

**SUBMISSION COVER SHEET**

**IMPORTANT:** Check box if Confidential Treatment is requested

Registered Entity Identifier Code (optional): 18-275 (7 of 12)

Organization: New York Mercantile Exchange, Inc. ("NYMEX")

Filing as a:  DCM  SEF  DCO  SDR

Please note - only ONE choice allowed.

Filing Date (mm/dd/yy): 07/13/2018 Filing Description: Initial Listing Twelve (12) Crude Oil Spread Futures Contracts

**SPECIFY FILING TYPE**

Please note only ONE choice allowed per Submission.

**Organization Rules and Rule Amendments**

- Certification § 40.6(a)
- Approval § 40.5(a)
- Notification § 40.6(d)
- Advance Notice of SIDCO Rule Change § 40.10(a)
- SIDCO Emergency Rule Change § 40.10(h)

**Rule Numbers:**

**New Product**

Please note only ONE product per Submission.

- Certification § 40.2(a)
- Certification Security Futures § 41.23(a)
- Certification Swap Class § 40.2(d)
- Approval § 40.3(a)
- Approval Security Futures § 41.23(b)
- Novel Derivative Product Notification § 40.12(a)
- Swap Submission § 39.5

Official Product Names: See filing.

**Product Terms and Conditions (product related Rules and Rule Amendments)**

- Certification § 40.6(a)
- Certification Made Available to Trade Determination § 40.6(a)
- Certification Security Futures § 41.24(a)
- Delisting (No Open Interest) § 40.6(a)
- Approval § 40.5(a)
- Approval Made Available to Trade Determination § 40.5(a)
- Approval Security Futures § 41.24(c)
- Approval Amendments to enumerated agricultural products § 40.4(a), § 40.5(a)
- "Non-Material Agricultural Rule Change" § 40.4(b)(5)
- Notification § 40.6(d)

Official Name(s) of Product(s) Affected

Rule Numbers:

July 13, 2018

**VIA ELECTRONIC PORTAL**

Mr. Christopher J. Kirkpatrick  
 Office of the Secretariat  
 Commodity Futures Trading Commission  
 Three Lafayette Centre  
 1155 21st Street, N.W.  
 Washington, D.C. 20581

**Re: CFTC Regulation 40.2(a) Certification. Notification Regarding the Initial Listing of Twelve (12) Crude Oil Spread Futures Contracts. NYMEX Submission No. 18-275 (7 of 12)**

Dear Mr. Kirkpatrick:

New York Mercantile Exchange, Inc. (“NYMEX” or “Exchange”) is notifying the Commodity Futures Trading Commission (“CFTC” or “Commission”) that it is self-certifying the initial listing of twelve (12) crude oil spread futures contracts (the “Contracts”) for trading on the CME Globex electronic trading platform and for submission for clearing via CME ClearPort, effective on Sunday, July 29, 2018 for trade date Monday, July 30, 2018, as set forth in the table below.

Contract Title	NYMEX Rulebook Chapter	Commodity Code	Termination of Trading
WTI Houston (Argus) vs. Dubai (Platts) Trade Month Futures	1309	WHD	The last business day that falls on or before the 25th calendar day of the month prior to the contract month.
WTI Houston (Argus) vs. Dubai (Platts) Calendar Month Futures	1310	WDB	The last business day of the contract month.
WTI Houston (Argus) vs. Brent Trade Month Futures	1311	WHB	The last business day that falls on or before the 25th calendar day of the month prior to the contract month.
WTI Houston (Argus) vs. Brent Calendar Month Futures	1312	WBR	The last business day of the contract month.
WTI Midland (Argus) vs. Brent Trade Month Futures	1313	WMB	The last business day that falls on or before the 25th calendar day of the month prior to the contract month.
WTI Midland (Argus) vs. Brent Calendar Month Futures	1314	WMR	The last business day of the contract month.

WTI Midland (Argus) vs. Dubai (Platts) Trade Month Futures	1315	WMD	The last business day that falls on or before the 25th calendar day of the month prior to the contract month.
WTI Midland (Argus) vs. Dubai (Platts) Calendar Month Futures	1316	WTD	The last business day of the contract month.
Mars (Argus) vs. Dubai (Platts) Trade Month Futures	1317	WDR	The last business day that falls on or before the 25th calendar day of the month prior to the contract month.
Mars (Argus) vs. Dubai (Platts) Calendar Month Futures	1318	MDM	The last business day of the contract month.
Mars (Argus) vs. Brent Trade Month Futures	1319	MBM	The last business day that falls on or before the 25th calendar day of the month prior to the contract month.
Mars (Argus) vs. Brent Calendar Month Futures	1320	MAB	The last business day of the contract month.

**Additional Specifications of the Contracts:**

<b>Settlement Type</b>	Financial
<b>Contract Size</b>	1,000 barrels
<b>Price Quotation</b>	U.S. dollars and cents per barrel
<b>Minimum Price Fluctuation</b>	\$0.01
<b>Value Per Tick</b>	\$10.00
<b>First Listed Month</b>	September 2018
<b>Listing Schedule</b>	Monthly contracts listed for the current year and the next three (3) calendar years. Additional monthly contracts will be listed for a new calendar year following the termination of trading in the December contract of the current year.
<b>CME Globex Match Algorithm</b>	First In, First Out
<b>Block Trade Minimum Threshold</b>	5 contracts

**Trading and Clearing Hours:**

CME Globex and CME ClearPort	Sunday - Friday 6:00 p.m. - 5:00 p.m. Eastern Time /ET (5:00 p.m. - 4:00 p.m. Central Time/CT) with a 60-minute break each day beginning at 5:00 p.m. ET (4:00 p.m. CT)
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**Exchange Fees:**

	Member	Non-Member	International Incentive Programs (IIP/IVIP)
<b>Exchange Fees</b>			
CME Globex	\$0.85	\$1.35	\$1.10
EFP	\$0.85	\$1.35	
Block	\$0.85	\$1.35	
EFR/EOO	\$0.85	\$1.35	
<b>Processing Fees</b>	<b>Member</b>	<b>Non-Member</b>	
Cash Settlement	\$0.50	\$0.50	
<b>Other Processing Fees</b>			
Facilitation Fee		\$0.60	
Give-Up Surcharge		\$0.05	
Position Adjustment/Transfer		\$0.10	

The Exchange is also notifying the CFTC that it is self-certifying the insertion of the terms and conditions for the new futures contracts into the Position Limit, Position Accountability and Reportable Level Table and Header Notes located in the Interpretations and Special Notices Section of Chapter 5 of the NYMEX Rulebook in relation to the listing of the new contract. These terms and conditions establish the all month/any one-month accountability levels, expiration month position limit, reportable level, and aggregation allocation for the new contract. Please see Exhibit B attached under separate cover.

In addition, NYMEX is self-certifying block trading on these contracts with a minimum block threshold of five (5) contracts. This block level aligns with the Exchange's currently listed WTI Midland (Argus) vs. WTI Financial Futures.

The Exchange reviewed the designated contract market core principles ("Core Principles") as set forth in the Commodity Exchange Act ("CEA" or "Act") and staff identified that the Contracts may have some bearing on the following Core Principles:

**Compliance with Rules:** Trading in the Contracts will be subject to all CME Rules, including prohibitions against fraudulent, noncompetitive, unfair and abusive practices as outlined in CME Rule Chapter 4, the Exchange's trade practice rules, the majority of which are contained in Chapter 5 and Chapter 8 of the CME Rulebook, and the dispute resolution and arbitration procedures of CME Rule Chapter 6. As with all products listed for trading on one of CME Group's designated contract markets, trading activity in the Contract will be subject to monitoring and surveillance by CME Group's Market Regulation Department. The Market Regulation Department has the authority to exercise its investigatory and enforcement power where potential rule violations are identified.

**Contract Not Readily Subject to Manipulation:** The Contracts are based on a cash price series that is reflective of the underlying cash market and is commonly relied on and used as a reference price by cash market brokers and commercial market participants.

**Prevention of Market Disruption:** Trading in the Contracts will be subject to the Rules of CME, which include prohibitions on manipulation, price distortion, and disruption to the cash settlement process. As with any new product listed for trading on a CME Group designated contract market, trading activity in the futures Contract proposed herein will be subject to monitoring and surveillance by CME Group's Market Regulation Department.

**Position Limitations or Accountability:** The speculative position limits for the Contracts as demonstrated in this submission are consistent with the Commission's guidance.

**Availability of General Information:** The Exchange will publish on its website information in regard to contract specifications, terms, and conditions, as well as daily trading volume, open interest, and price information for the Contract. In addition, the Exchange will advise the marketplace of the launch of the Contracts by releasing a Special Executive Report (“SER”). The SER will also be posted on CME Group’s website.

**Daily Publication of Trading Information:** The Exchange will publish contract trading volumes, open interest levels, and price information daily on its website and through quote vendors for the Contracts.

**Execution of Transactions:** The Contracts will be listed for trading on the CME Globex electronic trading and for clearing through CME ClearPort. The CME Globex electronic trading venue provides for competitive and open execution of transactions. CME Globex affords the benefits of reliability and global connectivity.

**Trade Information:** All requisite trade information for the Contracts will be included in the audit trail and is sufficient for the Market Regulation Department to monitor for market abuse.

**Financial Integrity of Contract:** The Contracts will be cleared by the CME Clearing House, a derivatives clearing organization registered with the CFTC and subject to all CFTC regulations related thereto.

**Protection of Market Participants:** CME Rulebook Chapters 4 and 5 set forth multiple prohibitions that preclude intermediaries from disadvantaging their customers. These rules apply to trading in all of the Exchange’s competitive trading venues.

**Disciplinary Procedures:** Chapter 4 of the Rulebook contains provisions that allow the Exchange to discipline, suspend or expel members or market participants that violate the Rulebook. Trading in the Contracts will be subject to Chapter 4, and the Market Regulation Department has the authority to exercise its enforcement power in the event rule violations in these products are identified.

**Dispute Resolution:** Disputes with respect to trading in the Contracts will be subject to the arbitration provisions set forth in Chapter 6 of the Rulebook. Chapter 6 allows all nonmembers to submit a claim for financial losses resulting from transactions on the Exchange to arbitration. A member named as a respondent in a claim submitted by a nonmember is required to participate in the arbitration pursuant to Chapter 6. Additionally, the Exchange requires that members resolve all disputes concerning transactions on the Exchange via arbitration.

Pursuant to Section 5c(c) of the Act and CFTC Regulation 40.2(a), the Exchange hereby certifies that listing the Contracts comply with the Act, including regulations under the Act. There were no substantive opposing views to the listing of the Contracts.

The Exchange certifies that this submission has been concurrently posted on the Exchange’s website at <http://www.cmegroup.com/market-regulation/rule-filings.html>.

Should you have any questions concerning the above, please contact the undersigned at (212) 299-2200 or via e-mail at [CMEGSubmissionInquiry@cmegroup.com](mailto:CMEGSubmissionInquiry@cmegroup.com).

Sincerely,

/s/ Christopher Bowen  
Managing Director and Chief Regulatory Counsel

Attachments: Exhibit A: NYMEX Rulebook Chapters  
Exhibit B: Position Limit, Position Accountability, and Reportable Level Table in Chapter 5 of the NYMEX Rulebook (attached under separate cover)  
Exhibit C: NYMEX Rule 588.H. – (“Globex Non-Reviewable Trading Ranges”) Table  
Exhibit D: Cash Market Overview and Analysis of Deliverable Supply  
Exhibit E: Brent Loadings

**EXHIBIT A**  
**NYMEX Rulebook Chapters**

**Chapter 1309**

**WTI Houston (Argus) vs. Dubai (Platts) Trade Month Futures**

**1309100. SCOPE OF CHAPTER**

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

**1309101. CONTRACT SPECIFICATIONS**

The Floating Price for each contract month is equal to the arithmetic average of the WTI Houston (1st month) weighted average index price from Argus Media minus Dubai (1st month) index price from S&P Global Platts for the Trade month period beginning with the first business day after the 25th calendar day two months prior to the contract month through the last business day that falls on or before the 25th calendar day of the month prior to the contract month. If the 25th calendar day is a weekend or holiday, the Trade month period shall end on the first business day prior to the 25th calendar day.

The Floating Price is calculated using the non-common pricing convention. In calculating the spread differential, the monthly average for each component leg of the spread shall be calculated by using all trading days in the month for each component leg of the spread, followed by the calculation of the spread differential between the two averages.

**1309102. TRADING SPECIFICATIONS**

The number of months open for trading at a given time shall be determined by the Exchange.

**1309102.A. Trading Schedule**

The hours of trading for this contract shall be determined by the Exchange.

**1309102.B. Trading Unit**

The contract quantity shall be 1,000 U.S. barrels. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

**1309102.C. Price Increments**

Prices shall be quoted in U.S. dollars and cents per barrel. The minimum price fluctuation shall be \$0.01 per barrel.

**1309102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels**

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

**1309102.E. Termination of Trading**

Trading shall cease at the close of trading on the last business day that falls on or before the 25th calendar day of the month prior to the contract month. If the 25th calendar day is a weekend or holiday, trading shall cease on the first business day prior to the 25th calendar day.

**1309103. FINAL SETTLEMENT**

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

**1309104. DISCLAIMER**

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## Chapter 1310

### WTI Houston (Argus) vs. Dubai (Platts) Calendar Month Futures

#### **1310100. SCOPE OF CHAPTER**

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

#### **1310101. CONTRACT SPECIFICATIONS**

The Floating Price for each contract month is equal to the arithmetic average of the WTI Houston (1st month) weighted average index price from Argus Media minus Dubai (1st month) index price from S&P Global Platts for each business day that both are determined during the contract month.

The Floating Price is calculated using the non-common pricing convention. In calculating the spread differential, the monthly average for each component leg of the spread shall be calculated by using all trading days in the month for each component leg of the spread, followed by the calculation of the spread differential between the two averages.

#### **1310102. TRADING SPECIFICATIONS**

The number of months open for trading at a given time shall be determined by the Exchange.

##### **1310102.A. Trading Schedule**

The hours of trading for this contract shall be determined by the Exchange.

##### **1310102.B. Trading Unit**

The contract quantity shall be 1,000 U.S. barrels. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

##### **1310102.C. Price Increments**

Prices shall be quoted in U.S. dollars and cents per barrel. The minimum price fluctuation shall be \$0.01 per barrel.

##### **1310102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels**

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

##### **1310102.E. Termination of Trading**

Trading shall cease on the last business day of the contract month.

#### **1310103. FINAL SETTLEMENT**

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

#### **1310104. DISCLAIMER**

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**Chapter 1311**  
**WTI Houston (Argus) vs. Brent Trade Month Futures**

**1311100. SCOPE OF CHAPTER**

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

**1311101. CONTRACT SPECIFICATIONS**

The Floating Price for each contract month is equal to the arithmetic average of the WTI Houston (1st month) weighted average index price from Argus Media minus ICE Brent (1st month) price for the Trade month period beginning with the first business day after the 25th calendar day two months prior to the contract month through the last business day that falls on or before the 25th calendar day of the month prior to the contract month. If the 25th calendar day is a weekend or holiday, the Trade month period shall end on the first business day prior to the 25th calendar day.

The settlement price of the first nearby contract month will be used except on the last day of trading for the expiring Brent Crude Oil Futures contract when the settlement price of the second nearby contract will be used.

The Floating Price is calculated using the non-common pricing convention. In calculating the spread differential, the monthly average for each component leg of the spread shall be calculated by using all trading days in the month for each component leg of the spread, followed by the calculation of the spread differential between the two averages.

**1311102. TRADING SPECIFICATIONS**

The number of months open for trading at a given time shall be determined by the Exchange.

**1311102.A. Trading Schedule**

The hours of trading for this contract shall be determined by the Exchange.

**1311102.B. Trading Unit**

The contract quantity shall be 1,000 U.S. barrels. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

**1311102.C. Price Increments**

Prices shall be quoted in U.S. dollars and cents per barrel. The minimum price fluctuation shall be \$0.01 per barrel.

**1311102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels**

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

**1311102.E. Termination of Trading**

Trading shall cease at the close of trading on the last business day that falls on or before the 25th calendar day of the month prior to the contract month. If the 25th calendar day is a weekend or holiday, trading shall cease on the first business day prior to the 25th calendar day.

**1311103. FINAL SETTLEMENT**

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

**1311104. DISCLAIMER**

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or sale of NYMEX products which reference Argus or WTI Houston Index and excludes all liability in relation thereto.

## Chapter 1312 WTI Houston (Argus) vs. Brent Calendar Month Futures

### 1312100. SCOPE OF CHAPTER

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

### 1312101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is equal to the arithmetic average of the WTI Houston (1st month) weighted average index price from Argus Media minus ICE Brent (1st month) price for each business day that both are determined during the contract month.

The settlement price of the first nearby contract month will be used except on the last day of trading for the expiring Brent Crude Oil Futures contract when the settlement price of the second nearby contract will be used.

The Floating Price is calculated using the non-common pricing convention. In calculating the spread differential, the monthly average for each component leg of the spread shall be calculated by using all trading days in the month for each component leg of the spread, followed by the calculation of the spread differential between the two averages.

### 1312102. TRADING SPECIFICATIONS

The number of months open for trading at a given time shall be determined by the Exchange.

#### 1312102.A. Trading Schedule

The hours of trading for this contract shall be determined by the Exchange.

#### 1312102.B. Trading Unit

The contract quantity shall be 1,000 U.S. barrels. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

#### 1312102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per barrel. The minimum price fluctuation shall be \$0.01 per barrel.

#### 1312102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

#### 1312102.E. Termination of Trading

Trading shall cease on the last business day of the contract month.

### 1312103. FINAL SETTLEMENT

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

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**Chapter 1313**  
**WTI Midland (Argus) vs. Brent Trade Month Futures**

**1313100. SCOPE OF CHAPTER**

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

**1313101. CONTRACT SPECIFICATIONS**

The Floating Price for each contract month is equal to the arithmetic average of the WTI Midland (1st month) weighted average index price from Argus Media minus ICE Brent (1st month) price for the Trade month period beginning with the first business day after the 25th calendar day two months prior to the contract month through the last business day that falls on or before the 25th calendar day of the month prior to the contract month. If the 25th calendar day is a weekend or holiday, the Trade month period shall end on the first business day prior to the 25th calendar day.

The settlement price of the first nearby contract month will be used except on the last day of trading for the expiring Brent Crude Oil Futures contract when the settlement price of the second nearby contract will be used.

The Floating Price is calculated using the non-common pricing convention. In calculating the spread differential, the monthly average for each component leg of the spread shall be calculated by using all trading days in the month for each component leg of the spread, followed by the calculation of the spread differential between the two averages.

**1313102. TRADING SPECIFICATIONS**

The number of months open for trading at a given time shall be determined by the Exchange.

**1313102.A. Trading Schedule**

The hours of trading for this contract shall be determined by the Exchange.

**1313102.B. Trading Unit**

The contract quantity shall be 1,000 U.S. barrels. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

**1313102.C. Price Increments**

Prices shall be quoted in U.S. dollars and cents per barrel. The minimum price fluctuation shall be \$0.01 per barrel.

**1313102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels**

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

**1313102.E. Termination of Trading**

Trading shall cease at the close of trading on the last business day that falls on or before the 25th calendar day of the month prior to the contract month. If the 25th calendar day is a weekend or holiday, trading shall cease on the first business day prior to the 25th calendar day.

**1313103. FINAL SETTLEMENT**

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

**1313104. DISCLAIMER**

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## **Chapter 1314**

### **WTI Midland (Argus) vs. Brent Calendar Month Futures**

#### **1314100. SCOPE OF CHAPTER**

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

#### **1314101. CONTRACT SPECIFICATIONS**

The Floating Price for each contract month is equal to the arithmetic average of the WTI Midland (1st month) weighted average index price from Argus Media minus ICE Brent (1st month) for each business day that both are determined during the contract month.

The settlement price of the first nearby contract month will be used except on the last day of trading for the expiring Brent Crude Oil Futures contract when the settlement price of the second nearby contract will be used.

The Floating Price is calculated using the non-common pricing convention. In calculating the spread differential, the monthly average for each component leg of the spread shall be calculated by using all trading days in the month for each component leg of the spread, followed by the calculation of the spread differential between the two averages.

#### **1314102. TRADING SPECIFICATIONS**

The number of months open for trading at a given time shall be determined by the Exchange.

##### **1314102.A. Trading Schedule**

The hours of trading for this contract shall be determined by the Exchange.

##### **1314102.B. Trading Unit**

The contract quantity shall be 1,000 U.S. barrels. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

##### **1314102.C. Price Increments**

Prices shall be quoted in U.S. dollars and cents per barrel. The minimum price fluctuation shall be \$0.01 per barrel.

##### **1314102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels**

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

##### **1314102.E. Termination of Trading**

Trading shall cease on the last business day of the contract month.

#### **1314103. FINAL SETTLEMENT**

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

#### **1314104. DISCLAIMER**

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## Chapter 1315

### WTI Midland (Argus) vs. Dubai (Platts) Trade Month Futures

#### 1315100. SCOPE OF CHAPTER

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

#### 1315101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is equal to the arithmetic average of the WTI Midland (1st month) weighted average price from Argus Media minus Dubai (1st month) from S&P Global Platts for the Trade month period beginning with the first business day after the 25th calendar day two months prior to the contract month through the last business day that falls on or before the 25th calendar day of the month prior to the contract month. If the 25th calendar day is a weekend or holiday, the Trade month period shall end on the first business day prior to the 25th calendar day.

The Floating Price is calculated using the non-common pricing convention. In calculating the spread differential, the monthly average for each component leg of the spread shall be calculated by using all trading days in the month for each component leg of the spread, followed by the calculation of the spread differential between the two averages.

#### 1315102. TRADING SPECIFICATIONS

The number of months open for trading at a given time shall be determined by the Exchange.

##### 1315102.A. Trading Schedule

The hours of trading for this contract shall be determined by the Exchange.

##### 1315102.B. Trading Unit

The contract quantity shall be 1,000 U.S. barrels. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

##### 1315102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per barrel. The minimum price fluctuation shall be \$0.01 per barrel.

##### 1315102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

##### 1315102.E. Termination of Trading

Trading shall cease at the close of trading on the last business day that falls on or before the 25th calendar day of the month prior to the contract month. If the 25th calendar day is a weekend or holiday, trading shall cease on the first business day prior to the 25th calendar day.

#### 1315103. FINAL SETTLEMENT

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

#### 1315104. DISCLAIMER

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## Chapter 1316

### WTI Midland (Argus) vs. Dubai (Platts) Calendar Month Futures

#### 1316100. SCOPE OF CHAPTER

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

#### 1316101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is equal to the arithmetic average of the WTI Midland (1st month) weighted average index price from Argus Media minus Dubai (1st month) from S&P Global Platts for each business day that both are determined during the contract month.

The Floating Price is calculated using the non-common pricing convention. In calculating the spread differential, the monthly average for each component leg of the spread shall be calculated by using all trading days in the month for each component leg of the spread, followed by the calculation of the spread differential between the two averages.

#### 1316102. TRADING SPECIFICATIONS

The number of months open for trading at a given time shall be determined by the Exchange.

##### 1316102.A. Trading Schedule

The hours of trading for this contract shall be determined by the Exchange.

##### 1316102.B. Trading Unit

The contract quantity shall be 1,000 U.S. barrels. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

##### 1316102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per barrel. The minimum price fluctuation shall be \$0.01 per barrel.

##### 1316102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

##### 1316102.E. Termination of Trading

Trading shall cease on the last business day of the contract month.

#### 1316103. FINAL SETTLEMENT

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

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**Chapter 1317**  
**Mars (Argus) vs. Dubai (Platts) Trade Month Futures**

**1317100. SCOPE OF CHAPTER**

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

**1317101. CONTRACT SPECIFICATIONS**

The Floating Price for each contract month is equal to the arithmetic average of the Mars (1st month) weighted average index price from Argus Media minus Dubai (1st month) from S&P Global Platts for the Trade month period beginning with the first business day after the 25th calendar day two months prior to the contract month through the last business day that falls on or before the 25th calendar day of the month prior to the contract month. If the 25th calendar day is a weekend or holiday, the Trade month period shall end on the first business day prior to the 25th calendar day.

The Floating Price is calculated using the non-common pricing convention. In calculating the spread differential, the monthly average for each component leg of the spread shall be calculated by using all trading days in the month for each component leg of the spread, followed by the calculation of the spread differential between the two averages.

**1317102. TRADING SPECIFICATIONS**

The number of months open for trading at a given time shall be determined by the Exchange.

**1317102.A. Trading Schedule**

The hours of trading for this contract shall be determined by the Exchange.

**1317102.B. Trading Unit**

The contract quantity shall be 1,000 U.S. barrels. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

**1317102.C. Price Increments**

Prices shall be quoted in U.S. dollars and cents per barrel. The minimum price fluctuation shall be \$0.01 per barrel.

**1317102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels**

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

**1317102.E. Termination of Trading**

Trading shall cease at the close of trading on the last business day that falls on or before the 25th calendar day of the month prior to the contract month. If the 25th calendar day is a weekend or holiday, trading shall cease on the first business day prior to the 25th calendar day.

**1317103. FINAL SETTLEMENT**

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

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## Chapter 1318 Mars (Argus) vs. Dubai (Platts) Calendar Month Futures

### 1318100. SCOPE OF CHAPTER

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

### 1318101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is equal to the arithmetic average of the Mars (1st month) weighted average index price from Argus Media minus Dubai (1st month) from S&P Global Platts for each business day that both are determined during the contract month.

The Floating Price is calculated using the non-common pricing convention. In calculating the spread differential, the monthly average for each component leg of the spread shall be calculated by using all trading days in the month for each component leg of the spread, followed by the calculation of the spread differential between the two averages.

### 1318102. TRADING SPECIFICATIONS

The number of months open for trading at a given time shall be determined by the Exchange.

#### 1318102.A. Trading Schedule

The hours of trading for this contract shall be determined by the Exchange.

#### 1318102.B. Trading Unit

The contract quantity shall be 1,000 U.S. barrels. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

#### 1318102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per barrel. The minimum price fluctuation shall be \$0.01 per barrel.

#### 1318102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

#### 1318102.E. Termination of Trading

Trading shall cease on the last business day of the contract month.

### 1318103. FINAL SETTLEMENT

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

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## Chapter 1319 Mars (Argus) vs. Brent Trade Month Futures

### 1319100. SCOPE OF CHAPTER

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

### 1319101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is equal to the arithmetic average of the Mars (1st month) weighted average index price from Argus Media minus ICE Brent (1st month) for the Trade month period beginning with the first business day after the 25th calendar day two months prior to the contract month through the last business day that falls on or before the 25th calendar day of the month prior to the contract month. If the 25th calendar day is a weekend or holiday, the Trade month period shall end on the first business day prior to the 25th calendar day.

The settlement price of the first nearby contract month will be used except on the last day of trading for the expiring Brent Crude Oil Futures contract when the settlement price of the second nearby contract will be used.

The Floating Price is calculated using the non-common pricing convention. In calculating the spread differential, the monthly average for each component leg of the spread shall be calculated by using all trading days in the month for each component leg of the spread, followed by the calculation of the spread differential between the two averages.

### 1319102. TRADING SPECIFICATIONS

The number of months open for trading at a given time shall be determined by the Exchange.

#### 1319102.A. Trading Schedule

The hours of trading for this contract shall be determined by the Exchange.

#### 1319102.B. Trading Unit

The contract quantity shall be 1,000 U.S. barrels. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

#### 1319102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per barrel. The minimum price fluctuation shall be \$0.01 per barrel.

#### 1319102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

#### 1319102.E. Termination of Trading

Trading shall cease at the close of trading on the last business day that falls on or before the 25th calendar day of the month prior to the contract month. If the 25th calendar day is a weekend or holiday, trading shall cease on the first business day prior to the 25th calendar day.

### 1319103. FINAL SETTLEMENT

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

### 1319104. DISCLAIMER

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## Chapter 1320

### Mars (Argus) vs. Brent Calendar Month Futures

#### 1320100. SCOPE OF CHAPTER

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

#### 1320101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is equal to the arithmetic average of the Mars (1st month) weighted average index price from Argus Media minus ICE Brent (1st month) for each business day that both are determined during the contract month.

The settlement price of the first nearby contract month will be used except on the last day of trading for the expiring Brent Crude Oil Futures contract when the settlement price of the second nearby contract will be used.

The Floating Price is calculated using the non-common pricing convention. In calculating the spread differential, the monthly average for each component leg of the spread shall be calculated by using all trading days in the month for each component leg of the spread, followed by the calculation of the spread differential between the two averages.

#### 1320102. TRADING SPECIFICATIONS

The number of months open for trading at a given time shall be determined by the Exchange.

##### 1320102.A. Trading Schedule

The hours of trading for this contract shall be determined by the Exchange.

##### 1320102.B. Trading Unit

The contract quantity shall be 1,000 U.S. barrels. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

##### 1320102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per barrel. The minimum price fluctuation shall be \$0.01 per barrel.

##### 1320102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

##### 1320102.E. Termination of Trading

Trading shall cease on the last business day of the contract month.

#### 1320103. FINAL SETTLEMENT

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

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**EXHIBIT B**

**Position Limit, Position Accountability, and Reportable Level Table in  
Chapter 5 of the NYMEX Rulebook**

(Attached under separate cover.)

**EXHIBIT C**

**NYMEX Rulebook  
Chapter 5  
("Trading Qualifications and Practices")**

NYMEX Rule 588.H. – ("Globex Non-Reviewable Trading Ranges") Table

(Additions are underscored.)

Instrument Name	Globex Symbol	Outright			Spreads	
		Globex Non-Reviewable Ranges (NRR)	NRR: Globex Format	NRR: Ticks	NRR: Globex Format	NRR: Minimum Outright Ticks
<u>WTI Houston (Argus) vs. Dubai (Platts) Trade Month Futures</u>	<u>WHD</u>	<u>\$1.00 per barrel</u>	<u>100</u>	<u>100</u>	<u>N/A</u>	<u>N/A</u>
<u>WTI Houston (Argus) vs. Dubai (Platts) Calendar Month Futures</u>	<u>WDB</u>	<u>\$1.00 per barrel</u>	<u>100</u>	<u>100</u>	<u>N/A</u>	<u>N/A</u>
<u>WTI Houston (Argus) vs. Brent Trade Month Futures</u>	<u>WHB</u>	<u>\$1.00 per barrel</u>	<u>100</u>	<u>100</u>	<u>N/A</u>	<u>N/A</u>
<u>WTI Houston (Argus) vs. Brent Calendar Month Futures</u>	<u>WBR</u>	<u>\$1.00 per barrel</u>	<u>100</u>	<u>100</u>	<u>N/A</u>	<u>N/A</u>
<u>WTI Midland (Argus) vs. Brent Trade Month Futures</u>	<u>WMB</u>	<u>\$1.00 per barrel</u>	<u>100</u>	<u>100</u>	<u>N/A</u>	<u>N/A</u>
<u>WTI Midland (Argus) vs. Brent Calendar Month Futures</u>	<u>WMR</u>	<u>\$1.00 per barrel</u>	<u>100</u>	<u>100</u>	<u>N/A</u>	<u>N/A</u>
<u>WTI Midland (Argus) vs. Dubai (Platts) Trade Month Futures</u>	<u>WMD</u>	<u>\$1.00 per barrel</u>	<u>100</u>	<u>100</u>	<u>N/A</u>	<u>N/A</u>
<u>WTI Midland (Argus) vs. Dubai (Platts) Calendar Month Futures</u>	<u>WTD</u>	<u>\$1.00 per barrel</u>	<u>100</u>	<u>100</u>	<u>N/A</u>	<u>N/A</u>

<u>Mars (Argus) vs. Dubai (Platts) Trade Month Futures</u>	<u>MDR</u>	<u>\$1.00 per barrel</u>	<u>100</u>	<u>100</u>	<u>N/A</u>	<u>N/A</u>
<u>Mars(Argus) vs. Dubai (Platts) Calendar Month Futures</u>	<u>MDM</u>	<u>\$1.00 per barrel</u>	<u>100</u>	<u>100</u>	<u>N/A</u>	<u>N/A</u>
<u>Mars (Argus) vs. Brent Trade Month Futures</u>	<u>MBM</u>	<u>\$1.00 per barrel</u>	<u>100</u>	<u>100</u>	<u>N/A</u>	<u>N/A</u>

## **EXHIBIT D**

### **Cash Market Overview and Analysis of Deliverable Supply**

#### **Introduction**

New York Mercantile Exchange, Inc. (NYMEX or Exchange) is self-certifying the listing of twelve new crude oil futures contracts. Exchange staff conducted a review of the underlying cash markets and deliverable supply in the WTI Houston, WTI Midland, Dubai, and Brent markets.

The Commission defines deliverable supply as the quantity of the commodity meeting a derivative contract's delivery specifications that can reasonably be expected to be readily available to short traders and saleable by long traders at its market value in normal cash marketing channels at the derivative contract's delivery points during the specified delivery period, barring abnormal movement in interstate commerce. (See Appendix C to 17 CFR part 38.)

#### **WTI Houston and WTI Midland Cash Markets**

The main component NYMEX considered in estimating the deliverable supply of WTI type crude oil for the Houston and Midland delivery locations was production of WTI type crude oil in Texas. For production data, NYMEX used information collected by the U.S. Department of Energy's Energy Information Administration ("EIA"), which is a definitive source for this information.

There is an active physical crude oil trading center based in Houston, Texas, which is a major hub for storage and pipelines with direct connectivity to the Cushing, Midland, and the U.S. Gulf Coast markets. There is active trading in light sweet WTI type crude oil (also referred to as domestic sweet). The WTI crude oil stream in Houston is a fungible blend of domestic light sweet streams with quality parameters of 44 degrees API gravity maximum and 0.45% sulfur maximum, which are slightly lighter than the WTI specifications in Cushing. The Houston physical delivery mechanism is comprised of a network of nearly a dozen pipelines and 10 storage terminals. There are substantial pipeline inflows of WTI type crude oil to Houston from four major hubs: 1) from Cushing via the Seaway and the Transcanada MarketLink Pipelines; 2) from Midland, Texas via the BridgeTex Pipeline and the Longhorn Pipeline; 3) from the Eagle Ford production area in South Texas via the Enterprise Pipeline and the Kinder Morgan Pipeline; and 4) from the Bakken production area via the Dakota Access Pipeline (DAPL).

The Argus assessment for WTI Houston crude oil is based on delivery at the Magellan terminal in East Houston, which is a key hub for delivery of WTI type crude oil. The Argus methodology for the assessment of the WTI Houston crude oil index is the volume weighted-average price of transactions done during the entire trading day and is available at the following link:

<https://www.argusmedia.com/en/methodology>

In addition, Midland, Texas, is a major trading hub with direct connectivity to the Cushing and the U.S. Gulf Coast markets. The main grade that is traded in Midland is WTI type crude oil. There are substantial pipeline flows of WTI type crude oil from Midland to Cushing and to Houston. Two major pipelines carry crude oil from Midland to Cushing: the Basin Pipeline, and the Centurion Pipeline. In addition, the Magellan Pipeline and the Longhorn Pipeline connect Midland directly to the Gulf Coast market in Houston.

The Argus methodology for the assessment of the WTI Midland crude oil index is the volume weighted-average price of transactions done during the entire trading day and is available at the following link:

<https://www.argusmedia.com/en/methodology>

#### **A. *Crude Oil Production in Texas***

For production data, NYMEX used information collected by the EIA, which provides production data with a breakdown by play for tight oil production, which is similar in quality to WTI type crude oil. The key production plays, or areas, are located in the Permian Basin and Eagle Ford regions in Texas. The EIA provides production data for the following plays: 1) Wolfcamp (Permian); 2) Bonespring (Permian); 3) Spraberry (Permian); 4) Yeso & Glorieta (Permian); 5) Delaware (Permian); and 6) Eagle Ford.

For the three-year period of January 2015 through April 2018, production of tight oil, i.e., WTI type crude oil in Texas was 2.87 million barrels per day, or 86 million barrels per month (see Table 1 below).

**Table 1: EIA Data**  
**Texas Production of Tight Oil in the Permian Basin and Eagle Ford Regions**  
**(Note: Tight crude oil is similar in quality to WTI type crude oil)**  
**(Millions of Barrels per Day)**

Jan-2015	2.67
Feb-2015	2.77
Mar-2015	2.86
Apr-2015	2.85
May-2015	2.82
Jun-2015	2.77
July-2015	2.76
Aug-2015	2.75
Sep-2015	2.75
Oct-2015	2.74
Nov-2015	2.74
Dec-2015	2.66
Jan-2016	2.70
Feb-2016	2.68
Mar-2016	2.66
Apr-2016	2.64
May-2016	2.60
Jun-2016	2.58
Jul-2016	2.59
Aug-2016	2.59
Sep-2016	2.58
Oct-2016	2.62
Nov-2016	2.63
Dec-2016	2.65
Jan-2017	2.68
Feb-2017	2.78
Mar-2017	2.79
Apr-2017	2.80
May-2017	2.89
Jun-2017	2.92
Jul-2017	2.96
Aug-2017	2.89
Sep-2017	3.10
Oct-2017	3.28
Nov-2017	3.42
Dec-2017	3.47
Jan-2018	3.41
Feb-2018	3.50
Mar-2018	3.56
Apr-2018	3.63

Source: <https://www.eia.gov/petroleum/data.php#crude>

**B. Crude Oil Pipeline Capacity to Houston**

The Houston physical delivery mechanism is comprised of a network of nearly a dozen pipelines and 10 storage terminals. There are substantial pipeline inflows of WTI type crude oil to Houston from three major hubs: 1) from Cushing via the Seaway and the Transcanada MarketLink Pipelines; 2) from Midland, Texas via the BridgeTex Pipeline and the Longhorn Pipeline; 3) from the Eagle Ford production area in South Texas via the Enterprise Pipeline and the Kinder Morgan Pipeline; and 4) from the Bakken production area via the Dakota Access Pipeline (DAPL). The capacity of each pipeline is presented in Table 2 below.

**Table 2  
Crude Oil Pipelines to Houston  
(Barrels/Day)**

<b>Incoming Pipelines</b>	<b>Capacity</b>	<b>Owner</b>
Seaway Pipeline (from Cushing)	850,000	Enterprise/Enbridge
MarketLink Pipeline (from Cushing)	700,000	Transcanada
BridgeTex Pipeline (from Midland, TX)	350,000	Magellan
Longhorn Pipeline (from Midland, TX)	250,000	Magellan
Enterprise Eagle Ford Pipeline	350,000	Enterprise
Kinder Morgan Pipeline (from Eagle Ford)	250,000	Kinder Morgan
Dakota Access Pipeline (DAPL)	520,000	Energy Transfer Partners

**TOTAL In-Bound Pipeline Capacity: 3.3 Million Barrels/Day**

**C. Crude Oil Storage in Padd 3**

Table 3 below provides the monthly Padd 3 storage levels starting with January 2015 and continuing through December 2017. During that time period, inventories averaged over 237 million barrels and ranged from 189 to 282 million barrels. However, the EIA does not provide a breakdown by type of crude oil in the Houston area, and consequently, the Exchange will not utilize inventory levels in the deliverable supply estimate.

**Table 3  
PADD 3 Crude Oil Stocks excluding SPR  
Source: EIA**

Monthly Average Stocks (in Millions of Barrels)		
Year	Month	
2015	Jan	189.5
	Feb	202.3
	Mar	211.7
	Apr	221.3
	May	220.4
	Jun	215.7
	Jul	206.3
	Aug	208.3

	Sep	218.9
	Oct	232.7
	Nov	222.8
	Dec	214.7
2016	Jan	231.0
	Feb	245.9
	Mar	259.3
	Apr	259.7
	May	260.1
	Jun	257.9
	Jul	250.9
	Aug	247.0
	Sep	239.9
	Oct	255.1
	Nov	249.7
	Dec	244.0
2017	Jan	264.0
	Feb	276.5
	Mar	282.2
	Apr	270.5
	May	262.2
	Jun	259.0
	Jul	249.5
	Aug	231.6
	Sep	238.4
	Oct	218.5
	Nov	220.4
	Dec	204.5
<b>Three-Year Average</b>		<b>237.3</b>

EIA Data Source: <https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MCESTP31&f=M>

### **Analysis of Deliverable Supply for WTI Houston and WTI Midland futures contracts**

In its estimate of deliverable supply, the Exchange used production data for WTI type crude oil in the key production plays in the Permian Basin and Eagle Ford regions in Texas. Accordingly, for the three-year period of January 2015 through April 2018, production of WTI type crude oil in Texas was 2.87 million barrels per day (b/d), which is 86 million barrels per month, or 86,000 contract equivalents (contract size: 1,000 barrels).

The Exchange has determined not to apply a haircut for long term contracts, given the highly liquid spot market, and the lack of restrictions applied to the resale of crude oil. Almost all first-sales of production are sold typically to middleman-firms or marketers. These middleman-firms typically resell the crude oil to other middleman-firms (or participants performing that function) or to end-users. Typically, the first-sales contracts are “evergreen” contracts that can be discontinued by either party with notice, so there are no restrictions applied to the resale of crude oil bought first-sale on a term basis from producers. The Midland and Houston markets are downstream of first-sales; in other words, these hubs are downstream of any term sales from producers. Thus, even if barrels were sold term by the producer, in the Midland and Houston markets those barrels are re-sold and re-delivered by either the purchaser from the producer or a subsequent purchaser/middleman from that original purchaser. The Midland and Houston markets consist of active trading and physical delivery of WTI-type crude oil, and are commercial secondary (or *spot*) markets which are extremely liquid, with broad participation, and results in a substantial quantity of physical delivery of crude oil.

The existing spot month position limit for the WTI Houston (Argus) Financial Futures Contract (code HIA) and the WTI Houston (Argus) Trade Month Futures Contract (code HTA) is 3,000 contracts, which is approximately 3.5% of the estimated monthly supply of 86,000 contract equivalents. Further, the existing

spot month position limit for the WTI Midland (Argus) Financial Futures Contract (code XB) and the WTI Midland (Argus) Trade Month Futures Contract (code WTI) is 3,000 contracts, which is approximately 3.5% of the estimated monthly supply of 86,000 contract equivalents.

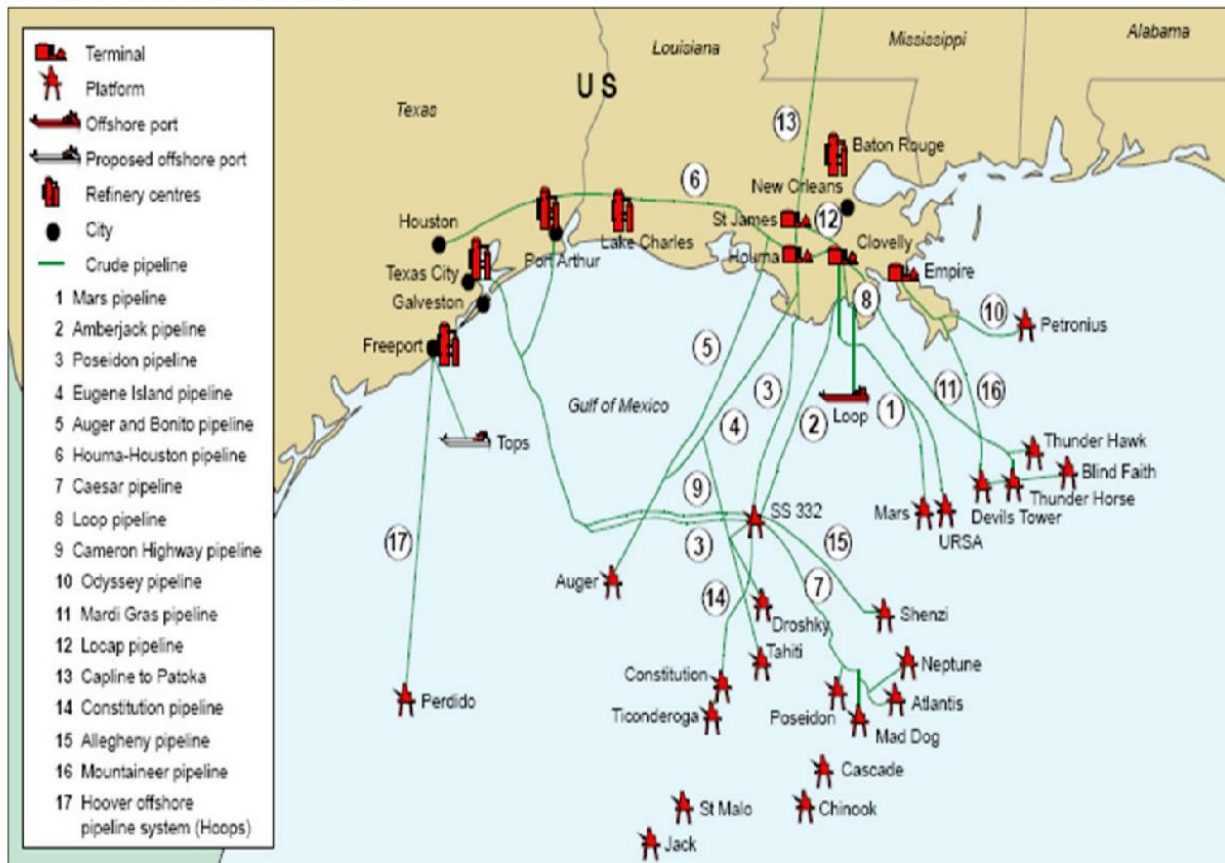
### **Mars crude oil**

The Mars Blend is an actively traded medium sour crude oil stream that is produced in the deepwater Gulf of Mexico, and is delivered onshore to the LOOP terminal and to Chevron's Fourchon terminal in Louisiana. The Argus assessment for Mars is based on delivery at the LOOP terminal in Clovelly, LA. The Mars Blend is a medium sour stream with quality parameters of 29.6 degrees API gravity maximum and 1.81% sulfur maximum. The Argus methodology for the assessment of the Mars oil index is the volume weighted-average price of transactions done during the entire trading day and is available at the following link: <https://www.argusmedia.com/en/methodology>

In conjunction with the Mars Pipeline System, the Mars infrastructure network consists of an 8-million-barrel dedicated storage cavern constructed at the LOOP Clovelly Terminal. This cavern and its interconnection to other LOOP facilities provide the most flexible market link in the overall Gulf Coast region. The Mars oil platform is situated in the Mars field of the Mississippi Canyon area of the U.S. Gulf Coast, and is one of the many oil producing fields in the region.

The Mars field was discovered in 1989 and began production in 1996. In February 2014, Shell began production from a second Mars platform, called Olympus – the company's seventh, and largest, floating deep-water platform in the Gulf of Mexico. Olympus is the first deep water project in the Gulf to expand an existing oil and gas field with significant new infrastructure, which should extend the life of the greater Mars basin to 2050 or beyond.

U.S. GULF OF MEXICO INFRASTRUCTURE





In its analysis of deliverable supply, the Exchange focused on the Mars production data from the Louisiana State Department of Natural Resources (DNR). The Louisiana DNR data is available monthly, and provides the monthly pipeline flow data from the Mars Pipeline which delivers Mars Blend to the LOOP terminal and to the Chevron Fourchon facility. According to the Louisiana DNR data, for the three-year period of 2015 through 2017, the Mars production averaged 405,000 b/d. The data is provided in Table 4 below.

**Table 4: Mars Production (Source: Louisiana State Department of Natural Resource)**

Monthly Mars Production (in Thousands of Barrels per Day)		
Year	Month	
2015	Jan	326
	Feb	301
	Mar	328
	Apr	358
	May	384
	Jun	255
	Jul	359
	Aug	418
	Sep	393
	Oct	367
	Nov	352
	Dec	387
2016	Jan	391
	Feb	358
	Mar	413
	Apr	400
	May	352
	Jun	388
	Jul	383
	Aug	410
	Sep	395
	Oct	408
	Nov	420
	Dec	446
2017	Jan	479
	Feb	433
	Mar	487
	Apr	460
	May	509
	Jun	464
	Jul	482
	Aug	485
	Sep	466
	Oct	416
	Nov	484
	Dec	441
<b>Three-Year Average</b>		<b>405</b>

Data Source: [http://sonlite.dnr.state.la.us/sundown/cart\\_prod/CART\\_CON\\_r2trastrep1](http://sonlite.dnr.state.la.us/sundown/cart_prod/CART_CON_r2trastrep1)

(Note: The monthly Mars production report can be accessed using Transporter ID 8075 until December 2017, and starting in January 2018 the ID changed to 70055; the Mars Pipeline flow data is shown under Group Code 158)

Based on the data from the Louisiana DNR, the Exchange determines the production of Mars Blend to be 405,000 b/d. The total monthly deliverable supply amounts to approximately 12.15 million barrels, or 12,150 contracts. The spot month position limit of 3,000 contracts is 24.7% of the total deliverable supply.

The Exchange has determined not to apply a haircut for long term contracts, given the highly liquid spot market, and the lack of restrictions applied to the resale of Mars Blend crude oil. As explained above related to the Houston and Midland markets, the first-sales of Mars Blend production are sold typically to middleman-firms and marketers for delivery at the LOOP terminal. These middleman-firms typically resell the crude oil to other middleman-firms (or participants performing that function) or to end-users. Typically, the first-sales contracts are “evergreen” contracts that can be discontinued by either party with notice, so there are no restrictions applied to the resale of crude oil bought first-sale on a term basis from producers. The LOOP terminal is downstream of any term sales from producers, thus, even if barrels were sold term by the producer, in the Mars Blend spot market those barrels are re-sold and re-delivered by either the original purchaser or a subsequent purchaser/middleman. The Mars spot market is very liquid, with broad participation, and results in a substantial quantity of physical delivery of crude oil.

### **Brent crude oil**

The North Sea market is comprised of a series of smaller oil fields in the UK and Norwegian North oil sectors. Each of the “satellite fields” connect into the large production systems such as Brent, Forties, Oseberg or Ekofisk. Norwegian crude oil Troll was added to the basket of Brent deliverable streams from January 2018<sup>1</sup>

The most important streams in the North Sea are Brent, Forties, Oseberg and Ekofisk and Troll. Each stream has a principle operator that is responsible for the day to the day control of the operations including the scheduling of the cargoes based on the production from each of the smaller producing fields. The Brent, Forties, Oseberg, Ekofisk and Troll fields (now known as “BFOET”) underpin the Brent complex and are the key grades of oil that make up the trading of Dated Brent – the international crude oil physical benchmark price. The five crude oil fields lie in the North Sea. Brent and Forties are in the UK sector, whilst Ekofisk, Oseberg and Troll are in the Norwegian sector.

The core of the Brent market is the cash market. The Brent forward market consists of the trading of cargoes of any of the five BFOET streams for delivery beyond month ahead, with no specific dates assigned for loading. The cargoes are 600,000 barrels and, in the forward market, the precise loading dates are not provided, only the delivery month, i.e., December BFOET Cargo. However, the commercial contracts, which are standardized, underlying the forward market to specify the minimum notification a seller must provide to a buyer is 10 days but the standard range is between 10 days and month ahead. After a holder of a BFOET forward notifies the buyer as to the loading date and which stream is being loaded, the contract is now considered to have moved from the forward market to the Dated Brent market, historically this moment is referred to as the cargo going “wet”, i.e., it has loading dates attached to it and can therefore be sold as a Dated Brent cargo.

The Brent cash market is essentially a reseller market where buyers either: resell the oil to someone else; transport the cargo and resell it later; or transport the cargo to consume it. Most of the sales in the Brent market are conducted as spot-market transactions; in fact, Brent cargoes in the physical market are estimated to trade 10 or more times. Typically, there is a chronology of sales and purchases of crude oil in the Brent cash market that starts with a sale from the equity producer in a spot market transaction, and finishes with a purchase by an end-user to consume the crude oil. Equity producers typically utilize the robust spot market to sell their BFOET production at the cargo loading terminal, as a “Free on Board” (FOB)

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<sup>1</sup> Platts press release – Troll into Brent basket <https://www.platts.com/pressreleases/2017/022017>

delivery. Traders play an active role in the Brent market as middlemen with the expressed responsibility of reselling the oil. Further, the refiners typically rely on the spot market to purchase Brent crude oil, because there is vibrant liquidity in the spot market, and hence, the refiners have developed a preference for short-term spot market purchases, rather than long-term contracts. This applies to refiners affiliated with equity producers as well as those not affiliated; this is the standard practice, established and institutionalized over the past 34 years.

Production of BFOE has been declining over the past few years due to the cost of drilling and the returns on investment compared to other regions in the world. This was one of the main reasons why the Troll crude stream was added to the Brent basket. All of the Brent grades are segregated blends delivered at different locations in the North Sea, and each can be substituted by the seller in the BFOE cash market (“the forward market”).

Quality adjustments ensure that all five grades can be delivered to a buyer under the standardized forward contract. The nomination period in the forward market was changed in March 2015 by Platts to 10 days to month ahead from 10 to 25 days and the futures expiry dates were aligned with this schedule in January 2016 (for the March 2016 delivery month). The process of moving from a forward to the physical market where a forward Brent cargo becomes a physical North Sea Dated Brent cargo happens as follows:

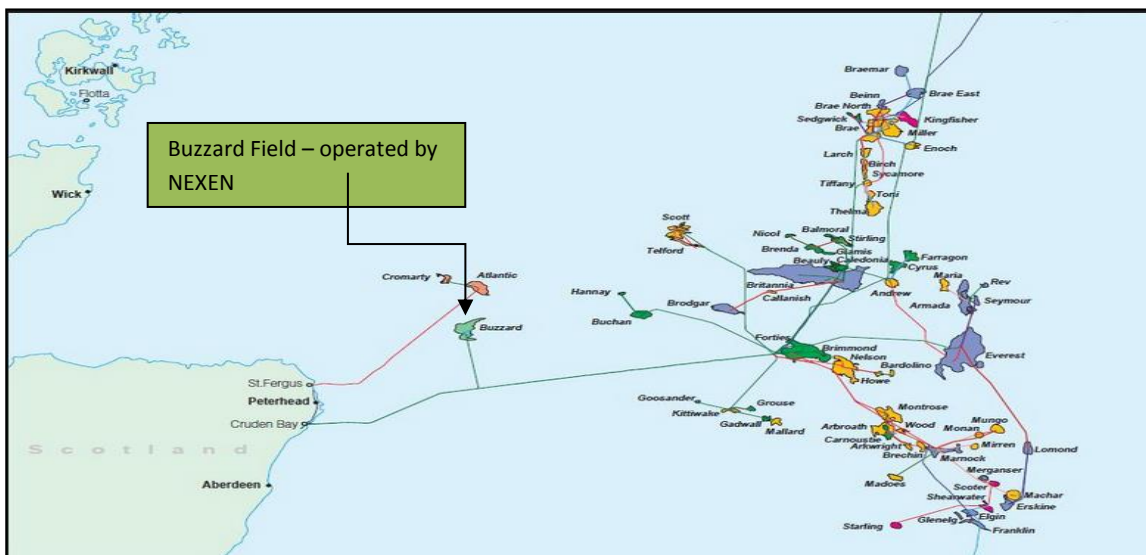
1. Refiners, producers and traders enter into a forward agreement for a specific month.
2. The Operator of each field being Shell for Brent; BP for Forties; ConocoPhillips for Oseberg; and Statoil for Ekofisk and Troll will announce the loading programs for each contract month a few days prior to the beginning of the month (one month prior) to each loading month (i.e. cargoes in the delivery month start to load). For example, for a June 2018 contract month, the field operators will announce the loading schedules a few days prior to the beginning of April 2018. The equity producers will begin the chain of nominating cargoes to buyers (or they can decide to keep the cargo). A buyer benefiting from a nomination can keep the cargo or pass it to another player with whom it has another forward contract.
3. Buyers trade the cash BFOET on the basis that they will accept any cargo as nominated, provided it is done so within the agreed notice period (10 days to month ahead) by 4pm London time. Any cargo not nominated by this time will remain with the participant last notified. After 4pm London time, the cargo becomes wet physical with precise loading dates attached.
4. Cargoes that are wet physical will be sold as a Dated Brent cargo with cargo loading dates between 10 days and month ahead (forward).

Chart 1 below shows the makeup of the fields in the Forties pipeline system (FPS) which is currently operated by INEOS following its sale, subject to regulatory approval, by BP to the company in April 2017<sup>2</sup>. The deal was finalized on November 1, 2017. There are over 50 offshore fields that flow through within the FPS. The delivery point for Forties crude oil is Hound Point, which is on the East coast of Scotland a short distance from the UK oil capital Aberdeen. Forties is a blended crude oil from all the fields that feed into it. In general, Forties crude is a heavier crude oil as compared to other North Sea crude streams, and therefore will usually be the cheapest to deliver of all of the crudes within the Brent BFOET system. The data on crude volumes and blend quality is shown in the table below.

#### **Chart 1: Forties Pipeline system**

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<sup>2</sup> BP Press Release – Forties Pipeline System sale to INEOS: <https://www.bp.com/en/global/corporate/media/press-releases/bp-to-sell-forties-pipeline-system-to-ineos.html>



Bloomberg LP (“Bloomberg”) provides details of the BFOET loading programs for the five grades that comprise the Brent market. Bloomberg added in the Troll data and we have included this from January 2018 onwards when Platts began including this in its Brent assessments.

Based on the data, total loadings of BFOET crude oil was approximately 885,777 b/d, which is equivalent to approximately 26.57 million barrels per month, which included Troll loadings from January 2018. The Bloomberg data, in **Exhibit E**, shows the loaded volume of crude oil for Brent, Forties, Oseberg and Ekofisk (collectively known as BFOE) and BFOET since January 2018.

The BFOET cash market is traded in partials of 100,000 barrels or larger full-size cargo transactions of 600,000 barrels. Physical convergence can occur through the partials market mechanism upon the trading of six parcels with the same counterparty in a single delivery month. If physical convergence does not occur then trades are booked out at the prevailing cash value on the last day of trading day of the cash market for the specific delivery month (i.e. this is currently month ahead prior to the 1st loading date of the delivery month). Full sized physical cargo BFOET trades will be used by ICE in the establishment of the Brent Index which is the mechanism by which the futures open on expiry are cash settled<sup>3</sup>.

The Dated Brent or Dated BFOET, as it is sometimes referred, reflects the value of the cheapest of Brent, Forties, Oseberg, Ekofisk and Troll, of 600,000 barrels, loading 10 days to Month Ahead. Dated Brent is estimated to price around 50% of the global crude oil supply<sup>4</sup>. Within the North Sea and beyond, grades are traded as a differential to Dated Brent or as a differential to cash Brent (BFOET). Each of the crude oil grades within BFOET are not the same quality, several adjustments have been made.

In 2007 Platts included a sulphur de-escalator for Forties crude oil within its Dated Brent and Brent related instruments. The change was made in response to inclusion of sour crude Buzzard into the Forties pipeline system (see chart 1). The de-escalator of price is applied to deliveries above a minimum sulphur level of 0.6%. Every month, Platts establishes a value de-escalator for every 0.1% of sulphur above the maximum level 0.6% (for Forties crude oil). The value of the de-escalator is established by reviewing evidence of significant and sustained changes in the crude market, as affected by refined products (crack spread values of both heavy fuel oils and light ends) and other relevant factors that affect the economics of Forties crude.

The basis of the deliverable supply estimate in the Brent market is BFOET loadings in the North Sea. The Exchange has determined that the volume of loaded barrels of BFOET crude oil from Brent, Forties, Oseberg, Ekofisk, and Troll best meets the definition of supply readily available for delivery. In addition, the Exchange has reduced the deliverable supply of Forties to account for the long-term commitment for crude oil purchases by the Grangemouth refinery. The Grangemouth oil refinery is located close to the delivery point of the Forties pipeline and volumes from the outer fields are connected directly via a series of pipelines to the refinery. Based on the most recent 3-year average of the Bloomberg data on BFOE

<sup>3</sup> [https://www.theice.com/publicdocs/futures/ICE\\_Futures\\_Europe\\_Brent\\_Index.pdf](https://www.theice.com/publicdocs/futures/ICE_Futures_Europe_Brent_Index.pdf)

<sup>4</sup> <http://www.oxfordenergy.org/wpcms/wp-content/uploads/2012/03/Brent-Prices-Impact-of-PRA-methodology-on-price-formation.pdf>

loadings (June 2015 to May 2018), total loadings of BFOET crude oil was approximately 885,777 b/d, which is equivalent to approximately 26.57 million barrels per month, or 26,570 contract equivalents (contract size: 1,000 barrels). Further, to account for the crude oil purchases by the Grangemouth refinery, the deliverable supply (using the three-year average BFOET figures) would be reduced by 3 million barrels<sup>5</sup> per month<sup>6</sup>. Therefore, the total deliverable supply of BFOET is approximately **23.57 million barrels per month** which is equivalent to 23,570 contracts.

The existing spot month limit of Brent Crude Oil Penultimate Financial Futures (commodity code BB) is 4,000 lots and is based on the deliverable supply of 23,570 contract equivalents, which represents around 17.0% of deliverable supply.

### **Dubai Crude Oil Market**

The price reporting service used for the final settlement price in the Dubai crude oil market is S&P Global Platts (“Platts”), which is the main price reporting service that are used in the over-the-counter (OTC) market for pricing Dubai crude oil. The methodology utilized by Platts is well-known in the oil industry, and Platts has a long-standing reputation in the industry for publishing fair and transparent prices. Their pricing methodology is derived from telephone surveys and electronic data collected from the Platts window to determine market value. NYMEX has entered into a license agreement with Platts to utilize its pricing data.

Dubai crude oil is one of the primary global benchmarks for the Middle East and Asia, and is used by producers in the Middle East, such as Saudi Aramco, and by consumers and refiners across Asia to index their long-term contracts. In addition to futures contracts, there is an active OTC market in Dubai crude oil contracts. Due to the declining production of Dubai crude oil, Platts has expanded the basket of deliverable streams that it allows for alternate delivery in its Dubai assessment: Oman, Upper Zakum (produced in the UAE), Murban (produced in the UAE), and Al-Shaheen (produced in Qatar).

The Platts assessment is derived through bids, offers and deals done in partial cargo sizes of 25,000 barrels each, with a full cargo of 500,000 barrels to be delivered when the same buyer and seller have traded 20 partials together.

### **Data Sources: EIA / Platts**

The Exchange has determined to use production information collected by the U.S. Department of Energy’s Energy Information Administration (“EIA”), where data is available through 2017. Specifically, the Exchange has chosen to rely on the EIA production data because it constitutes a single source, employing common standards, across all states. However, the EIA data does not provide a breakdown of production by crude stream. Therefore, the Exchange has utilized producer company data to estimate the percentage of total production that each grade accounts for.

## **I. Production of Dubai, Oman, Upper Zakum, Murban and Al-Shaheen crude oil streams**

As part of its assessment of Dubai crude oil, Platts allows for alternate delivery of Oman, Upper Zakum (produced in the UAE), Murban (produced in the UAE), and Al-Shaheen (produced in Qatar). The production of Dubai crude oil has dropped to approximately 25,000 b/d, and therefore Platts has expanded the deliverable crude streams to include Oman, Upper Zakum, Murban, and Al-Shaheen. The EIA does not provide a breakdown of production by crude stream. Consequently, the Exchange has utilized the producer company estimates, which provide crude oil production data for Upper Zakum, Murban, and Al-Shaheen. The EIA publishes production data for countries in the Middle East, including Oman, Qatar and the United Arab Emirates. The EIA data is summarized below in Table A.

**Table A**  
**UAE, Oman and Qatar Total Crude Oil and Lease Condensate Production**

<sup>5</sup> UKPia – Petroineos Grangemouth Refinery capacity [http://www.ukpia.com/industry\\_information/refining-and-uk-refineries/Petroineos-grangemouth-refinery.aspx](http://www.ukpia.com/industry_information/refining-and-uk-refineries/Petroineos-grangemouth-refinery.aspx)

<sup>6</sup> Market suggests 50% of the processing capacity for Grangemouth is Forties therefore we have reduced the deliverable supply of Forties by 3-million barrels per month (the full capacity of the refinery is 6 million barrels per month).



2015 they reported production at 1.6 million b/d with plans to increase to 1.8 million b/d by 2017<sup>8</sup>. Based on this report, the Exchange has made a more conservative estimate for production of Murban at approximately 50% of the average production of the UAE. Therefore, the Exchange estimates Murban production to be 1.5 million b/d.

(5) Al Shaheen

Denmark's Maersk is a partner in the Qatari Al Shaheen field and has published a production figure of 300,000 b/d<sup>9</sup>. However, Qatar Petroleum announced that it had selected a different operator to run the Al-Shaheen field from July 2017. The field will be run jointly by Total SA and Qatar Petroleum with the goal of maintaining output at 300,000 b/d. EIA publishes production statistics for Qatar, which averaged 1.5 million b/d as shown in Table A above. The Exchange will utilize the production data from the producer companies at 300,000 b/d, and consequently, this accounts for 20% of Qatar's total production as reported by EIA.

With respect to the Dubai crude oil market, the production data available for the four main sources of crude oil that are eligible for inclusion in Platts' Dubai crude oil price assessment result in a combined production volume of 3.4 million b/d. The method of estimation, sources of information, and the calculations are in Table B below.

**Table B**  
**Exchange Estimate of Dubai Crude Oil Production by Grade**

Crude Oil Stream	Country	Method of Estimation <sup>10</sup>	Thousand barrels/day
Upper Zakum	UAE	Reported by ExxonMobil	650
Murban	UAE	Reported by Total SA; approx. 50% of UAE production	1,500
Al Shaheen	Qatar	Reported by Maersk; approx. 20% of Qatar production	300
Oman	Oman	100% of EIA Data	986
Estimated Total Supply for Dubai Crude Oil			3,436

In addition, Platts pointed out in its methodology that about 2.4 million b/d of Dubai crude oil are available to be freely traded<sup>11</sup> which is approximately 70% of total production. On this basis, the Exchange shall apply a 30% haircut to the production volume for purposes of assessing deliverable supply. This equates to 2.38 million b/d, which is equivalent to 71.4 million barrels per month, or **71,400** futures contract equivalents per month. Consequently, the existing spot month position limit of 5,000 contracts for the Dubai Crude Oil Financial Futures Contract (code DC) represents **7.0%** of the estimated monthly deliverable supply.

**Analysis of Spot-Month Position Limits**

In its analysis of deliverable supply for the twelve (12) new crude oil spread contracts, the Exchange provided deliverable supply estimates as follows: 1) for WTI type crude oil deliverable at the Houston and Midland hubs; 2) for Mars crude oil; 3) for Brent crude oil; and 4) for Dubai crude oil. For purposes of calculating compliance with position limits, the new crude oil spread contracts aggregate into the two underlying legs of existing contracts that are associated with each of the crude oil spread contracts.

<sup>8</sup> Total – Murban Crude oil: <http://www.total.com/en/media/news/press-releases/abu-dhabi-total-awarded-10-new-40-year-adco-concession>

<sup>9</sup> Maersk Oil - Al Shaheen crude: : <https://www.offshoreenergytoday.com/qatar-al-shaheen-field-stake-goes-to-total-maersk-oil-to-leave/>

<sup>10</sup> Based on the average estimated production volumes from January 2014 to July 2017.

<sup>11</sup> <https://www.platts.ru/IM.Platts.Content/MethodologyReferences/MethodologySpecs/Dubai-Crude-FAQ.pdf>

The existing spot month position limits for the existing underlying contracts are as follows:

<b><u>Existing Underlying Contracts</u></b>	<b><u>Spot Month Limits</u></b>
WTI Houston (Argus) Financial Futures Contract (code HIA)	3,000
WTI Houston (Argus) Trade Month Futures Contract (code HTA)	3,000
WTI Midland (Argus) Financial Futures Contract (code XB)	3,000
WTI Midland (Argus) Trade Month Futures Contract (code WTI)	3,000
Mars (Argus) Financial Futures Contract (code MX)	3,000
Mars (Argus) Trade Month Futures Contract (code MO)	3,000
Brent Crude Oil Penultimate Financial Futures (code BB)	4,000
Dubai Crude Oil Financial Futures Contract (code DC)	5,000

For purposes of calculating compliance with position limits for the twelve (12) new crude oil spread contracts, each new spread contract will aggregate into the underlying legs of the existing contracts listed above.

The new contracts are as follows:

<b><u>Code</u></b>	<b><u>Contract Name</u></b>
WHD	WTI Houston (Argus) vs. Dubai (Platts) Trade Month Futures
WDB	WTI Houston (Argus) vs. Dubai (Platts) Calendar Month Futures
WHB	WTI Houston (Argus) vs. Brent Trade Month Futures
WBR	WTI Houston (Argus) vs. Brent Calendar Month Futures
WMD	WTI Midland (Argus) vs. Dubai (Platts) Trade Month Futures
WTD	WTI Midland (Argus) vs. Dubai (Platts) Calendar Month Futures
WMB	WTI Midland (Argus) vs. Brent Trade Month Futures
WMR	WTI Midland (Argus) vs. Brent Calendar Month Futures
WDR	Mars (Argus) vs. Dubai (Platts) Trade Month Futures
MDM	Mars (Argus) vs. Dubai (Platts) Calendar Month Futures
MBM	Mars (Argus) vs. Brent Trade Month Futures
MAB	Mars (Argus) vs. Brent Calendar Month Futures

The WTI Houston (Argus) vs. Dubai (Platts) Trade Month Futures Contract aggregates into the two underlying legs: the WTI Houston (Argus) Trade Month Futures (code HTA) and the Dubai Crude Oil (Platts) Financial Futures (code DC). Further, the WTI Houston (Argus) vs. Dubai (Platts) Calendar Month Futures Contract aggregates into the two underlying legs: the WTI Houston (Argus) Financial Futures (code HIA) and the Dubai Crude Oil (Platts) Financial Futures (code DC).

Further, the WTI Houston (Argus) vs. Brent Trade Month Futures Contract aggregates into the two underlying legs: the WTI Houston (Argus) Trade Month Futures (code HTA) and the Brent Crude Oil Penultimate Financial Futures (code BB). Further, the WTI Houston (Argus) vs. Brent Calendar Month Futures Contract aggregates into the two underlying legs: the WTI Houston (Argus) Financial Futures (code HIA) and the Brent Crude Oil Penultimate Financial Futures (code BB).

The WTI Midland (Argus) vs. Dubai (Platts) Trade Month Futures Contract aggregates into the two underlying legs: the WTI Midland (Argus) Trade Month Futures (code WTI) and the Dubai Crude Oil (Platts) Financial Futures (code DC). Further, the WTI Midland (Argus) vs. Dubai (Platts) Calendar Month Futures Contract aggregates into the two underlying legs: the WTI Midland (Argus) Financial Futures (code XB) and the Dubai Crude Oil (Platts) Financial Futures (code DC).

Further, the WTI Midland (Argus) vs. Brent Trade Month Futures Contract aggregates into the two underlying legs: the WTI Midland (Argus) Trade Month Futures (code WTI) and the Brent Crude Oil Penultimate Financial Futures (code BB). Further, the WTI Midland (Argus) vs. Brent Calendar Month Futures Contract aggregates into the two underlying legs: the WTI Midland (Argus) Financial Futures (code XB) and the Brent Crude Oil Penultimate Financial Futures (code BB).

The Mars (Argus) vs. Dubai (Platts) Trade Month Futures Contract aggregates into the two underlying legs: the Mars (Argus) Trade Month Futures (code MO) and the Dubai Crude Oil (Platts) Financial Futures (code DC). Further, the Mars (Argus) vs. Dubai (Platts) Calendar Month Futures Contract aggregates into the two underlying legs: the Mars (Argus) Financial Futures (code MX) and the Dubai Crude Oil (Platts) Financial Futures (code DC).



Further, the Mars (Argus) vs. Brent Trade Month Futures Contract aggregates into the two underlying legs: the Mars (Argus) Trade Month Futures (code MO) and the Brent Crude Oil Penultimate Financial Futures (code BB). Further, the Mars (Argus) vs. Brent Calendar Month Futures Contract aggregates into the two underlying legs: the Mars (Argus) Financial Futures (code MX) and the Brent Crude Oil Penultimate Financial Futures (code BB).

**EXHIBIT E**

**Brent Loadings**

**North Sea crude oil loadings – Brent, Forties, Oseberg and Ekofisk\***

**Source: Bloomberg data - LOSDFOET Index**

\*Bloomberg data included the addition of the Troll crude oil loadings starting in January 2018, aligning with the Platts change to its methodology to incorporate Troll deliveries into the Brent basket. This data shows the total volume of BFOET crudes loaded by delivery month. The data set is based on data gathered by Bloomberg. Each field operator for Brent, Forties, Oseberg, Ekofisk and Troll releases the amount of crude oil that is scheduled for loading per month.

	<b>Delivery Month</b>	<b>Barrels per day</b>
<b>2015</b>	<b>Jun-15</b>	840,000
	<b>Jul-15</b>	890,323
	<b>Aug-15</b>	832,258
	<b>Sep-15</b>	940,000
	<b>Oct-15</b>	967,742
	<b>Nov-15</b>	900,000
	<b>Dec-15</b>	929,032
<b>2016</b>	<b>Jan-16</b>	974,194
	<b>Feb-16</b>	950,690
	<b>Mar-16</b>	870,968
	<b>Apr-16</b>	960,000
	<b>May-16</b>	870,968
	<b>Jun-16</b>	760,000
	<b>Jul-16</b>	812,903
	<b>Aug-16</b>	812,903
	<b>Sep-16</b>	780,000
	<b>Oct-16</b>	793,548
	<b>Nov-16</b>	880,000
	<b>Dec-16</b>	909,677
<b>2017</b>	<b>Jan-17</b>	987,097
	<b>Feb-17</b>	900,000
	<b>Mar-17</b>	909,677
	<b>Apr-17</b>	880,000
	<b>May-17</b>	1,006,452
	<b>Jun-17</b>	900,000
	<b>Jul-17</b>	851,613
	<b>Aug-17</b>	716,129
	<b>Sep-17</b>	800,000
	<b>Oct-17</b>	870,968
	<b>Nov-17</b>	800,000
	<b>Dec-17</b>	600,000

<b>2018</b>	<b>Jan-18</b>	974,645
	<b>Feb-18</b>	985,714
	<b>Mar-18</b>	1,025,806
	<b>Apr-18</b>	978,867
	<b>May-18</b>	1,025,806
<b>3-year average</b>		885,777