09	BAKNC50	Jul-23	6.46
Denver-Julesburg	DENVC00	0.39	DENVC40	Jul-23	28.35	Denver-USGC	DENVC10	0.03	DENVC50	Jul-23	2.47
Eagle Ford	EGFDC00	0.24	EGFDC40	Jul-23	17.37	Houston-Qingdao	EGFDC10	0.18	EGFDC50	Jul-23	12.85
Mars-Ursa	MRURC00	0.19	MRURC40	Jul-23	13.72	Mars-Qingdao	MRURC10	0.19	MRURC50	Jul-23	14.04
Permian Delaware	PRDLC00	0.24	PRDLC40	Jul-23	17.13	Corpus Christi-R'dam	PRDLC10	0.09	PRDLC50	Jul-23	6.51
Permian Midland	PRMDC00	0.28	PRMDC40	Jul-23	20.19	Corpus Christi-R'dam	PRMDC10	0.09	PRMDC50	Jul-23	6.70
Prudhoe-Bay	PRUDC00	0.44	PRUDC40	Jul-23	32.01	Alaska-USWC	PRUDC10	0.04	PRUDC50	Jul-23	2.86
San-Joaquin	SANMC00	2.44	SANMC40	Jul-23	175.89	San Joaquin-SoCal	SANAC10	0.01	SANAC50	Jul-23	0.77
SCOOP-STACK	SCOOC00	0.45	SCOOC40	Jul-23	32.36	Oklahoma-USGC	SCOOC10	0.01	SCOOC50	Jul-23	1.01
Tahiti	TAHIC00	0.23	TAHIC40	Jul-23	16.48	Tahiti-Yeosu	TAHIC10	0.18	TAHIC50	Jul-23	13.15
<b>Latin America Fields (PGA/PCR page 4203)</b>											
<b>Brazil</b>											
Tupi	TUPIC00	0.17	TUPIC40	Jul-23	12.00	Rio-Qingdao	TUPIC10	0.22	TUPIC50	Jul-23	15.64
<b>Colombia</b>											
Cusiana	CUSIC00	0.30	CUSIC40	Jul-23	21.52	Tolu-Houston	CUSIC10	0.03	CUSIC50	Jul-23	2.28
<b>Ecuador</b>											
Sacha	SACHC00	0.28	SACHC40	Jul-23	20.31	Esmeraldas-Long Beach	SACHC10	0.06	SACHC50	Jul-23	4.57
<b>Mexico</b>											
Cantarell	CNTLC00	0.22	CNTLC40	Jul-23	15.62	Cantarell-Bilbao	CNTLC10	0.10	CNTLC50	Jul-23	7.22
<b>Venezuela</b>											
Orinoco Oil Belt	ORINC00	3.12	ORINC40	Jul-23	225.40	Jose-Sikka	ORINC10	0.20	ORINC50	Jul-23	14.29

Upstream CI values are modelled on a marginal basis and are published monthly. Carbon Intensity Premiums are assessed daily. Venezuela's Orinoco Belt upstream marginal carbon intensity is calculated using only the Hamaca basin.

\*Upstream marginal CI number is assessed from the field to the storage terminal. \*\*Transport CI is calculated from storage terminal to refinery gate and for shipping routes assumes an Aframax vessel.

Details on the Platts methodology can be found at [spglobal.com/commodityinsights/](https://spglobal.com/commodityinsights/).