UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

STEPHEN SULLIVAN, WHITE OAK FUND LP, CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM, SONTERRA CAPITAL MASTER FUND, LTD., FRONTPOINT PARTNERS TRADING FUND, L.P., AND FRONTPOINT AUSTRALIAN OPPORTUNITIES TRUST on behalf of themselves and all others similarly situated,

Plaintiffs,

- against -

BARCLAYS PLC, BARCLAYS BANK PLC,
BARCLAYS CAPITAL INC., BNP PARIBAS S.A.,
CITIGROUP, INC., CITIBANK, N.A.,
COÖPERATIEVE CENTRALE RAIFFEISENBOERENLEENBANK B.A., CRÉDIT AGRICOLE
S.A., CRÉDIT AGRICOLE CIB, DEUTSCHE BANK
AG, DB GROUP SERVICES UK LIMITED, HSBC
HOLDINGS PLC, HSBC BANK PLC, ICAP PLC,
ICAP EUROPE LIMITED, J.P. MORGAN CHASE &
CO., JPMORGAN CHASE BANK, N.A., THE ROYAL
BANK OF SCOTLAND PLC, SOCIÉTÉ GÉNÉRALE
SA, UBS AG AND JOHN DOE NOS. 1-50,

Defendants.

Docket No. 13-cv-02811 (PKC) ECF Case

DECLARATION OF GARY S. JACOBSON, ESQ. IN SUPPORT OF PLAINTIFFS' MOTION FOR PRELIMINARY APPROVAL OF PLAN OF DISTRIBUTION FOR SETTLEMENTS WITH DEFENDANTS BARCLAYS BANK, HSBC, AND DEUTSCHE BANK

- I, GARY S. JACOBSON, hereby declare under penalty of perjury that the following is true and correct:
- 1. I am a member in good standing of the Bar of the State of New York, and am admitted to practice before this Court.
- 2. I am a member of the law firm of Lovell Stewart Halebian Jacobson LLP ("Lovell Stewart"), and together with the law firm Lowey Dannenberg, P.C., Counsel for the Plaintiffs ("Plaintiffs").
- 3. I respectfully submit this declaration in support of the accompanying motion by Plaintiffs for an Order preliminarily approving a plan of distribution of the three separate settlements (the "Settlements") between Plaintiffs, on behalf of themselves and the proposed class, and respectively: (i) Barclays plc, Barclays Bank plc, and Barclays Capital Inc. ("Barclays"); (ii) HSBC Holdings plc and HSBC Bank plc ("HSBC"); and (iii) Deutsche Bank AG and DB Group Services (UK) Ltd. (collectively, "Deutsche Bank").
- 4. Attached hereto as Exhibit 1 is a true and correct copy of the proposed Plan of Distribution. Under the proposed Plan of Distribution, each of the net settlement funds would be distributed to eligible Settlement Class Members on a *pro rata* basis. The proposed Plan of Distribution is recommended by Plaintiffs' Counsel, who find it to be fair and reasonable. Plaintiffs' Counsel have determined that the fairest and most efficient manner of distributing funds to Class Members is the method used in the proposed plan.
- 5. Attached as Exhibit 2 hereto is the Declaration of Kenneth R. Feinberg, Esq., a nationally recognized mediator retained by Plaintiffs to conduct an allocation mediation.
- 6. Attached as Exhibit 3 hereto is a resume for Berman Tabacco, who served as Allocation Counsel for over-the-counter transactions directly with Defendants.

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7. Attached as Exhibit 4 hereto is a resume for Kirby McInerney LLP, who served as

Allocation Counsel for futures transactions.

8. Attached as Exhibit 5 hereto is a resume for Cafferty Clobes Meriwether &

Sprengel LLP, who served as Allocation Counsel for over-the-counter transactions with non-

Defendants.

9. Attached as Exhibit 6 hereto is the court-approved plan of allocation in *In re*

Crude Oil Commodity Futures Litig., 11 Civ. 3600 (S.D.N.Y. Jan. 21, 2016) (Forrest, J.) (ECF

Nos. 399; 287-5).

10. Attached as Exhibit 7 hereto is the court-approved plan of allocation in *In re*

Platinum & Palladium Commodities Litig., 10 Civ. 3617 (S.D.N.Y. Feb. 27, 2015) (Pauley, J.)

(ECF Nos. 293; 141-1).

Executed on January 8, 2018

New York, New York

/s/ Gary S. Jacobson

Gary S. Jacobson

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[PROPOSED] PLAN OF DISTRIBUTION

A. Scope of Plan And Definitions

- 1. The Court has preliminarily approved each of three settlements ("Settlements"), each subject to Final Approval by the Court. The Settlements are with the following defendants ("Settling Defendants"):
 - Barclays plc, Barclays Bank plc, and Barclays Capital Inc. ("Barclays") (preliminarily approved on December 15, 2015) [ECF No. 234] for \$94,000,000;
 - HSBC Holdings plc and HSBC Bank plc. ("HSBC") (preliminarily approved on January 18, 2017) [ECF No. 279] for \$45,000,000; and
 - Deutsche Bank AG and DB Group Services (UK) Ltd. ("Deutsche Bank") (preliminarily approved on July 6, 2017) [ECF No. 364] for \$170,000,000.
- 2. A. This Plan of Distribution shall govern (and apply solely to) the Net Settlement Fund from these three Settlements. See ¶4 below. Class members are encouraged to review the Settlement Website, http://www.euriborsettlement.com/, for details, updates, and answers to frequently asked questions ("FAQ") relating to this Plan.
- B. Plaintiffs contend that the Settling Defendants manipulated an interest rate for the Euro currency known as the Euro Interbank Offered Rate or "Euribor". Defendants allegedly did so in order to change in their favor the prices and payments of Euribor Products.¹ This, in turn, allegedly harmed Plaintiffs and Class members.

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¹ "Euribor Products" means any and all interest rate swaps, forward rate agreements, futures, options, structured products, and any other instrument or transaction related in any way to Euribor, including but not limited to, New York Stock Exchange ("NYSE") London International Financial Futures and Options Exchange ("LIFFE") Euribor futures contracts and options, CME Euro currency futures contracts and options, Euro currency forward agreements, Euribor-based swaps, Euribor-based forward rate agreements and/or any other financial instruments that reference Euribor.

- C. This Plan distributes 90% of the Net Settlement Fund based upon the Total Adverse Impact of each Qualified Claimant from "Euribor Artificiality". See ¶¶6-9 below. Euribor Artificiality "is an estimate of the impact on Euribor of Defendants' alleged unlawful behavior." See ¶8 below.
- D. In addition to entitlement to a payment based on any Total Adverse Impact they experienced, a Qualified Claimant will also be entitled to a payment based upon their Total Adjusted Volume of transactions in Euribor Products. See ¶13 below. The Plan distributes 10% of the Net Settlement Fund according to each Qualified Claimant's Total Adjusted Volume of transactions, subject to a guaranteed minimum payment to each Qualified Claimant. See ¶13-14 and Fn. 2 below.
- E. These terms are defined and the calculations are described in greater detail as set forth below.
- 3. As used herein, the **Total Settlement Fund** means the aggregate amount of the funds in the Settlements finally approved by the Court.
- 4. As used herein, **Net Settlement Fund** means the Total Settlement Fund minus the costs, expenses, and fees approved by the Court. For the avoidance of doubt, such costs, expenses and fees include all taxes, attorneys' fees, class representative fees, settlement administration fees, or other costs or fees of any nature whatsoever that are approved by the Court.
- 5. **Qualified Claimant.** Class members must submit a valid proof of claim in order to be eligible to participate in a distribution from the Net Settlement Fund. A Qualified Claimant is a Class member whose proof of claim is deemed adequately supported, and timely.
 - B. *Pro Rata* Distribution of Ninety Percent of the Net Settlement Fund Based Upon Total Adverse Impact.
- 6. Pro Rata Distribution Of Ninety Percent of the Net Settlement Fund. Ninety percent of the Net Settlement Fund shall be distributed pro rata according to the Settlement Administrator's determination of each Qualified Claimant's Total Adverse Impact. See ¶7 below. Example: If a Qualified Claimant has Total Adverse Impact (sometimes "TAI") that constitutes

0.025% of the total TAI for all Qualified Claimants which have TAI, then the Qualified Claimant will be entitled to receive 0.025% of 90% of the Net Settlement Fund.

- 7. **Total Adverse Impact**. The TAI for each claimant will be the sum of their total adverse impact, if any, on Discounted Transactions (*see* subparagraphs "A" "B" below), and their total adverse impact, if any, on Over-The-Counter ("OTC") Transactions made with Defendants. See "A" "G" below. The Settlement Administrator shall calculate the TAI for each Qualified Claimant through the following steps.
- A. The Court denied in part and granted in part Defendants' motion to dismiss this action. As a result, there are two general types of transactions: (1) OTC Transactions with Defendants as to which the claims have not been dismissed; and (2) Discounted Transactions. There also are two types of Discounted Transactions: (1) Transactions in CME Eurocurrency Futures Contracts or LIFFE Futures Contracts and options on those futures contracts (collectively, "Futures Transactions"), and (2) Over-the-Counter Transactions with Non-Defendants ("OTC Transactions with Non-Defendants").
- B. Legal Risk Discount. A 15% Legal Risk Discount applies to Futures Transactions. A 20% Legal Risk Discount applies to OTC Transactions with Non-Defendants. For these purposes, Defendants include the following entities, as well as the subsidiaries and affiliates of these entities: Barclays plc, Barclays Bank plc, Barclays Capital Inc., Citigroup, Inc., Citibank, N.A., Coöperatieve Rabobank U.A. (f/k/a Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A.), Crédit Agricole S.A., Crédit Agricole CIB, Deutsche Bank AG, DB Group Services (UK) Ltd., HSBC Holdings plc, HSBC Bank plc, J.P. Morgan Chase & Co., JPMorgan Chase Bank, N.A., The Royal Bank of Scotland plc, Société Générale SA, UBS AG, ICAP plc, and ICAP Europe Limited. No Legal Risk Discount applies to the OTC Transactions made with Defendants. See examples in "E" below.

- C. **Euribor Artificiality.** Plaintiffs contend that unlawful conduct caused Euribor rates sometimes to increase and sometimes to decrease. The difference between the artificial rate allegedly caused by unlawful conduct and a fair, non-manipulated rate is referred to as "Euribor Artificiality." *See* ¶8 below.
- D. Impact Of Euribor Artificiality On Each Category Of Transactions. For each Qualified Claimant, the Settlement Administrator will separately determine the amounts of impact of Euribor Artificiality on each of the three categories of transaction: (1) such Qualified Claimant's transactions in the Futures Transactions category; (2) such Qualified Claimant's transactions in the OTC Transactions with Non-Defendants category; and (3) such Qualified Claimant's transactions in the OTC Transactions with Defendants category.
- E. For each of the first two categories, the Settlement Administrator will then multiply the amount of impact by the appropriate Legal Risk Discount. For the Futures Transactions category, this will be the 15% reduction. For the OTC Transactions with the Non-Defendants category, this will be the 20% reduction. Again, there will be no Legal Risk Discount for the OTC Transactions with Defendants. *Examples*:
- i. If the application of Euribor Artificiality to a Qualified Claimant's Futures Transactions produces an overall adverse impact of \$2,000, then that Qualified Claimant will have an adverse impact in the Futures Transactions category of \$1,700 (\$2,000 multiplied by 0.85 which makes the 15% Legal Risk Discount applicable to Futures Transactions).
- ii. If the application of Euribor Artificiality to a Qualified Claimant's OTC Transactions with Non-Defendants produces an overall adverse impact of \$1,000, then that Qualified Claimant will have an adverse impact in the OTC Transactions with Non-Defendants category of \$800 (\$1,000 multiplied by 0.8 which makes the 20% Legal Risk Discount applicable to OTC Transactions with Non-Defendants).

- iii. If the application of Euribor Artificiality to a Qualified Claimant's OTC Transactions with Defendants produces an overall adverse impact of \$1,000, then the Qualified Claimant will have an adverse impact in the OTC Transactions with Defendants category of \$1,000 (again, there is no Legal Risk Discount for OTC Transactions with Defendants).
- iv. The application of Euribor Artificiality to a Qualified Claimant's transactions in any of the foregoing categories may result in a favorable impact (that is, the Qualified Claimant arguably gained from the Euribor Artificiality on that transaction). If so, in the calculations within that category, this favorable impact will be subtracted from the Qualified Claimant's transactions in that category which experienced adverse impact. In each category, a Qualified Claimant may, on net, experience an overall adverse impact or an overall favorable impact. If the overall impact for Futures Transactions is favorable, then the Legal Risk Discount will be applied. If the overall impact for OTC Transactions with Non-Defendants is favorable, then the Legal Risk Discount will be applied.
- F. Total on Discounted Transactions. The Settlement Administrator will then add the Qualified Claimant's adverse or favorable impact for Futures Transactions to their adverse or favorable impact for OTC Transactions with Non-Defendants. If this sum results in adverse impact, then the Qualified Claimant will have total adverse impact from Discounted Transactions. Example: If a Qualified Claimant had adverse impact from Euribor Artificiality of \$1,700 on Futures Transactions, and adverse impact of \$800 on OTC Transactions with a Non-Defendant, then that Qualified Claimant has adverse impact from Discounted Transactions of \$2,500. Example 2: If a Qualified Claimant had an adverse impact from Euribor Artificiality of \$1,700 on Futures Transactions, and a favorable impact of \$800 on OTC Transactions with a Non-Defendant, then that Qualified Claimant has total adverse impact from Discounted Transactions of \$900. Example 3: If a Qualified Claimant had favorable impact from Euribor Artificiality of \$1,000 on Futures Transactions,

and adverse impact from Euribor Artificiality of \$200 on OTC Transactions with Non-Defendants, then that Qualified Claimant will have a total favorable impact on Discounted Transactions. If a Qualified Claimant's total impact on Discounted Transactions is favorable, then their favorable impact will have no effect on the calculation of their Total Adjusted Volume nor the amount due the Qualified Claimant from the sum of Total Adjusted Volume and Total Adverse Impact.

- G. Total Adverse Impact. Each Qualified Claimant's Total Adverse Impact will be the sum of their total adverse impact, if any, on Discounted Transactions, and their total adverse impact, if any, on OTC Transactions with Defendants. Example: If a Qualified Claimant had \$2,500 in total adverse impact from Discounted Transactions and \$1,000 in total adverse impact from OTC Transactions with Defendants, then that Qualified Claimant's TAI will be \$3,500. Example: If a Qualified Claimant had total adverse impact on Discounted Transactions of \$2,500 and a total favorable impact of \$1,000 on OTC Transactions with Defendants, then the Qualified Claimant will have TAI of \$2,500. Example: If the Qualified Claimant had \$1,000 in total adverse impact on OTC Transactions with Defendants and total favorable impact of \$2,500 on Discounted Transactions, then that Qualified Claimant will have a TAI of \$1,000. Example: If a Qualified Claimant has a total favorable adverse impact on Discounted Transactions, and a total favorable impact on OTC Transactions, then that Qualified Claimant will not be entitled to any TAI payment. But the Qualified Claimant will be eligible for a payment based on Total Adjusted Volume. See ¶10 below.
- 8. **Euribor Artificiality**. "Euribor Artificiality" is an estimate of the impact on Euribor of Defendants' alleged unlawful behavior. Tables will be posted on the Settlement Website on or before March 15, 2018 reflecting days on which Euribor one-month, three-month, and/or six-month tenors were artificial, and indicating whether each such tenor was artificially high or artificially low. On or before July 31, 2018, the tables posted on the Settlement Website will reflect the amounts of the Euribor Artificiality for such tenors. Class members may follow the Settlement Website,

http://www.euriborsettlement.com/, for this information as well as any postings of additional days or tenors of Euribor Artificiality.

- 9. Adverse Impact. Adverse Impact will be recognized if a Qualified Claimant demonstrates that it engaged in any of the transactions which will be described on the Settlement Website on or before March 15, 2018 under "Adverse Impact." For example, and without limitation, Adverse Impact will be recognized if a Qualified Claimant demonstrates that it engaged in any of the following transactions:
 - a. Paid a Euribor-indexed interest rate when Euribor was artificially high in the applicable tenor(s).
 - b. Received a Euribor-indexed interest rate when Euribor was artificially low in the applicable tenor(s).
 - c. Currency Forward Contracts. Purchased Euros forward at a time when Euribor was artificially high in the applicable tenor(s).
 - d. Currency Forward Contracts. Sold Euros forward at a time when the Euribor was artificially low in the applicable tenor(s).
 - e. Purchased a Futures Contract or sold a call option on a Futures Contract at the final expiration price on the last day of the contract when Euribor was artificially low in the Euribor three-month tenor.
 - f. Sold a Futures Contract or purchased a put option on a Futures Contract at the final expiration price on the last day of the contract when Euribor was artificially high in the Euribor three-month tenor.

Adverse Impact will also be recognized if a Qualified Claimant demonstrates that it engaged in any of the other Futures Transactions, OTC Transactions with Defendants, and OTC Transactions with

Non-Defendants that will be set forth on the Settlement Website under "Adverse Impact" on or before March 15, 2018.

C. Distribution Of The Remaining Ten Percent Of The Net Settlement Fund

- 10. **Distribution Based On Total Adjusted Volume.** Ten percent of the Net Settlement Fund will be distributed according to the Settlement Administrator's determination of each Qualified Claimant's Total Adjusted Volume on their transactions, provided that there will be a guaranteed minimum payment provision as set forth in ¶14 below.
- 11. Calculation Of The Total Adjusted Volume Of Each Qualified Claimant. The Settlement Administrator shall make the following calculations in order to determine each Qualified Claimant's Total Adjusted Volume.
 - A. Computation Of Adjusted Volume For OTC Transactions With Defendants.

 The Settlement Administrator will add the recognized volume of purchases and sales of each Qualified Claimant's OTC Transactions with Defendants. The resulting sum will be the Qualified Claimant's recognized volume for OTC Transactions with Defendants. Because there is no Legal Risk Discount, this will also be the Qualified Claimant's adjusted volume for OTC Transactions with Defendants.
 - B. Computation Of Adjusted Volume For OTC Transactions With Non-Defendants. The Settlement Administrator will add the recognized volume of purchases and sales of each Qualified Claimant's OTC Transactions with Non-Defendants. The resulting sum will be the Qualified Claimant's recognized volume for OTC Transactions with Non-Defendants. The Settlement Administrator will then apply the appropriate 20% Legal Risk Discount to such total. The resulting amount will be the Qualified Claimant's adjusted volume for OTC Transactions with Non-Defendants. Example: Suppose a Qualified Claimant had a recognized volume on

- OTC Transactions with Non-Defendants of \$1,000,000. The \$1,000,000 would be multiplied by 0.8, which would produce an adjusted volume of \$800,000 for that Qualified Claimant on OTC Transactions with Non-Defendants.
- C. Computation Of Adjusted Volume For Futures Transactions. The Settlement Administrator shall add the recognized volume of purchases and sales of each Qualified Claimant's Futures Transactions (which, again, includes options on futures). The resulting sum will be the Qualified Claimant's recognized volume for Futures Transactions. The Settlement Administrator will then apply the appropriate 15% Legal Risk Discount to such total. The resulting amount will be the Qualified Claimant's adjusted volume for Futures Transactions. *Example:* Suppose a Qualified Claimant had a recognized volume on Futures Transactions of \$1,000,000. The \$1,000,000 would be multiplied by 0.85, which would produce an adjusted volume of \$850,000 for that Qualified Claimant on Futures Transactions.
- D. Calculation Of Each Qualified Claimant's Total Adjusted Volume. The Settlement Administrator shall then add the totals in "A", "B", and "C" above in order to determine each Qualified Claimant's Total Adjusted Volume. *Example*: If the Qualified Claimant had adjusted volume of \$1,000,000 on OTC Transactions with Defendants, \$800,000 in adjusted volume on OTC Transactions with Non-Defendants, and adjusted volume of \$850,000 on Futures Transactions, then that Qualified Claimant's Total Adjusted Volume will be \$2,650,000.
- 12. **Each Qualified Claimant's** *Pro Rata* Share Of Total Adjusted Volume. Each Qualified Claimant shall receive their *pro rata* share of the Total Adjusted Volume of all Qualified Claimants, provided that there will be adjustments so as to guarantee each Qualified Claimant a minimum payment of \$30.00. See ¶14 below. *Example*: if a Qualified Claimant has a Total Adjusted

Volume that equals 0.025% of the Total Adjusted Volume of all Qualified Claimants, then that Qualified Claimant will be due to receive a payment equal to 0.025% of 10% of the Net Settlement Fund, provided that there will be adjustments to guarantee the minimum payment. See ¶14 below.

- 13. **Payments Are Additive.** Each Qualified Claimant will be due to be paid the sum of its entitlement of its Total Adverse Impact payment (if any) and its Total Adjusted Volume payment, subject to adjustments to effectuate a guaranteed minimum payment.
- 14. **Guaranteed Minimum Payment To Each Qualified Claimant**. If the sum of the totals due to a Qualified Claimant on Total Adverse Impact (if any) and Total Adjusted Volume is less than \$30.00², then the Settlement Administrator shall increase the amount due to that Qualified Claimant by an amount sufficient to produce a payment to such Qualified Claimant of \$30.00. *Example*: if the sum of the payments due to a Qualified Claimant equals \$20.00, then the Settlement Administrator shall add \$10.00 to that payment in order to produce the guaranteed minimum payment of \$30.00. *See* fn. 2. The amounts required for this adjustment will be paid from the Total Adjusted Volume Payments.

D. Miscellaneous

- 15. **Determinations Under This Plan.** All determinations and interpretations of this Plan shall be made by A.B. Data, Ltd., the court-appointed Settlement Administrator subject to review by Lead Counsel.
- 16. The Court May Change The Plan At Any Time. This Plan shall be subject to change by the Court, at its own initiative, without prior notice to Class members. Any change in the Plan by the Court will be promptly posted on the Settlement Website, http://www.euriborsettlement.com/.

² This minimum payment will be reduced to \$10.00 if the only Settlement to receive final approved is the HSBC Settlement.

- 17. **Amendment.** This Plan shall be subject to amendment by motion at any time by Class Counsel provided that (a) notice is provided to Qualified Claimants on the Settlement Website, with at least twenty-one (21) days' time for the filing of objections to such amendment, and (b) the Court approves, in whole or in part, such amendment.
- 18. **Settlement Administration Mediator.** Kenneth Feinberg, Esq., shall serve as the Settlement Administration Mediator.

UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

STEPHEN SULLIVAN, WHITE OAK FUND LP, CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM, SONTERRA CAPITAL MASTER FUND, LTD., FRONTPOINT PARTNERS TRADING FUND, L.P., AND FRONTPOINT AUSTRALIAN OPPORTUNITIES TRUST on behalf of themselves and all others similarly situated,

Docket No. 13-cv-02811 (PKC)

Plaintiffs,

- against -

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CITIGROUP, INC., CITIBANK, N.A.,
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CO., JPMORGAN CHASE BANK, N.A., THE ROYAL
BANK OF SCOTLAND PLC, SOCIÉTÉ GÉNÉRALE
SA, UBS AG AND JOHN DOE NOS. 1-50,

Defendants.

DECLARATION OF KENNETH R. FEINBERG

I, KENNETH R. FEINBERG, pursuant to 28 U.S.C. § 1746, declare as follows:

I. Introduction

- 1. I am a person of the full age of majority and, if called to testify, am competent to testify as to the facts set forth herein.
- 2. I served as the Allocation Mediator ("Mediator") in the above captioned matter. I submit this Declaration in support of Plaintiffs' motion for Preliminary Approval of the Plan of Distribution for Settlements with Barclays, HSBC, and Deutsche Bank.²
- 3. As set forth herein, I personally oversaw an allocation mediation process that resulted in litigation risk discounts being incorporated into the Plan of Distribution. It is my opinion that the process by which the litigation risk discounts to the distribution formula were negotiated was fair and reasonable. More specifically, the legal risks discounts were negotiated by sophisticated counsel representing different segments of the Settlement Class through an arm's-length, adversarial process that I personally supervised as the Mediator.

II. My Experience With Mediation, Plans Of Allocation, And Distribution Of Proceeds To Members Of Settlement Classes.

- 4. I have acted as an independent neutral mediator for over 30 years.
- 5. I have been retained by private parties, federal and state courts, government agencies and others to design and administer mediation procedures aimed at resolving thousands of complex disputes. These include mass torts, insurance coverage, contracts, securities, and

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¹ Plaintiffs are California State Teachers' Retirement System, Sonterra Capital Master Fund, LTD., FrontPoint Australian Opportunities Trust, FrontPoint Partners Trading Fund, L.P., White Oak Fund L.P., Stephen Sullivan. All references to "ECF No." herein refer to documents in the docket of 13-cv-02811-PKC unless otherwise specified.

² As set forth in Plaintiffs' preliminary approval motions [ECF Nos. 234, 279, 364], the Settlements include: (1) Barclays plc, Barclays Bank plc, and Barclays Capital Inc. ("Barclays") for \$94,000,000 (preliminarily approved on December 15, 2015) [ECF No. 234] (2) HSBC Holdings plc and HSBC Bank plc. ("HSBC") for \$45,000,000 (preliminarily approved on January 18, 2017) [ECF No. 279], and (3) Deutsche Bank AG and DB Group Services (UK) Ltd. ("Deutsche Bank") for \$170,000,000 (preliminarily approved on July 6, 2017) [ECF No. 364]. Barclays, HSBC, and Deutsche Bank are hereinafter referred collectively as "Settling Defendants".

antitrust litigation.

- 6. In some of these disputes, as in the above captioned matter, I have been retained by the litigants to act as the neutral mediator. In other disputes, I have been appointed by the court to serve as the mediator (see, e.g., In re "Agent Orange" Prod. Liab. Litig., 611 F. Supp. 1396 (E.D.N.Y. 1985)). After the September 11 terrorist attacks, I was appointed by the Attorney General of the United States and the Department of Justice to act as the Special Master/Administrator of The Federal September 11 Victim Compensation Fund of 2001 (see 49 U.S.C. Section 40101; 28 C.F.R. Sections 104.2 et seq. (2003)).
- 7. I have also been appointed by federal and state judges to act as the independent neutral and Distribution Agent in administrating class action settlements in complex commercial cases, including the allocation and distribution of class settlement proceeds to eligible claimants. See e.g., Securities and Exchange Commission v. Maurice R. Greenberg and Howard I. Smith, 09-civ. 6939 (S.D.N.Y. 2011) (Preska, J.).
- 8. Regarding plans of distribution, I have been assigned by various courts with responsibility for designing, implementing, and administering systems for the allocation and distribution of settlement proceeds totaling billions of dollars.
- 9. I served as the Special Master of the September 11th Victim Compensation Fund of 2001. In that capacity, federal law delegated to me the responsibility for designing, implementing, and administering a \$7 billion public fund for the families of 9/11 victims and survivors who were physically injured. I served as the Fund Administrator of the Computer Associates Restitution Fund, appointed by the Federal District Court in the Eastern District of New York, as well as Special Master of the *In re Zyprexa* settlement, appointed by the Federal District Court in the Eastern District of New York. In both matters, I have been responsible for

designing and administering allocation formulas for the distribution of settlement proceeds to eligible claimants. I also completed my service as court-appointed Special Master of the *Latino Officers Assn. v. The City of New York* class action discrimination case in the Southern District of New York, where I again was responsible for allocating and distributing settlement proceeds. I have also served as the agreed-upon Mediator in *In re Foreign Exchange Benchmark Rates Antitrust Litig.*, in this District.

- 10. A copy of my curriculum vitae is attached hereto as Exhibit A.
- III. The Litigation Risk Discounts And The Plan Of Distribution Are Fair, Reasonable, And The Product Of Well-Informed, Sophisticated, Adversarial Representation Of The Appropriate Interests Of The Class.
- 11. Prior to being retained, I did not have personal knowledge of various specific factual allegations and legal rulings concerning the Euribor Action.³ During the course of the mediation, I acted as an independent, neutral mediator encouraging each side separately, and the allocation counsel together, to resolve their differences through intense, arm's-length, negotiation. I supervised the entire process as the Mediator.
- 12. At the outset of the mediation process, I represented to the parties that all communications, negotiations, and agreements pursuant to the mediation were to be kept strictly confidential, including statements and other information found in court papers and proceedings. All such information was agreed to be subject to the mediator's privilege. All participants agreed to these terms at the outset of, and throughout, the mediation, and all participants are entitled to rely on such representations.
- 13. On or about September 20, 2017, Class Counsel asked if I would serve as Mediator and conduct an allocation mediation to ensure that there was a fair process that

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³ I earlier served as mediator in the settlement between Plaintiffs and Barclays dated October 7, 2015, and submitted a declaration in support of preliminary approval of that settlement. ECF 219. In addition, I have served as mediator in various actions alleging manipulation of interest rate indices.

included in-person mediation sessions as well as telephonic ones. Separate allocation counsel represented each of the following interests during such process:

Interest	Allocation Counsel	
Persons who made Over-The-Counter ("OTC")	Berman Tabacco	
transactions directly from Defendants		
Futures traders	Kirby McInerney LLP	
Persons who made OTC transactions with non-	Cafferty Clobes Meriwether &	
Defendants	Sprengel LLP	

- 14. The law firms involved in the allocation mediation process are collectively referred to as "Allocation Counsel." Also present with Berman Tabacco was Brian Bartow, Esq., the General Counsel for Named Plaintiff California State Teachers' Retirement System ("CalSTRS") which is one of the largest public pension funds in the world.
- 15. During the course of the mediation process, I conducted numerous in-person and telephonic mediation sessions with Allocation Counsel, separately and together, in an effort to help the parties reach a successful mediated settlement.
- 16. On November 20, I conducted a mediation with Allocation Counsel in New York City. During the in-person mediation sessions, I met with representatives of Allocation Counsel, and heard from each side concerning each party's views as to the allocation decisions. The discussions were vigorous, well informed, and at arm's length. They involved highly experienced counsel representing all sides.
- 17. At the end of this mediation process, the various interests unanimously agreed that the appropriate legal risks discounts were as follows:

Persons who made OTC transactions directly from Defendants	No legal risk discount
	15% legal risk discount
Persons who made OTC transactions with non-Defendants	20% legal risk discount

- 18. It is my belief that the allocation reached in the above-captioned matter as a result of the Allocation Mediation is fair, reasonable, and adequate, and represented a reasonable compromise of competing interests and risks. It is my understanding that Allocation Counsel determined these legal risk discounts by considering all the circumstances, including the Court's prior legal rulings and their implications to the Settlement Class' claims.
- 19. In sum, based on my previous experience in mediation, and my careful evaluation and analysis of the proposed allocation in this matter, it is my opinion that:
 - This mediation involved arm's length, independent representation of each of the different interests;
 - Each Allocation Counsel was sophisticated and fully capable of representing its clients' interests; and
 - The allocation was reached through an arm's length mediation process that served each client's interest well in light of the competing considerations.

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I declare under penalty of perjury that the foregoing is a true and correct statement of my opinions. Executed on January 2, 2018 at Washington, DC.

Kenneth R. Feinberg

THE FIRM

Berman Tabacco is a national law firm with 34 attorneys located in offices in Boston and San Francisco. Since its founding in 1982, the Firm has devoted its practice to complex litigation, primarily representing plaintiffs seeking redress under U.S. federal and state securities and antitrust laws.

Over the past three decades, Berman Tabacco's attorneys have prosecuted hundreds of class actions, recovering billions of dollars on behalf of the Firm's clients and the classes they represented. In addition to financial recoveries, the Firm has achieved significant changes in corporate governance and business practices of defendant companies. Indeed, according to the most recent ISS Securities Class Action Services "Top 50 for 2015" report, Berman Tabacco was one of only six firms that recovered more than half-a-billion dollars for investors in 2015.¹ It currently holds leadership positions in securities and antitrust cases around the country.

Berman Tabacco is rated AV® Preeminent™ by Martindale-Hubbell®. The Firm was recognized as a "Top Ten Plaintiffs' Firm" for its work "on behalf of individuals and institutions who have suffered financial harm due to violations of securities or antitrust laws" by Benchmark Litigation in 2017 and 2018, https://www.benchmarklitigation.com/firms/berman-tabacco/f-195. Benchmark also ranked the Firm as "Highly Recommended" – the seventh time the Firm has received that distinction. Berman Tabacco's lawyers are frequently singled out for favorable comments by our clients, presiding judges and opposing counsel. For examples, please see:

http://www.bermantabacco.com/about-the-firm/what-our-clients-say and http://www.bermandetabacco.com/about-the-firm/reviews-from-the-bench.

SECURITIES PRACTICE

Berman Tabacco has more than 30 years of experience in securities litigation and has represented public pension funds and other institutional investors in this area since 1998. As reported by Cornerstone Research, the Firm has successfully prosecuted some of the most significant shareholder class action lawsuits.² According to the most recent ISS Securities Class Action Services "Top 50 for 2015" report, Berman Tabacco was one of only six firms that recovered more than half-a-billion dollars for investors in 2015.³

¹ ISS's report "lists the top 50 plaintiffs' law firms ranked by the total dollar value of the final class action settlements occurring in 2015 in which the law firm served as lead or co-lead counsel." ISS Securities Class Action Services, *Top 50 for 2015* (May 2016), http://www.bermantabacco.com/images/pdfs/articles/scastop502015.pdf.

² Cornerstone Research, Securities Class Action Filings: 2011 Year in Review (2012), at p. 23, available at http://securities.stanford.edu/research-reports/1996-2011/Cornerstone-Research-Securities-Class-Action-Filings-2011-YIR.pdf.

³ ISS's report "lists the top 50 plaintiffs' law firms ranked by the total dollar value of the final class action settlements occurring in 2015 in which the law firm served as lead or co-lead counsel." ISS Securities Class Action Services, *Top 50 for 2015* (May 2, 2016), available at http://www.bermantabacco.com/images/pdfs/articles/scastop502015.pdf.

Specifically, the Firm has been appointed lead or co-lead counsel in more than 100 actions, recovering billions on behalf of defrauded investors under the Private Securities Litigation Reform Act of 1995 ("PSLRA"). The Firm has an extremely rigorous case evaluation process and highly-experienced litigation attorneys. Its dismissal rate for cases brought under the PSLRA is less than half the overall dismissal rate for such cases according to one authoritative study.⁴

Berman Tabacco serves as monitoring, evaluation and/or litigation counsel to nearly 100 institutional investors, including statewide public employee retirement systems in 18 states, 10 public funds with more than \$50 billion in assets, five of the 10 largest public pension plans in the country, and 11 of the top 20.⁵ For many institutional investors, the Firm's services include electronically monitoring the client's portfolio for losses due to securities fraud in U.S. securities cases.

The Firm provides portfolio monitoring, case evaluation and litigation services to its institutional clients, including the litigation of class and individual claims pursuant to U.S. federal and state securities laws, as well as derivative cases pursuant to state law. The Firm also offers institutional investors legal services in other areas, including (a) representing institutional investors in general commercial litigation; (b) representing institutional investors in their capacity as defendants in constructive fraudulent transfer cases; (c) negotiating resolution of disputes with money managers and custodians; and (d) pursuing shareholder rights, such as books and records demands and merger and acquisition cases.

⁴ Firm data reflects dismissal rates through present. Overall dismissal rates come from *Securities Class Action Filings:* 2015 Year in Review, p. 12 (Cornerstone Research 2016), available at https://www.cornerstone.com/Publications/Reports/Securities-Class-Action-Filings-2015-Year-in-Review.pdf.

⁵ Based on an October 27, 2016 query of the Standard & Poor's Money Market Directories, www.mmdwebaccess.com, whereby public pension funds were ranked according to defined benefit assets under management. Actual valuation dates vary.

RESULTS

SECURITIES SETTLEMENTS

Examples of the Firm's settlements include:

Carlson v. Xerox Corp., No. 00-cv-1621 (D. Conn.). Representing the Louisiana State Employees' Retirement System as co-lead counsel, Berman Tabacco negotiated a \$750 million settlement to resolve claims of securities fraud against Xerox, certain top officers and its auditor KPMG LLP. When it received final court approval in January 2009, the recovery was the 10th largest securities class action settlement of all time. The judge praised plaintiffs' counsel for obtaining "a very large settlement" despite vigorous opposition in a case complicated by an alleged fraud that "involved multiple accounting standards that touched on numerous aspects of a multinational corporation's business, implicated operating units around the world, and spanned five annual reporting periods. ... [and] the rudiments of the accounting principles at issue in the case were complex, as were numerous other aspects of the case. ... The class received high-quality legal representation and obtained a very large settlement in the face of vigorous opposition by highly experienced and skilled defense counsel."

In re IndyMac Mortgage-Backed Litigation, No. 09-cv-4583 (S.D.N.Y.). Representing the Wyoming State Treasurer's Office and the Wyoming Retirement System as lead plaintiffs, Berman Tabacco achieved settlements totaling \$346 million in a case regarding the securitization and sale of mortgage-backed securities ("MBS") by IndyMac Bank and related entities. In February 2015, the Court approved a \$340 million settlement with six underwriters of IndyMac MBS offerings, adding to a previous \$6 million partial settlement and making the total recovery one of the largest MBS class action settlements to date. This settlement is extraordinary, not only because of its size but also because \$340 million of the settlement amount was paid entirely by underwriters who had due diligence defenses. In most other MBS cases, by contrast, plaintiffs were able to recover the settlement fund monies from the issuing entities, who are held to a strict liability standard for which there is no due diligence defense. (The issuer in this action, IndyMac Bank, is no longer in existence.)

In re Bristol-Myers Squibb Securities Litigation, No. 02-cv-2251 (S.D.N.Y.). Berman Tabacco represented the Fresno County Employees' Retirement Association and Louisiana State Employees' Retirement System as co-lead plaintiffs and negotiated a settlement of \$300 million in July 2004. At that time, the settlement was the largest by a drug company in a U.S. securities fraud case.

In re The Bear Stearns Cos. Inc. Securities, Derivative and ERISA Litigation, Master File No. 08-MDL No. 1963/08 Civ. 2793 (S.D.N.Y). Berman Tabacco acted as co-lead counsel for court-appointed lead plaintiff the State of Michigan Retirement Systems in this case arising from investment losses suffered in the Bear Stearns Companies' 2008 collapse. The Firm negotiated \$294.9 million in settlements, comprised of \$275 million from Bear Stearns and \$19.9 million from auditor Deloitte

& Touche LLP. The settlement received final approval November 9, 2012. At the time, the settlement for \$294.9 million represented one of the 40 largest securities class action settlements under the PSLRA. This is particularly significant in light of the fact that no government entity had pursued actions or claims against Bear Stearns or its former officers and directors related to the same conduct complained of in the Firm's action.

In re El Paso Securities Litigation, No. H-02-2717 (S.D. Tex.). Representing the Oklahoma Firefighters Pension and Retirement System as co-lead plaintiff, Berman Tabacco helped negotiate a settlement totaling \$285 million, including \$12 million from auditors PricewaterhouseCoopers. The court granted final approval of the settlement in March 2007.

California Public Employees' Retirement System v. Moody's Corp., No. CGC-09-490241 (Cal. Super. Ct. San Francisco Cty.). As lead counsel representing the California Public Employees' Retirement System (CalPERS), the Firm negotiated a combined \$255 million settlement with the credit rating agencies Moody's and Standard & Poor's to settle CalPERS' claim that "Aaa" ratings on three structured investment vehicles were negligent misrepresentations under California law. In addition to obtaining a substantial recovery for investment losses, this case was groundbreaking in that (a) the settlements rank as the largest known recoveries from Moody's and S&P in a private lawsuit for civil damages, and (b) it resulted in a published appellate court opinion finding that rating agencies can, in certain circumstances, be liable for negligent misrepresentations under California law for their ratings of privately-placed securities.

In re Centennial Technologies Securities Litigation, No. 97-cv-10304 (D. Mass.). Berman Tabacco served as sole lead counsel in a class action involving a massive accounting scandal that shot down the company's high-flying stock. Berman Tabacco negotiated a settlement that permitted a turnaround of the company and provided a substantial recovery for class members. The Firm negotiated changes in corporate practice, including strengthening internal financial controls and obtaining 37% of the company's stock for the class. The Firm also recovered \$20 million from Coopers & Lybrand, Centennial's auditor at the time. In addition, the Firm recovered \$2.1 million from defendants Jay Alix & Associates and Lawrence J. Ramaekers for a total recovery of more than \$35 million for the class. The Firm subsequently obtained a \$207 million judgment against former Centennial CEO Emanuel Pinez.

In re Digital Lightwave Securities Litigation, No. 98-152-cv-T-24C (M.D. Fla.). As co-lead counsel, Berman Tabacco negotiated a settlement that included changing company management and strengthening the company's internal financial controls. The class received 1.8 million shares of freely tradable common stock that traded at just below \$4 per share when the court approved the settlement. At the time the shares were distributed to the members of the class, the stock traded at approximately \$100 per share and class members received more than 200% of their losses after the payment of attorneys' fees and expenses. The total value of the settlement, at the time of distribution, was almost \$200 million.

In re Lernout & Hauspie Securities Litigation, No. 00-11589 (D. Mass.), and Quaak v. Dexia, S.A., No. 03-11566 (D. Mass.). As co-lead counsel, Berman Tabacco negotiated in December 2004 what was then the third-largest settlement ever paid by accounting firms in a securities class action — a \$115 million agreement with the U.S. and Belgian affiliates of KPMG International. The case stemmed from KPMG's work for Lernout & Hauspie Speech Products, a software company driven into bankruptcy by a massive fraud. In March 2005, the Firm reached an additional settlement worth \$5.27 million with certain of Lernout & Hauspie's former top officers and directors. In the related Quaak case, the Firm negotiated a \$60 million settlement with Dexia Bank Belgium to settle claims stemming from the bank's alleged role in the fraudulent scheme at Lernout & Hauspie. The court granted final approval of the Dexia settlement in June 2007, bringing the total settlement value to more than \$180 million.

In re BP PLC Securities Litigation, No. 10-md-2185 (S.D. Tex.). The Firm was co-lead counsel representing co-lead plaintiff Ohio Public Employees Retirement System. Lead plaintiffs reached a \$175 million settlement to resolve claims brought on behalf of a class of investors who purchased BP's American Depositary Shares ("ADS") between April 26, 2010 and May 28, 2010. The action alleged that BP and two of its former officers made false and misleading statements regarding the severity of the Gulf of Mexico oil spill. More specifically, plaintiffs alleged that BP misrepresented that its best estimate of the oil spill flow rate was from 1,000 to 5,000 barrels of oil per day, when internal BP estimates showed substantially higher potential flow rates. On February 13, 2017, the court granted final approval of the settlement, ending more than six years of hard fought litigation that included extensive fact and expert discovery, multiple rounds of briefing on defendants' motions to dismiss, two rounds of briefing on class certification, a successful defense of BP's appeal of the District Court's class certification decision, and briefing on cross-motions for summary judgment.

In re Fannie Mae 2008 Securities Litigation, No. 08-cv-7831 (S.D.N.Y.). As co-lead counsel representing the Massachusetts Pension Reserves Investment Management Board, a co-lead plaintiff for the common stock class, Berman Tabacco helped negotiate a \$170 million settlement with Fannie Mae. To achieve the settlement, which was approved in March 2015, plaintiffs had to overcome the challenges posed by the federal government's placement of Fannie Mae into conservatorship and by the Second Circuit's upholding of dismissal of similar claims against Freddie Mac, Fannie Mae's sibling Government-Sponsored Enterprise.

In re Prison Realty Securities Litigation, No. 3:99-cv-0452 (M.D. Tenn.) (In re Old CCA Securities Litigation, No. 3:99-cv-0458). The Firm represented the former shareholders of Corrections Corporation of America, which merged with another company to form Prison Realty Trust, Inc. The action charged that the registration statement issued in connection with the merger contained untrue statements. Overcoming arguments that the class' claims of securities fraud were released in prior litigation involving the merger, the Firm successfully defeated the motions to dismiss. It subsequently negotiated a global settlement of approximately \$120 million in cash and stock for this case and other related litigation.

Oracle Cases, Coordination Proceeding, Special Title (Rule 1550(b)) No. 4180 (Cal. Super. Ct. San Mateo Cty.). In this coordinated derivative action, Oracle Corporation shareholders alleged that the company's Chief Executive Officer, Lawrence J. Ellison, profited from illegal insider trading. Acting as co-lead counsel, the Firm reached a settlement, pursuant to which Mr. Ellison would personally make charitable donations of \$100 million over five years in Oracle's name to an institution or charity approved by the company and pay \$22 million in attorneys' fees and expenses associated with the prosecution of the case. The innovative agreement, approved by a judge in December 2005, benefited Oracle through increased goodwill and brand recognition, while minimizing concerns that would have been raised by a payment from Mr. Ellison to the company, given his significant ownership stake. The lawsuit resulted in important changes to Oracle's internal trading policies that decrease the chances that an insider will be able to trade in possession of material, non-public information.

In re International Rectifier Securities Litigation, No. 07-cv-2544 (C.D. Cal.). As co-lead counsel representing the Massachusetts Laborers' Pension Fund, the Firm negotiated a \$90 million settlement with International Rectifier Corporation and certain top officers and directors. The case alleged that the company engaged in numerous accounting improprieties to inflate its financial results. The court granted final approval of the settlement in February 2010. At the settlement approval hearing, the Honorable John F. Walter, the presiding judge, praised counsel, stating: "I think the work by the lawyers – all the lawyers in this case – was excellent. ... In this case, the papers were excellent. So it makes our job easier and, quite frankly, more interesting when I have lawyers with the skill of the lawyers that are present in the courtroom today who have worked on this case ... the motion practice in this case was, quite frankly, very intellectually challenging and well done. ... I've presided over this consolidated action since its commencement and have nothing but the highest respect for the professionalism of the attorneys involved in this case. ... The fact that plaintiffs' counsel were able to successfully prosecute this action against such formidable opponents is an impressive feat."

In re State Street Bank & Trust Co. ERISA Litigation, No. 07-cv-8488 (S.D.N.Y.). The Firm acted as co-lead counsel in this consolidated class action case, which alleged that defendant State Street Bank and Trust Company and its affiliate, State Street Global Advisors, Inc., (collectively, "State Street") breached their fiduciary duties under the Employee Retirement Income Security Act of 1974 (ERISA) by failing to prudently manage the assets of ERISA plans invested in State Street fixed income funds during 2007. After well over a year of litigation, during which Berman Tabacco and its co-counsel reviewed approximately 13 million pages of documents and took more than 30 depositions, the parties negotiated an all-cash \$89.75 million settlement, which received final approval in 2010.

clain re Philip Services Corp. Securities Litigation, No. 98-cv-0835 (S.D.N.Y). As co-lead counsel, Berman Tabacco negotiated settlements totaling \$79.75 million with the bankrupt company's former auditors, top officers, directors and underwriters. The case alleged that Philip Services and its top officers and directors made false and misleading statements regarding the company's publicly reported revenues, earnings, assets and liabilities. The district court initially dismissed

the claims on grounds of *forum non conveniens*, but the Firm successfully obtained a reversal by the Second U.S. Circuit Court of Appeals. The court granted final approval of the settlements in March 2007.

In re Reliant Securities Litigation, No. 02-cv-1810 (S.D. Tex.). As lead counsel representing the Louisiana Municipal Police Employees' Retirement System, the Firm negotiated a \$75 million cash settlement from the company and Deloitte & Touche LLP. The settlement received final approval in January 2006.

In re KLA-Tencor Corp. Securities Litigation, No. 06-cv-04065 (N.D. Cal.). Representing co-lead plaintiff Louisiana Municipal Police Employees' Retirement System, Berman Tabacco negotiated a \$65 million agreement to settle claims that KLA-Tencor illegally backdated stock option grants, issued false and misleading statements regarding grants to key executives and inflated the company's financial results by understating expenses associated with the backdated options. The court granted final approval of the settlement in 2008. At the conclusion of the case, Judge Charles R. Breyer praised plaintiffs' counsel for "working very hard" in exchange for an "extraordinarily reasonable" fee, stating: "I appreciate the fact that you've done an outstanding job, and you've been entirely reasonable in what you've done. Congratulations for working very hard on this."

City of Brockton Retirement System v. Avon Products Inc., No. 11-cv-04665 (S.D.N.Y.). As a member of the executive committee representing named plaintiffs City of Brockton Retirement System and Louisiana Municipal Police Employees' Retirement System, the Firm negotiated a \$62 million settlement. The action alleged that Avon Products, Inc. violated federal securities laws by failing to disclose to investors the size and scope of the Company's violations of the Foreign Corrupt Practices Act of 1977 (FCPA). In response to Avon's piecemeal disclosures over the course of more than a year, which ultimately revealed the true extent of the FCPA violations, the Company's stock lost nearly 20% of its pre-disclosure value. This case was one of the very few successful securities cases premised on FCPA violations.

Ehrenreich v. Witter, No. 95-cv-6637 (S.D. Fla.). The Firm was co-lead counsel in this case involving Sensormatic Electronics Corp., which resulted in a settlement of \$53.5 million. When it as approved in 1998, the settlement was one of the largest class action settlements in the state of Florida.

In re Thomas & Betts Securities Litigation, No. 2:00-cv-2127 (W.D. Tenn.). The Firm served as colead counsel in this class action, which settled for more than \$51 million in 2004. Plaintiffs had accused the company and other defendants of issuing false and misleading financial statements for 1996, 1997, 1998, 1999 and the first two quarters of 2000.

In re Enterasys Networks, Inc. Securities Litigation, No. C-02-071-M (D.N.H.). Berman Tabacco acted as sole lead counsel in a case against Enterasys Networks, Inc., in which the Los Angeles County Employees Retirement Association was lead plaintiff. The company settled in October

2003 for \$17 million in cash, stock valued at \$33 million and major corporate governance improvements that opened the computer networking company to greater public scrutiny. Changes included requiring the company to back a proposal to eliminate its staggered board of directors, allowing certain large shareholders to propose candidates to the board and expanding the company's annual proxy disclosures. The settlement received final court approval in December 2003.

Giarraputo v. UNUMProvident Corp., No. 2:99-cv-00301 (D. Me.). As a member of the executive committee representing plaintiffs, Berman Tabacco secured a \$45 million settlement in a lawsuit stemming from the 1999 merger that created UNUMProvident. Shareholders of both predecessor companies accused the insurer of misleading the public about its business condition before the merger. The settlement received final approval in June 2002.

In re General Electric Co. Securities Litigation, No. 09 Civ. 1951 (S.D.N.Y.). The Firm serves as Lead Counsel on behalf of the State Universities Retirement System of Illinois in a lawsuit against General Electric Co. and certain of its officers. A settlement in the amount of \$40 million was reached with all the parties. The Court approved the Settlement on September 6, 2013.

In re UCAR International, Inc. Securities Litigation, No. 98-cv-0600 (D. Conn.). The Firm represented the Florida State Board of Administration as the lead plaintiff in a securities claim arising from an accounting restatement. The case settled for \$40 million cash and the requirement that UCAR appoint an independent director to its board of directors. The settlement was approved in 2000.

In re American Home Mortgage Securities Litigation, No. 07-MD-1898 (E.D.N.Y.). As co-lead counsel representing the Oklahoma Police Pension & Retirement System, the Firm negotiated a \$37.25 million settlement – including \$4.75 million from auditors Deloitte & Touche and \$8.5 million from underwriters – despite the difficulties American Home's bankruptcy posed to asset recovery. The plaintiffs contended that American Home had failed to write down the value of certain loans in its portfolio, which declined substantially in value as the credit markets unraveled. The settlement received final approval in 2010 and was distributed in 2011.

In re Avant, Securities Litigation, No. 96-cv-20132 (N.D. Cal.). Avant!, a software company, was charged with securities fraud in connection with its alleged theft of a competitor's software code, which Avant! incorporated into its flagship software product. Serving as lead counsel, the Firm recovered \$35 million for the class. The recovery resulted in eligible class claimants receiving almost 50% of their losses after attorneys' fees and expenses.

In re SmartForce PLC d/b/a SkillSoft Securities Litigation, No. 02-cv-544 (D.N.H.). Representing the Teachers' Retirement System of Louisiana as co-lead plaintiff, Berman Tabacco negotiated a \$30.5 million partial settlement with SkillSoft. Subsequently, the Firm also negotiated an \$8 million cash settlement with Ernst & Young Chartered Accountants and Ernst & Young LLP,

SkillSoft's auditors at the time. The settlements received final approval in September 2004 and November 2005, respectively.

In re Sykes Enterprises, Inc. Securities Litigation, No. 8:00-cv-212-T-26F (M.D. Fla.). The Firm represented the Florida State Board of Administration as co-lead plaintiff. Sykes Enterprises was accused of using improper means to match the company's earnings with Wall Street's expectations. The Firm negotiated a \$30 million settlement.

In re Valence Securities Litigation, No. 95-cv-20459 (N.D. Cal.). Berman Tabacco served as colead counsel in this action against a Silicon Valley-based company for overstating its performance and the development of an allegedly revolutionary battery technology. After the Ninth Circuit reversed the District Court's decision to grant summary judgment in favor of defendants, the case settled for \$30 million in Valence common stock.

In re Sybase II, Securities Litigation, No. 98-cv-0252-CAL (N.D. Cal.). Sybase was charged with inflating its quarterly financial results by improperly recognizing revenue at its wholly owned subsidiary in Japan. Acting as co-lead counsel, the Firm obtained a \$28.5 million settlement.

In re Force Protection Inc. Securities Litigation, No. 08-cv-845 (D.S.C.). As co-lead counsel representing the Laborers' Annuity and Benefit System of Chicago, the Firm negotiated a \$24 million settlement in a securities class action against armored vehicle manufacturer Force Protection, Inc. The settlement addressed the claims of shareholders who accused the company and its top officers of making false and misleading statements regarding financial results, failing to maintain effective internal controls over financial reporting and failing to comply with government contracting standards.

In re Symbol Technologies, Inc. Securities Litigation, No. 2:02-cv-01383 (E.D.N.Y.). Berman Tabacco represented the Louisiana Municipal Police Employees' Retirement System as co-lead plaintiff, obtaining a \$139 million partial settlement in June 2004. Subsequently, Symbol's former auditor, Deloitte & Touche LLP, agreed to pay \$24 million. The court granted final approval in September 2006.

In re Zynga Inc. Securities Litigation, No. 12-cv-04007 (N.D. Cal.). As co-lead counsel, the Firm negotiated a \$23 million recovery to settle claims against the company and certain of its officers. The case alleged that the company and its highest level officers falsely touted accelerated bookings and aggressive growth through 2012, while concealing crucial information that Zynga was experiencing significant declines in bookings for its games and upcoming Facebook platform changes that would negatively impact Zynga's bookings. Then, while Zynga's stock was trading at near a class-period high, defendants obtained an early release from the IPO lock-up on their shares to enable them and a few other insiders to reap over \$593 million in proceeds in a secondary offering of personally held shares. The secondary offering was timed just three months before Zynga announced its dismal Q2 2012 earnings at the end of the class period, which

caused Zynga's stock to plummet. The court granted final approval of the settlement in February 2016.

In re ICG Communications Inc. Securities Litigation, No. 00-cv-1864 (D. Colo.). As co-lead counsel representing the Strategic Marketing Analysis Fund, the Firm negotiated an \$18 million settlement with ICG Communications Inc. The case alleged that ICG executives misled investors and misrepresented growth, revenues and network capabilities. The court granted final approval of the settlement in January 2007.

In re Critical Path, Inc. Securities Litigation, No. 01-cv-0551 (N.D. Cal.). The Firm negotiated a \$17.5 million recovery to settle claims of accounting improprieties at a California software development company. Representing the Florida State Board of Administration, the Firm was able to obtain this recovery despite difficulties arising from the fact that Critical Path teetered on the edge of bankruptcy. The settlement was approved in June 2002.

In re Sunrise Senior Living, Inc. Securities Litigation, No. 07-cv-00102 (D.D.C.). A federal judge granted final approval of a \$13.5 million settlement between Oklahoma Firefighters Pension and Retirement System, represented by Berman Tabacco, and Sunrise Senior Living Inc.

Hallet v. Li & Fung, Ltd., No. 95-cv-08917 (S.D.N.Y.). Cyrk Inc. was charged with misrepresenting its financial results and failing to disclose that its largest customer was ending its relationship with the company. In 1998, Berman Tabacco successfully recovered more than \$13 million for defrauded investors.

In re Warnaco Group, Inc. Securities Litigation, No. 00-cv-6266 (S.D.N.Y.). Representing the Fresno County Employees' Retirement Association as co-lead plaintiff, the Firm negotiated a \$12.85 million settlement with several current and former top officers of the company.

Gelfer v. Pegasystems, Inc., No. 98-cv-12527 (D. Mass.). As co-lead counsel, Berman Tabacco negotiated a settlement valued at \$12.5 million, \$4.5 million in cash and \$7.5 million in shares of the company's stock or cash, at the company's option.

Sand Point Partners, L.P. v. Pediatrix Medical Group, Inc., No. 99-cv-6181 (S.D. Fla.). Berman Tabacco represented the Florida State Board of Administration, which was appointed co-lead plaintiff along with several other public pension funds. The complaint accused Pediatrix of Medicaid billing fraud, claiming that the company illegally increased revenue and profit margins by improperly coding treatment rendered. The case settled for \$12 million on the eve of trial in 2002.

In re Molten Metal Technology Inc. Securities Litigation, No. 1:97-cv-10325 (D. Mass.), and Axler v. Scientific Ecology Group, Inc., No. 1:98-cv-10161 (D. Mass.). As co-lead counsel, Berman Tabacco played a key role in settling the actions after Molten Metal and several affiliates filed a petition for bankruptcy reorganization in Massachusetts. The individual defendants and the

insurance carriers in Molten Metal agreed to settle for \$11.91 million. After the bankruptcy, a trustee objected to the use of insurance proceeds for the settlement. The parties agreed to pay the trustee \$1.325 million of the Molten Metal settlement. The parties also agreed to settle claims against Scientific Ecology Group for \$1.25 million, giving Molten Metal's investors \$11.835 million.

In re CHS Electronics, Inc. Securities Litigation, No. 99-8186-CIV (S.D. Fla.). The Firm helped obtain an \$11.5 million settlement for co-lead plaintiff Warburg, Dillon, Read, LLC (now UBS Warburg).

In re Summit Technology Securities Litigation, No. 96-cv-11589 (D. Mass.). Berman Tabacco, as co-lead counsel, negotiated a \$10 million settlement for the benefit of the class.

In re Exide Corp. Securities Litigation, No. 98-cv-60061 (E.D. Mich.). Exide was charged with having altered its inventory accounting system to artificially inflate profits by reselling used, outdated or unsuitable batteries as new ones. As co-lead counsel for the class, Berman Tabacco recovered more than \$10 million in cash for class members.

In re Fidelity/Micron Securities Litigation, No. 95-cv-12676 (D. Mass.). The Firm recovered \$10 million in cash for Micron investors after a Fidelity Fund manager touted Micron while secretly selling the stock.

In re Par Pharmaceutical Securities Litigation, No. 06-cv-03226 (D.N.J.). As counsel for court-appointed plaintiff, the Louisiana Municipal Police Employees' Retirement System, Berman Tabacco obtained an \$8.1 million settlement from the company and its former CEO and CFO, which the court approved in January 2013. The case alleged that the company had misled investors about its accounting practices, including overstatement of revenues.

In re Interspeed, Inc. Securities Litigation, No. 00-cv-12090-EFH (D. Mass.). Berman Tabacco served as co-lead counsel and negotiated a \$7.5 million settlement on behalf of the class. The settlement was reached in an early stage of the proceedings, largely as a result of the financial condition of Interspeed and the need to salvage a recovery from its available assets and insurance.

In re Abercrombie & Fitch Co. Securities Litigation, No. M21-83 (S.D.N.Y). As a member of the executive committee in this case, the Firm recovered more than \$6 million on behalf of investors. The case alleged that the clothing company misled investors with respect to declining sales, which affected the company's financial condition. The court granted final approval of the settlement in January 2007.

In re WorldCom, Inc. Securities Litigation, No. 02-cv-3288 (S.D.N.Y.). As counsel to courtappointed bondholder representatives, the County of Fresno, California and the Fresno County Employees' Retirement Association, Berman Tabacco helped a team of lawyers representing the

lead plaintiff, the New York State Common Retirement Fund, obtain settlements worth more than \$6.13 billion.

ANTITRUST PRACTICE

Berman Tabacco has a national reputation for our work prosecuting antitrust class actions involving price-fixing, market allocation agreements, patent misuse, monopolization and group boycotts among other types of anticompetitive conduct. Representing clients ranging from Fortune 500 companies and public pension funds to individual consumers, the experienced senior attorneys in our Antitrust Practice Group have engineered substantial settlements and changed business practices of defendant companies, recovering more than \$1 billion for our clients overall.

Berman Tabacco has played a major role in the prosecution of numerous landmark antitrust cases. For example, the Firm was lead counsel in the Toys "R" Us litigation, which developed the antitrust laws with respect to "hub and spoke" conspiracies and resulted in a \$62 million settlement. Berman Tabacco brought the first action centered on so-called "reverse payments" between a brand name drug maker and a generic drug maker, resulting in an \$80 million settlement from the drug makers, which had been accused of keeping a generic version of their blood pressure medication off the market.

The Firm's victories for victims of antitrust violations have come at the trial court level and also through landmark appeals court victories, which have contributed to shaping private enforcement of antitrust law. For example, in the Cardizem CD case, Berman Tabacco was colead counsel representing health insurer Aetna in an antitrust class action, and obtained a pioneering ruling in the federal court of appeals regarding the "reverse payment" by a generic drug manufacturer to the brand name drug manufacturer. In a first of its kind ruling, the appellate court held that the brand name drug manufacturer's payment of \$40 million per year to the generic company for the generic to delay bringing its competing drug to market was a per se unlawful market allocation agreement. Today that victory still shapes the ongoing antitrust battle over competition in the pharmaceutical market.

In the Firm's case against diamond giant De Beers, the Third Circuit, sitting en banc, vacated an earlier panel decision and upheld the certification of a nationwide settlement class, removing the last obstacle to final approval of a historic \$295 million settlement. The Third Circuit's important decision provides a roadmap for obtaining settlement class certification in complex, nationwide class actions involving laws of numerous states.

In 2016, the Firm won reversal of a grant of summary judgment for defendant automakers in a group boycott-conspiracy case involving the export of new motor vehicles from Canada to the U.S. The California Court of Appeal found that plaintiffs had presented evidence of "patently anticompetitive conduct" with evidence gathered in the pre-trial phase, which was powerful

enough to go to a jury. The ruling is a rare example of an appellate court analyzing and reversing a trial court's evidentiary rulings to find evidence of a conspiracy.

Today the Firm currently holds leadership positions in significant antitrust class actions around the country, including as co-lead counsel in *In re Lithium Ion Batteries Antitrust Litigation*, and is actively representing major public pension funds in prosecuting price-fixing in the financial derivatives and commodities markets in the Euribor, Yen LIBOR and Foreign Currency Exchange actions.

While the majority of antitrust cases settle, our attorneys have experience taking antitrust class actions to trial. Because we represent only plaintiffs in antitrust matters, we do not have the conflicts of interest of other national law firms that represent both plaintiffs and defendants. Our experience also allows us to counsel medium and larger-sized corporations considering whether to participate as a class member or opt-out and pursue an individual strategy.

RESULTS

ANTITRUST SETTLEMENTS

Over the past two decades, Berman Tabacco actively prosecuted scores of complex antitrust cases that led to substantial settlements for its clients. These include:

In re NASDAQ Market-Makers Antitrust Litigation, No. 94-cv-3996 (S.D.N.Y). The Firm played a significant role in one of the largest antitrust settlements on record in a case that involved alleged price-fixing by more than 30 NASDAQ Market-Makers on about 6,000 NASDAQ-listed stocks over a four-year period. The settlement was valued at nearly \$1 billion.

In re Buspirone Antitrust Litigation, MDL No. 1413 (S.D.N.Y). Berman Tabacco attorneys played a key role in obtaining a \$535 million agreement from Bristol-Myers Squibb Co. to partially settle claims that the drug company illegally blocked generic competition for its anxiety medication, BuSpar.

In re Foreign Currency Conversion Fee Antitrust Litigation, MDL No. 1409 (S.D.N.Y.). Berman Tabacco, as head of discovery against defendant Citigroup Inc., played a key role in reaching a \$336 million settlement. The agreement settled claims that the defendants, which include the VISA, MasterCard and Diners Club networks and other leading bank members of the VISA and MasterCard networks, violated federal and state antitrust laws in connection with fees charged to U.S. cardholders for transactions effected in foreign currencies.

In re DRAM Antitrust Litigation, No. M:02-cv-01486 (N.D. Cal.). As liaison counsel, the Firm actively participated in this multidistrict litigation, which ultimately resulted in significant settlements with some of the world's leading manufacturers of Dynamic Random Access Memory (DRAM) chips. The defendant chip-makers allegedly conspired to fix prices of the DRAM memory

chips sold in the United States during the class period. The negotiated settlements totaled nearly \$326 million.

Sullivan v. DB Investments, Inc., No. 04-02819 (D.N.J.). Berman Tabacco represents a class of diamond resellers, such as diamond jewelry stores, in this case alleging that the De Beers group of companies unlawfully monopolized the worldwide supply of diamonds in a scheme to overcharge resellers and consumers. In May 2008, a federal judge approved the settlement, which included a cash payment to class members of \$295 million, an agreement by De Beers to submit to the jurisdiction of the United States court to enforce the terms of the settlement and a comprehensive injunction limiting De Beers' ability to restrict the worldwide supply of diamonds in the future. This case is significant not only because of the large cash recovery but also because previous efforts to obtain jurisdiction over De Beers in both private and government actions had failed. On August 27, 2010, the Third U.S. Circuit Court of Appeals agreed to hear arguments over whether to uphold the district court's certification of the settlement class. By agreeing to schedule an en banc appeal before the full court, the Third Circuit vacated a July 13, 2010 ruling by a three-judge panel of the appeals court that, in a 2-to-1 decision, had ordered a remand of the case back to the district court, which may have required substantial adjustments to the original settlement. On February 23, 2011, the Third Circuit, sitting en banc, again heard oral argument from the parties. On December 20, 2011, the en banc Third Circuit handed down its decision affirming the district court in all respects. The settlement is now final, and checks have been distributed to class members.

In re Sorbates Direct Purchaser Antitrust Litigation, No. C 98-4886 CAL (N.D. Cal.). The Firm served as lead counsel alleging that six manufacturers of Sorbates, a food preservative, violated antitrust laws through participation in a worldwide conspiracy to fix prices and allocations to customers in the United States. The Firm negotiated a partial settlement of \$82 million with four of the defendants in 2000. Following intensive pretrial litigation, the Firm achieved a further \$14.5 million settlement with the two remaining defendants, Japanese manufacturers, in 2002. The total settlement achieved for the class was \$96.5 million.

In re Disposable Contact Lens Antitrust Litigation, MDL No. 1030 (M.D. Fla.). The Firm acted as co-lead counsel and chief trial counsel. Representing both a national class and the State of Florida, the Firm helped secure settlements from defendants Bausch & Lomb and the American Optometric Association before trial and from Johnson & Johnson after five weeks of trial. The settlements were valued at more than \$92 million and also included significant injunctive relief to make disposable contact lenses available at more discount outlets and more competitive prices.

In re Cardizem CD Antitrust Litigation, No. 99-01278 (E.D. Mich.). In another case involving generic drug competition, Berman Tabacco, as co-lead counsel, helped secure an \$80 million settlement from French-German drug maker Aventis Pharmaceuticals and the Andrx Corporation of Florida. The payment to consumers, state agencies and insurance companies settled claims that the companies conspired to prevent the marketing of a less expensive generic version of the

blood pressure medication Cardizem CD. The state attorneys general of New York and Michigan joined the case in support of the class. The Firm achieved a significant appellate victory in a first of its kind ruling that the brand name drugmaker's payment of \$40 million per year for the generic company to delay bringing its generic version of blood-pressure medication Cardizem CD to market constituted an agreement not to compete that is a *per se* violation of the antitrust laws.

In re Toys "R" Us Antitrust Litigation, MDL No. 1211 (E.D.N.Y.). The California office negotiated a \$62 million settlement to answer claims that the retailer violated laws by colluding to cut off or limit supplies of popular toys to stores that sold the products at lower prices. The case developed the antitrust laws with respect to a "hub and spoke" conspiracy, where a downstream power seller coerces upstream manufacturers to the detriment of consumers. One component of the settlement required Toys "R" Us to donate \$40 million worth of toys to needy children throughout the United States over a three-year period.

In re Reformulated Gasoline (RFG) Antitrust and Patent Litigation, MDL No. 05-1671 (C.D. Cal.). Berman Tabacco, as one of four co-lead counsels in the case, negotiated a \$48 million settlement with Union Oil Company and Unocal. The agreement settled claims that the defendants manipulated the California gas market for summertime reformulated gasoline and increased prices for consumers. The settlement is noteworthy because it delivers to consumers a combination of clean air benefits and the prospect of funding for alternative fuel research. The settlement received final court approval in November 2008.

In re Abbott Laboratories Norvir Antitrust Litigation, Nos. 04-1511, 04-4203 (N.D. Cal.). Berman Tabacco acted as co-lead counsel in a case on behalf of indirect purchasers alleging that the defendant pharmaceutical company engaged in an illegal leveraged monopoly in the sale of its AIDS boosting drug known as Norvir (or Ritanovir). Plaintiffs were successful through summary judgment, including the invalidation of two key patents based on prior art, but were reversed on appeal in the Ninth Circuit as to the leveraged monopoly theory. The case settled for \$10 million, which was distributed net of fees and costs on a *cy pres* basis to 10 different AIDS research and charity organizations throughout the United States.

Automotive Refinishing Paint Antitrust, J.C.C.P. No. 4199 (Cal. Super. Ct.). In this class action, indirect purchaser-plaintiffs brought suit in California State Court against five manufacturers of automotive refinishing coatings and chemicals alleging that they violated California law by unlawfully conspiring to fix paint prices. Settlements were reached with all defendants totaling \$9.4 million, 55% of which was allocated among an End-User Class consisting of consumers and distributed on a *cy pres*, or charitable, basis to thirty-nine court-approved organizations throughout California, and the remaining 45% of which was distributed directly to a Refinishing Class consisting principally of auto-body shops located throughout California.

LEADERSHIP ROLES

The Firm currently acts as lead or co-lead counsel in high-profile securities and antitrust class actions and also represents investors in individual actions, ERISA cases and derivative cases.

The following is a representative list of active class action cases in which the Firm serves as lead or co-lead counsel or as executive committee member.

- Massachusetts Laborers' Pension Fund v. Wells Fargo & Co., et al., C.A. No. 12997-VCG
 (Del. Ch. Ct.). Counsel for Massachusetts Laborers' Pension Fund and the Employees'
 Retirement System of the City of Providence in action under Section 220 of the Delaware
 General Corporation Law in order to evaluate whether the facts support a derivative suit
 on behalf of Wells Fargo against its officers and directors for breaches of their fiduciary
 duties.
- Ohio Public Employees Retirement System v. BP America, Inc., No. 12-cv-01837 (S.D. Tex.). Counsel for plaintiffs in individual action.
- In re Digital Domain Media Group, Inc. Securities Litigation, No. 12-14333-CIV (S.D. Fla.). Co-lead Counsel.
- Sullivan v. Barclays PLC, No. 13-cv-2811 (S.D.N.Y.). Counsel for plaintiffs and represents California State Teachers' Retirement System.
- Laydon v. Mizuho Bank, Ltd., No. 1:12-cv-03419 (GBD) (S.D.N.Y.), and Sonterra Capital Master Fund, Ltd. v. UBS AG, No. 1:15-cv-05844 (GBD) (S.D.N.Y). Counsel for plaintiffs and represents California State Teachers' Retirement System and Oklahoma Police Pension and Retirement System.
- Trabakoolas v. Watts Water Technologies, Inc., No. 4:12-cv-01172-YGR (N.D. Cal.). Liaison Counsel and member of Plaintiffs' Steering Committee.
- In re Lithium Ion Batteries Antitrust Litigation, No. 13-md-2420-YGR (N.D. Cal.). Co-Lead Counsel.
- *Carlin v. DairyAmerica, Inc.,* No. 09-cv-00430 (E.D. Cal.). Member of the Interim Executive Committee and Liaison Counsel.
- Automobile Antitrust Cases I and II, Coordination Proceeding Nos. 4298 and 4303 (Cal. Super. Ct. San Francisco Cty.). Counsel for Plaintiffs.

TRIAL EXPERIENCE

The Firm has significant experience taking class actions to trial. Over the years, Berman Tabacco's attorneys have tried cases against pharmaceutical companies in courtrooms in New York and Boston, a railroad conglomerate in Delaware, one of the nation's largest trustee banks in Philadelphia, a major food retailer in St. Louis and the top officers of a failed New England bank.

The Firm has been involved in more trials than most of the firms in the plaintiffs' class action bar. Our partners' trial experience includes:

- MAZ Partners, LP v. Bruce A. Shear, et al., No. 1:11-cv-11049-PBS (D. Mass.). After two-week trial in 2017 in this breach of fiduciary class action, jury verdict for plaintiffs but no damage award. Following post-trial briefing, court exercised its equitable power and ordered \$3 million award by defendant.
- Conway v. Licata, No. 13-12193 (D. Mass.). 2015 jury verdict for defendants (Firm's client) after two-week trial on the vast majority of counts, awarding the plaintiffs a mere fraction of the damages sought. Jury also returned a verdict for defendants on one of their counterclaims.
- In re MetLife Demutualization Litigation, No. 00-Civ-2258 (E.D.N.Y.). This case settled for \$50 million after the jury was empaneled.
- White v. Heartland High-Yield Municipal Bond Fund, No. 00-C-1388 (E.D. Wis.). Firm attorneys conducted three weeks of a jury trial against final defendant, PwC, before a settlement was reached for \$8.25 million. The total settlement amount was \$23.25 million.
- In re Disposable Contact Lens Antitrust Litigation, MDL No. 1030 (M.D. Fla.). Settled for \$60 million with defendant Johnson & Johnson after five weeks of trial.
- Gutman v. Howard Savings Bank, No. 2:90-cv-02397 (D.N.J.). Jury verdict for plaintiffs after three weeks of trial in individual action. The Firm also obtained a landmark opinion allowing investors to pursue common law fraud claims arising out of their decision to retain securities as opposed to purchasing new shares. See Gutman v. Howard Savings Bank, 748 F. Supp. 254 (D.N.J. 1990).
- Hurley v. Federal Deposit Insurance Corp., No. 88-cv-940 (D. Mass.). Bench verdict for plaintiffs.
- Levine v. Fenster, No. 2-cv-895131 (D.N.J.). Plaintiffs' verdict of \$3 million following fourweek trial.

- In re Equitec Securities Litigation, No. 90-cv-2064 (N.D. Cal.). Parties reached a \$35 million settlement at the close of evidence following five-month trial.
- *In re ICN/Viratek Securities Litigation*, No. 87-cv-4296 (S.D.N.Y.). Hung jury with 8-1 vote in favor of plaintiffs; the case eventually settled for over \$14.5 million.
- In re Biogen Securities Litigation, No. 94-cv-12177 (D. Mass.). Verdict for defendants.
- *Upp v. Mellon*, No. 91-5219 (E.D. Pa.). In this bench trial, tried through verdict in 1992, the court found for a class of trust beneficiaries in a suit against the trustee bank and ordered disgorgement of fees. The Third Circuit later reversed based on lack of jurisdiction.

OUR ATTORNEYS

Partners

DANIEL E. BARENBAUM

A partner in the Firm's San Francisco office, Daniel Barenbaum focuses his practice on securities litigation. Mr. Barenbaum was one of the lead attorneys representing the California Public Employees' Retirement System in the landmark case brought against the major credit rating agencies (Standard & Poor's and Moody's) in connection with the marketing of one of the largest, most complex structured-finance securities ever devised. The case settled for a total of \$255 million. He also represented co-lead plaintiff for the common stock class Massachusetts Pension Reserves Investment Management Board in a case which settled for \$170 million against Fannie Mae; the complaint centered on misrepresentations regarding the amount of subprime and Alt-A on the company's books and the lack of adequate risk controls used and disclosed to manage those types of loans. Mr. Barenbaum has been an integral member of the Firm litigation teams, such as for In re International Rectifier Securities Litigation, No. 07-cv-02544 (C.D. Cal.), where the Firm acted as co-lead counsel representing the Massachusetts Laborers' Pension Fund for an alleged accounting fraud that originated at the company's foreign subsidiary. Mr. Barenbaum was also a key member of the team that developed the Firm's individual-case strategy necessitated by the Supreme Court's decision in Morrison v. National Australia Bank, Ltd., 561 U.S. 247, 130 S. Ct. 2869 (2010), in In re BP, p.l.c. Securities Litigation, No. 10-md-2185 (S.D. Tex.). Mr. Barenbaum also previously worked to prepare for trial In re MetLife Demutualization Litigation, No. 00-Civ-2258 (E.D.N.Y.) – a case before the Hon. Jack Weinstein that settled after the jury was empaneled.

Mr. Barenbaum was formerly an associate and partner at Lieff, Cabraser, Heimann & Bernstein, LLP where he was a member of the securities practice group and actively litigated, among other cases, two state-court individual securities actions involving large-scale accounting fraud. The first was against McKesson HBOC, where the Firm represented two Merrill Lynch mutual funds and that alleged state law claims; the case settled days before trial was to commence. The second involved Peregrine, where the Firm represented individual directors whose company had been acquired by Peregrine and whose options and shares had been converted to Peregrine shares. Mr. Barenbaum worked on all facets of litigation in those cases, from dispositive motions to discovery to appeals to oral argument.

At Lieff Cabraser, Mr. Barenbaum was the supervising attorney on the Firm's Vioxx injury cases, where the Firm had a leadership role in the multidistrict litigation. In that role, Mr. Barenbaum oversaw service pursuant to the Hague Convention of hundreds of Vioxx complaints against foreign (U.K) defendants and also acted as the primary point of contact for all foreign co-counsel. Mr. Barenbaum was also the lead associate on the Sulzer Hip Implant injury cases,

where he oversaw the service of hundreds of Sulzer complaints against foreign defendants in several countries (including Switzerland).

In 2017, Mr. Barenbaum was ranked as a Recommended Attorney in Securities Litigation by The Legal 500. Mr. Barenbaum earned his J.D. and M.B.A. degrees from Emory University in 2000, where he received the business school award for *Most Outstanding Academic Accomplishment*. He obtained his B.A. in English from Tufts University in 1994. Mr. Barenbaum was Notes and Comments Editor for 1999-2000 for the Emory Bankruptcy Developments Journal. He is the author of *Delineating Covered Class Actions Under SLUSA*, *Securities Litigation Report* (December-January 2005), and Contributing Author to *California Class Actions Practice and Procedures* (Elizabeth J. Cabraser, Editor-in-Chief, 2003). Having successfully obtained his Series 7 and 66 licenses, he was previously registered with the U.S. Securities and Exchange Commission as both a broker-dealer representative and an investment advisor.

Mr. Barenbaum is admitted to the state bar of California, as well as the Northern, Central, Southern, and Eastern Districts of California. He is also admitted to the Ninth Circuit of the U.S. Court of Appeals.

NORMAN BERMAN

In 1982, Norman Berman co-founded Berman Tabacco & Pease LLP, a predecessor to Berman Tabacco. He focuses his practice principally on complex securities and antitrust litigation. He also oversees and coordinates the Firm's mergers and acquisitions litigation practice.

During the course of his career, Mr. Berman has litigated numerous cases to successful resolution, recovering many millions of dollars on behalf of defrauded investors. He was among the lead attorneys in the *In re Philip Services Corp. Securities Litigation; In re Force Protection Inc. Securities Litigation* and the *ICG Communications, Inc.* class actions. In the case against Philip Services, Mr. Berman assisted in recovering a \$79.75 million settlement in this alleged fraud at a Canadian company, which gave rise to issues of foreign discovery. Until recently, that settlement includes the largest recovery ever obtained from a Canadian auditor. In the class action against Force Protection, he assisted in securing a \$24 million settlement. In ICG Communications, he helped to successfully secure an \$18 million settlement. Co-lead plaintiffs in the case alleged that ICG executives misled investors and misrepresented ICG's growth, revenues and network capabilities throughout the class period.

Mr. Berman was also part of the team that achieved a \$750 million recovery in *Carlson v. Xerox Corp.*, in which the Firm represented the Louisiana State Employees' Retirement System as colead counsel. Mr. Berman coordinated and conducted discovery, including a massive document review, in that international fraud class action. At the time, the recovery was the 10th largest securities class action settlement in history.

Mr. Berman has acted as trial counsel in a number of successful cases, including *Hurley v. Federal Deposit Insurance Corp.*, where the court entered an \$18 million judgment against the failed First Service Bank for Savings, and *ICN Securities Litigation*, which settled after trial for more than \$14.5 million in 1996. The trial team's work in *ICN* prompted positive judicial comment. Mr. Berman also acted as a senior member of the trial team in the case of *In re Biogen Securities Litigation* and as a member of the trail team in *In re Zila Inc. Securities Litigation*, which settled during trial preparation, *Poughkeepsie Savings Bank v. Morash* and other matters.

Prior to co-founding Berman Tabacco & Pease, LLP in 1982, Mr. Berman was associated with the Boston-based general practice firms Barron & Stadfeld, P.C. and Harold Brown & Associates.

Mr. Berman graduated from Boston University in 1970 and from Suffolk University Law School in 1974. While in law school, he was a member of the Public Defenders Group and, following law school, was an intern with the Massachusetts Defenders Committee.

Mr. Berman is co-author of a chapter on expert testimony in a handbook on Massachusetts Evidence published by Massachusetts Continuing Legal Education. He is AV® Preeminent™ rated by Martindale-Hubbell®, is designated a Local Litigation Star by Benchmark Litigation in 2013, 2014, 2015, 2017 and 2018, and is a 2016 Securities Litigation Super Lawyer

He is admitted to practice law in the Commonwealth of Massachusetts, the State of Connecticut and before the U.S. Supreme Court, as well as the District Courts of Colorado and Connecticut.

STEVEN J. BUTTACAVOLI

A partner in the Firm's Boston office, Steven J. Buttacavoli focuses his practice on securities litigation.

At Berman Tabacco, Mr. Buttacavoli is an integral member of the litigation team representing colead plaintiff in *In re BP p.l.c. Securities Litigation*, where he has assisted in drafting the amended complaint, drafting the opposition to defendants' motion to dismiss, drafting plaintiffs' motion for class certification, drafting summary judgment and *Daubert* briefs, and led fact and expert discovery efforts in this matter. A \$175 million settlement has been reached, subject to final approval by the court. Mr. Buttacavoli also represents four Ohio pension funds in connection with a separate, individual action filed against BP in connection with the funds' purchase of BP ordinary shares on the London Stock Exchange. He also helped coordinate lead plaintiff's investigation and analysis of securities fraud claims against the General Electric Co., drafted the consolidated amended complaint in a class action against the company, drafted lead plaintiff's opposition to defendants' motions to dismiss and subsequent briefing with the court and conducted discovery in that matter, which settled for \$40 million in 2013. Mr. Buttacavoli also helped coordinate lead plaintiff's investigation and analysis of securities fraud claims against the former top executives of BankUnited, drafted the consolidated amended complaint and opposition to defendants' motions to dismiss and drafted materials prepared in connection with

the mediation and settlement of *In re BankUnited Securities Litigation*. In addition, Mr. Buttacavoli advises whistleblowers in connection with the reporting of potential securities violations to the U.S. Securities and Exchange Commission and has advised numerous clients regarding potential claims involving custodian banks' foreign currency exchange pricing practices.

Prior to joining Berman Tabacco in 2009, Mr. Buttacavoli worked as an associate at Foley Hoag LLP in Boston, where he defended securities class actions and U.S. Securities and Exchange Commission enforcement actions, conducted internal investigations, responded to criminal investigations by the United States Attorney's Office and advised clients in connection with litigation risk analysis and mitigation strategies.

Mr. Buttacavoli earned an A.B. in International Relations from the College of William & Mary and a Master of Public Policy degree from Georgetown University. In 2001, he earned his J.D., *magna cum laude*, from the Georgetown University Law Center, where he was a member of the Order of the Coif. Mr. Buttacavoli was also a Senior Articles and Notes Editor for the *American Criminal Law Review*.

In 2017, Mr. Buttacavoli was ranked as a Recommended Attorney in Securities Litigation by The Legal 500. He is admitted to practice in the state and federal courts of the Commonwealth of Massachusetts and the United States Courts of Appeals for the First, Third and Fifth Circuits.

KATHLEEN M. DONOVAN-MAHER

Kathleen M. Donovan-Maher is a member of the Firm's Executive Committee and manages the Boston office. She became a partner at Berman Tabacco in 1999 and, in addition to managing the Firm, she focuses her work in the Firm's securities and whistleblower practices.

During her career, Ms. Donovan-Maher has successfully helped to prosecute numerous class actions. She led the day-to-day prosecution of the litigation against General Electric Co., which settled for \$40 million in 2013. Ms. Donovan-Maher also served as discovery captain in the NASDAQ Market Makers Antitrust Litigation, which settled for \$1.027 billion and was a member of the trial team in the ICN/Viratek Securities Litigation, which settled for \$14.5 million after the jury deadlocked at the conclusion of the 1996 trial. Other cases in which Ms. Donovan-Maher has played a chief role include, but are not limited to, In re BankUnited Securities Litigation, In re American Home Mortgage, Wyatt v. El Paso Corp., In re Enterasys Networks, Inc. Securities Litigation and In re SmartForce/SkillSoft Securities Litigation. In all cases, Ms. Donovan-Maher's efforts helped achieve significant financial recoveries for such public retirement systems as the State Universities Retirement System of Illinois, Oklahoma Police Pension & Retirement System, the Los Angeles County Employees Retirement Association and the Teachers' Retirement System of Louisiana.

In addition to a monetary award, the *Enterasys Networks* settlement also included corporate governance improvements, requiring the company to back a proposal to eliminate its staggered board of directors, allow certain large shareholders to propose candidates to the board and expand the company's annual proxy disclosures.

In *In re Centennial Technologies Litigation,* Ms. Donovan-Maher secured a \$207 million judgment against defendant Emanuel Pinez, Centennial's founder and former CEO and Chairman of the Board of Directors who was the primary architect of one of the largest financial frauds in Massachusetts history at the time.

Ms. Donovan-Maher graduated from Suffolk University *magna cum laude* in 1988, receiving a B.S. degree in Business Administration, concentrating in Finance with a minor in Economics. Ms. Donovan-Maher earned an award for maintaining the highest grade point average among students with concentrations in Finance. She graduated from Suffolk University Law School three years later after serving two years on the *Transnational Law Review*.

A member in good standing of the state bar of Massachusetts, Ms. Donovan-Maher is admitted to practice law in the U.S. District Court for the District of Massachusetts and the U.S. Courts of Appeals in the First, Second and Third Circuits. Martindale-Hubbell® has rated her AV® Preeminent™ and selected her for the 2013 Bar Register of Preeminent Women Lawyers. She is also designated a Local Litigation Star by Benchmark Litigation in 2013, 2014 and 2015. Ms. Donovan-Maher is a frequent author on continuing legal education issues for such groups as ALI-ABA and PLI. She is also a member of Phi Delta Phi, Delta Mu Delta National Honor Society in Business Administration, Omicron Delta Epsilon International Honor Society of Economics, the American Bar Association and the Boston Bar Association.

PATRICK T. EGAN

A partner in Boston, Patrick T. Egan focuses his practice on securities litigation. Mr. Egan has litigated numerous cases to successful resolution, recovering hundreds of millions of dollars on behalf of defrauded investors.

Mr. Egan was one of the Firm's lead attorneys representing the Wyoming State Treasurer and Wyoming Retirement System in the *In re IndyMac Mortgage-Backed Securities Litigation* in which the Firm achieved settlements totaling \$346 million. He was also a lead attorney representing the Michigan State Retirement Systems in the *In re Bear Stearns Companies* litigation stemming from the 2008 collapse of the company. Plaintiffs successfully recovered \$294.9 million for former Bear Stearns shareholders.

Mr. Egan has worked on a number of important cases, including *Lernout & Hauspie* and the related case, *Quaak v. Dexia*, *S.A.* Those cases stem from a massive accounting fraud scheme at Lernout & Hauspie Speech Products, N.V., a bankrupt Belgian software company. As co-lead

counsel, the Firm recovered more than \$180 million on behalf of former Lernout & Hauspie shareholders.

Prior to joining the Firm in 1999 and being named partner in 2006, Mr. Egan worked at the U.S. Department of Labor, where he served as an attorney advisor for the Office of Administrative Law Judges. Mr. Egan received a B.A. in Political Science *cum laude* from Providence College in 1993. In 1997, he graduated *cum laude* from Suffolk University Law School. While at Suffolk, Mr. Egan served on the editorial board of the *Suffolk University Law Review* and authored a note entitled, *Virtual Community Standards: Should Obscenity Law Recognize the Contemporary Community Standard of Cyberspace*, 30 Suffolk University L. Rev. 117 (1996).

Mr. Egan is admitted to practice law in the states of Massachusetts, Connecticut and New York, as well as the U.S. District Courts for the District of Massachusetts, the Southern District of New York and the Eastern District of New York. He is also admitted to practice before the U.S. Supreme Court and U.S. Courts of Appeals in the First, Second and Fourth Circuits. Mr. Egan was designated a Local Litigation Star by Benchmark Litigation in 2013, 2014, 2015 and 2018.

CHRISTOPHER T. HEFFELFINGER

Christopher T. Heffelfinger, a partner in the San Francisco office, has over 25 years of experience litigating securities cases. Mr. Heffelfinger has run a number of PSLRA cases including *In re Warnaco Group Inc. Securities Litigation*, No. 00-CIV-06266 (S.D.N.Y), where he represented Fresno County Employees' Retirement Association and the case settled for \$12.85 million following reversal of dismissal by the Second Circuit. Mr. Heffelfinger also has extensive experience in securities class actions generally, having prosecuted, for example, *In re Avant! Securities Litigation*, No. 96-cv-20132 (N.D. Cal.) (recovering \$35 million for the class, almost 50% of losses, net of attorneys' fees and expenses). Mr. Heffelfinger has also handled a number of other types of securities cases including fiduciary duty cases. For example, as co-lead counsel in *In re OpenTV Corp. Shareholder Litigation (Foley v. Kudelski SA*), No. C-09-04896 (N.D. Cal.), Mr. Heffelfinger reached a settlement that both cured certain aspects of the proposed transactions which were allegedly coercive and provided for additional material disclosures in an amendment to the offering materials.

Mr. Heffelfinger is also experienced in Investment Company Act of 1940 ("1940 Act") cases. He is currently prosecuting a 1940 Act case, *Northstar Financial Advisors, Inc. v. Schwab Inv.*, No. 08-04199 (N.D. Cal.), and previously represented plaintiffs in *Lapidus v. G. Randall Hecht*, No. C-98-3130 (N.D. Cal.), which settled for \$3 million after a plaintiffs' victory before the Ninth Circuit. Mr. Heffelfinger participated as counsel in *In re LDK Solar Securities Litigation*, No. C-07-05182-WHA (N.D. Cal.), a case alleging an inventory accounting fraud by this Chinese company regarding its treatment of different grades poly-silicon used in the production of solar panels. He participated in all phases of discovery including deposition practice in Hong Kong, expert work, summary judgment and trial preparation. *LDK Solar* settled for \$13 million. Similarly, Mr. Heffelfinger was requested by lead counsel in *In re Broadcom Corp., Securities Litigation*, No.

01-cv-00275 (C.D. Cal.), to conduct a series of depositions (fact and expert) in a securities case alleging the improper accounting treatment of warrants used by Broadcom to make acquisitions of other companies. *Broadcom* settled for \$150 million.

Mr. Heffelfinger also acted as lead counsel in the following business related litigations: (i) Stanger v. Interstate Johnson Lane (State Court of Fulton County, GA, 1991-93), a breach of fiduciary duty case where Mr. Heffelfinger represented 100 plaintiffs in a fraud action against Interstate Johnson Lane arising from a series of failed real estate limited partnerships; a number of California plaintiffs in the action were partners from defense firms in the Northern District of California; although the specific monetary terms of the settlement were confidential, plaintiffs viewed the settlement as highly favorable and each plaintiff approved the settlement; (ii) In re Matter of Arbitration Between Claimant and Spike Trading LLC and Alexis Carles dba Spike Trading Group (National Futures Association Three Panel Member Arbitration, 1999), acted as lead attorney representing claimant, a retired school teacher, in a commodities fraud arbitration and conducted a four-day arbitration resulting in a total award against the clearing firm in Chicago (plus punitive damages against one of the brokers) and attorneys' fees, for a total award of \$828,302; (iii) In re: Robert Damir, Trustee of the Chapter 7 Bankruptcy Estate of Lectus, Inc. v. Hambrecht & Quist (Cal. Super. Ct. San Francisco Cty. 1997, with approval required from U.S. Bankruptcy Court in San Francisco), acted as lead counsel, pursuant to a bankruptcy court approved joint litigation agreement, where the Trustee hired Berman Tabacco to bring a breach of fiduciary case against a series of venture capital firms including Hambrecht & Quist, Montgomery Securities and others for having breached their fiduciary duties and a Registration Rights Agreement by failing to use due care in bringing an innovative medical technology to market, which settled on favorable terms; (iv) In re Moorman v. Southmark Corporation (Cal. Super. Ct. San Mateo Cty. 1998), acted as lead counsel on behalf of limited partners seeking to compel enforcement of a 1990 judgment successfully objected to an Implementation Agreement, reaching a settlement of \$11.4 million for the class. Over the years, Mr. Heffelfinger has also successfully prosecuted numerous antitrust cases.

Mr. Heffelfinger served on active duty as an infantry officer in the U.S. Marine Corps, 1977-80, and again for nine months in 1990-1991 as a Captain with a rifle company in support of Operations Desert Shield/Storm. He has lectured periodically on discovery matters, including electronically stored information, deposition practice and evidentiary foundations in commercial litigation. Mr. Heffelfinger was named a Super Lawyer by *Northern California Super Lawyers Magazine* every year since 2009 and he has an AV® Preeminent™ rated by Martindale-Hubbell®. He was recognized by *Best Lawyers*® (24th Ed. 2018) for Litigation-Antitrust. Mr. Heffelfinger is admitted to practice law in the State of California, the U.S. District Court for the Northern, Eastern, Central and Southern Districts of California, the U.S. District Court for the District of Arizona and the Ninth Circuit U.S. Court of Appeals.

NICOLE LAVALLEE

Nicole Lavallee, the managing partner of the Firm's San Francisco office and member of the Firm's executive committee, focuses her practice on securities and derivative litigation. She is an integral member of the Firm's New Case Investigations Team, which oversees the Firm's portfolio monitoring program and investigates potential securities law violations to determine whether a case meets the Firm's exacting standards. She also advises clients on foreign litigation.

Since the enactment of the PSLRA, Ms. Lavallee has prosecuted numerous high-profile securities fraud cases for the Firm. Most recently, she was one of the lead attorneys overseeing the *IndyMac Mortgage-Backed Securities Litigation*, which settled for \$346 million – one of the largest private MBS recoveries on record and the largest of any case where the issuer bank was in bankruptcy. She was the lead partner handling the day-to-day prosecution of numerous others cases, where she handled or oversaw case investigation and factual development and briefing (including appeal briefing), conducted depositions, argued key motions (including motions to dismiss, motions for summary judgment and/or discovery motions), and participated in settlement negotiations.

Examples receiving favorable judicial commentary include: (i) In re KLA-Tencor Corp. Securities Litigation, No. C06-04065 (N.D. Cal.), an options-backdating class action, representing co-lead plaintiff the Louisiana Municipal Police Employees' Retirement System, which settled for \$65 million; (ii) In re International Rectifier Securities Litigation, No. 07-cv-02544 (C.D. Cal.), on behalf of the co-lead plaintiff Massachusetts Laborers' Pension Fund, alleging manipulation of the company's financial results, which settled for \$90 million in 2009; (iii) Oracle Cases, Coordination Proceeding, Special Title (Rule 1550(b)), No. JCCP 4180 (Cal. Super. Ct. San Mateo Cty.), a derivative case alleging that Lawrence Ellison engaged in illicit insider trading, and which settled weeks before trial when Mr. Ellison agreed to make \$100 million in charitable donations in Oracle's name; and (iv) opt-out actions on behalf of State of Michigan Retirement System and Fresno County Employees' Retirement Association against Countrywide Financial Corp. (State Treasurer of The State of Michigan v. Countrywide Financial Corp., No. CV-11-00809 (C.D. Cal.) and Fresno County Employees Retirement Association v. Countrywide Financial Corp., No. CV-11-00811 (C.D. Cal.)). She also played a key role in trial preparation for the In re GenesisIntermedia, Inc. Securities Litigation, No. CV 01-9024 (N.D. Cal.), class action. She also acted as local counsel in a number of cases where she played a significant role such as State of Oregon v. McKesson HBOC, Inc., Master File No. 307619 (Cal. Super. Ct. San Francisco Cty.), an individual opt out action brought on behalf of the retirement systems for Colorado, Utah and Minnesota, which settled very favorably. Most recently, she oversaw the prosecution of In re Zynga, Inc. Securities Litigation, No. 12-cv-04007 (N.D. Cal.), which settled for \$23 million in February 2016.

Ms. Lavallee has an AV® Preeminent™ rating from Martindale-Hubbell® and was named a Super Lawyer in 2017 by Super Lawyers Magazine. She was also recognized as a Recommended Attorney in Securities Litigation by the Legal 500 in 2017. She has authored numerous articles and lectured on securities litigation. She is also co-chair for the 2016 Cross-Border Litigation

Forum, a gathering of the most senior legal practitioners in U.S./Canada cross-border litigation (was also on the Steering Committee for the 2012 and 2014 forums). Ms. Lavallee is admitted to practice in California (1993), all federal courts in the Ninth Circuit and the Ninth Circuit of the U.S. Courts of Appeals.

KRISTIN J. MOODY

Kristin J. Moody is a partner in the Firm's San Francisco office, where she focuses her practice on securities litigation. She has successfully litigated numerous class actions that have resulted in substantial settlements for defrauded investors.

Currently, Ms. Moody serves as the lead partner for the Firm overseeing the prosecution of several consumer class actions, including City of Wyoming v. Procter & Gamble Company, an action on behalf of entities that own, manage or operate wastewater treatment systems against the leading manufacturers of wipes marketed as "flushable" as these wipes are not in fact "flushable" as they do not pass through the wastewater treatment system with adequate degradation thus causing damage to the facilities. Ms. Moody also serves as local counsel to certified classes of borrowers with mortgages owned and serviced by Wells Fargo who have received payoff statements that fail to disclose property insurance claim funds or are entitled to receive payoff statements in McLaughlin v. Wells Fargo Bank, N.A., a case which is brought under the Truth in Lending Act. The parties recently reached a settlement of the matter, pending Court approval, which will provide \$880,000 to the damages class (which will provide more than \$2,900 for each damages class member) for resolution of the statutory damages class, which is 88% of the total maximum statutory damages that could have been recovered if fully litigated, and will require defendant to disclose insurance claim funds on all of its payoff statements going forward, which is a benefit that exceeds what could be achieved after a trial. Recently, Ms. Moody represented lead plaintiff in In re Zynga, Inc. Securities Litigation, where she investigated and drafted the complaint and the successful opposition to the motion to dismiss, conducted discovery and participated in mediation. The case reached a settlement of \$23 million, which received final approval in February 2016. Ms. Moody also investigated and drafted the consolidated amended complaint in a class action against General Electric Co., certain of its officers and directors and underwriters of its public offering, drafted lead plaintiff's opposition to defendants' motions to dismiss and subsequent briefing with the court and conducted discovery in this matter. The case settled for \$40 million. Further, Ms. Moody assisted in the litigation of In re BP p.l.c. Securities Litigation, where she helped draft the amended complaint and the successful opposition to defendants' motion to dismiss. BP and Lead Plaintiffs for the "post-explosion" agreed to a settlement in the amount of \$175 million, subject to final court approval.

Ms. Moody also managed litigation, coordinated and conducted discovery, counseled clients and participated in mediation in *In re Force Protection Securities Litigation*, which settled for \$24 million. Ms. Moody also coordinated and conducted discovery, counseled the client and participated in mediation in litigation against International Rectifier Corp. and several of its

former officers and directors for an alleged fraud at a foreign subsidiary, which settled for \$90 million. In addition, Ms. Moody participated in the motion to dismiss briefing and mediation in *In re American Home Mortgage Securities Litigation*, which settled for \$37.25 million, despite the difficulties American Home's bankruptcy posed to asset recovery.

Prior to joining Berman Tabacco, Ms. Moody practiced at Holland & Knight, LLP in Boston and Morrison & Foerster, LLP in San Francisco. While at Morrison & Foerster, Ms. Moody represented clients in complex commercial litigation matters with a focus on securities litigation. At Holland & Knight, she represented clients in a range of white-collar criminal matters, government and regulatory investigations and complex civil litigation, including securities litigation. Ms. Moody has also represented clients in a number of *pro bono* matters, including discrimination and political asylum cases.

Ms. Moody has published several articles in the areas of accounting fraud, securities class actions and derivative suits. She has also taught business law courses at Fisher College and previously sat on the Fisher College Advisory Board. Ms. Moody has also served as an Advisory Board member for the non-profit Generation Citizen.

Ms. Moody earned an LL.M. from New York University School of Law in 2003, a J.D. *cum laude* from Boston College Law School in 1999, and a B.A. in English and Legal Studies *cum laude* from Bucknell University in 1995. While in law school, she was Notes and Comments Editor of the *Boston College International and Comparative Law Review* and was active in the Women's Law Center.

Ms. Moody is a member in good standing of the state bars of Massachusetts and California and is also admitted to practice in the U.S District Court for the Northern, Central, Eastern and Southern Districts of California, the U.S. District Court for the District of Massachusetts and the U.S. Courts of Appeals for the First, Third, Ninth and Federal Circuits.

MATTHEW D. PEARSON

A partner in the Firm's San Francisco office, Matthew D. Pearson focuses his practice on securities, antitrust and consumer protection litigation. Mr. Pearson is an integral member of the Firm's New Case Investigations Team and now devotes a substantial amount of his time to evaluating and investigating potential new cases. Mr. Pearson also monitors foreign securities litigation, tracks developments in foreign class action and securities law and advises clients concerning litigation in various foreign jurisdictions.

Since joining the Firm in 2005, Mr. Pearson has served in key roles on a number of the Firm's leading securities and antitrust cases. On the securities side, Mr. Pearson was part of the litigation team in *In re The Bear Stearns Cos. Inc. Securities, Derivative and ERISA Litigation*, Master File No. 08-MDL No. 1963 (S.D.N.Y.), which resulted in settlements totaling \$294.9 million

for aggrieved investors. Mr. Pearson also has extensive experience briefing motions for appointment of lead plaintiff under the PSLRA.

In his antitrust practice, Mr. Pearson has been a prominent member of the Firm's team leading the In re New Motor Vehicles Canadian Export Antitrust Litigation, No. 03-md-1532 (D. Me.), and the related California action, involving allegations that major automakers unlawfully conspired to stop the export of cheaper new Canadian vehicles into the United States. Mr. Pearson has been involved in all aspects of this nationwide, multi-jurisdictional litigation, including discovery, class certification, extensive expert reports, summary judgment, appeals in multiple courts and settlement. To date, the Firm has achieved settlements totaling over \$55 million for class members. The litigation continues in California state court, with the California Court of Appeal having recently reversed the trial court's grant of summary judgment in favor of defendant Ford Canada. Mr. Pearson also assisted in the Firm's efforts to achieve a historic \$295 million settlement with De Beers, where the Firm represented a class of diamond resellers alleging De Beers unlawfully monopolized the worldwide supply of diamonds. The settlement was significant because in addition to the \$295 million cash payment, the settlement included an agreement by De Beers to submit to the jurisdiction of the U.S. court to enforce the terms of the settlement and a comprehensive injunction limiting De Beers' ability to restrict the worldwide supply of diamonds in the future. The Firm's work in this case - believed to be the first successful prosecution of De Beers under U.S. antitrust laws – serves as a template for corralling foreign monopolists.

Mr. Pearson co-authored an *amicus* brief submitted to the California Supreme Court on behalf of three unions in the *Kwikset* case, involving products falsely labeled as "Made in the USA." The California Supreme Court's ultimate opinion (*Kwikset Corp. v. Superior Court*, 51 Cal. 4th 310 (2011)), was highly favorable to our clients' interests and became one of the leading opinions regarding standing under California's Unfair Competition Law.

Mr. Pearson received his law degree in 2004 from the University of California, Davis, School of Law, where he completed the King Hall Public Service Law Program. He completed his undergraduate studies at U.C.L.A., earning a Bachelor of Arts in Political Science/International Relations. Mr. Pearson has been admitted to practice law in the State of California, as well as the United States District Courts for the Northern, Central and Southern Districts of California.

TODD A. SEAVER

A partner in the San Francisco office, Todd A. Seaver litigates both antitrust and investment-related matters, with a primary focus on developing and litigating antitrust cases. He has led the day-to-day management of one of the largest antitrust class actions in history, and has litigated antitrust cases involving varied industries of high-tech, pharmaceuticals, autos, chemicals, consumer electronics, biotech, diamonds, and online retailing. He is a leader of the Firm's antitrust practice group, marshalling the Firm's extensive investigative resources and then litigating the cases.

Mr. Seaver is currently working in a leading role in several cases, including *In re Lithium Ion Batteries Antitrust Litigation*, where the Firm is co-lead counsel for direct purchaser plaintiffs and in which he argued and defeated certain of defendants' motions to dismiss, and deposed fact witnesses and defendants' expert economist. In addition, Mr. Seaver leads plaintiffs' efforts in *In re New Motor Vehicles Canadian Export Antitrust Litigation*, in which Berman Tabacco is lead counsel. The case alleges that major auto manufacturers unlawfully conspired to stop the export of cheaper new Canadian vehicles into the United States for use or resale. The case has partially settled with Toyota Motor Sales U.S.A. for \$35 million and with General Motors of Canada for \$20.15 million. The litigation is ongoing in California state court, with the California Court of Appeal having recently reversed the trial court's grant of summary judgment in favor of defendant Ford Canada.

Mr. Seaver is also presently counsel for plaintiffs and represents California State Teachers' Retirement System (CalSTRS) in the Euribor (*Sullivan v. Barclays PLC, et al.*, No. 13-cv-2811 (S.D.N.Y.)) and Yen Libor (*Laydon v. Mizuho Bank, Ltd.*, No. 1:12-cv-03419 (GBD) (S.D.N.Y.), and *Sonterra Capital Master Fund, Ltd. v. UBS AG*, No. 1:15-cv-05844 (GBD) (S.D.N.Y)) antitrust cases involving Wall Street banks' manipulation of interest rate benchmarks and bid-ask spread price fixing on interest rate derivatives. He also currently represents Fresno County Employees' Retirement Association (FCERA) in *In re Foreign Exchange Benchmark Rates Antitrust Litigation*, an antitrust class action against Wall Street banks for manipulating a foreign currency exchange rate benchmark and fixing bid-ask spreads on trillions of dollars of foreign currency exchange transactions.

Mr. Seaver led efforts for the Firm in an action against Netflix and Wal-Mart, In re Online DVD Rental Antitrust Litigation, in which Berman Tabacco was among lead counsel. He was responsible for managing many aspects of discovery, class certification, and summary judgment, as well as for achieving partial settlement with defendant Wal-Mart. He successfully argued in Ninth Circuit Court of Appeals for that case on an issue of first impression regarding the Class Action Fairness Act and settlements involving a mix of cash consideration and electronic store gift cards. He was also one of the lead counsel in In re Optical Disk Drive Antitrust Litigation and also worked on a number of the Firm's high-profile cases including Cardizem CD, still the leading generic drug competition case, which settled in 2003 for \$80 million. In the Cardizem CD case, Berman Tabacco was co-lead counsel representing health insurer Aetna in an antitrust class action, and obtained a pioneering ruling in the federal court of appeals regarding the "reverse payment" by a generic drug manufacturer to the brand name drug manufacturer. In a first of its kind ruling, the appellate court held that the brand name drug manufacturer's payment of \$40 million per year to the generic company for the generic to delay bringing its competing drug to market was a per se unlawful market allocation agreement. Today that victory still shapes the ongoing antitrust battle over competition in the pharmaceutical market.

Mr. Seaver spearheaded the landmark case against the major credit rating agencies (Standard & Poor's and Moody's), California Public Employees' Retirement System v. Moody's Corp., No. CGC-

09-490241 (Cal. Super. Ct. San Francisco Cty.). The case, filed on behalf of the nation's largest state pension fund, the California Public Employees' Retirement System (CalPERS), was groundbreaking litigation that held the rating agencies financially responsible for negligent misrepresentations in rating structured investment vehicles. Moody's and Standard & Poor's agreed to pay a total of \$255 million (\$130 million and \$125 million, respectively) to settle CalPERS' claim that "Aaa" ratings on three SIVs were negligent misrepresentations under California law. This case was groundbreaking in that (i) the settlements rank as the largest known recoveries from Moody's and S&P in a private lawsuit for civil damages; and (ii) it resulted in a published appellate court opinion finding that rating agencies can, contrary to decades of jurisprudence, be liable for negligent misrepresentations under California law for their ratings of privately-placed securities.

Mr. Seaver was previously associated with the law firm Devine, Millimet & Branch, P.A., where he practiced commercial litigation. He was an adjunct Professor of Law with the New England School of Law in 2003, teaching Appellate Advocacy.

Mr. Seaver graduated *magna cum laude* from Boston University in 1994 with a B.A. in International Relations. He earned a M.Sc. from the London School of Economics in 1995 and graduated *cum laude* from the American University Washington College of Law in 1999.

While in law school, Mr. Seaver served as a law clerk at the Federal Trade Commission's Bureau of Competition and as a judicial extern for the Honorable Ricardo M. Urbina, U.S. District Court for the District of Columbia.

In 2017, Mr. Seaver was ranked as a Recommended Attorney by The Legal 500 and was named a Super Lawyer by Super Lawyers Magazine. He was also named by Who's Who Legal: Competition in 2017. He has been admitted to practice law in the states of California, Massachusetts, and New Hampshire. He is also a member of the American Bar Association's Antitrust Section, and served a two-year term as a Director for the San Francisco Bar Association's Antitrust Committee in 2012-2013.

LESLIE R. STERN

A partner in Boston, Leslie R. Stern heads the New Case Investigations Team for institutional clients. The team investigates possible securities law violations, gauging clients' damages and evaluating the merits of cases to determine the best course of legal action.

In her role with the New Case Investigations Team, Ms. Stern oversees a portfolio monitoring program that combines the power of an online loss calculation system with the hands-on work of a dedicated group of attorneys, investigators and financial analysts. Her case development duties include preparing detailed case analyses and recommendations, and advising clients on their legal options.

Ms. Stern is a seasoned litigator with more than a decade of experience on cases such as *Carlson v. Xerox Corp.*, in which Berman Tabacco represented the Louisiana State Employees' Retirement System as co-lead counsel. Upon approval in January 2009, the \$750 million Xerox settlement ranked as the 10th largest securities class action recovery of all time. Ms. Stern also worked on *In re Bristol Myers-Squibb Securities Litigation*, which settled for \$300 million and *In re Zila Inc. Securities Litigation*, which settled for \$5.75 million.

Prior to joining Berman Tabacco in 1998 and being named partner in 2003, Ms. Stern practiced general civil litigation. She earned a B.S. degree in Finance from American University in 1991 and graduated *cum laude* from Suffolk University Law School in 1995.

While at Suffolk, Ms. Stern served on the Suffolk University Law Review's editorial board and authored three publications.

Ms. Stern has been admitted to practice law in the Commonwealth of Massachusetts and the U.S. District Court for the District of Massachusetts. She has also been admitted to practice in the First and Fourth Circuits of the U.S. Courts of Appeals. Ms. Stern is a founding member of the International Financial Litigation Network and a member of both the National Association of Public Pension Attorneys and the National Association of Women Lawyers. She was also designated a Local Litigation Star by Benchmark Litigation 2013, 2014 and 2015. In 2017, she was ranked as a Recommended Attorney in Securities Litigation by The Legal 500.

JOSEPH J. TABACCO, JR.

Joseph J. Tabacco, Jr., the founding member of Berman Tabacco's San Francisco office, actively litigates antitrust, securities fraud, commercial high tech and intellectual property matters.

Prior to 1981, Mr. Tabacco served as senior trial attorney for the U.S. Department of Justice, Antitrust Division in both the Central District of California and the Southern District of New York. In that capacity, he had major responsibility for several criminal and civil matters, including the antitrust trial of *United States v. IBM*. Since entering private practice in the early 1980s, Mr. Tabacco has served as trial or lead counsel in numerous antitrust and securities cases and has been involved in all aspects of state and federal litigation. In private practice, Mr. Tabacco has also tried a number of securities cases, each of which resolved successfully at various points during or after trial, including *In re MetLife Demutualization Litigation* (settled after jury empaneled), *Gutman v. Howard Savings Bank* (plaintiffs' verdict after six-week trial), *In re Equitec Securities Litigation* (settled after six months of trial) and *In re Ramtek Securities Litigation*.

Mr. Tabacco was one of the Firm's lead attorneys representing the Wyoming State Treasurer and Wyoming Retirement System in the *In re IndyMac Mortgage-Backed Securities Litigation* in which the Firm achieved settlements totaling \$346 million. He also oversaw *California Public Employees' Retirement System v. Moody's Corp.*, No. CGC-09-490241 (Cal. Super. Ct. San Francisco Cty.), the pioneering case that held credit rating agencies (Standard & Poor's and

Moody's) financially responsible for their negligence in rating structured investment vehicles. After settling with both McGraw Hill Companies and Moody's, California Public Employees' Retirement System' total recovery for the case was \$255 million. Over the decades, Mr. Tabacco has prosecuted numerous securities fraud and antitrust cases against both domestic and international companies. In additional, he has engaged in depositions and discovery outside the U.S., including most recently in England in *CalPERS v. Moody's Corp*.

Mr. Tabacco is currently overseeing *In re Lithium Ion Batteries Antitrust Litigation*, No. 13-md-2420-YGR (N.D. Cal.), a case against domestic and foreign companies alleging a conspiracy to fix the prices of lithium ion rechargeable batteries, which affected the prices paid for the batteries and certain products in which the batteries are used and which the defendants sell.

Since 2008, Mr. Tabacco has served as an independent member of the Board of Directors of Overstock.com, a publicly-traded company internet retailer. He is Chair of the Board's Corporate Governance Committee and also serves as a member of the Board's Audit and Compensation Committees. He also frequently lectures and authors articles on securities and antitrust law issues and is a member of the Advisory Board of the Institute for Consumer Antitrust Studies at Loyola University Chicago School of Law and the Advisory Board of the Center for Law, Economics & Finance at the George Washington School of Law. Mr. Tabacco is also a former teaching fellow of the Attorney General's Advocacy Institute in Washington, D.C., and has served on the faculty of ALI-ABA on programs about U.S.-Canadian business litigation and trial of complex securities cases.

For 11 consecutive years, he has been among the top U.S. securities litigators ranked by Chambers USA and is also AV® Preeminent™ rated by Martindale-Hubbell®. Mr. Tabacco has been featured by the Daily Journal as one of California's top 30 securities litigators, a group chosen from both the plaintiff and defense bars, and as one of the Top Plaintiffs Lawyers in California in 2017. He was also recognized by Who's Who Legal: Competition, most recently in 2017—a designation he has received for the past 4 years since the creation of the publication's Plaintiffs section. Additionally, for 14 consecutive years, Mr. Tabacco has been named a Super Lawyer by Northern California Super Lawyer Magazine, which features the top 5% of attorneys in the region. He was ranked as a Recommended Attorney in Securities Litigation by The Legal 500 in 2017 and a Local Litigation Star by Benchmark Litigation in 2017 and 2018. He was recognized by Best Lawyers® (24th Ed. 2018) for Litigation-Antitrust. Mr. Tabacco was also singled out by a top defense attorney for exemplifying "the finest tradition of the trial bar."

Mr. Tabacco has been admitted to practice law in the states of California, Massachusetts, New York and the District of Columbia (currently inactive).

BRYAN A. WOOD

A partner in Boston, Bryan A. Wood focuses his practice on securities and whistleblower litigation. Mr. Wood has worked on numerous securities cases on behalf of the Firm's public pension fund clients including *In re BP, plc Securities Litigation*, No. 10-md-2185 (S.D. Tex.); *City of Brockton Retirement System v. Avon Products Inc.*, No. 11-cv-04665 (S.D.N.Y.), *In re Par Pharmaceutical Securities Litigation*, No. 06-cv-03226 (D.N.J.); *Dunst v. Hyundai Motor America*, No. 3:13-cv-00069 (W.D.N.C.) and *Carlson v. Xerox Corp.*, No. 00-cv-1621 (D. Conn.).

Mr. Wood joined Berman Tabacco as an associate in 2002 and became a partner in 2009. Prior to joining the Firm, Mr. Wood was a litigation associate at both Montgomery, McCracken, Walker & Rhoads, LLP in Philadelphia and Schnader Harrison Segal & Lewis in Boston. As an associate at those firms, he represented corporations and directors in shareholder and other class action lawsuits. He also represented businesses and municipalities in general contract and employment discrimination cases.

Mr. Wood graduated *cum laude* from the University of Massachusetts in 1991 with a B.A. in Sociology. In 1995, he earned an M.S. *summa cum laude* in Public Policy from the Eagleton Institute of Politics at Rutgers University and graduated *cum laude* from the Temple University Beasley School of Law in 1998. While in law school, he was the Managing Editor of the *Temple Law Review* and a board member of the Temple Law Moot Court Honor Society. In addition, Mr. Wood completed a one-year internship for the Honorable Edward R. Becker, then Chief Judge for the U.S. Court of Appeals for the Third Circuit. Mr. Wood was designated a 2013, 2014 and 2015 Local Litigation Star by Benchmark Litigation and, in 2007, *Massachusetts Super Lawyers* magazine named him a "Rising Star" in recognition of his expertise and work in securities litigation.

Mr. Wood is admitted to practice law in the Commonwealths of Massachusetts and Pennsylvania. He is also admitted to the U.S. District Courts for the Districts of Massachusetts, Colorado and Eastern Pennsylvania, as well as the U.S. Court of Appeals for the First, Second and Ninth Circuits. Additionally, Mr. Wood is a member of the Boston Bar Association and the American Bar Association.

Associates

MARK DELANEY

An associate in the Boston office of Berman Tabacco, Mark Delaney focuses his practice on securities litigation. Mr. Delaney has supervised and participated in large-scale document review and discovery projects, including preparation for the Firm's successful ERISA litigation against State Street Bank.

Prior to rejoining the Firm in 2015, he worked as an associate at a number of Boston firms where he focused on securities litigation and enforcement. He was also a contract attorney for several prominent Boston law firms, including Berman Tabacco.

Mr. Delaney has extensive experience representing plaintiffs and defendants in securities litigation. He has represented corporations, their officers, directors and employees in criminal and civil enforcement actions, and in class action lawsuits stemming from alleged violations of the U.S. securities laws. Mr. Delaney also has represented companies and individuals in federal criminal proceedings relating to allegations of Taft-Hartley violations. He is experienced in alternative dispute resolution proceedings and represented a former corporate officer accused of securities fraud in a two-week arbitration hearing regarding indemnification rights.

Mr. Delaney received a B.A. in Political Science *summa cum laude* from Tulane University where he graduated in the top 1% of his class in 1998. In 2001, he earned his J.D. *magna cum laude* from Boston University School of Law where he graduated in the top 10% of his class and received the G. Joseph Tauro distinguished scholar award.

Mr. Delaney is admitted to practice law in the Commonwealth of Massachusetts and the U.S. District Court for the District of Massachusetts.

VICTOR S. ELIAS

An associate in the Firm's San Francisco office, Victor S. Elias focuses his practice on securities fraud litigation. Mr. Elias assisted in the representation of lead plaintiff State Universities Retirement System of Illinois in *In re General Electric Co. Securities Litigation*, No. 09 Civ. 01951 (S.D.N.Y.), which settled for \$40 million, helping draft lead plaintiff's opposition to defendants' motions to dismiss and subsequent briefing with the court. Mr. Elias has also assisted in *In re Fannie Mae 2008 Securities Litigation*, No. 08 Civ. 07831 (S.D.N.Y.), which settled for \$170 million, by assisting in drafting mediation briefs, assisting in deposition preparation, drafting analyses of discovery issues, analyzing discovery productions, conducting legal research and drafting papers seeking final settlement approval and in other efforts to obtain final approval.

Mr. Elias was a member of the core litigation team that represented California Public Employees' Retirement System in the negligent misrepresentation action that held credit rating agencies Moody's and Standard & Poor's financially responsible for their negligence in rating structured investment vehicles, *California Public Employees' Retirement System v. Moody's Corp.*, No. CGC-09-490241 (Cal. Super. Ct. San Francisco Cty.). The case settled for a total of \$255 million. Mr. Elias played a prominent role in leading the discovery team and preparing and responding to discovery requests. Mr. Elias was also a member of the litigation team that represented lead plaintiff in *In re Zynga, Inc. Securities Litigation*, No. 12-cv-04007 (N.D. Cal.), having assisted in assisted in drafting the successful lead plaintiff motion and the consolidated complaint. The case reached a settlement of \$23 million, which received final approval in February 2016.

Prior to joining Berman Tabacco in 2012, Mr. Elias worked as an associate at a San Francisco Bay Area-based law firm, where he assisted in the representation of individual plaintiffs in *In re BP*, p.l.c. Securities Litigation, No. 10-md-2185 (S.D. Tex.). Mr. Elias helped draft the opposition to defendants' motion to dismiss in the matter, attended depositions conducted in the parallel tort case against the oil company and analyzed discovery obtained in the matter. He also assisted in the representation of public employee retirement systems – including the county employee retirement associations of Los Angeles County, San Diego County, Stanislaus County and the Los Angeles Department of Water and Power Employees' Retirement Plan – in a false claim and breach of contract action arising from custodian banks' foreign currency exchange pricing practices in Ex rel. FX Analytics, Los Angeles County Employees Retirement Association v. The Bank of New York Mellon Corp., No. C 11-05683 (N.D. Cal.). He also assisted in the successful representation of a Chinese information technology company in Jiang v. VanceInfo Technologies Inc., No. CIV 500979 (Cal. Super. Ct. San Mateo Cty.), a business litigation suit filed against the Beijing-based company in California state court. Mr. Elias helped in drafting a demurrer to an amended complaint and analyzed discovery obtained in the matter.

Northern California Super Lawyers Magazine named Mr. Elias a "Rising Star" in 2017. He previously served for two years as a judicial law clerk for the Honorable Michaela Alvarez at the United States District Court for the Southern District of Texas. Mr. Elias is admitted to practice law in the state of California.

STEVEN GROOPMAN

Steven L. Groopman is an associate in the Firm's Boston office who focuses his practice on securities litigation. Currently, Mr. Groopman is a member of the litigation team representing the Plymouth County Retirement Association in *North Collier Fire Control and Rescue District Firefighter Pension Plan v. MDC Partners, Inc.*, which is pending in the Southern District of New York.

Mr. Groopman joined Berman Tabacco in June 2015 after serving as a law clerk to the Hon. Dickinson R. Debevoise, on the U.S. District Court for the District of New Jersey, and working as an associate at a New York law firm.

Mr. Groopman received an A.B. in Political Science *magna cum laude* from Brown University in 2005. In 2009 he graduated from George Washington University Law School.

Mr. Groopman is admitted to practice law in the States of New York and Massachusetts, the U.S. District Courts for the Southern District of New York, the Eastern District of New York and the District of Massachusetts.

SARAH KHORASANEE MCGRATH

An associate in the Firm's San Francisco office, Sarah Khorasanee McGrath focuses her practice on antitrust litigation. Ms. McGrath joined Berman Tabacco in 2010 after working as a contract attorney for the Department of Justice, Antitrust Division. Prior to that, she was an attorney volunteer with the City and County of San Francisco Office of the Public Defender and the Eviction Defense Center.

Ms. McGrath earned a B.A. in Communications from the University of California at San Diego in 2002 and a J.D. from the New England School of Law in 2008.

While in law school, Ms. McGrath worked as a judicial extern to the Honorable Eric Taylor, Superior Court of California, County of Los Angeles.

Northern California Super Lawyers Magazine named Ms. McGrath a "Rising Star" in 2013-2015 and 2017. She was also included in *San Francisco* magazine's *Top Women Attorneys in Northern California* for 2013-2015 and 2017.

Ms. McGrath is the 2016 Vice President of the Federal Bar association, Northern District of California, San Francisco and was also the Co-Chair of the Federal Bar Association's Young Lawyers Division for the Norther District of California from 2013-2015. She is admitted to practice in the State of California, the U.S. District Court for the Northern and Central Districts of California, and the U.S. Court of Appeals for the Ninth Circuit.

JESSICA MOY

Jessica Moy focuses her practice on antitrust and securities litigation. Prior to joining Berman Tabacco in 2013, Ms. Moy worked as an associate at a San Francisco law firm, where she represented plaintiffs in state and federal matters with an emphasis in antitrust, unfair competition and complex commercial litigation.

At Berman Tabacco, Ms. Moy manages and develops strategies for complex multi-national antitrust litigation as co-lead counsel, including: crafting various case protocols, creating substantive and technical architecture for document review, drafting motions, creating hearing presentations on dispositive issues, negotiating all aspects of discovery and supervising foreign language translation and review. Ms. Moy is involved in all aspects of the litigation of *In re Lithium Ion Batteries Antitrust Litigation*, a price-fixing antitrust conspiracy case brought against manufacturers of lithium-ion batteries.

Prior to attending law school, Ms. Moy spent seven months studying Chinese language at Beijing Normal University in Beijing, China as a Zeidman Fellowship recipient. Thereafter, she worked for the United States Department of Justice's Antitrust Division, Litigation II Section in Washington, DC as part of the Department's Honors Paralegal Program. While at the Antitrust

Division, she assisted with the investigation and litigation of vertical and horizontal mergers, appraised divestiture options and assessed potential purchasers of international assets.

Ms. Moy earned her Juris Doctor degree from the University of California, Hastings College of the Law. During law school, she was an oral advocate finalist and awarded "Best Brief" in the Philip C. Jessup International Law Moot Court competition, acted as an Articles Editor for Hastings Constitutional Law Quarterly and served as an Executive Board Member of Hastings's Asian/Pacific-American Law Students Association. In addition, Ms. Moy externed for the Honorable Maria-Elena James in the Northern District of California, San Francisco Division and was recognized with the CALI Excellence for the Future Award and the Witkin Award for Academic Excellence in Trial Advocacy.

Northern California Super Lawyers Magazine named Ms. Moy a "Rising Star" in 2017. She is admitted to practice in California and before the U.S. Court of Appeals for the Ninth Circuit and the U.S. District Court for the Northern District of California.

NATHANIEL L. ORENSTEIN

An associate in the Firm's Boston office, Nathaniel L. Orenstein focuses his practice on securities and antitrust litigation. He is currently engaged in a number of matters to ensure that corporate directors' meet their fiduciary obligations to their shareholders. Some of Mr. Orenstein's representative cases include: *In re Bluegreen Corporation Shareholder Litigation*, No. 502011CA018111 (15th Judicial Cir., Florida) (\$36.5 million settlement and \$80 million in benefit to class secured to date as member of Executive Committee); *In re TPC Group, Inc. Shareholders' Litigation*, No. 7865-VCN (Delaware Chancery) (\$79 million benefit to class while co-lead counsel); *Louisiana Municipal Police Employees' Retirement System v. EnergySolutions, Inc.*, C.A. No. 8350-VCG (Delaware Chancery) (\$36 million benefit to class as co-lead counsel); *In re El Paso Corporation Shareholder Litigation*, No. 6949-CS (Delaware Chancery) (\$110 million benefit to class as member of Executive Committee); *In re American Home Mortgage Securities Litigation*, No. 07-MD-1898 (E.D.N.Y.) (\$37.25 million benefit to class as member of litigation team); *In re Force Protection Inc. Securities Litigation*, No. 2:08-cv-845 CWH (D.S.C.) (\$24 million benefit to class as member of litigation, No. 12-md-02409-WGY (D. Mass.) (\$24 million benefit to class secured to date as local counsel).

In addition to Mr. Orenstein's legal practice at Berman Tabacco, he is on the Board of Directors for the Center for Insurance Research.

Prior to joining Berman Tabacco, Mr. Orenstein was a staff attorney for the Securities Division of the Office of the Secretary of the Commonwealth of Massachusetts. While there, he performed company examinations as well as investigated and pursued enforcement actions to detect and prevent fraud at hedge funds and related companies. Mr. Orenstein was the lead attorney on many investigations and actions against broker-dealers, investment advisors and others.

Prior to obtaining his J.D. from the New York University School of Law in 2005, Mr. Orenstein served as a member of the mutual fund and insurance brokerage investigation teams for the Office of the New York State Attorney General's Investment Protection Bureau. As a legal intern, he assisted with the Bureau's investigation work including, case planning, discovery and settlement negotiation.

In addition to his work for the Commonwealth and for New York State, Mr. Orenstein was the Associate Director for the Center for Insurance Research, a consumer advocacy organization. In this role, he supported Center attorneys in litigating complex insurance reorganization transactions. He also testified in regulatory and legislative proceedings on behalf of policyholders concerning market conduct and insurance rate setting.

Mr. Orenstein is admitted to practice law in the Commonwealth of Massachusetts.

A. CHOWNING POPPLER

Chowning Poppler focuses her practice on antitrust and securities litigation. Prior to joining the Firm in 2015, she worked as a litigation associate at a San Francisco law firm where she represented plaintiffs in employment-related individual and class action matters in state and federal court. Ms. Poppler started her legal career at a plaintiffs' firm in San Diego which specializes in securities and consumer class actions.

While in law school, Ms. Poppler interned at the Public Integrity Bureau of the State of New York Office of the Attorney General where she investigated alleged corruption and fraud in local governments. Ms. Poppler served on her law school's Pro Bono Legal Advocates board where she oversaw and coordinated volunteers for the unlawful detainer law clinic. She was also a member of the *San Diego International Law Journal*.

Northern California Super Lawyers Magazine named Ms. Poppler a "Rising Star" in 2017. She has served as an Executive Board Member on the ACLU – North Peninsula Chapter Board since 2012. She is admitted to practice law in the State of California and the U.S. District Courts for the Northern, Central and Eastern Districts of California.

STEPHEN RYAN JR.

Stephen Ryan Jr. is an associate in our Boston office, focusing his practice on securities litigation. Since joining the Firm in 2015, Mr. Ryan has worked on multiple matters representing whistleblowers under the SEC's Whistleblower Program, established pursuant to the Dodd-Frank Act. Mr. Ryan is also presently involved in both federal and state false claims act (*qui tam*) cases. Prior to joining the Firm, he gained experience as an associate at other law firms in Boston. Mr. Ryan previously focused his practice on litigating in the financial sector and insurance industry.

While in law school, Mr. Ryan was a Judicial Intern to Judge Charles Trombly at the Massachusetts Land Court, Department of the Trial Court. Mr. Ryan was also a Student Director of the Stone Moot Court Competition.

Mr. Ryan is admitted to practice law in the Commonwealth of Massachusetts and the U.S. District Court for the District of Massachusetts.

JUSTIN N. SAIF

An associate in the Firm's Boston office, Justin Saif focuses his practice on securities litigation. He represented the Massachusetts Pension Reserves Investment Management Board in *In re Fannie Mae 2008 Securities Litigation*, which alleged that Fannie Mae and two individual defendants made material misrepresentations regarding and failed to disclose (a) that an enormous volume of mortgages on its books were "subprime" and "Alt-A" as defined internally by the company and throughout the industry, and (b) that defendants had inadequate internal controls to manage the significant risks created by the company's purchases of those types of loans. Mr. Saif made crucial contributions to the case, including in the drafting of the Second Amended Joint Consolidated Class Action Complaint and the opposition to defendants' motions to dismiss and preparing for and participating in mediation. That case settled for \$170 million.

Mr. Saif played a key role in drafting the consolidated class action complaint and opposition to motion to dismiss in the litigation against The Bear Stearns Companies, Inc. and its auditor, Deloitte & Touche LLP, representing the State of Michigan Retirement Systems. He also oversaw the initial document review team. That case settled for \$294.9 million. Mr. Saif was an integral member of the litigation team in *In re Force Protection Securities Litigation*, representing the Laborers' Annuity and Benefit Fund of Chicago. He drafted discovery requests and responses, coordinated electronic document review and analysis and prepared for mediation. The *Force Protection* matter settled for \$24 million. Mr. Saif also played a vital part in *In re Par Pharmaceutical Securities Litigation*, representing the Louisiana Municipal Employees Retirement System, including preparing for and participating in a mediation that led to an \$8.1 million settlement.

Prior to joining Berman Tabacco in 2008, Mr. Saif worked as an associate at Foley Hoag LLP in Boston, where he focused on complex civil litigation including securities litigation, U.S. Securities and Exchange Commission enforcement matters and professional liability matters involving lawyers and accountants.

Mr. Saif earned an A.B. in Psychology from Harvard University in 1999, graduating *cum laude*. In 2004 he earned a J.D. from the University of Chicago. While in law school, he worked at the MacArthur Justice Center, an impact litigation firm and legal clinic focused on reforming the criminal justice system.

Mr. Saif is admitted to practice law in state and federal courts in Massachusetts and the U.S. Court of Appeals for the First Circuit. He is a member of the Boston Bar Association.

COREY SILVA

An associate at the Firm's Boston office, Corey Silva focuses his practice on securities litigation. Prior to joining Berman Tabacco, Mr. Silva attended Suffolk University Law School. He gained experience interning for both the Honorable Daniel Procaccini of the Rhode Island Superior Court and the U.S. Attorney's Office, District of Massachusetts. He also interned for two New England law firms.

While at Berman Tabacco, Mr. Silva has worked on securities litigation, corporate breach of fiduciary duty, and whistleblower cases.

While in law school, Mr. Silva was Managing Editor for the *Moot Court Honor Board – Journal of Trial & Appellate Advocacy*. During his undergraduate studies Mr. Silva worked in finance.

Mr. Silva is admitted to practice law in the states of Rhode Island and Massachusetts, and Massachusetts federal district court.

JENNIFER J. SOSA

An associate in the Firm's Boston office, Jennifer J. Sosa focuses her practice on complex commercial litigation, including ERISA, securities, antitrust, whistleblower, consumer and e-Discovery matters. Ms. Sosa is a member of the Firm's New Case Investigation Team and dedicates a significant amount of her time to investigating and evaluating potential new matters. Prior to joining the Firm in May 2017, Ms. Sosa was Senior Counsel at Milberg LLP in New York City, where she focused on a wide range of complex litigation matters. Ms. Sosa was involved in all aspects of the prosecution of such cases from case evaluation to the eve of trial. She has represented investors, retirees, employees, pension funds, and hedge funds and has obtained many millions of dollars in settlements for victims of corporate wrongdoing. Ms. Sosa was also a member of Milberg's E-Discovery Practice Group and specialized in managing complex discovery issues and document review teams.

In 2011, Ms. Sosa was selected as one of fifty women worldwide to participate in the pilot W50 program at UCLA's Anderson School of Management. W50 identifies future female business leaders and provides them with training in corporate governance, business strategy and leadership. During law school at Temple University, Ms. Sosa was a Beasley Scholar, a member of the Environmental Moot Court Team, and was awarded the David Sive Award for Best Brief overall in the 2004 Pace National Environmental Law Moot Court Competition. Prior to law school, Ms. Sosa was a La Comunidad Latina en Acción Scholar at Northeastern University, where she earned her degree, *cum laude*, in Chemical Engineering. She also worked as a Chemical Engineer for a wide range of technology companies in the greater Boston area.

Ms. Sosa was named a "Rising Star" by Super Lawyers for the New York Metro region in 2014 and 2015. Ms. Sosa is a member of the New York and New Jersey state bars and is admitted to practice law in the Eastern and Southern Districts of New York and the District of New Jersey.

Special Counsel

KEVIN SHELLEY

Kevin Shelley, special counsel to the Firm, is a former California Secretary of State and State Assembly leader recognized as an advocate for working people, consumers and investors.

Mr. Shelley's political involvement began in 1978 as a staff member to U.S. Representatives Phil and Sala Burton. He then played a key role in electing their successor, former Speaker of the U.S. House of Representatives Nancy Pelosi, in 1987. His own political career began in 1990, when he won a seat on the San Francisco Board of Supervisors.

Elected to the California State Assembly in 1996, he championed the rights of workers and fought to protect civil rights. Among his accomplishments, he improved conditions at nursing homes, drafted new corporate accountability requirements and created a restitution fund for victims of corporate fraud.

Mr. Shelley, who spent five of his six years in the State Assembly as Majority Leader, won election for Secretary of State in November 2002. As the state's Chief Election Officer, he is credited with improving voter participation, calmly overseeing the historic recall election and decertifying problematic electronic voting machines.

Since 2005, Mr. Shelley has been representing consumers and plaintiffs in civil litigation.

He began working with Berman Tabacco in 2006. He earned a B.A. in Political Science from the University of California, Davis in 1978 and a law degree from the University of California Hastings College of the Law in 1983. He is the son of Jack Shelley, a former San Francisco mayor, U.S. congressman and California state senator. Mr. Shelley is admitted to practice law in the state of California and the U.S. Supreme Court.

Of Counsel

JAY ENG

Jay Eng is Of Counsel to the Firm. Mr. Eng has over 14 years of experience in securities litigation, including actions brought under the PSLRA, individual and opt-out cases and mergers and acquisition litigation filed on behalf of public pension funds and retail investors. Mr. Eng has been involved in all aspects of the prosecution of such cases, including case evaluation, strategic

planning, trial preparation, court appearances, settlement negotiations and jury trials.

Mr. Eng played a key role in several of the Firm's most prominent cases. In *In re IndyMac Mortgage-Backed Securities Litigation*, No. 09-Civ. 04583 (S.D.N.Y.), the Firm represented the Wyoming State Treasurer and the Wyoming Retirement System and negotiated settlements totaling \$346 million in connection with claims concerning the misrepresentation of IndyMac mortgage loan underwriting practices. In *In re El Paso Securities Litigation*, H-02-2717 (S.D. Tex.), the Firm represented the Oklahoma Firefighters Pension & Retirement System against El Paso stemming from misrepresentations of its natural gas and oil reserves. This case resulted in a settlement totaling \$285 million, including \$12 million from auditors PricewaterhouseCoopers. In *In re Reliant Securities Litigation*, No. 02-cv-1810 (S.D. Tex.), the Firm represented the Louisiana Municipal Police Employees' Retirement System against Reliant Energy, and later its subsidiary, Reliant Resources, in connection with accounting improprieties in the energy trading business. The Firm negotiated a \$75 million cash settlement from Reliant and its accountant Deloitte & Touche LLP.

Mr. Eng was also on the trial team in White v. Heartland High-Yield Municipal Bond Fund, No. 00-C-1388 (E.D. Wis.), which was one of the few cases to go to trial after the passage of the PSLRA. Following three weeks of trial, the Firm obtained an \$8.25 million settlement against Heartland's auditor PricewaterhouseCoopers. Mr. Eng also worked on a number of matters on behalf of the Firm's public pension fund clients including: In re WorldCom, Inc. Securities Litigation, No. 02-cv-3288 (S.D.N.Y.) (\$6.13 billion settlement) (Fresno County Employees' Retirement Association); In re Enterasys Networks, Inc. Securities Litigation, No. C-02-071-M (D.N.H.) (\$50 million settlement) (Los Angeles County Employees Retirement Association); In re Sunrise Senior Living, Inc. Securities Litigation, No. 07-cv-00102 (D.D.C.) (\$13.5 million) (Oklahoma Firefighters Pension & Retirement System); and In re Buca, Inc. Securities Litigation, No. 05-cv-1762 (D. Minn.) (\$1.6 million settlement) (West Palm Beach Police Pension Fund). Recently, Mr. Eng was a member of the litigation team prosecuting California Public Employees' Retirement System v. Moody's Corp., No. CGC-09-490241 (Cal. Super. Ct. San Francisco County), against credit ratings agencies based on allegedly negligent misrepresentations regarding the creditworthiness of three structured investment vehicles. The Firm achieved settlements totaling \$255 million from Moody's (defendants Moody's Corp. and Moody's Investors' Services, Inc.) and McGraw Hill Companies, Inc. (S&P). The settlements rank as the largest known recoveries from Moody's and S&P in a private lawsuit for civil damages relating to ratings.

Mr. Eng currently serves as counsel for lead plaintiffs in *In re Digital Domain Media Group, Inc. Securities Litigation*, No. 12-14333-CIV (S.D. Fla.), a securities class action stemming from the rapid collapse of the digital production company Digital Domain Media Group, Inc., which filed for bankruptcy less than one year after going public.

Mr. Eng is a member of the State Bar of Florida, the U.S. District Court for the Southern, Middle and Northern Districts of Florida, the U.S. District Court for the Eastern District of Wisconsin, the U.S. Court of Appeals for the Eighth and Eleventh Circuits and the United States Supreme Court.

He has served as a trial court law clerk in Florida state and federal courts. He is also a member of the Public Investors Arbitration Bar Association and currently serves on the Board of Editors of the PIABA Bar Journal. He was recognized as a Rising Star in the 2010 and 2011 editions of Florida Super Lawyers® and has been awarded a rating of AV® Preeminent™ by Martindale-Hubbell®.

MARC J. GREENSPON

Marc J. Greenspon became Of Counsel to the Firm in 2009 and concentrates his practice in the area of antitrust litigation.

Mr. Greenspon, formerly an associate with the Firm from 2003 to 2007, worked on significant antitrust, consumer and securities class actions before starting an independent law practice counseling corporate clients. He maintains his independent law practice, which is not affiliated with the Firm.

Mr. Greenspon earned an LL.M. in Securities and Financial Regulation from the Georgetown University Law Center in 2003, a J.D. from Nova Southeastern University in 2002 and a B.A. from the State University of New York at Buffalo in 1999. He co-authored *Securities Arbitration:* Bankrupt, Bothered & Bewildered, 7 Stan. J.L. Bus. & Fin. 131 (2002).

Mr. Greenspon is admitted to practice law in the State of Florida, as well as in the U.S. District Courts for the Southern, Middle and Northern Districts of Florida. Mr. Greenspon is a member of the American Bar Association Section of Antitrust Law and the American Bar Association Committee on Derivatives and Futures Law.

ANNE F. O'BERRY

Since joining the Firm in 2000, Anne F. O'Berry has specialized primarily in securities class action litigation, helping to achieve substantial recoveries for institutional investors in cases such as *IndyMac MBS, El Paso, Lernout & Hauspie, Reliant, International Rectifier Corp., Sykes* and *WorldCom.*

She has also assisted in several of the Firm's antitrust and consumer protection cases, including Canadian Motor Vehicles, Citrus Canker, LCD Flat Panel, Marine Hose, State Street Bank and Trust Co. and Bear Stearns, which settled for \$294.9 million.

Ms. O'Berry began her legal career as a commercial litigation associate at the New York firm of Debevoise & Plimpton and thereafter worked as a staff attorney for a federally funded agency representing indigent death row inmates in state and federal post-conviction litigation, as codirector of a non-profit agency representing incarcerated battered women seeking executive clemency, as a central staff attorney at Florida's Fourth District Court of Appeal and as an adjunct professor at St. Thomas University Law School.

Ms. O'Berry has also served on several law-related committees, including serving as Secretary of the Civil Rights Committee of the Association of the Bar of the City of New York and as Vice President of the National Lawyers Guild's Southern Region. She is presently a member of the Guild's South Florida chapter, Animal Rights Activism Committee and Environmental Human Rights Committee, and is also a member of the Animal Legal Defense Fund.

Ms. O'Berry obtained her B.A. from the University of Pennsylvania in 1983, graduating *summa cum laude* and *Phi Beta Kappa*, and earned her J.D. from New York University School of Law in 1986, where she was the director of the Women in Prison Project at Riker's Island, a member of the Civil Rights Litigation Clinic and an Articles Editor on the *Annual Survey of American Law*, where she published the article Annual Survey of American Law 325.

While in law school, Ms. O'Berry interned for Judge Abraham D. Sofaer, U.S. District Court for the Southern District of New York and for Judge A. Leon Higginbotham, Jr., U.S. Court of Appeals for the Third Circuit.

Following law school, Ms. O'Berry served as a law clerk to Judge Dickinson R. Debevoise, U.S. District Court for the District of New Jersey, and then as a research and teaching associate to Judge Higginbotham, with whom she co-authored: *The 'Law Only As An Enemy': The Legitimization of Racial Powerlessness Through the Colonial and Antebellum Criminal Laws of Virginia*, 70 N.C. L. Rev. 969 (1992).

Ms. O'Berry is admitted to practice before the New York and Florida Bars, the U.S. Supreme Court and the U.S. District Courts for the Southern and Eastern Districts of New York and the Southern District of Florida.

JOHN H. SUTTER

John H. Sutter focuses on securities litigation and is a member of the Firm's whistleblower practice group. He joined Berman Tabacco as Of Counsel in early 2010 after working with the Firm for several years as a contract attorney.

Mr. Sutter has participated in a number of the Firm's important cases. He was lead associate on the securities litigation against The Bear Stearns Companies, Inc. and their auditors Deloitte and Touche arising out of Bear Stearns's collapse which resulted in a \$294.9 million recovery. Mr. Sutter is currently involved in several active whistleblower actions filed with the U.S. Securities and Exchange Commission. He also drafted investigative memoranda and mediation statements in the *Xerox* litigation, which resulted in a \$750 million recovery for plaintiffs from the company and its auditor, KPMG. He also participated in extensive document review and discovery preparation in the *State Street Bank ERISA* litigation and the *Nortel II* litigation, each of which resulted in a substantial recovery for plaintiffs. He worked on the *General Electric Co.* securities litigation, which settled for \$40 million in 2013.

Before working with Berman Tabacco, Mr. Sutter was both a corporate and litigation associate for two prominent Boston law firms. He also served as an in-house assistant general counsel with Biogen, Inc., focusing in particular on securities and compliance issues.

Mr. Sutter graduated second in a class of nearly 400 from Boston University School of Law, summa cum laude, in 1995. He served on the Boston University Law Review and was a charter member of the Phi Delta Phi Legal Fraternity. He also was a distinguished scholar for all three years and was the recipient of the William L. and Lillian Berger Award for Distinguished Academic Achievement. He graduated from Suffolk University in 1992 with a B.A. in English Literature.

He is admitted to practice law in the Commonwealth of Massachusetts, the U.S. District Court for the District of Massachusetts and the United States Court of Appeals for the First Circuit.

Staff Attorneys

MACKLINE BASTIEN

Mackline Bastien joined the Firm in 2015 as a staff attorney. Prior to joining Berman Tabacco, Ms. Bastien managed a solo practice in the Boston area where she represented clients in family law, business formation and housing matters. In addition, she represented an individual in a civil dispute as well as a buyer purchasing a business.

Ms. Bastien received her J.D. from Thomas M. Cooley Law School. While in law school, Ms. Bastien completed an externship at Hubbard Law Offices, P.C., in Lansing, Michigan where she assisted the general counsel for the Michigan Association of County Drain Commissioner regarding land-use issues and property rights matters. She is admitted to practice law in the Commonwealth of Massachusetts.

BRIAN J. DRAKE

A staff attorney at the Firm's Boston office, Brian J. Drake has participated in extensive document review and issue analysis in the BP litigation.

Prior to Berman Tabacco, Mr. Drake was a staff attorney at a number of prominent law firms in Washington, D.C. and Boston, where he developed a broad range of expertise, primarily in the areas of anti-trust and tax litigation.

Mr. Drake received his J.D. from the George Washington University Law School. He is admitted to practice law in the state of Virginia and the District of Columbia.

BERNA LEE

A staff attorney in the Firm's Boston office, Berna M. Lee joined the Firm in 2015, prior to which, Ms. Lee worked as an associate at a number of New York law firms.

Ms. Lee earned a B.A. in English Literature from Dartmouth College. She received her J.D., *cum laude*, from the Georgetown University Law Center, where she served on the *Georgetown Journal of Legal Ethics*, was a member of the Appellate Litigation Clinic and interned for the Hon. Gladys Kessler of the U.S. District Court for the District of Columbia.

Ms. Lee is admitted to practice law in Rhode Island, New York and the U.S. District Courts of the Southern and Eastern Districts of New York.

ELLEE K. MCKIM

A staff attorney in the Firm's Boston office, Ellee K. McKim is a member of the Firm's document discovery team. Prior to joining the Firm, Ms. McKim served as an associate attorney at a commercial litigation firm in Boston.

At Northeastern University School of Law, Ms. McKim interned for Judge Joyce London Alexander of the United States District Court for the District of Massachusetts. She also served as lawyering fellow for the law school's social justice program.

Ms. McKim is admitted to practice law in the Commonwealth of Massachusetts, the U.S. District Court for the District of Massachusetts and the U.S. Court of Appeals for the First Circuit.

Project Attorneys

LAURA M. FALARDEAU

A project attorney in the Firm's Boston office, Laura M. Falardeau is a member of the document discovery team, which helps uncover and compile evidence to prove our cases.

Ms. Falardeau joined the Firm in 2011 after working as a contract attorney for several major law firms. Earlier in her career, Ms. Falardeau served as an associate attorney at a law firm in the Boston area.

At Northeastern University School of Law, Ms. Falardeau interned for Judge Peter W. Agnes, Jr. of the Massachusetts Superior Court. During law school Ms. Falardeau also represented victims of domestic violence at Greater Boston Legal Services and served as a Hearings Officer at the Boston Public Health Commission.

Ms. Falardeau is admitted to practice law in the Commonwealth of Massachusetts.

Other Key Personnel

RONALD J. KEATING, DIRECTOR OF INVESTIGATIONS

Based in the Firm's Boston office, Ronald J. Keating is a fraud investigator and forensic accountant with nearly three decades of field experience, including 21 years as a Special Agent for the Federal Bureau of Investigation. Mr. Keating directs, manages and conducts complex financial investigations into fraud schemes. A Certified Public Accountant (CPA), Certified Fraud Examiner, FINRA Dispute Resolution Arbitrator and licensed Private Investigator, Mr. Keating joined the Firm in 2008. He devotes his skills and energies to uncovering evidence of fraud, often non-public information obtained through interviews with former employees at suspect companies.

Mr. Keating served as a Special Agent in the FBI's Boston office from 1979-1988 and again from 1995-2007. While with the Bureau, he directed all aspects of complex financial fraud investigations, including securities fraud, Ponzi schemes, financial institution fraud, financial statement fraud and economic crimes. Cases that Mr. Keating investigated in conjunction with federal and state regulators – including the U.S. Securities and Exchange Commission and the Financial Industry Regulatory Authority (formerly the National Association of Securities Dealers) – resulted in criminal penalties, multi-million-dollar settlements and asset forfeiture.

From 1993 to 1995, Mr. Keating served as Senior Special Investigator for the Board of Governors of the Federal Reserve System in Washington D.C., where he directed investigations related to violations of federal money laundering, bank fraud and bank secrecy laws.

Mr. Keating became a CPA in 1979. He is a Massachusetts-licensed Private Investigator, a Certified Fraud Examiner, Certified in Financial Forensics by the American Institute of Certified Public Accountants and a Certified Anti-Money Laundering Specialist. From 2004 to 2011, Mr. Keating was an adjunct faculty member of Southern New Hampshire University's Graduate School of Business, where he taught forensic accounting and fraud examination.

He earned a Master of Science in Taxation from Bentley College in 1988 and a B.S. in Accounting from Northeastern University in 1976.

JAMES HOUGHTON, SENIOR INVESTIGATOR

James A. Houghton is a Senior Investigator based in our Firm's Boston office. A member of the Association of Certified Fraud Examiners, Mr. Houghton works closely with our litigation and investigative teams to conduct complex financial investigations into potential fraud schemes. Mr. Houghton's knowledge and insight has brought a unique handling to the process of uncovering evidence of fraud. Such processes often include obtaining nonpublic information through interviews with former employees at suspect companies and conducting research.

Prior to joining Berman Tabacco, Mr. Houghton was a Special Agent for the Defense Criminal Investigative Service, the Law Enforcement and Investigative arm of the Department of Defense Inspector General's Office. While there, he gained 18 years' experience directing all aspects of defense and financial fraud investigations. His cases frequently involved investigations of companies with receivable-based loans with banks. Mr. Houghton handled complex and sensitive investigations that led to both fraud and Qui Tam lawsuits, often working jointly with the U.S. Attorney General's Office and other federal agencies, including the Federal Bureau of Investigations. As a result of his investigations, Mr. Houghton has testified regularly in federal courts. Mr. Houghton's skill and expertise have led to him receiving the Department of Justice Award for Public Service on two separate occasions.

Mr. Houghton has also been a Special Agent for Naval Criminal Investigative Service and a Financial Analyst for the Federal Bureau of Investigations. He has received Top Secret and Sensitive Compartmented Information Clearance.

Mr. Houghton earned a B.S. in Business Administration and Accounting from Stonehill College. He also attended the Federal Law Enforcement Training Center for White Collar Crime and Financial Fraud Training, as well as their Criminal Investigator Training Program.

JEANNINE M. SCARSCIOTTI, SENIOR PORTFOLIO ANALYST

Jeannine M. Scarsciotti, the Firm's senior portfolio analyst has more than 15 years' experience in providing portfolio monitoring, loss calculation and settlement services to the Firm's institutional clients. Ms. Scarsciotti works collaboratively with a team of portfolio analysists to provide clients with comprehensive monitoring services. Her team works closely with the Firm's attorneys in refining loss calculations to reflect estimated recoverable damages as opposed to market losses. The portfolio analysts, along with the New Case Investigations Team attorneys, routinely work with damage experts to develop regression analyses and analyze confounding information that will impact an investor's ultimate recoverable damages. Ms. Scarsciotti also devotes a substantial portion of her time offering guidance to the Firm's institutional clients in understanding their eligibility in securities class action settlements and helping clients with any custodian bank matters or data reconciliation issues that may arise.

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About our Firm

Kirby McInerney LLP is a specialist plaintiffs' litigation firm with expertise in securities, antitrust, commodities, structured finance, whistleblower, health care, consumer, and other fraud litigation.

KM brings experience, intelligence, creativity and dedication to bear in defending our clients' interests against losses, generally in cases of corporate malfeasance. We utilize cutting edge strategies that bring high – and unprecedented – recoveries for our clients: institutional and other types of investors. We have achieved and are pursuing landmark results in the fields of securities fraud, corporate governance, commodities fraud, consumer, antitrust, health care and ERISA litigation, representing our clients in class actions or, if appropriate, individual litigation.

KM has been a pioneer in securities class action law, and is one of the oldest firms in the field, with over 70 years of experience. Throughout the history of our firm, we have procured ground-breaking victories for our clients. From our victory in *Schneider v. Lazard Freres*, No. 38899, M-6679 (N.Y. App. Div. 1st Dept. 1990), which set the precedent that investment banks have direct duties to the shareholders of the companies they advise, to our procurement of the first-ever appellate reversal of a lower court's dismissal of a class action suit pursuant to the PSLRA in *In re GT Interactive Securities Litigation*, No. 98-cv-0095 (S.D.N.Y. 2000), to our recovery of an unprecedented 100 cents on the dollar for our clients in *In re Cendant Corp. PRIDES Litigation*, No. 98-cv-2819 (D. N.J. 2000), KM has helped to chart the nuances of the U.S. securities laws, and has procured superior results in the process. KM has recovered billions of dollars for our clients, and the average recoveries that we procure in each individual case are among the very best in the field.

Today, our attorneys are leading some of the largest and most significant securities litigations related to the subprime fallout of 2008 on behalf of investors such as the New York State Common Retirement Fund and the New York City Pension Funds. The firm settled one of the largest of all of the subprime cases – *In re Citigroup Inc. Securities Litigation*, No. 07-cv-9901 (S.D.N.Y.) – for \$590 million. We also obtained a \$168 million recovery for the class in *In re National City Corporation Securities, Derivative & ERISA Litigation*, No. 08-cv-70004 (N.D.Oh), a case related to the alleged misrepresentation of the nature and quality of many of National City's loans, the company's designation of unsellable loans as "held for sale," and their alleged understatement of the loan loss reserves, amongst other offenses. Finally, we also procured a \$75 million settlement for the class in *In re Wachovia Equity Securities Litigation*, No. 08-cv-6171 (S.D.N.Y.), a similar subprime-related lawsuit.

Some of our other notable securities work includes:

• *In re BISYS Securities Litigation*, No. 04-cv-3480 (S.D.N.Y. 2007). We were co-lead counsel to the Police and Fire Retirement System for the City of Detroit and to a class of investors in connection with securities class action litigation against BISYS and Dennis Sheehan, BISYS President and Chief Operating Officer. The claim alleged that BISYS and Sheehan violated 10(b) of the Securities Exchange Act of 1934 and Rule 10-5 thereunder by disseminating false and misleading information in press releases

and SEC filings throughout the class period. Plaintiffs alleged that as a result of the misleading statements including inaccurate financial reporting, the price of BISYS common stock was inflated and investors who purchased stock at this time were damaged. This securities class action resulted in a total recovery of \$66 million for the class.

- In re Adelphia Communications Corp. Securities & Derivative Litigation, No. 03 MDL 1529 (S.D.N.Y. 2007). We were co-lead counsel to Argent Classic Convertible Arbitrage Fund L.P., Argent Classic Convertible Arbitrage Fund, Ltd., Argent Lowlev Convertible Arbitrage Fund, Ltd., and a class of investors in In re Adelphia Communications Corp. Securities & Deriv. Litig., one of the largest cases of improper self-dealing by insiders in corporate history. This securities class action resulted in a total recovery of \$478 million for the class.
- In re AT&T Wireless Tracking Stock Securities Litigation, No. 00-cv-8754 (S.D.N.Y. 2006). We acted as sole lead counsel to the Soft Drink & Brewery Workers Local 812 Retirement Fund, a Taft-Hartley pension fund, and a class of investors in connection with In re AT&T Corp. Securities Litigation. The class was comprised of investors who purchased AT&T Wireless tracking stock in an April 26, 2000 initial public offering and through May 1, 2000 on the open market. The action asserted that the prospectus and registration statement used for the IPO misled investors about AT&T's prospects and recent results. KM succeeded in procuring a settlement of \$150 million for the class on the eve of trial, following extensive trial preparation.
- **Rite Aid Corp. (E.D. Pa. 2005). We represented a group of investment funds that lost more than \$10 million in Rite Aid common stock and debt transactions in connection with an individual action, Argent Classic v. Rite Aid. Although an investor class action was already underway, KM filed the individual action on the belief that our clients could realize greater pro rata recovery on their multimillion dollar losses through an individual action than through a class action, where classwide damages were in the billions of dollars (and likely exceeded the ability of Rite Aid to pay). KM's clients were able to assert claims under Section 18 of the 1934 Act, which many courts hold cannot be asserted on a classwide basis. The class action eventually settled for less than 10¢ on the dollar. Thereafter, with the stay lifted, KM defeated defendants' motion to dismiss the individual action, and the parties agreed to mediate the claims. KM ultimately settled the claims of their institutional clients. Although confidentiality agreements entered in connection with the settlement prevent disclosure of terms, the settlement provided our clients with a percentage recovery which the clients found very satisfactory and which vindicated the decision to pursue an individual claim.





Roger W. Kirby is Of Counsel to the firm. He has written several articles on litigation, the Federal Rules of Civil Procedure and Federal Rules of Evidence that have been published by various reporters and journals, and has been on the board of editors of Class Action Reports. He has also lectured on aspects of securities litigation to various professional organizations in the United States and abroad. Mr. Kirby has enjoyed considerable success as a trial attorney, and cases for which he has had primary responsibility have produced landmark decisions in the fields of securities law, corporate governance, and deceptive advertising.

Some of Mr. Kirby's relevant work includes:

- Representation of a putative class of initial public offerors in Cordes & Company Financial Services v A.G. Edwards & Sons, Inc. On appeal to the Court of Appeals for the Second Circuit, the court reversed the decision below, and held that assignees may be class representatives. It also clarified the meaning of antitrust injury;
- Representation of an objector to the settlement in *Reynolds v. Beneficial National Bank* in the United States Northern District Court for the District of Illinois. Mr. Kirby and KM persuaded the Court of Appeals for the Seventh Circuit and ultimately the district court to overturn the settlement, and were then appointed co-lead counsel to the class. Mr. Kirby and KM were lauded by the presiding judge for their "intelligence and hard work," and for obtaining "an excellent result for the class.";
- Representation, as lead counsel, of a class of investors in Gerber v. Computer Associates International, Inc., a
 securities class action that resulted in a multimillion dollar recovery jury verdict that was upheld on
 appeal; and
- Representation, as lead counsel, of purchasers of PRIDES securities in connection with the Cendant Corporation accounting fraud. Mr. Kirby was instrumental in securing an approximate \$350 million settlement for the class – an unprecedented 100 percent recovery.

Mr. Kirby is admitted to the New York State Bar, the United States District Courts for the Southern and Eastern Districts of New York, the United States Courts of Appeals for the First, Second, Third, Fifth, Seventh, Eighth, Ninth, and Eleventh Circuits, the United States District Court, District of Connecticut, and the United States Supreme Court. He attended Stanford University & Columbia College (B.A.) and Columbia University School of Law (J.D.) where he was an International Fellow. He also attended The Hague Academy of International Law (Cert. D'Att.). Thereafter, he was law clerk to the late Honorable Hugh H. Bownes, United States District Court for New Hampshire, and the United States Court of Appeals for the First Circuit. He recently authored Access to United States Courts By Purchasers Of Foreign Listed Securities In The Aftermath of Morrison v. National Australia Bank Ltd., 7 Hastings Bus. L.J. 223 (Summer 2011). Mr. Kirby is a visiting Law Fellow at the University of Oxford, St. Hilda's College, Oxford, U.K. Mr. Kirby is conversant in French and Italian.



Alice McInerney is Of Counsel to the firm and practices out of our New York office. She focuses on antitrust and consumer matters, and also handles securities class actions. Ms. McInerney joined the firm in 1995 and has over 30 years of experience as an attorney.

Prior to joining KM, Ms. McInerney was Chief of the Investor Protection Bureau and Deputy Chief of the Antitrust Bureau of the New York Attorney General's office. While there, she chaired the Enforcement Section of the North American Securities Administrators Association and also chaired the Multi-State Task Force on Investigations for the National Association of Attorneys General.

Alice is also a member of the National Association of Public Pension Attorneys (NAPPA).

Some of Ms. McInerney's relevant work includes:

- Representation, as lead and co-lead counsel, of consumer classes in antitrust cases against Microsoft.
 These litigations resulted in settlements totaling nearly a billion dollars for consumers in Florida, New York, Tennessee, West Virginia and Minnesota;
- Representation of a class of retailers in *In re Visa Check/Master Money Antitrust Litigation*, an antitrust case which resulted in a settlement of over \$3 billion for the class;
- Representation of public entities in connection with ongoing Medicaid fraud and false claims act litigations arising from health expenditures of these state and local governmental entities; and
- Representation of California homeowners in litigation arising from mortgage repayment irregularities. Litigation resulted in settlements that afforded millions of California homeowners clear title to their property. The cases resulted in the notable decision Bartold v. Glendale Federal Bank.

Ms. McInerney is admitted to the New York State Bar, all United States District Courts for the State of New York, the United States Court of Appeals for the Second Circuit and the United States Supreme Court. She graduated from Smith College (B.A. 1970) and Hofstra School of Law (J.D. 1976).





David Bishop is a partner practicing out of our New York office, where he coordinates domestic client and government relations. Mr. Bishop joined the firm in 2006 following a distinguished career in local government. Mr. Bishop was elected to the Suffolk County Legislature in 1993 while still attending Fordham Law School. There he served in several leadership capacities, including Democratic Party Leader, Chairman of Public Safety and Chairman of Environment. His legislative record earned him recognition from the Nature Conservancy, the Child Care Council and the Long Island Federation of Labor.

As an attorney in private practice, Mr. Bishop has litigated numerous NASD arbitrations on behalf of claimants.

Recent cases in which Mr. Bishop has been involved include:

- Representation of the NY State Common Retirement Fund as lead plaintiff in *In re National City Corporation Securities, Derivative & ERISA Litigation,* a securities class action arising from National City's alleged misrepresentations regarding exposure to subprime mortgage related losses. This case resulted in a settlement of \$168 million;
- Representation, as lead counsel, of classes of consumers harmed by price fixing in the LCD flat panel and SRAM markets; and
- Representation, as co-lead counsel, of an investor class led by an individual investor in *Lapin v*.
 Goldman Sachs, a securities class action against Goldman Sachs. This litigation resulted in a recovery of \$29 million for the class.

Mr. Bishop is admitted to the New York State Bar and the United States District Court for the Eastern and Southern Districts of New York. He is a member of the Public Investors Arbitration Bar Association and of the New York City Bar Association. He graduated from American University (B.A., 1987) and from Fordham University (J.D., 1993).





Thomas W. Elrod is a partner based in our New York office focusing on securities, commodities, antitrust and whistleblower litigation. Mr. Elrod joined the firm in 2011.

Recent cases on which Mr. Elrod has worked include:

- In re Citigroup Inc. Securities Litigation, a class action, in which Kirby McInerney served as lead counsel, arising out of Citigroup's alleged misrepresentations regarding their exposure to losses associated with numerous collateralized debt obligations. This case settled for \$590 million;
- Representation of exchange-based investors in futures, swaps, and other Libor-based derivative products, alleging that defendant banks colluded to misreport and manipulate Libor Rates. This litigation is ongoing;
- Representation, as lead counsel on behalf of a proposed class of futures traders in *In re North Sea Brent Crude Oil Futures Litig.*, alleging benchmark manipulation. This litigation is ongoing;
- Representation, as co-lead counsel, of a proposed class of natural gas traders in a class action lawsuit
 against Total Gas & Power North America, Inc. (TGPNA) alleging price manipulation of physical
 natural gas as well as price manipulation of natural gas futures and other derivative natural gas
 contracts. This litigation is ongoing;
- Representation of municipal issuers of Auction Rate Securities in FINRA arbitrations alleging misrepresentations by underwriters;
- Representation, as lead counsel, in *In re Hi-Crush Partners L.P. Securities Litigation*, alleging that
 fracking sand producer Hi-Crush Partners misled shareholders prior to its initial public offering. This
 case resulted in a \$3.8 million settlement while class certification was pending;
- Representation of a nationwide class of residential mortgage loan borrowers in *Rothstein v. GMAC Mortgage LLC*, a class action alleging violations of the Racketeer Influence and Corrupt Organizations
 Act. This litigation resulted in a \$13 million settlement against GMAC Mortgage; and
- Representation of whistleblowers who claim that their companies have violated federal law or defrauded the United States Government.

Mr. Elrod is admitted to the New York State Bar, the New Jersey State Bar, the United States District Courts for the Southern and Eastern Districts of New York, the United States District Court for the District of New Jersey, and the United States Courts of Appeals for the 2nd and 9th Circuits. He graduated from the University of Chicago (B.A., 2005) and from the Boston University School of Law (J.D., 2009).





Randall M. Fox is a partner in our New York office, focusing on whistleblower, antitrust and consumer fraud matters. Mr. Fox joined the firm in 2014 after having served as the founding Bureau Chief of New York Attorney General's Taxpayer Protection Bureau. The Bureau handles claims that the government was defrauded, including claims brought by whistleblowers. Before being promoted to Bureau Chief, Mr. Fox was a Special Assistant Attorney General in the New York Attorney General's Medicaid Fraud Control Unit, where he handled cases involving healthcare fraud. He currently serves on the Law360 Government Contracts Editorial Advisory Board.

Recent cases handled or supervised by Mr. Fox at the Attorney General's Office include:

- Pursued \$400 million False Claims Act claims raised by a whistleblower against Sprint Corporation for knowingly failing to pay New York State and local sales taxes on its monthly flat-rate charges for cell phone service. This case is ongoing;
- Represented New York in its first government initiated False Claims Act case, pursuing Medicaid claims against pharmaceutical giant Merck & Co. alleging that the government was defrauded in paying for Merck's pain drug Vioxx. The case settled on a nationwide basis for \$980 million, with over \$60 million going to New York;
- Pursued investigations into food services companies that had kept rebates rather than passing them along to schools and other public institutions as required by their contracts and regulations. Settled for nearly \$20 million;
- Co-led team of states that participated in \$11 million settlement of False Claims Act allegations that technology company CA, Inc. falsely overcharged governmental customers for service plans;
- Pursued False Claims Act allegations on behalf of a whistleblower against a medical imaging company for failing to pay New York corporate income taxes while conducting substantial business in the State. Settled for \$6.2 million;
- Pursued claims on behalf of a whistleblower against Mohan's Custom Tailors for knowingly failing to
 pay sales taxes that were nevertheless collected from customers. The resolution included a plea to
 criminal charges and an agreement to jail time. This case settled for \$5.5 million; and
- Settled claims against an accounting firm for falsely certifying a substance abuse clinic's inflated claims for Medicaid payments.

Before joining the New York Attorney General's Office in 2007, Mr. Fox was a partner at the law firm of LeBoeuf, Lamb, Greene & MacRae, LLP, where his practice focused on class actions, commercial disputes, and securities and consumer fraud actions. Mr. Fox is admitted to the New York State bar, the United States District Courts for the Southern and Eastern Districts of New York, the United States Court of Appeals for the Second, Third, Eighth and Ninth Circuits, and the United States Tax Court. He graduated from Williams College (B.A., 1988), and New York University School of Law (J.D., 1991).



Robert J. Gralewski, Jr. is a partner based in our California office. Mr. Gralewski focuses on antitrust and consumer litigation and has been involved in the fields of complex litigation and class actions for over 15 years. Throughout the course of his career, Mr. Gralewski has prosecuted a wide variety of federal and state court price-fixing, monopoly and unfair business practice actions against multinational companies, major corporations, large banks, and credit card companies.

Some of Mr. Gralewski's relevant work includes:

- Representation of businesses and consumers in indirect purchaser class actions throughout the country against Microsoft for overcharging for its products as a result of its unlawful monopoly. Mr. Gralewski was a member of the trial teams in the Minnesota and Iowa actions (the only two Microsoft class actions to go to trial) which both settled in plaintiffs' favor after months of hard-fought jury trials. The Microsoft cases in which Mr. Gralewski was involved in ultimately settled for more than \$2 billion in the aggregate;
- Representation of businesses and consumers of thin-film transistor liquid crystal display (TFT-LCD) products who were harmed by an alleged price-fixing conspiracy among TFT-LCD manufacturers; and
- Representation of businesses and consumers in an indirect purchaser class action against various manufacturers of SRAM, alleging that defendants engaged in a conspiracy to fix prices in the SRAM market.

Mr. Gralewski is a member of the California State Bar and is admitted to practice in state and all federal courts in California as well as several federal courts throughout the country. He graduated from Princeton University (B.A., 1991) and *cum laude* from California Western School of Law (J.D., 1997).



Daniel Hume is a partner in our New York office and is a member of the firm's management committee. Mr. Hume's practice focuses on securities, structured finance, and antitrust litigation. He joined the firm in 1995 and has helped to recover billions of dollars for corporate consumers, individual consumers, and institutional investors throughout the course of his career.

Representation, as lead counsel, of a group of Singapore-based investors in a

Some of Mr. Hume's relevant work includes:

- securities class action against Morgan Stanley pertaining to notes issued by Cayman Islands-registered Pinnacle Performance Ltd. Plaintiffs allege that Morgan Stanley routed Pinnacle investors' principal into synthetic collateralized debt obligations (CDOs) that it built to fail and then bet against. As the CDOs failed by design, plaintiffs' principal was swapped to Morgan Stanley, enriching Morgan Stanley while rendering the Pinnacle Notes an all-but-total loss. This case settled for \$20 million;
- Representation, as lead counsel, of the investor class in *In re AT&T Wireless Tracking Stock Securities Litigation*, a securities class action which resulted in recovery of \$150 million for the class; and
- Representation, as lead counsel, of consumer classes in connection with antitrust proceedings against Microsoft in the United States and Canada. So far, these litigations have resulted in settlements totaling nearly a billion dollars for consumers in Florida, New York, Tennessee, West Virginia and Minnesota, where the litigation proceeded to trial.

Mr. Hume is admitted to the New York State Bar and federal courts around the country, including the United States District Courts for the Southern and Eastern Districts of New York, the United States Court of Appeals for the Second, Third, Fourth, Fifth, Eighth and Ninth Circuits, the Appellate Division of the Supreme Court of the State of New York, First Judicial Department, and the United States Supreme Court. He graduated from the State University of New York at Albany *magna cum laude* (B.A. Philosophy, 1988) and from Columbia Law School, where he served as Notes Editor for the Columbia Journal of Environmental Law (J.D., 1991).





David E. Kovel is a partner based in our New York office and is a member of the firm's management committee. Mr. Kovel's practice focuses on whistleblower, antitrust, commodities, securities and corporate governance matters. Mr. Kovel joined the firm in 2004.

Recent cases in which Mr. Kovel has been involved include:

• In re Libor-Based Financial Instruments Antitrust Litigation. Court appointed coliaison counsel for all class actions in the multi-district litigation and co-lead counsel for exchange-based class alleging the fixing of prices of a benchmark interest rate. Obtained a \$20 million settlement with one of 16 defendants (the

first settlement in the ongoing complex litigation). Remaining claims are pending;

- Representation, as counsel for lead plaintiff and other share holders in a derivative action brought against
 members of the Board of Directors and senior executives of Pfizer, Inc. for breach of fiduciary duty.
 Pfizer agreed to pay a proposed settlement of \$75 million and to make groundbreaking changes to the
 Board's oversight of regulatory matters;
- Representation of purchasers of pharmaceutical drugs claiming to have been harmed by Branded manufacturers who fraudulently extended patent or other regulation monopolies;
- Representation, as lead counsel, of a class of New York State consumers in connection with antitrust proceedings against Microsoft;
- Representation, as lead counsel, of a class of gasoline purchasers in California in connection with Unocal, Inc.'s manipulation of the standard-setting process for gasoline. The litigation resulted in a \$48 million recovery for the class;
- Representation, as lead counsel in *In re North Sea Brent Crude Oil Futures Litig* on behalf of a proposed class of traders alleging benchmark manipulation. This litigation is ongoing;
- Representation of propane purchasers who were harmed by BP America's manipulation of the physical propane market; and
- Representation of various whistleblowers who claim that their companies have defrauded the United States Government or other state and city governments.

Mr. Kovel also has an active pro bono practice, having represented, among others, clients in need of housing referred through the office of *pro se* litigation in the Southern District of New York, clients in foreclosure matters, and a Latino soccer association in its efforts organize and obtain a fair proportion of field time from a municipality.

Mr. Kovel is admitted to the New York State Bar, the United States District Courts for the Southern, Eastern, and Western Districts of New York, the United States Court of Appeals for the First Circuit, and the Connecticut State Bar. He is a member of the New York City Bar Association Committee on Futures and Derivatives Regulation, and is a former member of the New York City Bar Association Antitrust Committee. He graduated from Yale University (B.A.), Columbia University School of Law (J.D.) and Columbia University Graduate School of Business (M.B.A.). Mr. Kovel traded commodities for several years before attending law school. Prior to joining KM, Mr. Kovel practiced at Simpson Thacher & Bartlett LLP. He is fluent in Spanish.





Karen M. Lerner is a partner and practices out of the New York office. She focuses on antitrust, commodities and healthcare fraud. Ms. Lerner joined the firm in 2015, and has been a practicing attorney since 1991, handling numerous state and federal actions, including disciplinary, trial and appellate matters.

Some of Ms. Lerner's relevant work includes:

Representation as fiduciary for the interim exchange class counsel in *In re Foreign Exchange Benchmark Rates Antitrust Litigation* for a putative
 class of participants who traded futures and options in the FX market.

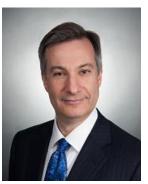
The case has already resulted in a partial settlement of more than \$2 billion;

- Representation, as co-lead counsel, of exchange-based investors in futures, swaps, and other Libor-based derivative products, alleging that defendant banks colluded to misreport and manipulate Libor rates; and
- Representation as a counsel in the benchmark rate antitrust litigation on behalf of a putative class of investors who traded futures and options contracts on the NYSE LIFFE exchange against global financial institutions responsible for the setting the Euro Interbank Offered Rate ("Euribor"). The case has already resulted in a partial settlement of more than \$90 million.

Ms. Lerner is admitted to the New York State Bar, New Jersey State Bar, United States Supreme Court, U.S. District Court for the Eastern District of New York, U.S. District Court for the District of New Jersey, U.S. Court of Appeals for the 3rd Circuit, and the United States District Court for the Southern District of New York. Ms. Lerner graduated from the University of Albany – SUNY (B.A. 1988, *summa cum laude*), and the University of Pennsylvania School of Law (J.D. 1991).

Prior to joining KM, Ms. Lerner was Of Counsel at McDonough, Korn & Eichhorn, where she worked cases involving professional liability defense, negligence, insurance coverage, and products liability.





Peter S. Linden is a partner in our New York office and is a member of the firm's management committee. Mr. Linden's practice concentrates on securities, shareholder derivative, commercial and healthcare fraud litigation. He joined the firm in 1990 and provides advisory services to government pension funds and other institutional investors as well as to corporate and individual consumers. He has been appointed a Special Assistant Attorney General for the State of Michigan and is a member of the National Association of Public Pension Plan Attorneys.

Mr. Linden has obtained numerous outstanding recoveries for investors and consumers during his career. His advocacy has also resulted in many notable decisions, including in *In re Matsushita Securities Litigation*, granting partial

summary judgment under § 14(d)(7) of the Securities Exchange Act, and *In re Ebay Inc. Shareholders Litigation*, a shareholder derivative action, finding that investment banking advisors could be held liable for aiding and abetting insiders' acceptance of IPO allocations through "spinning".

Some of Mr. Linden's relevant experience includes:

- Representation, as lead counsel, of the lead plaintiff in *In re Citigroup Inc Securities Litigation*, a class action
 arising out of Citigroup's alleged misrepresentations regarding their exposure to losses associated with
 numerous collateralized debt obligations. This case settled for \$590 million;
- Representation of the City of New York and 43 New York counties in federal Medicaid fraud actions. KM has settled or reached agreements in principle with all defendants in these matters. We have recovered over \$225 million for the New York and Iowa Medicaid programs;
- Representation of the State of Michigan in a lawsuit filed in Michigan State Court against McKesson Corporation, Hearst Corporation, and First DataBank, a case arising out of the defendants' fraudulent scheme to increase the Average Wholesale Prices of hundreds of brand name drugs thereby causing false claims to be submitted to the Michigan Medicaid program. This case recently settled;
- Representation, as co-lead counsel, of an investor class and an institutional plaintiff in *In re BISYS Securities Litigation*, a class action arising out of alleged accounting improprieties and which resulted in a \$65 million recovery for the class;
- Serving as Chairman of the Plaintiffs' Steering Committee in In re MCI Non-Subscriber Litigation, a consumer class action which resulted in an approximately \$90 million recovery for the class; and
- In *Reynolds v. Beneficial National Bank*, Mr. Linden and KM successfully persuaded the 7th Circuit U.S. Court of Appeals and ultimately the district court to overturn a questionable settlement, and were then appointed colead counsel to the class. Mr. Linden and KM were lauded by the district judge for their "intelligence and hard work," and for obtaining "an excellent result for the class."

Mr. Linden is admitted to the New York State Bar, the U.S. Courts of Appeals for the Second, Third, Sixth, Seventh, Eighth, and Tenth Circuits, and the U.S. District Courts for the Eastern and Southern Districts of New York, the Eastern District of Michigan, and the District of Colorado. He graduated from the State University of New York at Stony Brook (B.A., 1980) and the Boston University School of Law (J.D., 1984).

Prior to joining KM, Mr. Linden worked as an assistant district attorney in the Kings County District Attorney's Office from 1984 through October, 1990 where he served as a supervising attorney of the Office's Economic Crimes Bureau.





Andrew M. McNeela is a partner in our New York office focusing on securities and structured finance litigation. Mr. McNeela joined the firm in 2008.

Some of Mr. McNeela's relevant work includes:

- Representation of the New York City Pension Funds as lead plaintiff in a class action against Wachovia Corporation arising from Wachovia's alleged misrepresentations of their exposure to the subprime market. This case resulted in a settlement of \$75 million;
- Representation of the NY State Common Retirement Fund as lead plaintiff in *In re National City Corporation Securities, Derivative & ERISA Litigation*, a securities class action arising from National City's alleged misrepresentations regarding exposure to subprime mortgage related losses. This case resulted in a settlement of \$168 million;
- Representation, as lead counsel, a group of Singapore-based investors in a securities class action against Morgan Stanley pertaining to notes issued by Cayman Islands-registered Pinnacle Performance Ltd. Plaintiffs allege that Morgan Stanley routed Pinnacle investors' principal into synthetic collateralized debt obligations (CDOs) that it built to fail and then bet against. As the CDOs failed by design, plaintiffs' principal was swapped to Morgan Stanley, enriching Morgan Stanley while rendering the Pinnacle Notes an all-but-total loss. This case settled for \$20 million;
- Representation, as lead counsel, in the securities class action *In Re Herley Industries Inc. Securities Litigation* on behalf of investors. This litigation resulted in a recovery of \$10 million for the class; and
- Representation, as lead counsel, of investors in Goldman Sachs common stock in a securities class action case pertaining to Goldman's alleged instruction to their research analysts to favor procurement of investment banking deals over accuracy in their research. Disclosure caused Goldman Sachs' stock to decline materially. This litigation resulted in a recovery of \$29 million for the class.

Immediately prior to joining KM, Mr. McNeela served as an Assistant United States Attorney in the Civil Division of the United States Attorney's Office for the Southern District of New York. In this capacity, he represented the United States in a wide array of civil litigation. Mr. McNeela has argued over twenty cases before the United States Court of Appeals for the Second Circuit. In 2013, he was named one of the top attorneys under 40 by Law360's Rising Stars.

Mr. McNeela is admitted to the New York State Bar, the United States Court of Appeals for the Second Circuit, and the United States District Courts for the Southern and Eastern Districts of New York. He is a member of the New York American Inn of Court. He graduated from Washington University (B.A., 1995) and from Hofstra University School of Law (J.D., 1998, *cum laude*), where he was a member of the Law Review.





Ira M. Press is a partner in our New York office and is a member of the firm's management committee. Mr. Press's practice focuses on securities and consumer litigation. He joined the firm in 1993, and currently leads the firm's institutional investor monitoring program. In this capacity, he has provided advisory services to numerous government pension funds and other institutional investors. He has authored articles on securities law topics and has lectured to audiences of attorneys, experts and institutional investor fiduciaries.

Mr. Press' advocacy has resulted in several landmark appellate decisions, including *Rothman v. Gregor*, the first ever appellate reversal of a lower court's

dismissal of a securities class action suit pursuant to the 1995 Private Securities Litigation Reform Act.

Some of Mr. Press' relevant experience includes:

- Representation of the NY State Common Retirement Fund as lead plaintiff in *In re National City Corporation Securities, Derivative & ERISA Litigation,* a securities class action arising from National City's alleged misrepresentations regarding exposure to subprime mortgage related losses. This case resulted in a settlement of \$168 million;
- Representation of the New York City Pension Funds as lead plaintiff in a class action against Wachovia
 Corporation arising from Wachovia's alleged misrepresentations of their exposure to the subprime
 market. This case resulted in a settlement of \$75 million;
- Representation of the lead plaintiff in *In re Citigroup Inc Securities Litigation*, a class action arising out of Citigroup's alleged misrepresentations regarding their exposure to losses associated with numerous collateralized debt obligations. This case settled for \$590 million; and
- Representation, as lead counsel, of investors in Goldman Sachs common stock in a securities class action case pertaining to Goldman's alleged instruction to their research analysts to favor procurement of investment banking deals over accuracy in their research. Disclosure caused Goldman Sachs' stock to decline materially. This case resulted in a \$29 million recovery for the class.

Mr. Press is admitted to the New York State Bar, the United States Courts of Appeals for the Second, Third, Fourth, Fifth, Sixth, Eighth, Ninth, and Tenth Circuits, and the United States District Courts for the Eastern and Southern Districts of New York. He graduated from Yeshiva University *magna cum laude* (B.A., 1986) and from New York University Law School (J.D., 1989).





Mark Strauss is a partner in our New York office. He represents whistleblowers in qui tam cases under the False Claims Act, defrauded investors, bilked consumers and other victims of corporate and financial wrongdoing in class actions and arbitrations throughout the country. Mr. Strauss has experience litigating under the Racketeer Influenced and Corrupt Organizations Act (RICO), and the securities, antitrust and consumer protection laws. His practice also includes litigating FINRA securities arbitrations against large firms on Wall Street. Cases litigated by Mr. Strauss have resulted in recoveries for aggrieved plaintiffs totaling hundreds of millions of dollars.

Some of Mr. Strauss's relevant work includes:

- United States Ex rel Dickhudt v. Winds Enters. (W.D. Wash.). Representation of a whistleblower in qui tam case against Chinese apparel manufacturer for evasion of U.S. import duties through use of false customs declarations and phony invoices. Client received award of 20% of \$1.5 million settlement recovered for taxpayers;
- *United States ex rel Karlin v. Noble Jewelry Co.* (S.D.N.Y.). Representation of a whistleblower in qui tam action against Chinese manufacturer for misclassification of goods under U.S. Harmonized Tariff Schedule (the HTSA) and underpayment of import duties. Client received award of 19% of \$3.85 million settlement recovered for taxpayers;
- Rothstein v. GMAC Mortg. (Bankr. S.D.N.Y). Representation, as Class Counsel, of residential mortgage borrowers in class action for violations of RICO in connection with kickback scheme that resulted in overcharges for force-placed insurance. Case resulted in \$13 million settlement.
- Parker v. AHMSI Ins. Agency (S.D. Fla.). Representation, as Lead Counsel, of mortgage borrowers in class action for violations of RICO in connection with undisclosed rebate scheme and overcharges for lender-placed insurance;
- In re Citigroup Inc. Securities Litig. (S.D.N.Y.). Representation, as Co-Lead Counsel, of investors in securities class action relating to bank's exposure to Collateralized Debt Obligations (CDOs) containing toxic mortgage-backed securities. Case resulted in \$590 million settlement; and
- In re Adelphia Commc'n Corp. Securities Litig. (S.D.N.Y.). Representation, as Co-Lead Counsel, of shareholders in securities class action involving improper self-dealing by corporate insiders and billions of dollars in undisclosed liabilities. Case resulted in \$478 million in settlements.

Mr. Strauss is admitted to the New York State Bar, the California State Bar, and the United States District Courts for the Eastern and Southern Districts of New York, and the Northern, Eastern, Southern and Central Districts of California. He graduated from Cornell University (B.A., 1987) and from Fordham University School of Law, where he was Associate Editor of the Law Review (J.D., 1993).

Prior to joining Kirby McInerney, Mr. Strauss practiced at Christy & Viener, LLP and Cahill Gordon & Reindel LLP where he focused on complex commercial litigation.





Christopher S. Studebaker is a partner in our New York office focusing on antitrust, structured finance, and securities litigation. Mr. Studebaker joined the firm in 2007.

Recent cases on which Mr. Studebaker has worked include:

 Representation of the State of Michigan in a lawsuit filed in Michigan State Court against McKesson Corporation, Hearst Corporation, and First DataBank. The case alleges that each defendant caused false claims to be submitted to the Michigan Medicaid program, and the overpayment of

Medicaid pharmacy claims;

- Representation, as lead counsel, of a group of Singapore-based investors in a securities class action against Morgan Stanley pertaining to notes issued by Cayman Islands-registered Pinnacle Performance Ltd. Plaintiffs allege that Morgan Stanley routed Pinnacle investors' principal into synthetic collateralized debt obligations (CDOs) that it built to fail and then bet against. As the CDOs failed by design, plaintiffs' principal was swapped to Morgan Stanley, enriching Morgan Stanley while rendering the Pinnacle Notes an all-but-total loss. This case settled for \$20 million;
- Representation, as lead counsel, in *In Re Herley Industries Inc. Securities Litigation* on behalf of investors. This litigation resulted in a recovery of \$10 million;
- Representation of direct purchasers against Becton Dickinson for alleged monopolization of the hypodermic syringe market. This litigation is ongoing;
- Representation of California consumers against Intel for alleged monopolization of the X86 microprocessor chip market. This litigation is ongoing; and
- Representation of consumers against TFT-LCD manufacturers for alleged price-fixing of the TFT-LCD market. This litigation is ongoing.

Before joining the firm, Mr. Studebaker worked as an associate with an antitrust and consumer protection boutique, and served at the U.S. Department of Commerce. Prior to attending law school, Mr. Studebaker worked and studied in Japan.

Mr. Studebaker is admitted to the New York State Bar, the Washington State Bar, the United States District Court for the Southern District of New York, and the United States Court of Appeals for the Second Circuit. He is a member of the Asian American Bar Association of New York. Mr. Studebaker graduated from Georgetown University (B.S.F.S., 1997, *cum laude*), Waseda University (M.A., 2001), and University of Kansas (J.D., 2004), where he was Managing Editor of the Journal of Law & Public Policy. He is fluent in Japanese.





Meghan Summers is a partner based in our New York office focusing on securities, structured finance, and antitrust litigation. Ms. Summers previously worked at the firm as a paralegal and law clerk before joining the firm in September 2012 as an associate.

Ms. Summers has recently worked on the following cases:

 Representation of a group of Singapore-based investors in a securities class action against Morgan Stanley pertaining to notes issued by Cayman Islands-registered Pinnacle Performance Ltd. Plaintiffs allege that Morgan

Stanley routed Pinnacle investors' principal into synthetic collateralized debt obligations (CDOs) that it built to fail and then bet against. As the CDOs failed by design, plaintiffs' principal was swapped to Morgan Stanley, enriching Morgan Stanley while rendering the Pinnacle Notes an all-but-total loss. This case settled for \$20 million;

- An individual lawsuit against Morgan Stanley pertaining to four fraudulent collateralized debt obligations. Plaintiff alleges that Morgan Stanley represented that independent collateral managers would select safe, high-quality reference entities to be included in the collateralized debt obligations' underlying portfolios, but that in reality, Morgan Stanley controlled portfolio selection and chose high-risk collateral, while actively shorting that same collateral in order to enrich itself at its client's expense;
- Individual lawsuits against Morgan Stanley, Credit Agricole Corporate and Investment Bank, UBS, Deutsche Bank, Credit Suisse, Goldman Sachs, JP Morgan, and Barclays pertaining to a number of fraudulent structured investment vehicles and asset-backed collateralized debt obligations;
- An individual securities fraud action against BP plc related to the Deepwater Horizon explosion on April 20, 2010, and the subsequent drop in BP's share price; and
- Individual securities fraud actions against Merck and Schering-Plough related to the commercial viability of the companies' anti-cholesterol medication Vytorin, and the subsequent drop in Merck's and Schering-Plough's share price.
- *In re MOL Global Inc. Securities Litigation,* a class action lawsuit alleging that e-payment enabler MOL Global misled shareholders prior to its initial public offering.

As a law clerk, Ms. Summers worked on a variety of matters including *In re Citigroup Inc. Securities Litigation, In re Wachovia Corporation, In re Libor-Based Financial Instruments Antitrust Litigation, Dandong v. Pinnacle Performance Limited,* and private antitrust proceedings against Microsoft in the United States and Canada.

Ms. Summers is admitted to the New York State Bar, the United States District Courts for the Southern and Eastern Districts of New York, the United States District Court for the District of Colorado, and the United States Court of Appeals for the 3rd Circuit. She graduated from Cornell University *summa cum laude* where she was ranked first in her major (B.S., 2008) and from Pace University School of Law *summa cum laude* where she was Salutatorian of her class (J.D., 2012).





Randall K. Berger is Of Counsel to the firm and practices out of our New York office. He joined the firm in 1994. Mr. Berger focuses on commercial arbitration, antitrust, whistleblower and unclaimed property litigation. In whistleblower cases, fraud against Federal and State governments is exposed by persons having unique knowledge of the circumstances surrounding the fraud. The whistleblowers are often compensated from any recovery and the cases are generally litigated under seal.

Mr. Berger is a certified arbitrator for FINRA (the Financial Industry Regulatory Authority). The arbitration panels where Mr. Berger serves are

used to resolve disputes between investors and broker dealers or registered representatives, and to resolve intra-industry conflicts.

Some of Mr. Berger's relevant work includes:

- Representation of municipal issuers of Auction Rate Securities in FINRA arbitrations against underwriters alleging misrepresentation and breach of fiduciary duty;
- Representation of State Treasurers in litigation against the Federal government to recover unclaimed U.S. savings bond proceeds;
- Antitrust litigation against the 27 largest investment banks in the United States in connection with alleged price fixing in the market for the underwriting of initial public stock offerings; and
- Representation, as co-lead counsel, of investors in Ponzi scheme instruments issued by the nowbankrupt Bennett Funding Group in a class action which resulted in a recovery of \$169.5 million for the class.

Mr. Berger is admitted to the New York State Bar, the United States District Courts for the Southern, Eastern and Northern Districts of New York and the District of Colorado. He graduated from Iowa State University (B.S., 1985) and from the University of Chicago (J.D., 1992).

Prior to attending law school and joining KM, Mr. Berger was an associate with the law firm Winston & Strawn, and before that, a consultant with the Management Information Consulting Division of Arthur Andersen & Co.





Will Harris is Of Counsel to the firm. He focuses on antitrust and consumer litigation.

Some of Mr. Harris's relevant work includes:

- Representation of direct purchasers in a class action against the manufacturers of drywall in *In re Domestic Drywall Antitrust Litigation*. The defendants allegedly unlawfully conspired to artificially inflate the prices of drywall in the U.S.;
- Representation of businesses and consumers of thin-film transistor liquid crystal display (TFT-LCD) products who were harmed by an alleged price-fixing conspiracy among TFT-LCD manufacturers; and
- Representation of businesses and consumers in an indirect purchaser class action against various manufacturers of SRAM, alleging that defendants engaged in a conspiracy to fix prices in the SRAM market.

Mr. Harris is admitted to the New York State Bar and the United States District Court for the Southern District of New York. He graduated from The College of William & Mary (B.A. 2001) and Washington and Lee University School of Law (J.D. 2005).

Prior to joining KM, Mr. Harris was an associate with the law firm Gergosian & Gralewski, and before that, he worked as a contract attorney with KM in connection with the firm's Microsoft litigation, which ultimately settled for more than \$2 billion in the aggregate.



John Low-Beer is Of Counsel to the firm and focuses on whistleblower litigation. Mr. Low-Beer formerly was Assistant Corporation Counsel, Affirmative Litigation with the NYC Law Department (1987-2000, 2003-2013), and was the lead attorney on complex and highly publicized matters, including:

- Suit against BNY Mellon concerning FX trading for City pension funds;
- Litigation concerning City taxation of consular and U.N. mission staff housing;
- Successful challenge to New York State's misallocation of \$750 million in federal stimulus funding;
- Suit forcing Governor to implement State takeover of \$2.5 billion in City debt; and
- Suits against more than 40 pharmaceutical companies recovering \$240 million (with Kirby McInerney).

In addition, Mr. Low-Beer has a robust pro bono and low bono practice, representing plaintiffs in immigration, urban land use, guardianship, and whistleblower cases. Recent wins include *Avella v. City of New York*, 131 A.D.3d 77 (1st Dept. 2015), which invalidated a plan to build a shopping mall on parkland in Queens, and *Matter of Daniel B.*, 22 N.Y.S.3d 553 (2d Dept. 2015), which upheld a judgment in a guardianship/turnover proceeding.

Prior to joining the NYC Law Department, Mr. Low-Beer was law clerk to Hon. Leonard Garth, U.S. Court of Appeals for the Third Circuit, and Associate Professor at York College, CUNY, and Assistant Professor at Yale School of Management and Department of Sociology. He is the author of a book, *Protest and Participation* (Cambridge U.P. 1978) and a prize-winning note in the Yale L.J., "The Constitutional Imperative of Proportional Representation," among other publications.





Beverly Mirza is Of Counsel to the firm and focuses on antitrust and securities litigation. Ms. Mirza joined the firm in 2004.

Cases on which Ms. Mirza has worked include:

Representation of a class of consumers in connection with *In re Reformulated Gasoline (RFG) Antitrust and Patent Litigation and Related Actions*. This case involves Unocal's manipulation of the standard-setting process for low-emissions reformulated gasoline in California, which increased retail prices of reformulated gasoline. This litigation resulted in a \$48 million recovery for

the class;

- Representation of exchange-based investors in futures, swaps, and other Libor-based derivative products, alleging that defendant banks colluded to misreport and manipulate Libor rates;
- Representation, as one of the firms with primary responsibility for the case, of a class of purchasers of computers containing Intel's microprocessor chips in *Coordination Proceedings Special Title, Intel x86 Microprocessor Cases*. This litigation is ongoing;
- Representation of a class of retailers in *In re Chocolate Confectionary Antitrust Litigation,* alleging price fixing claims against a group of chocolate manufacturers in the United States and abroad;
- Representation of a class of sellers in *In re Ebay Seller Antitrust Litigation*, alleging monopolization claims against Ebay;
- Representation of an objector to the settlement in *Reynolds v. Beneficial National Bank* in the United States Northern District Court for the District of Illinois. Ms. Mirza and KM were lauded by the presiding judge for their "intelligence and hard work," and for obtaining "an excellent result for the class."

Ms. Mirza is admitted to the California State Bar and the United States District Courts for the Northern and Central Districts of California. Her practice is supervised by members of the State Bar of New York. She graduated from California State University of Los Angeles *magna cum laude* (B.S., 2000) and from California Western School of Law (J.D., 2004).





Sawa Nagano is Of Counsel to the firm. She focuses on the representation of clients in relation to price-fixing litigation under the Sherman Antitrust Act and other federal and state laws to recover overcharges caused by international price-fixing cartels. Ms. Nagano joined the firm in 2013.

Recent cases on which Ms. Nagano has worked include:

Representation of an end-user class of businesses and consumers in connection with *In Re: Cathode Ray Tube (CRT) Antitrust Litigation*. In this case, the manufacturers of cathode ray tubes conspired to fix, raise, maintain and/or stabilize prices. Because of Defendants' alleged unlawful

conduct, Plaintiffs and other Class Members paid artificially inflated prices for CRT Products and have suffered financial harm.

Prior to joining KM, Ms. Nagano worked with the law firms of both Orrick, Herrington, and Sutcliffe LLP and Crowell and Morning LLP, where she assisted in the investigation of conspiracies to engage in price-fixing and anticompetitive practices by manufacturers and multinational conglomerates, and she represented cable operators on matters arising before the Federal Communications Commission as well as in their relations with local and state franchising authorities. She also worked for the New York bureau of a major Japanese television network. Additionally, she interned with the Office of Commissioner Furchtgott-Roth at the Federal Communications Commission and worked as a student counsel at the Art, Sports and Entertainment Law Clinic of the Dickinson School of Law of the Pennsylvania State University.

Ms. Nagano is admitted to the New York State Bar, the New Jersey State Bar, the Bar of the District of Columbia, and the United States District Courts for the Southern District of New York and the District of New Jersey. She graduated from Sophia University in Tokyo, Japan (B.A., 1989), New York University (M.A., 1992), and The Dickinson School of Law of the Pennsylvania State University (J.D., 2000). She is fluent in Japanese.





Henry Telias is Of Counsel to the firm and practices out of our New York office, focusing on accountants' liability and securities litigation. Mr. Telias joined the firm in 1997.

In addition to his legal work, Mr. Telias is the firm's chief forensic accountant. He holds the CFF credential (Certified in Financial Forensics) and the PFS credential (Personal Financial Specialist) from the American Institute of Certified Public Accountants. Mr. Telias received his CPA license from New York State in 1982. Prior to practicing as an attorney, he practiced exclusively as

a certified public accountant from 1982 to 1989, including 3 years in the audit and tax departments of Deloitte Haskins & Sells' New York office.

Some of Mr. Telias' relevant experience includes:

- Representation of the lead plaintiff in *In re Citigroup Inc Securities Litigation*, a class action arising out
 of Citigroup's alleged misrepresentations regarding their exposure to losses associated with
 numerous collateralized debt obligations. This case settled for \$590 million;
- Representation of the NY State Common Retirement Fund as lead plaintiff in *In re National City Corporation Securities, Derivative & ERISA Litigation*, a securities class action arising from National City's alleged misrepresentations regarding exposure to subprime mortgage related losses. This case resulted in a settlement of \$168 million;
- Representation of the New York City Pension Funds as lead plaintiff in a class action against Wachovia Corporation arising from Wachovia's alleged misrepresentations of their exposure to the subprime market. This case resulted in a settlement of \$75 million; and
- Representation, as lead counsel, of a certified class of purchasers of PRIDES securities in connection
 with the Cendant Corporation accounting fraud in *In re Cendant Corporation PRIDES Litigation*. This
 litigation resulted in an approximate \$350 million settlement for the certified class an
 unprecedented 100 percent recovery.

Mr. Telias is admitted to the New York State Bar and the United States District Court for the Southern District of New York. He graduated from Brooklyn College *cum laude* (B.S., 1980) and from Hofstra University School of Law (J.D., 1989).





Edward M. Varga, III is Of Counsel to the firm and practices out of our New York office. He focuses on securities and antitrust litigation. Mr. Varga joined the firm in 2006.

Recent cases on which Mr. Varga has worked include:

Representation of the lead plaintiff in *In re Citigroup Inc Securities Litigation*, a class action arising out of Citigroup's alleged misrepresentations regarding their exposure to losses associated with numerous collateralized debt obligations. This case settled for \$590

million;

- Representation, as counsel for lead plaintiff and other shareholders, in a derivative action brought against members of the Board of Directors and senior executives of Pfizer, Inc. Plaintiffs made a breach of fiduciary duty claim because defendants allegedly allowed unlawful promotion of drugs to continue even after receiving numerous "red flags" that the improper drug marketing was systemic. Pfizer agreed to pay a proposed settlement of \$75 million and to make groundbreaking changes to the Board's oversight of regulatory matters;
- Representation of a group of Singapore-based investors in a securities class action against Morgan Stanley pertaining to notes issued by Cayman Islands-registered Pinnacle Performance Ltd. Plaintiffs allege that Morgan Stanley routed Pinnacle investors' principal into synthetic collateralized debt obligations (CDOs) that it built to fail and then bet against. As the CDOs failed by design, plaintiffs' principal was swapped to Morgan Stanley, enriching Morgan Stanley while rendering the Pinnacle Notes an all-but-total loss. This case settled for \$20 million;
- Representation of companies that offered IPO securities in antitrust litigation against the 27 largest investment banks in the United States. Plaintiffs allege that the banks conspired to price fix underwriting fees in the mid-sized IPO market; and
- Representation of the NY State Common Retirement Fund as lead plaintiff in *In re National City Corporation Securities, Derivative & ERISA Litigation,* a securities class action arising from National City's alleged misrepresentations regarding exposure to subprime mortgage related losses. This case settled for \$168 million.

Mr. Varga is admitted to the New York State Bar, the United States District Court for the Southern District of New York, and the United States Court of Appeals for the Second Circuit. He graduated from Cornell University (B.S., 2000)) and from New York University Law School (J.D., 2006).





Elizabeth A. Brehm is an associate who concentrates on antitrust and securities litigation. Ms. Brehm joined the firm in 2011. Prior to her time at KM, Ms. Brehm practiced as an attorney in the New York office of Winston & Strawn LLP.

Recent cases on which Ms. Brehm has worked include:

- Representation of indirect purchasers in *In re Cathode Ray Tube (CRT)* Antitrust Litigation, a price fixing anti-trust case wherein it is alleged that defendant entities conspired to control prices of television and monitor components;
- Representation, as lead counsel, of consumer classes in connection with antitrust proceedings against Microsoft in the United States and Canada. So far, these litigations have resulted in settlements totaling nearly a billion dollars for consumers in Florida, New York, Tennessee, West Virginia and Minnesota, where the litigation proceeded to trial;
- *In re Ductile Iron Pipe Fittings Antitrust Litigation*, MDL No. 2347 (D. NJ. 2012). Co-lead counsel on behalf of a proposed class of purchasers of iron pipe fittings for water projects. Class representatives include Wayne County, Michigan; and
- Representation, in an individual lawsuit against Morgan Stanley pertaining to four fraudulent collateralized debt obligations. Plaintiff alleges that Morgan Stanley represented that independent collateral managers would select safe, high-quality reference entities to be included in the collateralized debt obligations' underlying portfolios, but that in reality, Morgan Stanley controlled portfolio selection and chose high-risk collateral, while actively shorting that same collateral in order to enrich itself at its client's expense.

During her time at Winston & Strawn, Ms. Brehm focused on products liability litigation, including *Estate of Bobby Hill v. U.S. Smokeless Tobacco Co.*, a wrongful death products liability lawsuit brought by the family of Bobby Hill against Altria Group, which had recently acquired U.S. Smokeless Tobacco Co. The lawsuit asserted that U.S. Smokeless Tobacco manufactured and sold smokeless tobacco that Bobby Hill began using when he was 13-years-old and that this led to the death of Mr. Hill at age 42 from tongue cancer. The case settled prior to trial.

Ms. Brehm is admitted to the New York State Bar. She graduated from Boston University (B.A., 2001), Long Island University (M.S. Edu., 2004), and from Hofstra School of Law *magna cum laude* (J.D., 2008).



Fatima Brizuela is an associate based in our California office who concentrates on antitrust matters. Ms. Brizuela joined the firm in 2015.

Currently, Ms. Brizuela works on the following cases:

- Representation of businesses and consumers in indirect purchase class actions throughout the country against Microsoft for overcharging for its products as a result of its unlawful monopoly; and
- Representation of an end-user class of businesses and consumers in connection with *In Re: Cathode Ray Tube (CRT) Antitrust Litigation*. In this case, the manufacturers of cathode ray tubes conspired to fix, raise, maintain and/or stabilize prices. Because of Defendants' alleged unlawful conduct, Plaintiffs and other Class Members paid artificially inflated prices for CRT Products and have suffered financial harm.

In addition, Ms. Brizuela assists senior attorneys with drafting briefs and motions, legal memoranda and research on various securities and antitrust litigation.

Ms. Brizuela graduated from Rutgers University (B.A. *summa cum laude* 2009) and California Western School of Law (J.D. 2015). She is admitted to the New York State Bar and is a member of the San Diego County Bar Association.





Karina Kosharskyy is an associate based in our New York office focusing on antitrust and securities litigation. Ms. Kosharskyy joined the firm in 2005.

Recent cases on which Ms. Kosharskyy has worked include:

Representation of an end-user class of businesses and consumers in connection with *In Re: Cathode Ray Tube (CRT) Antitrust Litigation*. In this case, the manufacturers of cathode ray tubes conspired to fix, raise, maintain and/or stabilize prices. Because of Defendants' alleged unlawful

conduct, Plaintiffs and other Class Members paid artificially inflated prices for CRT Products and have suffered financial harm;

- Representation of exchange-based investors in futures, swaps, and other Libor-based derivative products, alleging that defendant banks colluded to misreport and manipulate Libor rates;
- Representation of a class of consumers in connection with *In re Reformulated Gasoline (RFG) Antitrust and Patent Litigation and Related Actions*. This case involves Unocal's manipulation of the standard-setting process for low-emissions reformulated gasoline in California, which increased retail prices of reformulated gasoline. The court recently approved a preliminary settlement of \$48 million in this litigation; and
- Representation of consumer classes in connection with antitrust proceedings against Microsoft.
 These litigations resulted in settlements totaling nearly a billion dollars for consumers in Florida,
 New York, Tennessee, West Virginia and Minnesota, where the litigation proceeded to trial.

Ms. Kosharskyy is admitted to the New York State Bar, the United States District Courts for the Southern and Eastern Districts of New York, the United States District Court for the District of New Jersey, and the New Jersey State Bar. She graduated from Boston University (B.A., 2000) and from New York Law School (J.D., 2007). She is fluent in Russian.





Anthony E. Maneiro is an associate based in our New York office who concentrates on securities, commodities and antitrust matters. Mr. Maneiro joined the firm in 2016.

Currently, Mr. Maneiro is assisting on the following cases:

- Representation of exchange-based investors in futures, swaps, and other Libor-based derivative products, alleging that defendant banks colluded to misreport and manipulate Libor rates;
- Representation of exchange-based investors in U.S. treasury futures and options, alleging that defendants colluded to manipulate the price of Treasury Securities prior to Treasury Auctions; and
- Representation of exchange-based investors, alleging price manipulation of physical natural gas as well as price manipulation of natural gas futures and other derivative natural gas contracts.

In addition, Mr. Maneiro assists senior attorneys with drafting briefs and motions, legal memoranda and research.

Mr. Maneiro has passed the Massachusetts State Bar (admission pending). He graduated from Grove City College (B.A. 2010, *magna cum laude*), London School of Economics and Political Science (MSc 2011) and Boston University School of Law (J.D., LL.M. 2016).



Parul Sharma is a staff attorney based in our New York office who concentrates on antitrust matters. Ms. Sharma joined the firm in 2016.

Currently, Ms. Sharma works on the following cases:

 Representation of businesses and consumers in indirect purchase class actions throughout the country against Microsoft for overcharging for its products as a result of its unlawful monopoly; and

Representation of exchange-based investors in futures, swaps, and other Libor-based derivative products, alleging that defendant banks colluded to misreport and manipulate Libor rates.

In addition, Mr. Sharma assists senior attorneys with drafting pleadings and motions, legal memoranda and research.

Ms. Sharma graduated from the University of Ottawa Telfer School of Management (Honors Bachelor of Commerce 2008) and Seton Hall University School of Law (J.D. 2014). She is admitted to the New York State Bar.

Prior to joining KM, Ms. Sharma was an associate at Jaffe & Asher in their Creditors Rights practice.





Andrew Watt is a staff attorney based in our New York office focusing on securities and antitrust litigation. Mr. Watt worked at the firm as an associate from 2005 through 2008. He then returned to work with the firm as a staff attorney in 2010.

Recent cases on which Mr. Watt has worked include:

- Representation of the lead plaintiff in *In re Citigroup Inc Securities Litigation*, a class action arising out of Citigroup's alleged misrepresentations regarding their exposure to losses associated with numerous collateralized debt obligations. This case settled for \$590 million;
- Representation, as co-lead counsel, of exchange-based investors in futures, swaps, and other Libor-based derivative products, alleging that defendant banks colluded to misreport and manipulate Libor rates; and
- Representation of a class of direct purchasers of Prograf, a branded prescription immunosuppressant used in organ transplant patients in an antitrust action against Astellas Pharma US, Inc. Plaintiffs allege that defendant filed a baseless citizen petition with the Food and Drug Administration ("FDA"), with the sole intent of foreclosing market entry by generic competitors, that improperly extended its monopoly and kept Prograf prices at supracompetitive levels.

Mr. Watt is admitted to the New York State Bar and the United States District Courts for the Southern and Eastern Districts of New York. He graduated from Columbia College (B.A., 1994), Yale University (M.A., 1999), and Columbia University School of Law (J.D., 2002), where he was a Harlan Fiske Stone Scholar.

Prior to joining KM, Mr. Watt practiced at Roberts & Holland, LLP.

Client & Adversary Recognition

KM received the highest available commendations from the City of NY four years in a row for its work on the AWP Litigation. In each of those four years, KM's efforts on the City's behalf received the overall rating of "excellent". The City elaborated, "Kirby did a truly excellent job and the results reflect that".

"The case has been in front of the Supreme Court of the United States once, and in front of the Ninth Circuit no fewer than three times. Throughout, [KM] has . . . brought a considerable degree of success . . . and thwarted attempts by other counsel who sought to settle . . . and destroy a potential billion dollars of class rights."

Plaintiff / client, Epstein v. MCA, Inc.

"[The KM firm] proved to be a highly able and articulate advocate. Single-handedly, [KM] was able to demonstrate not only that [KM's] client had a good case but that many of the suspicions and objections held by the Nigerian Government were ill-founded."

English adversary in The Nigerian Cement Scandal

"[KM] represented us diligently and successfully. Throughout [KM's] representation of our firm, [KM's] commitment and attention to client concerns were unimpeachable."

European institutional defendant/client involved in a multi-million dollar NASD arbitration

"Against long odds, [KM] was able to obtain a jury verdict against one of the larger, more prestigious New York law firms."

Plaintiff / client, Vladimir v. U.S. Banknote Corporation

"[KM] represented our investors with probity, skill, and diligence. There is too much money involved in these situations to leave selection of class counsel to strangers or even to other institutions whose interests may not coincide."

Plaintiff / institutional client, In re Cendant Corporation PRIDES Litigation

Notables

The firm has repeatedly demonstrated its ability in the field of class litigation and our success has been widely recognized. For example:

Rothstein v. GMAC Mortgage LLC, No. 12-cv-3412 (S.D.N.Y.). Lead counsel. \$13 million settlement against GMAC Mortgage LLC in *In re Residential Capital*, LLC, et al., No. 12-12020 (Bankr. S.D.N.Y. 2016).

Globis Capital Partners, L.P., et al. v. The Cash Store Financial Services Inc., et al., No. 13-cv-3385 (S.D.N.Y. 2015): Co-lead counsel. CAD \$13,779,167 cash settlement, representing roughly 50% of total class-wide stock losses.

Dandong v. Pinnacle Performance Ltd., No. 10-cv-08086 (S.D.N.Y. 2015). Lead counsel. \$20 million settlement.

In re Hi-Crush Partners L.P. Securities Litigation, No. 12-cv-8557 (S.D.N.Y. 2015). Lead counsel. \$3.8 million settlement while class certification was pending.

In re Citigroup Inc. Securities Litigation, No. 07-cv-9901 (S.D.N.Y. 2013). Lead counsel. \$590 million settlement.

Barfuss v. DGSE Companies, Inc., No. 12-cv-3664 (N.D. Tex. 2013). Lead Counsel. \$1.7 million settlement.

In re National City Corporation Securities, Derivative & ERISA Litigation, No. 08-cv-70004 (N.D. Ohio 2012). Lead counsel. \$168 million settlement.

In re Wachovia Equity Securities Litigation, No. 08-cv-6171 (S.D.N.Y. 2012). Lead counsel. \$75 million settlement.

In re BP Propane Indirect Purchaser Antitrust Litigation, No. 06-cv-3541 (N.D.Ill. 2010). Co-lead counsel. \$15 million settlement on behalf of propane purchasers.

In re J.P. Morgan Chase Cash Balance Litigation, No. 06-cv-732 (S.D.N.Y. 2010). Co-lead counsel.

"Plaintiff's counsel operated with a strong, genuine belief that they were litigating on behalf of a group of employees who had been injured and who needed representation and a voice, and, at great expense to [themselves], made Herculean efforts on behalf of the class over years...they're to be commended for their fight on behalf of people that they believed had been victimized."

In re Pfizer Inc. Shareholder Derivative Litigation, No. 09-cv-7822 (S.D.N.Y.). Pfizer agreed to pay a proposed settlement of \$75 million and to make groundbreaking changes to the Board's oversight of regulatory matters.

In re Pharmaceutical Industry Average Wholesale Price Litigation, MDL No. 1456; City of New York, et al. v. Abbott Laboratories, et al., No. 01 Civ. 12257 (D. Mass). KM represented the State of Iowa, the City of New York, and forty-two New York State counties in a lawsuit against forty defendant drug manufacturers

asserting that they manipulated their average wholesale price data to inflate prices charged to government drug benefits payers. Recovery of over \$225 million for the plaintiffs.

In re Reformulated Gasoline (RFG) Antitrust and Patent Litigation and Related Actions, No. 05-cv-01671 (C.D. Cal). Lead counsel. \$48 million settlement for indirect purchasers.

In re BISYS Securities Litigation, No. 04-cv-3840 (S.D.N.Y. 2007). Co-lead counsel. \$66 million settlement.

"In this Court's experience, relatively few cases have involved as high level of risk, as extensive discovery, and, most importantly, as positive a final result for the class members as that obtained in this case."

Cox v. Microsoft Corporation, Index No. 105193/00, Part 3 (N.Y. Sup. Ct.). Lead counsel. \$350 million settlement.

In re AT&T Corp. Securities Litigation, No. 00-cv-8754 (S.D.N.Y. 2006). Lead counsel. \$150 million settlement.

In re Adelphia Communications, Inc. Securities Litigation, No. 04-cv-05759 (S.D.N.Y. 2006). Co-lead counsel. \$478 million settlement.

"[T]hat the settlements were obtained from defendants represented by 'formidable opposing counsel from some of the best defense firms in the country' also evidences the high quality of lead counsels' work."

Lapin v. Goldman Sachs & Co., No. 04-cv-2236 (S.D.N.Y.). Co-lead counsel. \$29 million settlement.

Montoya v. Herley Industries, Inc., No. 06-cv-2596 (E.D. Pa). Lead counsel. \$10 million settlement.

Carnegie v. Household International Inc., et al., No. 98-cv-2178 (N.D.Ill. 2006). Co-lead counsel. \$39 million settlement.

"Since counsel took over the representation of this case . . ., they have pursued this case, conducting discovery, hiring experts, preparing for trial, filing motions where necessary, opposing many motions, and representing the class with intelligence and hard work. They have obtained an excellent result for the class."

Dutton v. Harris Stratex Networks Inc. et al., No. 08-cv-00755 (D.Del). Lead counsel. \$8.9 million settlement.

In re Isologen Inc. Securities Litigation, No. 05-cv-4983 (E.D. Pa.). Lead counsel. \$4.4 million settlement.

In re Textron, Inc. Securities Litigation, No. 02-cv-0190 (D.R.I.). Co-lead counsel. \$7 million settlement.

Argent Convertible Classic Arbitrage Fund, L.P. v. Amazon.com, Inc. et al., No. 01-cv-0640L (W.D. Wash. 2005). Lead counsel. \$20 million settlement for class of convertible euro-denominated bond purchasers.

Muzinich & Co., Inc. et al. v. Raytheon Company et al., No. 01-cv-0284 (D. Idaho 2005). Co-lead counsel. \$39 million settlement.

Gordon v. Microsoft Corporation, No. 00-cv-5994 (Minn. Dist. Ct., Henn. Cnty. 2004). Co-lead counsel. \$175 million settlement following two months of trial.

In re Visa Check/MasterMoney Antitrust Litigation, No. 96-cv-5238 (E.D.N.Y. 2003). \$3 billion monetary settlement and injunctive relief.

In re Florida Microsoft Antitrust Litigation, No. 99-cv-27340 (Fl. Cir. Ct. 11th Cir., Miami/Dade Cnty. 2003). Co-lead counsel. \$200 million settlement of antitrust claims.

In re Churchill Securities, Inc. (SIPA Proceeding), No. 99 B 5346A (Bankr. S.D.N.Y. 2003). Lead counsel. Over \$9 million recovery for 500+ victims of pyramid scheme perpetrated by defunct brokerage firm.

In re Laidlaw Bondholder Securities Litigation, No. 00-cv-2518-17 (D. S.C. 2002). Lead counsel. \$42.8 million settlement.

Cromer Finance v. Berger et al. (In re Manhattan Fund Securities Litigation), No. 00-cv-2284 (S.D.N.Y. 2002). Co-lead counsel. \$65 million settlement in total.

In re Boeing Securities Litigation, No. 97-cv-715 (W.D. Wash. 2001). \$92.5 million settlement.

In re MCI Non-Subscriber Telephone Rates Litigation, MDL No. 1275 (S.D. Ill. 2001). Chairman of steering committee. \$88 million settlement.

In re General Instrument Corp. Securities Litigation, No. 01-cv-1351 (E.D. Pa. 2001). Co-lead counsel. \$48 million settlement.

In re Bergen Brunswig/Bergen Capital Trust Securities Litigation, 99-cv-1305 and 99-cv-1462 (C.D. Cal. 2001). Co-lead counsel. \$42 million settlement.

Steiner v. Aurora Foods, No. 00-cv-602 (N.D. Cal. 2000). Co-lead counsel. \$36 million settlement.

Gerber v. Computer Associates International, Inc., No. 91-cv-3610 (E.D.N.Y. 2000). Multi-million dollar jury verdict in securities class action.

Rothman v. Gregor, 220 F.3d 81 (2d Cir. 2000). Principal counsel of record in appeal that resulted in first ever appellate reversal of the dismissal of a securities fraud class action under the Securities Reform Act of 1995.

Bartold v. Glendale Federal Bank, 81 Cal.App.4th 816 (2000). Ruling on behalf of hundreds of thousands of California homeowners establishing banks' duties regarding title reconveyance.

In re Cendant Corporation PRIDES Litigation, 51 F. Supp. 2d 537, 542 (D. N.J. 1999). Lead counsel. \$340 million settlement.

"[R]esolution of this matter was greatly accelerated by the creative dynamism of counsel." * * * "We have seen the gifted execution of responsibilities by a lead counsel."

In re Waste Management, Inc. Securities Litigation, No. 97C 7709 (N.D. Ill. 1999). Co-lead counsel. \$220 million settlement.

"...[Y]ou have acted the way lawyers at their best ought to act. And I have had a lot of cases... in 15 years now as a judge and I cannot recall a significant case where I felt people were better represented than they are here... I would say this has been the best representation that I have seen."

In re Bennett Funding Group, Inc. Securities Litigation, No. 96-cv-2583 (S.D.N.Y. 1999). Co-lead counsel. \$140 million settlement (\$125 million recovered from Generali U.S. Branch, insurer of Ponzi scheme instruments issued by Bennett Funding Group; \$14 million settlement with Mahoney Cohen, Bennett's auditor).

In re MedPartners Securities Litigation, No. 98-cv-06364 (Ala. June 1999). Co-lead counsel. \$56 million settlement.

In re MTC Electronic Technologies Shareholder Litigation, No. 93-cv-0876 (E.D.N.Y. 1998). Co-lead counsel. Settlement in excess of \$70 million.

Skouras v. Creditanstalt International Advisers, Inc., et al., NASD Arb., No. 96-05847 (1998). Following an approximately one month hearing, successfully defeated multi-million dollar claim against major European institution.

In re Woolworth Corp. Securities Class Action Litigation, No. 94-cv-2217 (S.D.N.Y. 1997). Co-lead counsel. \$20 million settlement.

In re Archer Daniels Midland Inc. Securities Litigation, No. 95-cv-2877 (C.D. Ill. 1997). Co-lead counsel. \$30 million settlement.

Vladimir v. U.S. Banknote Corp., No. 94-cv-0255 (S.D.N.Y. 1997). Multi-million dollar jury verdict in § 10(b) action.

In re Archer Daniels Midland Inc. Securities Litigation, No. 95-cv-2877 (C. D. Ill. 1997). Co-lead counsel. \$30 million settlement.

Epstein et al. v. MCA, Inc., et al., 50 F.3d 644 (9th Cir. 1995), rev'd and remanded on other grounds, Matsushita Electric Industrial Co., Ltd. et al. v. Epstein et al., No. 94-1809, 116 S. Ct. 873 (February 27, 1996). Lead counsel. Appeal resulted in landmark decision concerning liability of tender offeror under section 14(d)(7) of the Williams Act, SEC Rule 14d-10 and preclusive effect of a release in a state court proceeding. In its decision granting partial summary judgment to plaintiffs, the court of appeals for the Ninth Circuit stated:

"The record shows that the performance of the Epstein plaintiffs and their counsel in pursuing this litigation has been exemplary."

In re Abbott Laboratories Shareholder Litigation, No. 92-cv-3869 (N.D. Ill. 1995). Co-lead counsel. \$32.5 million settlement.

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"The record here amply demonstrates the superior quality of plaintiffs' counsel's preparation, work product, and general ability before the court."

In re Morrison Knudsen Securities Litigation, No. 94-cv-334 (D. Id. 1995). Co-lead counsel. \$68 million settlement.

In re T2 Medical Inc. Securities Litigation, No. 94-cv-744 (N.D. Ga. 1995). Co-lead counsel. \$50 million settlement.

Gelb v. AT&T, No. 90-cv-7212 (S.D.N.Y. 1994). Landmark decision regarding filed rate doctrine leading to injunctive relief.

In re International Technology Corporation Securities Litigation, No. 88-cv-40 (C.D. Cal. 1993). Co-lead counsel. \$13 million settlement.

Colaprico v. Sun Microsystems, No. 90-cv-20710 (N.D. Cal. 1993). Co-lead counsel. \$5 million settlement.

Steinfink v. Pitney Bowes, Inc., No. B90-340 (JAC) (D. Conn. 1993). Lead counsel. \$4 million settlement.

In re Jackpot Securities Enterprises, Inc. Securities Litigation, No. CV-S-89-05-LDG (D. Nev. 1993). Lead counsel. \$3 million settlement.

In re Nordstrom Inc. Securities Litigation, No. C90-295C (W.D. Wa. 1991). Co-lead counsel. \$7.5 million settlement.

United Artists Litigation, No. CA 980 (Sup. Ct., L.A., Cal.). Trial counsel. \$35 million settlement.

In re A.L. Williams Corp. Shareholders Litigation, C.A. No. 10881 (Delaware Ch. 1990). Lead counsel. Benefits in excess of \$11 million.

In re Triangle Inds., Inc., Shareholders' Litigation, C.A. No. 10466 (Delaware Ch. 1990). Co-lead counsel. Recovery in excess of \$70 million.

Schneider v. Lazard Freres, No. 38899, M-6679 (N.Y. App. Div. 1st Dept. 1990). Co-lead counsel. Landmark decision concerning liability of investment bankers in corporate buyouts. \$55 million settlement.

Rothenberg v. A.L. Williams, C.A. No. 10060 (Delaware. Ch. 1989). Lead counsel. Benefits of at least \$25 million to the class.

Kantor v. Zondervan Corporation, No. 88-cv-C5425 (W.D. Mich. 1989). Lead counsel. Recovery of \$3.75 million.

King v. Advanced Systems, Inc., No. 84-cv-C10917 (N.D. Ill. E.D. 1988). Lead counsel. Recovery of \$3.9 million (representing 90% of damages).

Straetz v. Cordis, No. 85-cv-343 (S.D. Fla. 1988). Lead counsel.

"I want to commend counsel and each one of you for the diligence with which you've pursued the case and for the results that have been produced on both sides. I think that you have displayed the absolute optimum in the method and manner by which you have represented your respective clients, and you are indeed a credit to the legal profession, and I'm very proud to have had the opportunity to have you appear before the Court in this matter."

In re Flexi-Van Corporation, Inc. Shareholders Litigation, C.A. No. 9672 (Delaware. Ch. 1988). Co-lead counsel. \$18.4 million settlement.

Entezed, Inc. v. Republic of Nigeria, I.C.C. Arb. (London 1987). Multi-million dollar award for client.

In re Carnation Company Securities Litigation, No. 84-cv-6913 (C.D. Cal. 1987). Co-lead counsel. \$13 million settlement.

In re Data Switch Securities Litigation, B84 585 (RCZ) (D. Conn. 1985). Co-lead counsel. \$7.5 million settlement.

Stern v. Steans, No. 80-cv-3903. The court characterized the result for the class obtained during trial to jury as "unusually successful" and "incredible" (Jun 1, 1984).

In re Datapoint Securities Litigation, No. 82-cv-338 (W.D. Tex.). Lead counsel for a Sub-Class. \$22.5 million aggregate settlement.

Malchman, et al. v. Davis, et al., No. 77-cv-5151 (S.D.N.Y. 1984):

"It is difficult to overstate the far-reaching results of this litigation and the settlement. Few class actions have ever succeeded in altering commercial relationships of such magnitude. Few class action settlements have even approached the results achieved herein.... In the present case, the attorneys representing the class have acted with outstanding vigor and dedication . . . Although the lawyers in this litigation have appeared considerably more in the state courts than in the federal court, they have appeared in the federal court sufficiently for me to attest as to the high professional character of their work. Every issue which has come to this court has been presented by both sides with a thoroughness and zeal which is outstanding In sum, plaintiffs and their attorneys undertook a very large and difficult litigation in both the state and federal courts, where the stakes were enormous. This litigation was hard fought over a period of four years. Plaintiffs achieved a settlement which altered commercial relationships involving literally hundreds of millions of dollars."

* * *



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I. Overview

Cafferty Clobes Meriwether & Sprengel LLP, which has offices in Chicago, Philadelphia, and Ann Arbor, combines the talents of attorneys with a wide range of experience in complex civil litigation. The skill and experience of CCMS attorneys has been recognized on repeated occasions by courts that have appointed these attorneys to major positions in complex multidistrict or consolidated litigation. As the cases listed below demonstrate, these attorneys have taken a leading role in numerous important actions on behalf of investors, employees, consumers, businesses, and others. In addition, CCMS attorneys are currently involved in a number of pending class actions, as described on the Firm's web page.

II. Commodities Class Actions

Hershey/Kohen v. Pacific Investment Management Co. LLC, No. 05 C 4681 (N.D. Ill.). As liaison and class counsel in action arising from PIMCO's manipulation of 10-year treasury notes futures traded on the Chicago Board of Trade, CCMS helped secure a \$118 million settlement for the class. Reported opinions: 571 F.3d 672 (7th Cir. 2009); 697 F. Supp. 2d 945 (N.D. Ill. 2010); 244 F.R.D. 469 (N.D. Ill. 2007).

In re Crude Oil Commodity Futures Litig., No. 11-cv-03600 (S.D.N.Y.). As class counsel in action arising from manipulation of NYMEX West Texas Intermediate grade crude oil futures contracts, CCMS expended significant resources assisting the class with investigation and discovery. The collective efforts resulted in a \$16.5 million settlement for the class. Reported opinion: 913 F. Supp. 2d 41 (S.D.N.Y. 2012).

In re North Sea Brent Crude Oil Futures Litig., No. 13-md-02475 (S.D.N.Y.). As class counsel in action arising from Brent crude benchmark manipulation by North Sea oil, CCMS has devoted significant time and expense toward investigation, expert analysis and pleading motion practice.

In re Foreign Exchange Benchmark Rates Antitrust Litigation, 13-cv-7789 (S.D.N.Y.). As class counsel in action arising from manipulation of foreign exchange rates by international banks and others, CCMS has devoted significant resources toward investigation, discovery, and allocation of more than \$2 billion in settlements for the class.

In re Sumitomo Copper Litig., 96 Civ. 4584(MP) (S.D.N.Y.). As class counsel in action arising out of manipulation of the world copper market, CCMS helped achieve settlements aggregating \$134.6 million. *See* 189 F.R.D. 274 (S.D.N.Y. 1999). In awarding attorneys' fees, Judge Milton Pollack noted that it was "the largest class action recovery in the 75 plus year history of the Commodity Exchange Act." 74 F. Supp. 2d 393 (S.D.N.Y. Nov. 15, 1999). Additional reported opinions: 995 F. Supp. 451 (S.D.N.Y. 1998); 182 F.R.D. 85 (S.D.N.Y. 1998).



In re Soybean Futures Litig., No. 89 C 7009 (N.D. Ill.). As class counsel in action against Ferruzzi Finanziaria SpA and related companies for unlawfully manipulating the soybean futures market, CCMS helped recover a \$21.5 million settlement. *See* 892 F. Supp. 1025 (N.D. Ill. 1995).

III. Antitrust Class Actions and Litigation

Kamakahi v. American Society for Reproductive Medicine, No.3:11-cv-01781 (N.D. Cal.). CCMS served as Co-Lead Counsel in a cutting edge antitrust case challenging the legality of ethical guidelines promulgated by two professional associations that limited the compensation members were permitted to pay to women providing donor services for in-vitro fertilization procedures. Without the benefit of a parallel government case or investigation, CCMS achieved a groundbreaking settlement (approved on August 26, 2016) that requires the defendants to eliminate the compensation caps, and to refrain from imposing similar caps in the future. See Kamakahi v. Amer. Soc. for Reproductive Medicine, No. 11-1781, 2013 WL 1768706 (N.D. Cal. Mar. 29, 2013) (denying motion to dismiss); Kamakahi v. Amer. Soc. for Reproductive Medicine, 305 F.R.D. 164 (N.D. Cal. 2015) (granting class certification).

In re Prandin Direct Purchaser Antitrust Litig., Civ. No. 10-12141 (E.D. Mich.). CCMS served as Co-Lead counsel for a plaintiff class of direct purchasers of the prescription drug repaglinide, which is manufactured and marketed by Novo Nordisk under the brand-name Prandin. Plaintiffs alleged that Novo Nordisk blocked FDA approval of generic versions of the drug by wrongfully manipulating the language of the "use code" filed with the FDA in connection with a method of use patent. On January 20, 2015, the court granted final approval to a \$19 million settlement. See In re Prandin Direct Purchaser Antitrust Litig., No. 10-12151, 2015 WL 8335997 (E.D. Mich. Jan. 20, 2015).

In re Insurance Brokerage Antitrust Litig., MDL No. 1663 (D.N.J.). CCMS was appointed Co-Lead Counsel for plaintiffs who alleged that insurance brokers and insurers conspired to allocate customers in a complicated scheme to maximize their own revenues at the expense of class members. The litigation concluded in August 2013 with final approval of last of five separate settlements that, in aggregate, exceeded \$270 million. See: (1) In re Insurance Brokerage Antitrust Litig., MDL No. 1663, 2007 WL 542227, (D.N.J. Feb. 16, 2007) (approving \$121.8 million settlement with the Zurich Defendants), aff d, 579 F.3d 241(3d Cir. 2009); (2) In re Insurance Brokerage Antitrust Litig., MDL No. 1663, 2007 WL 2589950 (D.N.J. Sept. 4, 2007) (approving \$28 million settlement with the Gallagher Defendants), aff'd, 579 F.3d 241(3d Cir. 2009); (3) In re Insurance Brokerage Antitrust Litig., MDL No. 1663, 2009 WL 411877 (D.N.J. Feb. 17, 2009) (approving \$69 million settlement with Marsh & McLennan Cos. Inc.); (4) In re Insurance Brokerage Antitrust Litig., MDL No. 1663, 2012 WL 1071240 (D.N.J. Mar. 30, 2012) (approving \$41 million settlement with several defendants, including AIG, Hartford, Fireman's Fund and Travelers); and (5) In re Insurance Brokerage Antitrust Litig., MDL No. 1663, 297 F.R.D. 136 (D.N.J. 2013) (approving \$10.5 million settlement with ACE defendants, Chubb defendants and Munich Re defendants). Judge Claire C. Cecchi observed that "Class counsel include notably skilled attorneys with experience in antitrust, class actions and RICO litigation." Id. at *17; see also In re Insurance Brokerage Antitrust Litig., MDL No. 1663, 2007 WL 1652303, at *6 (D.N.J. June 5, 2007).



In re New Motor Vehicles Canadian Export Antitrust Litig., MDL No. 1532 (D. Me.). CCMS was appointed Class Counsel, together with other firms, in multidistrict litigation alleging that automobile manufacturers and other parties conspired to prevent lower priced new motor vehicles from entering the American market during certain periods, thereby artificially inflating prices. See, e.g., In re New Motor Vehicles Canadian Export Antitrust Litig., 270 F.R.D. 30, 35 (D. Me. 2010). On February 3, 2012, the court approved a \$37 million settlement with Toyota and the Canadian Automobile Dealers' Association. In re New Motor Vehicles Canadian Export Antitrust Litig., MDL 1532, 2012 WL 379947 (D. Me. Feb. 3, 2012).

In re TriCor Indirect Purchaser Antitrust Litig., No. 05-360 (D. Del). CCMS was appointed Co-Lead Counsel for consumer and third-party payor plaintiffs who alleged that defendants engaged in unlawful monopolization in the market for fenofibrate products, which are used to treat high cholesterol and high triglyceride levels. See Abbott Laboratories v. Teva Pharmaceuticals, Inc., 432 F. Supp. 2d 408 (D. Del. 2006) (denying defendants' motions to dismiss). On October 28, 2009, the court granted final approval to a \$65.7 million settlement (an amount that excludes an initial payment to opt-out insurance companies).

Nichols v. SmithKline Beecham Corp., No. Civ.A.00-6222 (E.D. Pa.). CCMS served as Co-Lead Counsel for consumers and third-party payors who alleged that the manufacturer of the brand-name antidepressant Paxil misled the U.S. Patent Office into issuing patents that protected Paxil from competition from generic substitutes. On April 22, 2005, Judge John R. Padova granted final approval to a \$65 million class action settlement for the benefit of consumers and third-party payors who paid for Paxil. Nichols v. SmithKline Beecham Corp., No. Civ.A.00-6222, 2005 WL 950616, 2005-1 Trade Cas. (CCH) ¶74,762 (E.D. Pa. April 22, 2005). See also Nichols v. SmithKline Beecham Corp., No. Civ.A.00-6222, 2003 WL 302352, 2003-1 Trade Cas. (CCH) ¶ 73,974 (E.D. Pa. Jan. 29, 2003) (denying defendant's motion to strike expert testimony).

In re Relafen Antitrust Litig. No. 01-12239 (D. Mass.). On September 28, 2005, Judge William G. Young of the United States District Court for the District of Massachusetts granted final approval to a \$75 million class action settlement for the benefit of consumers and third-party payors who paid for branded and generic versions of the arthritis medication Relafen. In certifying an exemplar class of end-payors, the court singled out our Firm as experienced and vigorous advocates. See In re Relafen Antitrust Litig., 221 F.R.D. 260, 273 (D. Mass. 2004). In the opinion granting final approval to the settlement, the court commented that "Class counsel here exceeded my expectations in these respects [i.e., experience, competence, and vigor] in every way." In re Relafen Antitrust Litig., 231 F.R.D. 52, 85 (D. Mass. 2005); see also id. at 80 ("The Court has consistently noted the exceptional efforts of class counsel."). The litigation resulted in many significant decisions including: 286 F Supp. 2d 56 (D. Mass. 2003) (denying motion to dismiss); 346 F. Supp. 2d 349 (D. Mass. 2004) (denying defendant's motion for summary judgment).

VisaCheck/MasterMoney Antitrust Litig., Master File No. 96-5238 (E.D.N.Y.). CCMS's client, Burlington Coat Factory Warehouse, and the other plaintiffs alleged that Visa and MasterCard violated the antitrust laws by forcing retailers to accept all of their branded cards as a condition of acceptance



of their credit cards. On June 4, 2003, the parties entered into settlement agreements that collectively provided for the payment of over \$3.3 billion, plus widespread reforms and injunctive relief. On December 19, 2003, the Settlement was finally approved by Judge John Gleeson. On January 4, 2005, the Second Circuit Court of Appeals affirmed Judge Gleeson's decision.

In re Warfarin Sodium Antitrust Litig., MDL 98-1232 (D. Del.). Multidistrict class action on behalf of purchasers of Coumadin, the brand-name warfarin sodium manufactured and marketed by DuPont Pharmaceutical Company. Plaintiffs alleged that the defendant engaged in anticompetitive conduct that wrongfully suppressed competition from generic warfarin sodium. On August 30, 2002, the Court granted final approval to a \$44.5 million settlement. See In re Warfarin Sodium Antitrust Litig., 212 F.R.D. 231 (D. Del. 2002). On December 8, 2004, the Third Circuit upheld approval of the settlement. 391 F.3d 516 (3d Cir. 2004).

In re Cardizem CD Antitrust Litig., MDL No. 1278 (E.D. Mich.). Multidistrict class action on behalf of purchasers of Cardizem CD, a brand-name heart medication. Plaintiffs alleged that an agreement between the brand manufacturer and a generic manufacturer unlawfully stalled generic competition. On October 1, 2003, Judge Nancy Edmunds granted final approval to an \$80 million settlement for the benefit of consumers, third-party payors and state attorneys general. In re Cardizem CD Antitrust Litig., 218 F.R.D. 508 (E.D. Mich. 2003), app. dismissed, 391 F.3d 812 (6th Cir. 2004). The litigation resulted in several significant decisions, including: 105 F. Supp. 618 (E.D. Mich. 2000) (denying motions to dismiss); 105 F. Supp. 2d 682 (E.D. Mich. 2000) (granting plaintiffs' motions for partial summary judgment and holding agreement per se illegal under federal and state antitrust law); 200 F.R.D. 326 (E.D. Mich. 2001) (certifying exemplar end-payor class); 332 F.3d 896 (6th Cir. 2003) (upholding denial of motion to dismiss and grant of partial summary judgment).

Blevins v. Wyeth-Ayerst Labs., No. 324380 (Sup. Ct. San Francisco Cty. CA). Plaintiff alleged that Wyeth-Ayerst unlawfully monopolized the market for conjugated estrogen drug products through exclusive contracts with health benefit providers and pharmacy benefit managers. On October 30, 2007, the court approved a \$5.2 million settlement for a class of California purchasers of Wyeth-Ayerst's conjugated estrogen drug product.

In re DDAVP Indirect Purchaser Antitrust Litig., No. 05-2237 (S.D.N.Y.). CCMS was appointed Co-Lead Counsel for consumer and third-party payor plaintiffs who alleged that defendants the defendant pharmaceutical manufacturers relied upon sham patents and sham patent litigation to preclude generic competition. On December 18, 2013, the court entered an order approving a \$4.75 million settlement.

In re Synthroid Marketing Litig., MDL No. 1182 (N.D. Ill). This multidistrict action arises out of alleged unlawful activities with respect to the marketing of Synthroid, a levothyroxine product used to treat thyroid disorders. On August 4, 2000, the court granted final approval of a consumer settlement in the amount of \$87.4 million. *See* 188 F.R.D. 295 (N.D. Ill. 1999). On August 31, 2001, approval of the settlement was upheld on appeal. *See* 264 F.3d 712 (7th Cir. 2001).



In re Kaiser Group International, Case No. 00-2263 (Bankr. D. Del.). On December 7, 2005, Chief Judge Mary F. Walrath of the United States Bankruptcy Court for the District of Delaware granted final approval to a settlement that produced 175,000 shares of common stock for a class of former shareholders of ICT Spectrum Constructors, Inc. (a company that merged with ICF Kaiser Group International and ICF Kaiser Advanced Technology in 1998). The settlement followed Judge Joseph J. Farnan's ruling which upheld the Bankruptcy Court's decision to award common stock of the new Kaiser entity (Kaiser Group Holdings, Inc.) to the Class of former Spectrum shareholders based on contractual provisions within the merger agreement. See Kaiser Group International, Inc. v. James D. Pippin (In re Kaiser Group International), 326 B.R. 265 (D. Del. 2005).

IV. Securities Class Actions and Derivative Litigation

In re Kaiser Group International, Case No. 00-2263 (Bankr. D. Del.). On December 7, 2005, Chief Judge Mary F. Walrath of the United States Bankruptcy Court for the District of Delaware granted final approval to a settlement that produced 175,000 shares of common stock for a class of former shareholders of ICT Spectrum Contructors, Inc. (a company that merged with ICF Kaiser Group International and ICF Kaiser Advanced Technology in 1998). The settlement followed Judge Joseph J. Farnan's ruling which upheld the Bankruptcy Court's decision to award common stock of the new Kaiser entity (Kaiser Group Holdings, Inc.) to the Class of former Spectrum shareholders based on contractual provisions within the merger agreement. See Kaiser Group International, Inc. v. James D. Pippin (In re Kaiser Group International), 326 B.R. 265 (D. Del. 2005).

Danis v. USN Communications, Inc., No. 98 C 7482 (N.D. Ill.). Securities fraud class action arising out of the collapse and eventual bankruptcy of USN Communications, Inc. On May 7, 2001, the court approved a \$44.7 million settlement with certain control persons and underwriters. Reported decisions: 73 F. Supp. 2d 923 (N.D. Ill. 1999); 189 F.R.D. 391 (N.D. Ill. 1999); 121 F. Supp. 2d 1183 (N.D. Ill. 2000).

In re Exide Corp. Sec. Litig., No. 98-CV-60061 (E.D. Mich.). Securities fraud class action arising out of sales and financial practices of leading battery manufacturer. On September 2, 1999, Judge George Caram Steeh approved a settlement in the amount of \$10.25 million.

In re Caremark International Inc. Sec. Litig., No. 94 C 4751 (N.D. Ill.). Securities fraud class action arising out of Caremark's allegedly improper financial arrangements with physicians. On December 15, 1997, the court approved a \$25 million settlement.

V. Employee Benefits Class Actions

Polk v. Hecht, No. 92-1340 (D.N.J.). Class action brought under the Employee Retirement Income Act of 1974 on behalf of all participants or beneficiaries under the Mutual Benefit Life Savings and Investment Plan for Employees on July 16, 1991, when Mutual Benefit Life Insurance Corporation was placed in rehabilitation. On April 12, 1995, Judge Harold A. Ackerman approved a \$4.55 million



settlement, noting that "[c]ounsel did a darn good job, and the record should be clear on that point, that that is the opinion, for what it's worth, of this Court."

In re Unisys Retiree Medical Benefits ERISA Litig., MDL No. 969 (E.D. Pa). Class action on behalf of over 25,000 retirees of Unisys Corporation concerning entitlement to retiree medical benefits. After trial, in November 1994, Chief Judge Cahn approved a partial settlement in the amount of \$72.9 million. *See* 57 F.3d 1255 (3d Cir. 1995).

VI. Consumer Class Actions

Apple iPhone Warranty Litigation (N.D. Cal.) On January 29, 2010, CCMS first of its kind class action against Apple in the Superior Court of Santa Clara County, with the goal of achieving a nationwide recovery for all similarly situated Apple consumers. The suit challenged Apple's policy of denying warranty claims based on liquid contact indicators located in headphone jacks and dock connector ports of iPhones and iPod touches. Similar class actions were subsequently filed in federal courts on behalf of Apple consumers. Our firm, together with other counsel representing the state and federal plaintiffs, achieved a \$53 million global settlement of the state and federal cases. On May 8, 2014, the Honorable Judge Richard Seeborg granted final approval to the settlement.

Beattie v. Century Tel, Inc., Civ. No. 02-10277 (E.D. Mich.). A class action on behalf of telephone customers in numerous states who were billed for an inside wire maintenance program improperly described in bills as "Non-Regulated Services." Plaintiffs alleged violation of the truth-in-billing requirements of the Federal Telecommunications Act. A litigation class was certified and upheld on appeal. See Beattie v. Century Tel, Inc., 511 F.3d 554 (6th Cir. 2007). On July 9, 2010, the court granted final approval to a \$13 million cash settlement.

In re Midway Moving & Storage, Inc.'s Charges to Residential Customers, No. 03 CH 16091 (Cir. Ct. Cook Cty., Il.). A class action on behalf of customers of Illinois' largest moving company whose final moving charges exceeded their pre-move written estimates. Plaintiffs alleged violation of the Illinois Consumer Fraud Act, breach of contract and breach of the covenant of good faith and fair dealing. A litigation class was certified and upheld on appeal. See Ramirez v. Midway Moving and Storage, Inc., 880 N.E.2d 653 (Ill. App. 2007). On the eve of trial, the case settled on a class-wide basis. On October 12, 2012, the Court (Judge Richard J. Elrod) granted final approval and stated that CCMS is "highly experienced in complex and class action litigation, vigorously prosecuted the Class' claims, and achieved an excellent Settlement for the Class under which Class members will receive 100% of their alleged damages."

PrimeCo Personal Communications, L.P. v. Illinois Commerce Commission, No. 98 CH 5500 (Circuit Court of Cook County, Ill.). This class action sought recovery of an unconstitutional infrastructure maintenance fee imposed by municipalities on telephone and other telecommunications customers in the State of Illinois. On August 1, 2002, the court granted final approval to a settlement of wireless telephone and pager customers' claims against the City of Chicago worth over \$31 million.



VII. Individual Biographies

PARTNERS

PATRICK E. CAFFERTY graduated from the University of Michigan, with distinction, in 1980 and obtained his J.D., cum laude, from Michigan State University College of Law in 1983. From 1983 to 1985, he served as a prehearing attorney at the Michigan Court of Appeals and as a Clerk to Judge Glenn S. Allen, Jr. of that Court. Mr. Cafferty is an experienced litigator in matters involving antitrust, securities, commodities, and the pharmaceutical industry. In 2002, Mr. Cafferty was a speaker at a forum in Washington D.C. sponsored by Families USA and Blue Cross/Blue Shield styled "Making the Drug Industry Play Fair." At the Health Action 2003 Conference in Washington D.C., Mr. Cafferty was a presenter at a workshop titled "Consumers' Access to Generic Drugs: How Brand Manufacturers Can Derail Generic Drugs and How to Make Them Stay on Track." In 2010, Mr. Cafferty made a presentation on indirect purchaser class actions at the American Antitrust Institute's annual antitrust enforcement conference. See Indirect Class Action Settlements (Am. Antitrust Inst., Working Paper No. 10-03, 2010). Mr. Cafferty is admitted to the state bars of Michigan and Illinois, and holds several federal district and appellate court admissions. Mr. Cafferty has attained the highest rating, AV®, from Martindale-Hubbell and is a top rated SuperLawyer®.

BRYAN L. CLOBES is a 1988 graduate of the Villanova University School of Law and received his undergraduate degree from the University of Maryland. While in law school, Mr. Clobes clerked for Judge Arlin M. Adams of the United States Court of Appeals for the Third Circuit and Judge Mitchell H. Cohen of the United States District Court for the District of New Jersey. In 1988, after graduating from law school, Mr. Clobes served as a law clerk to Judge Joseph Kaplan of the Maryland Circuit Court in Baltimore. From 1989 through June, 1992, Mr. Clobes served as Trial Counsel to the Commodity Futures Trading Commission in Washington, D.C. Mr. Clobes authored *In the Wake of Varity Corp. v. Howe: An Affirmative Duty to Disclose Under ERISA*, 9 DePaul Bus. L.J. 221 (1997). Mr. Clobes is also a member of the Amicus Committee of the National Association of Securities and Commercial Law Attorneys and he has authored briefs filed with the Supreme Court in a number of ERISA cases, including *Varity Corp. v. Howe* and *Schoonejongen v. Curtiss-Wright Corp.* Mr. Clobes has attained the highest rating, AV®, from Martindale-Hubbell and has been named a "Pennsylvania Super Lawyer" in each of the past three years. Mr. Clobes has been admitted to the bar in New Jersey and Pennsylvania, the Supreme Court of the United States, the United States Court of Appeals for the Third Circuit and the United States District Court for the Eastern District of Pennsylvania.

ANTHONY F. FATA graduated *with honors* from The Ohio State University College of Law (J.D. 1999), where he: was elected to the Order of the Coif; served as Managing Editor of The Ohio State Journal on Dispute Resolution; earned, among other honors, the Albert A. Levin Award for Professional Responsibility, CALI award for Consumer Law, and CALI Excellence for the Future Award; and was selected based on outstanding academic achievement to serve as a research assistant to faculty in the areas of professional responsibility, civil procedure, and contracts. Mr. Fata received his undergraduate degree from Miami University in 1995, where he was selected to serve on the Miami University Student Foundation. Mr. Fata began his legal career in the trial and white collar practice



groups at McDermott Will & Emery where he defended SEC enforcement actions as well as securities, consumer and product defect class actions. Since joining CCMS, Mr. Fata has successfully prosecuted a wide range of commodities, securities, antitrust and consumer class actions, including multiple cases resulting in 100% recoveries for class members. In addition to his class action practice, Mr. Fata has represented clients securities arbitrations, corporate in securities/commodities regulatory proceedings, commercial litigation and transactional matters. Among other publications, Mr. Fata has authored: Corporate Cons in the 21st Century: Dealing with the Global Employee Fraud Epidemic (PLI 2017) (co-author); The Problem of the Inside Job: Mitigating, Detecting, and Dealing with Employee Fraud (CBA Record 2017); The Investigation is Internal, but is this Document Privileged? (PLI 2016); The SEC's Whistleblower Bounty Program, Emerging Trends and their Impact on Internal Investigations (PLI 2015); The CFTC's Whistleblower Program (PLI 2014); Untangling the Seamless Web: Seven Critical Assumptions when Planning Internal Investigations (PLI 2013); Doomsday Delayed: How the Court's Party-Neutral Clarification of Class Certification Standards in Wal-Mart v. Dukes Actually Helps Plaintiffs," 62 DePaul Law Review 401 (Spring 2013); Class Actions: Attaining Settlement Class Certification Under Amchem and Ortiz, 19 Product Liability Law & Strategy 1 (2001); and IICLE Securities Law, Chapter 15 – Civil Remedies (2003) (contributing author). Mr. Fata's speaking engagements include the 22nd Annual DePaul Law Review Symposium, Class Action Rollback? Wal-Mart v. Dukes and the Future of Class Action Litigation (2012), the Practising Law Institute's Internal Investigations Seminar (2013-2017). For the Chicago Bar Association, Mr. Fata serves as an investigator for the Judicial Evaluation Committee and sits on the Editorial Board of the CBA Record. Mr. Fata is an adjunct professor for the Seton Hall University School of Law's Masters of Science in Jurisprudence Program, where he instructs M.S.J. and LL.M candidates on corporate governance, securities law, finance and corporate law. He is admitted to the bar in Illinois, as well as the Sixth, Seventh and Ninth Circuit Courts of Appeals, the Northern District of Illinois (including its Trial Bar), the District of Colorado and the Eastern District of Michigan.

DANIEL O. HERRERA received his law degree, *magna cum laude*, and his MBA, with a concentration in finance, from the University of Illinois at Urbana-Champaign in 2008. Mr. Herrera received his bachelor's degree in economics from Northwestern University in 2004. Mr. Herrera joined CCMS as an associate in 2011 and is resident in its Chicago, Illinois Office. Prior to joining CCMS, Mr. Herrera was an associate in the trial practice of a Chicago-based national law firm, where he defended corporations in securities and antitrust class actions, as well as SEC and DOJ investigations and enforcement actions. Mr. Herrera also routinely handled commercial matters on behalf of corporate clients. Mr. Herrera is licensed to practice in Illinois and before the U.S. District Court for the Northern District of Illinois.

ELLEN MERIWETHER received her law degree from George Washington University, magna cum lande, in 1985. She was a member of the George Washington Law Review and was elected to the Order of the Coif. Ms. Meriwether received a B.A. degree, with highest honors, from LaSalle University in 1981. She was an adjunct professor at LaSalle University teaching a course in the University's honors program from 1988-1993. Ms. Meriwether is a member of the Bar of the Commonwealth of Pennsylvania and is admitted to practice before the United States Supreme Court, the United States Courts of Appeals for the First, Second, Third, Seventh, Tenth and Eleventh Circuits, and the United States District Court for the Eastern District of Pennsylvania. In 2012 Ms. Meriwether was Chair of



the Federal Courts Committee of the Philadelphia Bar Association, and has chaired several of its subcommittees. Ms. Meriwether is a member of the Board of the Public Interest Law Center, the Advisory Board of the American Antitrust Institute and is Articles Editor of ANTITRUST, a publication by the section of Antitrust Law of the American Bar Association. She is a frequent presenter on topics relating to complex, class action and antitrust litigation and has been a faculty member at The George Mason Institute of Law and Economics for Judges, lecturing on the topic of How Lawyers use Economic Evidence in Antitrust Litigation. Ms Meriwether has published a number of articles on subjects relating to class actions and antitrust litigation, including: "The Fiftieth Anniversary of Rule 23: Are Class Actions on the Precipice?," Antitrust, (Vol. 30, No. 2, Spring 2016); "Motorola Mobility and the FTAIA: If Not Here, Then Where?," Antitrust, Vo. 29, No.2 Spring 2015); "Comcast Corp. v. Behrend: Game Changing or Business as Usual?," Antitrust, (Vol. 27, No. 3, Summer 2013); "Class Action Waiver And the Effective Vindication Doctrine At the Antitrust/Arbitration Crossroads," Antitrust, (Vol. 3, Summer 2012); "The Hazards of Dukes: Antitrust Plaintiffs Need Not Fear the Supreme Court's Decision," Antitrust, (Vol. 26, No. 1, Fall 2011); "Economic Experts: The Challenges of Gatekeepers and Complexity," Antitrust, (Vol. 25, No. 3 Summer 2011); "Putting the 'Squeeze' on Refusal to Deal Cases: Lessons from Trinko and linkLine," (Vol. 24, No. 2, Spring 2010) and "Rigorous Analysis in Certification of Antitrust Class Actions: A Plaintiff's Perspective." (Vol. 21, No. 3, Summer 2007). Since 2010, Ms. Meriwether has been included in the US News and World Report Publication of "Best Lawyers in America" in the field of Antitrust Law. She has been named a "Pennsylvania Super Lawyer" for the past ten years and has attained the highest rating, "AV", from Martindale-Hubbell.

NYRAN ROSE RASCHE received her undergraduate degree *cum laude* from Illinois Wesleyan University in 1995, and earned her law degree from the University of Oregon School of Law in 1999. Following law school, Ms. Rasche served as a clerk to the Honorable George A. Van Hoomissen of the Oregon Supreme Court. She is the author of *Protecting Agricultural Lands: An Assessment of the Exclusive Farm Use Zone System*, 77 Oregon Law Review 993 (1998). Ms. Rasche is admitted to practice in the state courts of Oregon and Illinois, as well as the United States District Courts for the Northern District of Illinois and the Southern District of Illinois. She is also a member of the American and Chicago Bar Associations.

JENNIFER WINTER SPRENGEL received her law degree from DePaul University College of Law, where she was a member of the DePaul University Law Review. Her undergraduate degree was conferred by Purdue University. Ms. Sprengel is an experienced litigator in matters involving commodities, antitrust, insurance and the financial industries. In addition, Ms. Sprengel is a committee member of the Seventh Circuit Electronic eDiscovery Pilot Program and is a frequent speaker on panels regarding issues of discovery. She also serves as co-chair of the Antitrust Law subcommittee of the ABA Class Action and Derivative Suits committee. She is admitted to practice law in Illinois, holds several federal district and appellate court admissions, and has attained the highest rating, AV®, from Martindale-Hubbell. Ms. Sprengel serves as the managing partner of the Firm.



ASSOCIATES

BRIAN O'CONNELL received his law degree in 2013 from Northwestern University Pritzker School of Law, where he served as Executive Articles Editor for the *Journal of International Human Rights* and was a teaching assistant at the Center on Negotiation and Mediation. In 2009, Mr. O'Connell received B.A from Stanford University, where he served as a staff writer, feature editor and, finally, Editor-in-Chief of *The Stanford Review*. Following law school, Mr. O'Connell served a legal fellowship in the chambers of Judge Marvin E. Aspen of the United States District Court for the Northern District of Illinois. Prior to joining CCMS, Mr. O'Connell was an associate at a firm specializing in securities and commodities litigation. Mr. O'Connell is licensed to practice in Illinois, as well as the United States District Court for the Northern District of Illinois. He is also a member of the Illinois State and Chicago Bar Associations.

JOHN SCHEFLOW received his law degree from the University of Wisconsin in 2014, and his bachelor's degree from Miami University in 2009. Mr. Scheflow, who joined CCMS's Chicago office in 2015, is currently representing plaintiffs in actions against financial advisors and commodities manipulation class actions. Prior to joining CCMS, Mr. Scheflow represented individuals in personal injury and mass tort cases. Mr. Scheflow is licensed to practice in Illinois and Wisconsin and before the U.S. District Court for the Western District of Wisconsin.

CHRISTOPHER P.T. TOUREK received his law degree, cum laude, from the University of Illinois College of Law in 2013. In law school, he was a member of the Federal Civil Rights Clinic. Mr. Tourek earned his bachelors from Lafayette College. Mr. Tourek joined CCMS in 2017 and is resident in its Chicago, Illinois Office. Prior to joining CCMS, Mr. Tourek was an associate at a consumer protection class action firm for three years, during which time he earned the distinction of Super Lawyers Illinois Rising Star—Class Action/Mass Torts for 2016 and 2017. Mr. Tourek is licensed to practice in the state courts of Illinois and Washington, D.C., as well as the United States District Courts for the Northern District of Illinois, the Southern District of Illinois, and the Eastern District of Michigan.

SENIOR COUNSEL

DOM J. RIZZI received his B.S. degree from DePaul University in 1957 and his J.D. from DePaul University School of Law in 1961, where he was a member of the *DePaul University Law Review*. From 1961 through 1977, Judge Rizzi practiced law, tried at least 39 cases, and briefed and argued more than 100 appeals. On August 1, 1977, Judge Rizzi was appointed to the Circuit Court of Cook County by the Illinois Supreme Court. After serving as circuit court judge for approximately one year, Judge Rizzi was elevated to the Appellate Court of Illinois, First District, where he served from 1978 to 1996. Judge Rizzi also teaches at both the undergraduate and graduate level: since 1980, he has been a part-time faculty member of the Loyola University School of Law and, since 1992, he has been a part-time faculty member at the University of Illinois-Chicago. Judge Rizzi became counsel to the firm in October 1996.

Exhibit 1–C

UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

In Re: Crude Oil Commodity Futures Litigation

MASTER FILE

No. 11-cv-3600 (KBF)

[PROPOSED] PLAN OF ALLOCATION

- Except for the terms defined herein, this Plan of Allocation adopts and incorporates the definitions in the Stipulation and Agreement of Settlement, dated June 3, 2015, to which this Plan of Allocation is attached as an exhibit.
- 2. "NAP" means net artificiality paid as described in ¶8 below. "NL" means net losses as described in ¶12 below.
- 3. (a) "NAP Transactions" means any purchase and/or sale transactions in the following specific contract months in NYMEX and/or ICE WTI futures contracts and during the following specific time periods (only Contract Codes CL for NYMEX and T for ICE) ("NAP Settlement Class Contracts"): (a) the February 2008 contract during January 4 through January 22, 2008 (for NYMEX contracts) or January 21, 2008 (for ICE contracts); (b) the March 2008 contract on January 24 and 25, 2008; (c) the April 2008 contract on January 24 and 25, 2008 and during March 4 through March 19, 2008 (for NYMEX contracts) or March 18 (for ICE contracts); (d) the May 2008 contract on January 24 and 25, 2008 and during March 4 through March 25, 2008; (e) the June 2008 contract during March 4 through March 25, 2008; and (f) the July 2008 contract during March 4 through March 25, 2008. In order for a round-trip purchase and sale transaction to qualify as a NAP Transaction, only one leg of such transaction (either the

purchase or sale) must qualify as a NAP Transaction. Exhibit C–1 hereto reflects the alleged daily artificiality estimates for NAP Settlement Class Contracts. *Examples*: If an opening sale (or purchase) transaction in the February 2008 contract was made on January 4, 2008 and the closing purchase (or sale) transaction occurred on January 16, 2008, then both the sale and the purchase would be NAP Transactions. If an opening purchase (or sale) transaction in the March 2008 contract occurred on January 24, 2008 and the closing sale (or purchase) transaction occurred on January 28, 2008, then both transactions would be NAP Transactions.

- (b) In addition to "(a)" above, NAP Transactions also means any purchase and/or sale transaction in the specific option contracts on NYMEX (Contract Codes LO or LC) and on the specific days identified in Exhibit C–2 hereto ("NAP Option Contracts"). Exhibit C–2 hereto reflects the alleged daily artificiality estimates for NAP Option Contracts (both American options and European options). ¹
- 4. "NL Transactions" means any round-trip transactions in NYMEX and/or ICE WTI futures contracts that do not qualify as NAP Transactions but at least one leg of which (either the purchase or the sale) was executed during the January 4 through May 15, 2008 Class Period. NL Transactions also means any transactions in option contracts on NYMEX and/or ICE WTI futures contracts that do not qualify as NAP Transactions but that were executed during the Class Period.

¹ In the event of a large amount of proofs of claims involving large amounts of option transactions necessitating extensive work by the Settlement Administrator to analyze the payout to options under the Plan of Allocation, Plaintiffs may, in order to prevent administrative costs from becoming excessive in respect of options, propose an alternative method of allocation of proceeds in respect of options transactions. Any such proposal will be subject to preliminary approval by the Court, notice to all Class members who have submitted options claims, and opportunity by all such Class members to object, and final approval by the Court.

- 5. <u>90% of Net Settlement Fund</u>. Ninety percent (90%) of the Net Settlement Fund shall be distributed according to claiming Settlement Class Members' ("Claimants") NAP Transactions as explained in ¶¶8-11 below. In order to be entitled to NAP, a Claimant must adequately support his, her or its claim as determined by the Settlement Administrator, subject to the Settlement Class Member's rights to object.
- 6. <u>10% of Net Settlement Fund</u>. Ten percent (10%) of the Net Settlement Fund shall be distributed according to Claimants' NL Transactions as explained in ¶¶12-15 below. In order to be entitled to NL, a Claimant must adequately support his, her or its claim as determined by the Settlement Administrator, subject to the Settlement Class Member's rights to object.
- 7. Each Claimant will be entitled to a total payment from the Net Settlement Fund based on any NAP (*see* ¶¶8-11 below) *plus* any NL (*see* ¶¶12-15 below). A net gain on a Claimant's NL Transactions will **not** be netted against nor subtracted from any NAP on a Claimant's NAP Transactions. Similarly, any net artificiality received on a Claimant's NAP Transactions will **not** be netted against nor subtracted from any NL on a Claimant's NL Transactions.
- 8. NAP. NAP as used herein shall be the amount by which a Settlement Class Member's Total Artificiality Paid (*see* ¶9 below) on their NAP Transactions exceeds their Total Artificiality Received (*see* ¶10 below) on their NAP Transactions, less any applicable Hedger Reduction or Swaps-Dealer Reduction as defined below. *Example*: If a Settlement Class Member's Total Artificiality Paid is \$1,500 and Total Artificiality Received is \$1,000, then the NAP would be \$500 (*i.e.*, \$1,500 minus \$1,000). However, to the extent that such Claiming

Settlement Class Member was a hedger², then the NAP would be subject to a 50% reduction (the "Hedger Reduction") such that the NAP in this Example would be reduced to \$250. *Example*: If a Settlement Class Member's Total Artificiality Paid is \$1,500 and Total Artificiality Received is \$1,000, then the NAP would be \$500 (*i.e.*, \$1,500 minus \$1,000). However, to the extent that such Claimant was a swaps-dealer³, then the NAP would be subject to a 91% reduction (the "Swaps-Dealer Reduction") such that the NAP in this Example would be reduced to \$45.

- 9. "<u>Total Artificiality Paid</u>" shall be determined by multiplying the number of NAP Settlement Class Contracts (and NAP Option Contracts) purchased by the Claimant on NAP Transactions by the amount of alleged artificiality, if any, as provided in Exhibit C–1 for such NAP Settlement Class Contracts (and as provided in Exhibit C–2 for such NAP Option Contracts) at the time of each such purchase of such NAP Settlement Class Contract (and/or NAP Option Contracts).
- 10. "<u>Total Artificiality Received</u>" shall be determined by multiplying the number of NAP Settlement Class Contracts (and NAP Option Contracts) sold by the Claimant on NAP Transactions by the amount of alleged artificiality, if any, as provided in Exhibit C–1 for such NAP Settlement Class Contracts (and as provided in Exhibit C–2 for such NAP Option Contracts) at the time of each such sale of such NAP Settlement Class Contract (and/or NAP Option Contracts).

² A "hedger" is a market participant who enters into positions in a futures market opposite to positions held in the cash market to minimize the risk of financial loss from an adverse price change; or who purchases or sells futures as a temporary substitute for a cash transaction that will occur later.

³ A "swaps-dealer" is any person who (a) holds itself out as a dealer in swaps; (b) makes a market in swaps; (c) regularly enters into swaps with counterparties as an ordinary course of business for its own account, or (d) engages in activity causing itself to be commonly known in the trade as a dealer or market maker in swaps.

- 11. If a Claimant's Total Artificiality Paid exceeds their Total Artificiality Received, then such Claimant will have NAP and will be entitled to participate on a *pro rata* basis in the 90% of the Net Settlement Fund being distributed in respect of NAP. Specifically, this *pro rata* share shall be calculated for each Claimant by multiplying 90% of the Net Settlement Fund by a fraction the numerator of which is the Claimant's NAP and the denominator of which is the sum total NAP of all Claimants who have NAP.
- 12. NL as used herein shall be the amount by which a Settlement Class Member's Total Losses (*see* ¶13 below) on their NL Transactions exceed their Total Gains (*see* ¶14 below) on their NL Transactions, less any applicable Hedger Reduction or Swaps-Dealer Reduction (defined in ¶8 above). *Example*: If the Total Losses are \$1,500 and Total Gains are \$1,000 on NL Transactions for a Claimant, then the NL would be \$500 (*i.e.*, \$1,500 minus \$1,000). To the extent that such Claimant was a hedger, the NL amount would be subject to a 50% reduction such that the NL in this Example would be reduced to \$250. To the extent that such Claimant was a swaps-dealer, the NL amount would be subject to a 91% reduction such that the NL in this Example would be reduced to \$45.
- 13. "<u>Total Losses</u>" shall be determined by adding together the sum total of each Claimant's losses on all NL Transactions.
- 14. "<u>Total Gains</u>" shall be determined by adding together the sum total of each Claimant's gains on all NL Transactions.
- 15. If a Claimant's Total Losses exceed their Total Gains, then such Claimant will have NL and will be entitled to participate on a *pro rata* basis in the 10% of the Net Settlement Fund being distributed in respect of NL. Specifically, this *pro rata* share shall be calculated for each Claimant by multiplying 10% of the Net Settlement Fund by a fraction the numerator of

which is the Claimant's NL and the denominator of which is the sum total NL of all Claimants who have NL.

- 16. All determinations under this Plan of Allocation shall be made by the Settlement Administrator subject to review by Lead Counsel and the Court.
- 17. This Plan of Allocation shall be subject to change by the Court without further notice to Settlement Class Members other than publication on the official settlement website.

Exhibit 1–C–1

January 2008 Activity

Date	February 2008 Contract Artificiality
1/4/2008	\$0.0090
1/7/2008	\$0.0090
1/8/2008	\$0.0316
1/9/2008	\$0.0662
1/10/2008	\$0.0782
1/11/2008	\$0.1145
1/14/2008	\$0.1521
1/15/2008	\$0.2301
1/16/2008	\$0.3650
1/17/2008	\$0.4199
1/18/2008	\$0.4199
1/22/2008	\$0.4199
1/23/2008	\$0.4199
1/24/2008	\$0.4116
1/25/2008	-\$0.8952

March 2008 Activity

Date	April 2008 Contract Artificiality	
3/4/20	08	\$0.3206
3/5/20	08	\$0.6258
3/6/20	08	\$0.6153
3/7/20	08	\$0.9256
3/10/20	08	\$1.0385
3/11/20	08	\$1.0091
3/12/20	08	\$0.9454
3/13/20	08	\$0.9230
3/14/20	08	\$1.1376
3/17/20	08	\$1.2867
3/18/20	08	\$1.6746
3/19/20	08	\$2.6362
3/20/20	08	\$2.4066
3/24/20	08	\$2.1487

3/25/2008 \$1.0510

March 2008 Contract Artificiality April 2008 Contract Artificiality

-\$0.0026	-\$0.0017
-\$0.4110	-\$0.2702

May 2008 Contract Artificiality	June 2008 Contract Artificiality
-\$0.0234	\$0.0062
-\$0.0457	\$0.0122
-\$0.0506	\$0.0098
-\$0.0732	\$0.0158
-\$0.0814	\$0.0180
-\$0.0951	\$0.0113
-\$0.1248	-\$0.0033
-\$0.1352	-\$0.0084
-\$0.1509	-\$0.0043
-\$0.1618	-\$0.0014
-\$0.1901	\$0.0062
-\$0.2602	\$0.0249
-\$0.3672	-\$0.0276
-\$0.4874	-\$0.0866

-\$0.9988 -\$0.3376

May 2008 Contract Artificiality

-\$0.0008

-\$0.1315

July 2008 Contract Artificiality

\$0.0142

\$0.0276

\$0.0268

\$0.0405

\$0.0455

\$0.0433

\$0.0384

\$0.0367

\$0.0462

\$0.0528

\$0.0699

\$0.1124

+ - - - - -

\$0.0949

\$0.0752

-\$0.0084

Exhibit 1-C-2

LO Option Contract Artificiality by Day (\$/bbl)

LO Option Contr	ract Artificiality	by Day (\$/1	obl)																							
Contract ID	1/4/2008	1/7/2008	1/8/2008	1/9/2008	1/10/2008	1/11/2008	1/14/2008	1/15/2008	1/16/2008	1/24/2008	1/25/2008	3/4/2008	3/5/2008	3/6/2008	3/7/2008	3/10/2008	3/11/2008	3/12/2008	3/13/2008	3/14/2008	3/17/2008	3/18/2008	3/19/2008	3/20/2008	3/24/2008	3/25/2008
20082C-40	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-60	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-62.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-63	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-64 20082C-65	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-65.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082C-67	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-67.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-68	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-68.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-69	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-69.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-70 20082C-70.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-70.5 20082C-71	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082C-71.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-72	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-72.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-73	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-74	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-74.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-75	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-75.5 20082C-76	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082C-76.5	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a										
20082C-77	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-77.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-78	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-78.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-79	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-79.5 20082C-80	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082C-80.5	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a
20082C-81	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-81.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-82	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-82.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-83	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-83.5 20082C-84	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a
20082C-84.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a
20082C-85	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-85.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-86	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-86.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-87	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-87.5 20082C-88	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-88.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082C-89	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a
20082C-89.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-90.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-91	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-91.5 20082C-92	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-92 20082C-92.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a									
20082C-92.3 20082C-93	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a
20082C-93.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-94	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-94.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-95.5 20082C-96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-96 20082C-96.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082C-97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a
20082C-97.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-98.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-99	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-99.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-100.5 20082C-101	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-101 20082C-101.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082C-101.3 20082C-102	n/a	n/a	n/a	n/a n/a	n/a	$\frac{11}{a}$	n/a																			
20082C-102.5	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a						
20082C-103	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-103.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-104	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-104.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-105	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-105.5 20082C-106	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-106 20082C-107	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082C-107	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a
	, ::	, -	, ==	,	, ==	, -	, -	, -	, .	, -	, -	, ==	, ::	, -	,	,	,	, -	, :-	, .	,	, :	, -	, -	*	•

LO Option Contract Artificiality by Day (\$/bbl)

LO Option Contr	act Artificiality	by Day (\$/1	obl)																							
Contract ID	1/4/2008	1/7/2008	1/8/2008	1/9/2008	1/10/2008	1/11/2008	1/14/2008	1/15/2008	1/16/2008	1/24/2008	1/25/2008	3/4/2008	3/5/2008	3/6/2008	3/7/2008	3/10/2008	3/11/2008	3/12/2008	3/13/2008	3/14/2008	3/17/2008	3/18/2008	3/19/2008	3/20/2008	3/24/2008	3/25/2008
20082C-108	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-109	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-110	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-111 20082C-112	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a							
20082C-112.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a						
20082C-113	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-114	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-115	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-116	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-117.5 20082C-118	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a							
20082C-118 20082C-119	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a							
20082C-120	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-121	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-122	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-122.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-123 20082C-123.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082C-125	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-128	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-129	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-130	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-131	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-132 20082C-133	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082C-134	n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	$\frac{11}{a}$	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a
20082C-135	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-136	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-137	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-140 20082C-145	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-145 20082C-150	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082C-155	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-160	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-165	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-170	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-180	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082C-190 20082C-200	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082P-40	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a						
20082P-45	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-49.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-50.5 20082P-51	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-51.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082P-52	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-52.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-53	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-53.5 20082P-54	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-54.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082P-55	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a						
20082P-55.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-56	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-57	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-58 20082P-59	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-60	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a
20082P-61	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-61.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-62	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-62.5 20082P-63	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-63.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082P-64	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-64.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-65	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-65.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-66	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-66.5 20082P-67	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082P-67.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-68	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-68.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-69	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-69.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-70 20082P-70.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-70.5 20082P-71	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082P-71 20082P-71.5	n/a	n/a	n/a	n/a n/a	n/a	$\frac{11}{a}$	n/a	n/a	n/a	$\frac{11}{a}$	n/a	n/a	n/a													
20082P-72	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-72.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-73	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-73.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-74	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

LO Option Contract Artificiality by Day (\$/bbl)

LO Option Contr	act Artificiality	by Day (\$/1	obl)																							
Contract ID	1/4/2008	1/7/2008	1/8/2008	1/9/2008	1/10/2008	1/11/2008	1/14/2008	1/15/2008	1/16/2008	1/24/2008	1/25/2008	3/4/2008	3/5/2008	3/6/2008	3/7/2008	3/10/2008	3/11/2008	3/12/2008	3/13/2008	3/14/2008	3/17/2008	3/18/2008	3/19/2008	3/20/2008	3/24/2008	3/25/2008
20082P-74.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-75	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-75.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-76 20082P-76.5	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a							
20082P-77	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a						
20082P-77.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-78	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-78.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-79	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-79.5 20082P-80	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-80.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082P-81	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-81.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-82	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-82.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-83 20082P-83.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082P-84	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-84.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-85	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-85.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-86	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-86.5 20082P-87	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082P-87.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082P-88	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-88.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-89	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-89.5 20082P-90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-90 20082P-90.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082P-91	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a
20082P-91.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-92	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-92.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-93	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-93.5 20082P-94	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082P-94.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a
20082P-95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-95.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-96.5 20082P-97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082F-97 20082P-97.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082P-98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-98.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-99	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-99.5 20082P-100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-100 20082P-100.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20082P-101	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a
20082P-101.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-102	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-104	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-110 20082P-115	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20082P-113 20083C-50	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a										
20083C-63	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-64	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-65	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-68 20083C-68.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a							
20083C-69	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a							
20083C-69.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-70	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-70.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-71	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-71.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-72 20083C-72.5	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a							
20083C-72.3 20083C-73	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a n/a	n/a n/a	$\frac{11}{a}$	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a n/a	n/a
20083C-73.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-74	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-74.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-75	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-75.5 20083C-76	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-76 20083C-76.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083C-70.5 20083C-77	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a								
20083C-77.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-78	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-78.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-79	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-79.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

LO Option Contract Artificiality by Day (\$/bbl)

LO Option Contr	ract Artificiality	by Day (\$/1	obl)																							
Contract ID	1/4/2008	1/7/2008	1/8/2008	1/9/2008	1/10/2008	1/11/2008	1/14/2008	1/15/2008	1/16/2008	1/24/2008	1/25/2008	3/4/2008	3/5/2008	3/6/2008	3/7/2008	3/10/2008	3/11/2008	3/12/2008	3/13/2008	3/14/2008	3/17/2008	3/18/2008	3/19/2008	3/20/2008	3/24/2008	3/25/2008
20083C-80	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-80.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-81	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-81.5 20083C-82	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-82 20083C-83	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083C-83.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-84	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-84.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-85	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-85.5 20083C-86	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083C-86.5	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a n/a
20083C-87	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-87.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-88	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-88.5 20083C-89	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-89.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083C-90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-90.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-91	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-91.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-92 20083C-92.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-92.3 20083C-93	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083C-93.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-94	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-94.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-95 20083C-95.5	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a
20083C-95.5 20083C-96	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	$\frac{11}{a}$	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a
20083C-96.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-97.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-98 20083C-98.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-98.5 20083C-99	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083C-99.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-100.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-101	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-101.5 20083C-102	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083C-102.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-103	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-103.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-104	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-104.5 20083C-105	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083C-105.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-106	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-107	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-107.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-108 20083C-108.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083C-109	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-109.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-110	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-110.5 20083C-111	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a
20083C-111 20083C-112	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083C-112.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-113	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-114	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-115 20083C-116	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-116 20083C-117	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083C-117.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-118	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-119	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-120	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-121 20083C-122	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-122 20083C-123	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083C-124	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a
20083C-125	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-126	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-127	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-128 20083C-129	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083C-129 20083C-130	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	$\frac{11}{a}$	n/a	$\frac{11}{a}$	n/a	$\frac{11}{a}$	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a							
20083C-135	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-138	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-140	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-145	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-150	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

LO Option Contract Artificiality by Day (\$/bbl)

Contract ID		1 /7 /2009		1 /0 /2000	1 /10 /2000	1 /11 /2000	1 /14 /2000	1 /15 /2000	1 /17 /2000	1/24/2000	1/25/2000	2 / 4 / 2000	3 /E /2000	3 / 6 / 2000	2 /7 /2000	2 /10 /2000	2 /11 /2000	3 /10 /0000	2 /12 /2000	2 /14 /2000	2 /17 /2000	2 /10 /2000	2 /10 /2000	3 /20 /2000	3 /24 /2000	2 /2E /2000
<u>Contract ID</u> 20083C-160	<u>1/4/2008</u> n/a	<u>1///2008</u> n/a	1/8/2008 n/a	1/9/2008 n/a	1/10/2008 n/a	<u>1/11/2008</u> n/a	1/14/2008 n/a	1/15/2008 n/a	<u>1/16/2008</u> n/a	1/24/2008 n/a	1/25/2008 n/a	3/4/2008 n/a	$\frac{3/5/2008}{n/a}$	3/6/2008 n/a	$\frac{3/7/2008}{n/a}$	3/10/2008 n/a	3/11/2008 n/a	$\frac{3/12/2008}{n/a}$	<u>3/13/2008</u> n/a	3/14/2008 n/a	3/17/2008 n/a	3/18/2008 n/a	3/19/2008 n/a	<u>3/20/2008</u> n/a	3/24/2008 n/a	3/25/2008 n/a
20083C-175	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-180 20083C-195	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083C-200	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083P-40	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-42 20083P-44	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a
20083P-45	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a
20083P-48	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-50 20083P-54	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083P-55	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-56	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-56.5 20083P-57	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083P-57.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-58	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-58.5 20083P-59	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083P-60	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-61	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-62 20083P-62.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083P-63	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-64	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-65 20083P-65.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083P-66	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-66.5 20083P-67	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-67.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083P-68	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-68.5 20083P-69	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-69.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083P-70	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-70.5 20083P-71	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a n/a
20083P-71.5	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a
20083P-72	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-72.5 20083P-73	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083P-73.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a
20083P-74	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-74.5 20083P-75	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083P-75.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-76	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-76.5 20083P-77	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083P-77.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-78 20083P-78.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-78.3 20083P-79	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083P-79.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-80 20083P-80.5	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a
20083P-81	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a
20083P-81.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-82 20083P-82.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083P-83	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-83.5 20083P-84	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-84.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083P-85	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-85.5 20083P-86	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-86.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083P-87	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-87.5 20083P-88	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-88 20083P-88.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083P-89	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-89.5 20083P-90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-90 20083P-90.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083P-91	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-91.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-92 20083P-92.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083P-93	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-93.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-94 20083P-94.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083P-95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

LO Option Contract Artificiality by Day (\$/bbl)

LO Option Contr	act Artificiality	by Day (\$/1	obl)																							
Contract ID	1/4/2008	1/7/2008	1/8/2008	1/9/2008	1/10/2008	1/11/2008	1/14/2008	1/15/2008	1/16/2008	1/24/2008	1/25/2008	3/4/2008	3/5/2008	3/6/2008	3/7/2008	3/10/2008	3/11/2008	3/12/2008	3/13/2008	3/14/2008	3/17/2008	3/18/2008	3/19/2008	3/20/2008	3/24/2008	3/25/2008
20083P-95.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-96.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-97 20083P-97.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-97.3 20083P-98	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	11/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20083P-98.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a
20083P-99	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-99.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-102	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-104 20083P-105	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20083P-103 20083P-200	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20084C-50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-68.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-69	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-69.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-70	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-70.5 20084C-71	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-71.5	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20084C-72	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-72.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-73	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-73.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-74 20084C-75	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-75 20084C-75.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20084C-76	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-76.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-77	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-77.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-78 20084C-78.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-78.3 20084C-79	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20084C-79.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-80	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-80.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-81	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-81.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-82 20084C-82.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20084C-83	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-83.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-84	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-84.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-85 20084C-85.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-86	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20084C-86.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-87	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-87.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-88	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-88.5 20084C-89	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-89.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20084C-90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-90.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-91	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-91.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-92 20084C-92.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20084C-92.3 20084C-93	n/a	n/a n/a	11/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	11/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a
20084C-93.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-94	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-94.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-95.5 20084C-96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a
20084C-96.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a
20084C-97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-97.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-98.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-99	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-99.5 20084C-100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-100 20084C-100.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20084C-100.3 20084C-101	$\frac{11}{a}$	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	$\frac{11}{a}$	n/a
20084C-101.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-102	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-102.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-103	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-103.5 20084C-104	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a
20084C-104 20084C-104.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
=000 TO TOTIO	11/ a	11/ a	11/ a	11/ a	11/ a	11/ d	11/ d	11/ a	11/ a	11/ d	11/ d	11/ a	11/ a	11/ d	11/ а	11/ a	11/ d	11/ a	11/ a	11/ d	11/ a	11/ a				

LO Option Contract Artificiality by Day (\$/bbl)

LO Option Contr	ract Artificiality	by Day (\$/1	obl)																							
Contract ID	1/4/2008	1/7/2008	1/8/2008	1/9/2008	1/10/2008	1/11/2008	1/14/2008	1/15/2008	1/16/2008	1/24/2008	1/25/2008	3/4/2008	3/5/2008	3/6/2008	3/7/2008	3/10/2008	3/11/2008	3/12/2008	3/13/2008	3/14/2008	3/17/2008	3/18/2008	3/19/2008	3/20/2008	3/24/2008	3/25/2008
20084C-105	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-105.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-106	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-106.5 20084C-107	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a							
20084C-107 20084C-107.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a						
20084C-108	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-108.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-109	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-109.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-110 20084C-110.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a							
20084C-110.5 20084C-111	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a							
20084C-111.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-112	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-112.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-113 20084C-113.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-113.5 20084C-114	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20084C-114.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-115	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-115.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-116	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-117.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-118 20084C-120	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20084C-120 20084C-122	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	$\frac{11}{a}$	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a						
20084C-123	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-125	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-127	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-129 20084C-130	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-135	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20084C-140	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a
20084C-145	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-150	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-160	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-170	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084C-200 20084P-45	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a n/a
20084P-50	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a
20084P-51	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-52	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-53	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-54	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-55 20084P-56	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20084P-58	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a
20084P-59	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-60	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-61	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-62 20084P-63.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-64	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20084P-65	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-66	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-67	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-67.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-68 20084P-68.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20084P-69	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a														
20084P-69.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-70	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-70.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-71 20084P-71.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a
20084P-71.5 20084P-72	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20084P-72.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-73	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-73.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-74	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-74.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-75 20084P-75.5	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a												
20084P-75.5 20084P-76	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20084P-76.5	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a
20084P-77	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-77.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-78	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-78.5 20084P-79	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-79 20084P-79.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20084P-80	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a								
20084P-80.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-81	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-81.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-82	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

LO Option Contract Artificiality by Day (\$/bbl)

LO Option Contr	ract Artificiality	by Day (\$/1	obl)																							
Contract ID	1/4/2008	1/7/2008	1/8/2008	1/9/2008	1/10/2008	1/11/2008	1/14/2008	1/15/2008	1/16/2008	1/24/2008	1/25/2008	3/4/2008	3/5/2008	3/6/2008	3/7/2008	3/10/2008	3/11/2008	3/12/2008	3/13/2008	3/14/2008	3/17/2008	3/18/2008	3/19/2008	3/20/2008	3/24/2008	3/25/2008
20084P-82.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-83	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-83.5 20084P-84	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-84.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20084P-85	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-85.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-86	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-86.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-87	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-87.5 20084P-88	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a														
20084P-88.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a														
20084P-89	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-89.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-90.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-91 20084P-91.5	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a													
20084P-92	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a													
20084P-92.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-93	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-93.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-94	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-94.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-95 20084P-95.5	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a n/a										
20084P-96	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	11/a n/a	n/a n/a																	
20084P-96.5	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-97.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-98.5 20084P-99	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a						
20084P-99.5	n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a						
20084P-100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-100.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-101	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-101.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-102 20084P-102.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-102.3 20084P-103	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20084P-103.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-104	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-104.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-105	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-105.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-106 20084P-106.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20084P-107	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-107.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-108	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-108.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-109 20084P-109.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-109.3 20084P-110	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20084P-110.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a								
20084P-111	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-114	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-115	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-116 20084P-120	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20084P-120 20084P-200	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085C-67	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a											
20085C-68	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-69	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-70	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-70.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-71 20085C-72	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a n/a	n/a	n/a n/a
20085C-72.5	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	$\frac{n}{a}$
20085C-73	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-73.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-74	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-74.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-75	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-75.5 20085C-76	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a													
20085C-76 20085C-76.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085C-70.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-77.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-78	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-78.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-79	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-80 20085C-80.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-80.5 20085C-81	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
2000000 01	11/ a	11/ d	11/ a	11/ a	11/ a	11/ d	11/ d	11/ a	11/ a	11/ d	11/ a	11/ a	11/ a	11/ d	11/ а	11/ a	11/ d	11/ a	11/ a	11/ d	11/ a	11/ a				

LO Option Contract Artificiality by Day (\$/bbl)

LO Option Contra																										
Contract ID	1/4/2008	1/7/2008	1/8/2008	1/9/2008	<u>1/10/2008</u>	<u>1/11/2008</u>	<u>1/14/2008</u>	1/15/2008	1/16/2008	1/24/2008	1/25/2008	3/4/2008	3/5/2008	3/6/2008	$\frac{3/7/2008}{2}$	3/10/2008	3/11/2008	3/12/2008	3/13/2008	3/14/2008	3/17/2008	3/18/2008	3/19/2008	3/20/2008	3/24/2008	3/25/2008
20085C-81.5 20085C-82	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085C-82.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-83	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-83.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-84	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-85	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-86	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-86.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-87 20085C-87.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-88	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085C-88.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-89	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-89.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-90.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-91	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-91.5 20085C-92	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-92.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085C-93	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-93.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-94	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-94.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-95.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-96 20085C-96.5	n/a	n/a n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a
20085C-96.5 20085C-97	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085C-97.5	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a
20085C-98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-98.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-99	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-99.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-100.5 20085C-101	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a
20085C-101	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a
20085C-102	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-102.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-103	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-103.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-104	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-104.5 20085C-105	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-105.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085C-106	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-106.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-107	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-107.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-108	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-108.5 20085C-109	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-109.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085C-110	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a
20085C-110.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-111	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-111.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-112	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-112.5 20085C-113	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-113 20085C-113.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085C-114	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-114.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-115	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-115.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-116	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-116.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-117 20085C-117.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-117.5 20085C-118	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085C-118.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	$\frac{11}{a}$	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a						
20085C-119	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a	n/a
20085C-120	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-121	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-122	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-123	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-124	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-125	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-127 20085C-127.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085C-127.5 20085C-128	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085C-128	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-130	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-132	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-133	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

LO Option Contract Artificiality by Day (\$/bbl)

LO Option Contra	act Artificiality	by Day (\$/1	obl)																							
Contract ID	1/4/2008	1/7/2008	1/8/2008	1/9/2008	1/10/2008	1/11/2008	1/14/2008	1/15/2008	1/16/2008	1/24/2008	1/25/2008	3/4/2008	3/5/2008	3/6/2008	3/7/2008	3/10/2008	3/11/2008	3/12/2008	3/13/2008	3/14/2008	3/17/2008	3/18/2008	3/19/2008	3/20/2008	3/24/2008	3/25/2008
20085C-135	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-138	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-138.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-140 20085C-145	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a														
20085C-143	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a										
20085C-155	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-160	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-170	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-175 20085C-180	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-190	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085C-200	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-205	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085C-210	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-40	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-45 20085P-50	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a							
20085P-52	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a							
20085P-54	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-55	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-56	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-57.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-58 20085P-59	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085P-60	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a
20085P-61	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-62	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-63	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-65 20085P-66	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085P-66.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a						
20085P-67	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-68	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-69	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-70 20085P-70.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-70.3 20085P-71	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085P-72	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-72.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-73	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-73.5 20085P-74	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-74.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085P-75	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-75.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-76	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-76.5 20085P-77	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-77 20085P-77.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085P-78	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-78.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-79	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-79.5 20085P-80	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-80.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085P-81	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-81.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-82	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-82.5 20085P-83	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a
20085P-83.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085P-84	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-84.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-85	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-85.5 20085P-86	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-86 20085P-86.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085P-87	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-87.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-88	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-88.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-89 20085P-89.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-89.5 20085P-90	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085P-90.5	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a								
20085P-91	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-91.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-92	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-92.5 20085P-93	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a
20085P-93 20085P-93.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085P-94	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-94.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-95.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

LO Option Contract Artificiality by Day (\$/bbl)

LO Option Contr	ract Artificiality	by Day (\$/1	obl)																							
Contract ID	1/4/2008	1/7/2008	1/8/2008	1/9/2008	1/10/2008	1/11/2008	1/14/2008	1/15/2008	1/16/2008	1/24/2008	1/25/2008	3/4/2008	3/5/2008	3/6/2008	3/7/2008	3/10/2008	3/11/2008	3/12/2008	3/13/2008	3/14/2008	3/17/2008	3/18/2008	3/19/2008	3/20/2008	3/24/2008	3/25/2008
20085P-96.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-97.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-98 20085P-98.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-99	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a													
20085P-99.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-100.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-101	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-101.5 20085P-102	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a														
20085P-102.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a														
20085P-103	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-103.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-104	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-104.5 20085P-105	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-105.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085P-106	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-106.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-107	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-107.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-108	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-108.5 20085P-109	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085P-109 20085P-109.5	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a
20085P-110	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-110.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-111.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-112 20085P-114	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-114 20085P-115	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20085P-116	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20085P-170	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-25	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-58.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-60 20086C-63	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086C-63.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a								
20086C-65	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-65.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-66	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-66.5 20086C-67	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-67.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a																	
20086C-68	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-68.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-69	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-69.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-70 20086C-70.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086C-71	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a									
20086C-71.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-72	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-72.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-73 20086C-73.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-73.3 20086C-74	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a									
20086C-74.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-75	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-75.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-76	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-76.5 20086C-77	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086C-77 20086C-77.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-78	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-78.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-79	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-80	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-80.5 20086C-81	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086C-81.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a n/a	n/a						
20086C-82	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-82.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-83	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-83.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-84 20086C-84 5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-84.5 20086C-85	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086C-85.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-86	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-86.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-87	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-87.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-88	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

LO Option Contract Artificiality by Day (\$/bbl)

LO Option Contra	act Artificiality	by Day (\$/1	obl)																							
Contract ID	1/4/2008	1/7/2008	1/8/2008	1/9/2008	1/10/2008	1/11/2008	1/14/2008	1/15/2008	1/16/2008	1/24/2008	1/25/2008	3/4/2008	3/5/2008	3/6/2008	3/7/2008	3/10/2008	3/11/2008	3/12/2008	3/13/2008	3/14/2008	3/17/2008	3/18/2008	3/19/2008	3/20/2008	3/24/2008	3/25/2008
20086C-88.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-89	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-89.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-90 20086C-90.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a														
20086C-90.3	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a n/a													
20086C-91.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-92	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-92.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-93	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-93.5 20086C-94	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086C-94.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a
20086C-95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-95.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-96.5 20086C-97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-97.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086C-98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-98.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-99	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-99.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-100 20086C-100.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-100.3 20086C-101	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086C-101.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-102	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-102.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-103 20086C-103.5	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a												
20086C-103.3 20086C-104	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a												
20086C-104.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-105	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-105.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-106 20086C-106.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-106.5 20086C-107	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086C-107.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-108	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-108.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-109	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-109.5 20086C-110	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086C-110.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-111	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-111.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-112	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-112.5 20086C-113	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086C-113.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-114	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-115	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-116	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-116.5 20086C-117	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a											
20086C-117.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-118	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-119	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-120 20086C-121	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a
20086C-121 20086C-122	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086C-122.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-123	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-124	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-125 20086C-127	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-127.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086C-130	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-135	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-137.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-140	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-145	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-148 20086C-150	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086C-155	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a														
20086C-179.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-180	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-190	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086C-200 20086P-25	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a
20086P-25 20086P-40	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086P-45	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-48	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-50.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-51	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

LO Option Contract Artificiality by Day (\$/bbl)

LO Option Contr	act Artificiality	by Day (\$/l	obl)																							
Contract ID	1/4/2008	1/7/2008	1/8/2008	1/9/2008	1/10/2008	1/11/2008	1/14/2008	1/15/2008	1/16/2008	1/24/2008	1/25/2008	3/4/2008	3/5/2008	3/6/2008	3/7/2008	3/10/2008	3/11/2008	3/12/2008	3/13/2008	3/14/2008	3/17/2008	3/18/2008	3/19/2008	3/20/2008	3/24/2008	3/25/2008
20086P-52	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-52.5 20086P-53	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086P-54	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a
20086P-54.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-55 20086P-56	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-57	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086P-57.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-58	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-58.5 20086P-59	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086P-59.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-60	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-60.5 20086P-61	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a														
20086P-62	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a										
20086P-63	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-63.5 20086P-64	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-65	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a																	
20086P-65.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-66	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-66.5 20086P-67	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086P-67.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-68	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-68.5 20086P-69	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086P-69.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-70	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-70.5 20086P-71	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a
20086P-71.5	n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a
20086P-72	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-72.5 20086P-73	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-73.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086P-74	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-74.5 20086P-75	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-75.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086P-75.9	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-76	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-76.5 20086P-77	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086P-77.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-78	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-78.5 20086P-79	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086P-79.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-80	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-80.5 20086P-81	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086P-81.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-82	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-82.5 20086P-83	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086P-83.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-84	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-84.5 20086P-85	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086P-85.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-86	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-86.5 20086P-87	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a
20086P-87.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a
20086P-88	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-88.5 20086P-89	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-89.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086P-90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-90.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-91 20086P-91.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086P-92	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a
20086P-92.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-93 20086P-93.5	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a
20086P-93.5 20086P-94	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086P-94.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-95 20086P-95.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-95.5 20086P-96	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086P-96.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-97.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

LO Option Contract Artificiality by Day (\$/bbl)

LO Option Contr	-												- /- /	- / - /	. /= /						- / /					
Contract ID 20086P-98	$\frac{1/4/2008}{2}$	1/7/2008	1/8/2008	1/9/2008	1/10/2008	1/11/2008	1/14/2008	1/15/2008	1/16/2008	1/24/2008	1/25/2008	$\frac{3/4/2008}{2}$	3/5/2008	3/6/2008	$\frac{3/7/2008}{2}$	$\frac{3/10/2008}{2}$	3/11/2008	$\frac{3/12/2008}{2/3}$	$\frac{3/13/2008}{n/a}$	3/14/2008	3/17/2008	3/18/2008	3/19/2008	3/20/2008	3/24/2008	$\frac{3/25/2008}{2}$
20086P-98.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086P-99	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-99.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-100.5 20086P-101	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-101.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086P-102	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-102.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-103	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-103.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-104	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-104.5 20086P-105	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-105.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086P-106	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-106.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-107	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-107.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-108	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-108.5 20086P-110	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-110 20086P-111	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20086P-113	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-116	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-145	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20086P-200	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-60	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-62.5 20087C-65	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-65 20087C-68.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20087C-69	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a
20087C-70	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-70.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-71	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-72	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-72.5 20087C-73	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-73 20087C-73.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a
20087C-75.3	n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a
20087C-76.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-77	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-78	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-81.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-83 20087C-84	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-84.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20087C-85	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-85.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-86	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-86.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-87 20087C-87.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-87.5 20087C-88	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20087C-88.5	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a
20087C-89	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-89.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-90.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-91 20087C-91.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-91.5 20087C-92	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20087C-92 20087C-92.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	$\frac{11}{a}$	n/a
20087C-93	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-93.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-94	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-94.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-95.5 20087C-96	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a
20087C-96 20087C-96.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20087C-96.3 20087C-97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-97.5	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a n/a
20087C-98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-98.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-99	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-99.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-100.5 20087C-101	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-101 20087C-101.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20087C-101.5 20087C-102	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20087C-102 20087C-103	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-103.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-104	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-104.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

LO Option Contract Artificiality by Day (\$/bbl)

LO Option Contra	act Artificiality	by Day (\$/1	obl)																							
Contract ID	1/4/2008	1/7/2008	1/8/2008	1/9/2008	1/10/2008	1/11/2008	1/14/2008	1/15/2008	1/16/2008	1/24/2008	1/25/2008	3/4/2008	3/5/2008	3/6/2008	3/7/2008	3/10/2008	3/11/2008	3/12/2008	3/13/2008	3/14/2008	3/17/2008	3/18/2008	3/19/2008	3/20/2008	3/24/2008	3/25/2008
20087C-105	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-105.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-106	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-106.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-107	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-107.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-108 20087C-109	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-109 20087C-110	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a																	
20087C-111	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-112	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-112.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-113	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-114	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-115 20087C-116	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-110 20087C-117	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	11/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a													
20087C-118	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-119	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-120	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-121	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-122	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-123	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-124 20087C-125	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a																	
20087C-123 20087C-127	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20087C-127.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-130	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-132	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-132.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-133 20087C-135	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087C-133 20087C-140	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20087P-45	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a
20087P-50	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-53	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-53.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-55	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-58	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-59 20087P-60	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a	n/a n/a	n/a n/a
20087P-62	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a
20087P-64	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-65	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-66	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-68.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-69 20087P-70	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-70 20087P-70.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20087P-71	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a						
20087P-72	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-72.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-73	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-73.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-74 20087P-74.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-74.3 20087P-75	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20087P-75.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-76	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-76.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-77	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	,	n/a												
20087P-78	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-78.5 20087P-79	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a
20087P-79 20087P-79.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20087F-80	$\frac{n}{a}$	n/a	n/a	n/a	$\frac{n}{a}$	n/a	n/a n/a	n/a	n/a n/a	n/a																
20087P-80.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-81	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-81.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-82	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-82.5 20087P-83	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-83.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-83.3 20087P-84	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20087P-84.5	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a n/a						
20087P-85	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-85.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-86	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-86.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-87 20087P-87.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2008/P-8/.5 20087P-88	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a	n/a n/a													
20087P-88 20087P-88.5	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
20087P-89	n/a n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a	n/a n/a	n/a n/a	n/a	n/a n/a	n/a	n/a	n/a	n/a	n/a n/a	n/a n/a	n/a n/a
20087P-89.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-90.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

LO Option Contract Artificiality by Day (\$/bbl)

Contract ID	1/4/2008	1/7/2008	1/8/2008	1/9/2008	1/10/2008	1/11/2008	1/14/2008	1/15/2008	1/16/2008	1/24/2008	1/25/2008	3/4/2008	3/5/2008	3/6/2008	3/7/2008	3/10/2008	3/11/2008	3/12/2008	3/13/2008	3/14/2008	3/17/2008	3/18/2008	3/19/2008	3/20/2008	3/24/2008	3/25/2008
20087P-91	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-91.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-92	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-92.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-93	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-93.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-94	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-94.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-95	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-95.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-96	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-96.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-97	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-97.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-98	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-98.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-99	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-99.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-100.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-101	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-101.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-102	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-102.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-103	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-103.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-104	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-104.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-105	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-105.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-106	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-106.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-107	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-107.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-108	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-110	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-112.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-114	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
20087P-115	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Execution Copy

UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

In Re: Platinum And Palladium Commodities

Litigation

MASTER FILE No. 10 Civ. 3617 (WHP)

This Document Relates To:

Platinum/Palladium Futures Action

STIPULATION AND AGREEMENT OF SETTLEMENT

THIS STIPULATION AND AGREEMENT OF SETTLEMENT (the "Settlement Agreement" or "Settlement" is made and entered into as of August 20, 2013, pursuant to Rule 23 of the Federal Rules of Civil Procedure. This Settlement Agreement is entered into on behalf of the Futures Plaintiffs (as defined in Section 1(r) hereof) and the Futures Class (as defined in Section 1(p) hereof), by and through the Futures Lead Counsel (as defined in Section 1(q) hereof), and on behalf of defendants Moore Capital Management, LP; Moore Capital Management, LLC; Moore Capital Advisors, LLC; Moore Advisors, Ltd.; Moore Macro Fund, LP; Moore Global Fixed Income Master Fund, LP; Christopher Pia; Louis Bacon; Eugene Burger (together the "Moore Defendants"); and Joseph Welsh ("Welsh" and together with the Moore Defendants, the "Settling Defendants"), by and through their respective counsel of record in this action.

WHEREAS, the Futures Plaintiffs made various allegations in the Fifth Consolidated Amended Class Action Complaint (the "Complaint") of alleged conduct that began in 2006, continued until at least May 21, 2008, and allegedly had impact on the market after May 21, 2008;

WHEREAS, the foregoing allegations included allegations that the Settling Defendants, non-settling defendant MF Global, Inc. and other co-conspirators, between at least October 17, 2007 and June 6, 2008, combined, conspired, and agreed to fix or manipulate the prices of New York Mercantile Exchange ("NYMEX") platinum futures contracts and NYMEX palladium futures contracts in violation of the Commodity Exchange Act ("CEA"), 7 U.S.C. §§ 1, et seq. and the Sherman Antitrust Act, 15 U.S.C. §1 et seq.;

WHEREAS, the Futures Plaintiffs further alleged that the foregoing caused false statements or misstatements of prices to be made and also alleged a separate negligence claim for negligent breach of duty, against Defendant Welsh;

WHEREAS, the Settling Defendants have denied each and every allegation of challenged conduct or omissions, disclaimed any wrongdoing or liability whatsoever, and have repeatedly asserted, and submitted evidentiary economic analyses which tend to show, that the maximum alleged class damages, if any, that could be allowed on these claims would be only a minute fraction of those asserted by the Futures Plaintiffs;

WHEREAS, extensive arm's-length, good faith settlement negotiations have taken place on and off over the course of sixteen months between counsel for the Futures Plaintiffs and Settling Defendants;

WHEREAS, such settlement negotiations included a settlement mediation under the direction of The Honorable Daniel Weinstein (Ret.), including all-day mediation sessions on July 27 and August 27, 2012;

WHEREAS, such mediation sessions did not conclude in a settlement, the parties thereafter resumed litigating, and then resumed their arm's-length negotiations through and including the date hereof;

WHEREAS, certain defendants successfully obtained the dismissal of the Futures

Plaintiffs' earlier complaint without prejudice, and the Settling Defendants were prepared to file
a motion to dismiss with prejudice challenging the entirety of the current Complaint prior to the

Parties entering this Settlement Agreement;

WHEREAS, Futures Lead Counsel have had an opportunity to conduct factual research and an extensive review of the more than 250,000 pages of documents produced by the Settling Defendants and defendant MF Global, Inc. both during discovery and in the course of settlement negotiations, Futures Lead Counsel further reviewed records and data (including deposition transcripts) produced by third parties such as the NYMEX, and the Commodity Futures Trading Commission ("CFTC"), received and reviewed expert analysis, conducted a thorough legal analysis, and otherwise have become well-informed before agreeing to the Settlement;

WHEREAS, Defendant Welsh has represented that to the best of his knowledge the information he provided concerning the Relevant Insurers (as defined in Section 3(b)(ii)) and related Policy (as defined in Section 3(b)(ii)) and excess polices is complete and accurate;

WHEREAS, Defendant Welsh has represented that to the best of his knowledge any actions he took with respect to any E&O insurance policy or otherwise has not impaired his rights under the Policy and related excess polices;

WHERAS, Defendant Welsh has provided Futures Lead Counsel with information regarding his financial condition and represented that such information, which is confidential, is true and accurate;

WHEREAS, in the Futures Plaintiffs' informed judgment, Defendant Welsh does not have the financial ability to satisfy any significant judgment and, further, in the Futures Plaintiffs' informed judgment, Defendant Welsh would potentially face insolvency if he had to

defend this complex case through summary judgment or trial and/or if there was any significant judgment entered against him in this Action;

WHEREAS, Futures Lead Counsel consider the settlement set forth herein to be fair, reasonable, adequate and in the best interests of the Futures Plaintiffs and the members of the Futures Class, and have determined that it is in the best interests of the Futures Class to enter into this Settlement Agreement in order to avoid the risks and uncertainties of this complex litigation and to assure a benefit to the Futures Class, while maintaining the right to pursue claims against any Non-Settling Defendants (as defined in Section 1(v));

WHEREAS, Settling Defendants have decided, despite their denial of each and every one of the Futures Plaintiffs' allegations, their position that they are not liable for the claims asserted, and their position that alleged class damages, if any, would be allowed only in a minute fraction of those asserted by the Futures Plaintiffs, to enter into this Settlement Agreement to avoid the further expense, inconvenience and burden of this protracted litigation, the distraction and diversion of their personnel and resources, and the risks and expenses inherent in any complex litigation;

NOW THEREFORE, it is agreed by the undersigned, on behalf of the Futures Plaintiffs, the Futures Class, and Settling Defendants, without any admission or concession of liability or the validity of any allegation in the Complaint whatsoever, that the Futures Action and the Released Claims (as defined in Section 1(dd) hereof) be settled, compromised and dismissed on the merits and with prejudice as to the Settling Defendants (but not as to the Non-Settling Defendants), and without costs as to the Futures Plaintiffs or Settling Defendants, on the following terms and conditions, all as subject to the approval of the Court.

1. Terms Used In This Settlement Agreement

The words and terms used in this Settlement Agreement expressly defined below shall have the meaning ascribed to them.

- (a) "Allowed Claim" shall mean a Proof of Claim that satisfies all of the following requirements: (i) it is timely submitted by a Person within the definition of the Futures Class in substantial conformity with the procedural and substantive requirements of this Settlement Agreement, the Settlement Administrator (as defined in Section 1(hh) hereof) and all applicable orders of the Court; (ii) it is validated by the Settlement Administrator and determined to establish that the Person submitting the claim has suffered Net Artificiality Paid and/or Net Losses in accordance with the Plan of Allocation (as defined in Section 1(aa) hereof) and (iii), if objected to, has not been invalidated by the Mediator (as defined in Section 1(s) hereof).
- (b) "Class Notice" shall mean collectively notice of the Settlement to the Futures

 Class in the form of the long form notice (substantially in the form of Exhibit A hereto), the

 publication notice (substantially in the form of Exhibit B hereto) and the settlement website, all

 to be provided, established and maintained pursuant to the Scheduling Order and in the manner

 and form approved by the Court and which is in compliance with Rule 23 of the Federal Rules

 of Civil Procedure.
- (c) "Class Period" shall mean the period June 1, 2006 through April 29, 2010, inclusive.
- (d) "Class Contracts" shall mean NYMEX platinum futures contracts and NYMEX palladium futures contracts traded between June 1, 2006 through April 29, 2010, inclusive.
- (e) "Court" shall mean the United States District Court for the Southern District of New York.

- (f) "Claiming Futures Class Members" shall mean Futures Class members with Allowed Claims.
 - (g) "Claims Bar Date" shall mean seventy-five (75) days after the Fairness Hearing.
- (h) "Effective Date" shall mean the date when the Final Judgment (as defined in Section 1(n) hereof) becomes final as provided in Section 14 of this Settlement Agreement.
- (i) "Escrow Account" shall mean the account to be established at Huntington

 National Bank to hold the \$48,400,000.00 in payments by the Moore Defendants and any Welsh

 Consideration (as defined in Section 1(nn) below) that may be recovered, if any.
- (j) "Escrow Agent" shall mean A.B. Data, Ltd. or any other Persons approved by the Court to act as escrow agent for the Settlement Fund pursuant to the terms of the Escrow Agreement.
- (k) "Escrow Agreement" shall mean the agreement, substantially in the form of Exhibit C hereto, governing the Escrow Account. The Escrow Agreement shall be executed contemporaneously with the execution of this Settlement.
- (l) "Exclusion Bar Date" shall mean the date thirty-five (35) days before Fairness Hearing.
- (m) "Fairness Hearing" shall have the meaning set forth in the proposed Scheduling Order attached hereto as Exhibit D.
- (n) "Final Judgment" shall mean a final judgment and order of dismissal substantially in the form of Exhibit E to this Settlement Agreement (or such other form that the parties may agree) which is to be entered by the Court finally approving the terms of this Settlement Agreement and dismissing the Futures Action with prejudice as to the Settling Defendants provided that the Futures Action will not be dismissed as to the Non-Settling Defendants.

- (o) "Futures Action" shall mean the consolidated class action concerning the Futures Plaintiffs and the Futures Class pending in the United States District Court for the Southern District of New York captioned *In re: Platinum and Palladium Commodities Litig*. (Platinum/Palladium Futures Action), 10-cv-3617 (WHP) (S.D.N.Y.) provided that the Futures Action shall not be deemed to include (i) any claims solely asserted by the named plaintiffs or the proposed class in the Physical Action or (ii) any claims that are not in any way related to and do not arise in full or in part from the Settling Defendants' trading of Class Contracts.
- (p) "Futures Class" shall be defined as: All Persons (as defined in Section 1(z) hereof) that purchased or sold a NYMEX platinum futures contract or a NYMEX palladium futures contract during the period from June 1, 2006 through April 29, 2010, inclusive.

 Excluded from the Futures Class are (i) the Settling Defendants, MF Global, Inc., any coconspirators alleged in the Complaint or any subsequent amended complaint filed prior to the Exclusion Bar Date, Alan Craig Kleinstein, Dominick Frank Terrone, Richard Peter Trifoglio Sr., Frederick Charles Ferriola, Peter Michael Venus, Lawrence Frasca Favuzza, and John Anthony Sakulich and any NYMEX floor brokers or NYMEX floor traders who refuse to execute the certification in the Proof of Claim attesting that they were not co-conspirators, or aiders or abettors of the Settling Defendants or Non-Settling Defendants, and (ii) Opt Outs (as defined in Section 1(w) hereof).
 - (q) "Futures Lead Counsel" shall mean Lovell Stewart Halebian Jacobson LLP.
 - (r) "Futures Plaintiffs" shall mean Greg Galan and Richard White.
 - (s) "Mediator" shall mean Hon. Kathleen A. Roberts (Ret.).
- (t) "MF Global, Inc." shall mean MF Global, Inc. and its insurers, employees, parents, subsidiaries, affiliates, or agents.

- (u) "Net Settlement Fund" shall mean the Settlement Fund minus all reasonable and appropriate costs and expenses associated with Class Notice, all attorneys' fees, settlement administration expenses, taxes and all other expenses or charges as approved by the Court as required herein.
- (v) "Non-Settling Defendants" shall mean defendant MF Global, Inc. and any other person or entity other than the Released Parties that may be named as a defendant in the Futures Action or any other action or proceeding asserting similar claims.
- (w) "Opt Outs" shall mean all Persons within the definition of the Futures Class who have submitted Requests For Exclusion in substantial conformity with the procedural and substantive requirements of this Settlement Agreement, the Settlement Administrator and all applicable orders of the Court prior to the Exclusion Bar Date, and thereafter does not revoke such Request for Exclusion prior to entry of the Final Judgment.
- (x) "Other Futures Plaintiffs' Counsel" shall mean the law firms of Lowey

 Dannenberg Cohen & Hart, P.C. and Edward Cochran, Esq.
- (y) "Parties" shall mean the Futures Plaintiffs and the Settling Defendants, collectively.
- (z) "Person" shall mean an individual, corporation, partnership, association, proprietorship, trust, governmental or quasi-governmental body or political subdivision or any agency or instrumentality thereof, or any other entity or organization.
- (aa) "Plan of Allocation" shall mean the Futures Plaintiffs' proposed plan of allocation attached hereto as Exhibit F, or such alternative plan of allocation as may be ordered by the Court, provided however that the Settling Defendants dispute that the Plan of Allocation sets forth any legally or factually cognizable damages that any of the Settling Defendants would

be liable for, dispute that the Plan of Allocation or concepts contained therein would ever be admissible at trial in full or in part, and maintain their position that the maximum alleged damages, if any, would be only a minute fraction of that asserted by the Futures Plaintiffs.

- (bb) "Proof of Claim" shall mean the form by which the Futures Class submits their claims, substantially in the form attached as Exhibit G hereto, or such alternative form as may be approved by the Court.
- (cc) "Physical Action" shall mean the consolidated class action concerning the named physical plaintiffs and the putative physical class pending in the United States District Court for the Southern District of New York captioned *In re: Platinum and Palladium Commodities Litig*. (Platinum/Palladium Physical Action), 10-cv-3617 (WHP) (S.D.N.Y.), concerning the allegations relating to the named physical plaintiffs and putative physical class in the Complaint.
- (dd) "Released Claims" shall mean those claims identified in Sections 6(a) and 6(b) of this Settlement Agreement.
- (ee) "Released Parties" shall mean the Settling Defendants, each of their past, present or future parents, subsidiaries, divisions, affiliates, shareholders, general or limited partners, attorneys, spouses, insurers, beneficiaries, employees, officers, directors, legal and equitable owners, members, predecessors in interest, successors in interest, legal representatives, trustees, associates, heirs, executors, administrators and/or assigns and each and any of their respective shareholders, parents, subsidiaries, divisions, affiliates, shareholders, general or limited partners, assigns, attorneys, insurers, beneficiaries, employees, officers, directors, legal and equitable owners, members, predecessors in interest, successors in interest, legal representatives, alter egos, trustees, associates, heirs, executors, administrators and/or assigns.

In no event shall the Released Parties include MF Global, Inc., the Relevant Insurers (as defined in Section 3(b) below) or any NYMEX floor brokers or NYMEX floor traders who executed trades in NYMEX platinum futures contracts or NYMEX palladium futures contracts between October 17, 2007 and June 6, 2008. This Settlement is not intended to relieve U.S. Specialty Insurance Company or any of the other Relevant Insurers (defined in Section 3(b)(ii) below) of their obligations under the Policy (defined in Section 3(b)(ii) below) and/or the related excess policies underwritten by the Relevant Insurers.

- (ff) "Request for Exclusion" shall mean the form by which Persons within the definition of the Futures Class may request exclusion therefrom, substantially in the form attached as Exhibit H hereto, or such alternative form as may be approved by the Court.
- (gg) "Scheduling Order" shall mean the order that, *inter alia*, preliminarily approves this Settlement, schedules deadlines leading up to the Fairness Hearing and that makes provisions for the Class Notice. A copy of the proposed Scheduling Order is attached as Exhibit D hereto.
- (hh) "Settlement Administrator" shall mean A.B. Data, Ltd. or any other Persons approved by the Court to perform the tasks necessary to provide notice of the Settlement to the Class and to otherwise administer the Settlement Fund.
- (ii) "Settlement Agreement" or "Settlement" shall mean this Stipulation and Agreement of Settlement and all exhibits attached hereto, including any subsequent modification(s) to the Settlement or any exhibit made in conformity with the terms hereof.
- (jj) "Settlement Fund" shall mean the \$48,400,000.00 aggregate payment by the Moore Defendants and any Welsh Consideration (as defined in Section 1(00) below) that may be recovered (if any) and all interest accrued thereon provided that in no event shall the

Settlement Fund include any funds or other consideration that may be recovered from MF Global, Inc. or any other Non-Settling Defendant.

- (kk) "Settling Defendants" shall have the meaning provided in the first paragraph of this Settlement Agreement, provided that neither MF Global Inc. nor any other Non-Settling Defendant is a Settling Defendant.
- (II) "Supplemental Agreement" shall mean the Supplemental Agreement dated August 20, 2013 and entered on behalf of the Futures Plaintiffs, Futures Class and Moore Capital Management, LP.
- (mm) "Taxes" shall mean any and all (i) federal, state and local taxes payable on interest or other income attributable to the Settlement Fund, including interest and penalties, and (ii) expenses and costs incurred in connection with the taxation of the Settlement Fund (including expenses of tax attorneys and accountants).
- (nn) "Welsh Consideration" shall mean the consideration set forth in Section 3(b) below that may be recovered, if any.

2. The Futures Class

This Settlement is made on behalf of the Futures Class without prejudice to any objections, arguments and/or defenses of any party with respect to the Futures Class or Futures Action in the event that the Final Judgment is not obtained.

3. Settlement Consideration

(a) <u>Moore Defendants</u>. The Moore Defendants have agreed to pay and shall pay by wire transfer into the Escrow Account forty-eight million two hundred fifty thousand dollars (\$48,250,000.00) to be made in two equal payments as follows. <u>First Payment</u>. Provided that the Escrow Agreement has been executed and delivered by all parties thereto, within seven (7) calendar days after the Scheduling Order is entered, the Moore Defendants shall pay by wire

transfer into the Escrow Account the sum of twenty-four million one hundred twenty-five thousand dollars (\$24,125,000.00). Second Payment. No later than three (3) business days before the Fairness Hearing on final approval of the Settlement, the Moore Defendants shall pay by wire transfer into the Escrow Account the sum of twenty-four million one hundred twenty-five thousand dollars (\$24,125,000.00). Third Payment. As separate and additional consideration to quiet the litigation, and further consideration for the reversion rights set forth in Section 12 below, the Moore Defendants shall pay by wire transfer into the Escrow Account the additional sum of one hundred and fifty thousand dollars (\$150,000.00) within seven (7) calendar days after the Scheduling Order is entered. In consideration for the foregoing additional consideration, the Futures Plaintiffs, the Futures Class and Futures Lead Counsel have agreed that up to a maximum of the first \$50,000 of any recovery from the Relevant Insurers (if any) with respect to the Welsh Consideration set forth below, will be refunded to the Moore Defendants, irrespective of whether grounds for reversion as set forth in Section 12 hereof apply.

- (b) <u>Welsh</u>. Welsh has agreed to provide the following consideration:
- (\$35,000,000) for the benefit of the Futures Class on the negligence claim as set forth in paragraph 15 of the Final Judgment attached as Exhibit E hereto. The Futures Plaintiffs and the Futures Class shall have the full enforcement rights on such liability judgment provided in footnote one (fn. 1) of paragraph 15 of the Final Judgment attached as Exhibit E hereto. This judgment shall be satisfied in full, shall cease to have any force or effect, and shall terminate when the Futures Plaintiffs' and Futures Class' claims against the Relevant Insurers have been finally resolved on the merits and all efforts to enforce any such judgment have been completed (the "Insurance Enforcement Date").

- (ii) In further satisfaction of his financial obligation, Welsh hereby agrees to the fullest extent that New York insurance law, the pertinent policies, and other applicable law permit, without impairing the Futures Plaintiffs and Futures Class' enforcement rights in any action against U.S. Specialty, any excess carrier or any Relevant Insurer ("Insurance Enforcement Action"), to do the following: Welsh irrevocably assigns, transfers and otherwise conveys to the Futures Plaintiffs and the Futures Class the entirety of Welsh's claims, causes of action, rights, title, interest in, and any other entitlement to any benefits, of any nature whatsoever from, under, or by any reason of, or against the Relevant Insurers, including in respect of any insurance policy (specifically including a certain Directors & Officers insurance policy (No. 14-MGU-11-A23947) with effective dates of May 31, 2011 through May 31, 2012 (the "Policy")) issued by U.S. Specialty Insurance Company ("U.S. Specialty") and/or other companies and all related excess policies including, but not limited to, any excess policy underwritten by: XL Specialty; Axis Insurance Co., Ace American Insurance Co., Illinois National, Federal, Ace Westchester Specialty, New Hampshire Insurance, Ironshore Indemnity, Inc., Hartford Accident & Indemnity, St. Paul Mercy, Ironshore/Starr, AWAC, Axis Specialty Ltd., Catlin Ins. Co., Continental Casualty, Federal, Everest National Scottsdale Indemnity, New Hampshire Insurance, U.S. Specialty (together the "Relevant Insurers"). The Policy is attached hereto as Exhibit I. The consideration provided by Welsh in this Section 3(b) shall be referred to collectively as the "Welsh Consideration."
- (iii) Futures Class and Futures Lead Counsel have sole discretion to settle, collect or otherwise seek to satisfy the \$35,000,000 judgment and Welsh shall have no interest in or to the proceeds of any sums collected by Futures Class and Futures Lead Counsel by reason of

the assignment herein. The parties agree that Welsh makes no representations or warranties about the existence of, or amount of, coverage under the Policy and related excess policies.

- (iv) Welsh agrees to provide Futures Lead Counsel with any correspondence from the Relevant Insurers or their counsel concerning the assignment and settlement contemplated herein within five days after receipt thereof. Welsh further agrees to cooperate in good faith with Futures Lead Counsel including to obtain consents from the Relevant Insurers.
- (v) Upon execution of this Settlement Agreement, Futures Lead Counsel shall commence reasonable good faith efforts to promptly settle with or sue the Relevant Insurers for any sum that Futures Lead Counsel, in its reasonable judgment, deem sufficient, or, if they so choose, promptly pursue claims against the Relevant Insurers. Neither Futures Lead Counsel nor any of the Settling Defendants or their counsel shall have liability whatsoever to any of the Settling Defendants, the Futures Plaintiffs, the Futures Class or any other persons or entities in the event that, for any reason whatsoever, some or all of the Welsh Consideration is not collected.
- (vi) Neither Welsh nor any of the Moore Defendants represents or warrants that any or all of the Welsh Consideration will ultimately be collected or that Defendant Welsh has a meritorious cause of action against any Relevant Insurer.
- (vii) There are no stipulated facts between the Futures Plaintiffs and Welsh with respect to any allegation in the Complaint and there is no intent between such parties to create issue or claim preclusion with respect to any facts or claims asserted in the Complaint.

4. Maintenance of Settlement Fund

(a) The Settlement Fund shall be maintained by the Escrow Agent under the jurisdiction of the Court, and shall be distributed solely at such times, in such manner and to such Persons as set forth in this Settlement or as directed by subsequent orders of the Court. Subject to Court approval by written order, the Settlement Fund may be used:

- (i) To pay all the approved costs and expenses reasonably and actually incurred in connection with providing notice, locating potential members of the Futures Class, administering and distributing the Net Settlement Fund to Claiming Futures Class Members, processing Proof of Claim forms and paying escrow fees and costs, if any;
 - (ii) To pay Taxes, as defined herein;
- (iii) To pay Futures Lead Counsel's and Other Futures Plaintiffs' Counsel attorneys' fees, expenses and costs thereon;
- (iv) To pay the Futures Plaintiffs' requests for compensation and reimbursement for expenses;
 - (v) To pay other charges on the Settlement Fund;
- (vi) To distribute the Net Settlement Fund to Claiming Futures Class Members as directed by the Court;
 - (vii) To distribute any reversion to the Moore Defendants; and
- (viii) To distribute any funds back to the Moore Defendants and the Relevant Insurers, if applicable, in the event the Settlement is terminated or the Final judgment is not obtained, in accordance with Section 16(f) below.
- (b) The Settlement Fund is intended to be a "qualified settlement fund" within the meaning of Treasury Regulation § 1.468B-1(c) as to court jurisdiction, the underlying claims and the related liability assertion and the subsequent segregation of the Settlement Fund. The Parties and their counsel shall treat, and shall cause the Escrow Agent and the Settlement Administrator to treat, the Settlement Fund as being at all times a "qualified settlement fund" within the meaning of Treasury Regulation § 1.468B-1 and to account and report the results of the Settlement Fund accordingly. The Parties and their counsel agree that they will not, nor will they

permit the Escrow Agent or the Settlement Administrator to ask the Court to take any action inconsistent with the treatment of the Settlement Fund in such manner. The Moore Defendants, with due notification to the opposing counsel, shall determine the appropriate tax elections to make with respect to the Settlement Fund and communicate such determinations to the Escrow Agent and Settlement Administrator for the Settlement Fund. Such elections shall be made in compliance with the procedures and requirements contained in the Treasury Regulations. The Moore Defendants shall be responsible to implement the tax elections on their own returns; the Settlement Administrator shall be responsible to implement the same tax elections and any joint tax elections with the Moore Defendants in the context of the return for the Settlement Fund. The Moore Defendants shall be responsible to implement the tax statements required on their own tax returns; the Settlement Administrator shall be responsible to implement the tax statements required in the context of the return for the Settlement Fund. In no event shall the Settlement Fund be charged or be liable for any tax election made by the Moore Defendants who shall be fully responsible therefor. All provisions of this Settlement Agreement shall be interpreted in a manner that is consistent with the Settlement Fund being a "qualified settlement fund" within the meaning of Treasury Regulation § 1.468B-1.

5. All Fees, Expenses and Costs To Be Paid from Settlement Fund

(a) The Settlement Fund is the total and exclusive amount that Settling Defendants will pay under this Settlement Agreement for the benefit of the Released Claims (as defined in Section 1(dd) herein), including without limitation, funds to pay Claiming Futures Class Members, attorneys' fees and costs as may be ordered by the Court, any Court-approved incentive awards to the Futures Plaintiffs, payment of any and all estimated taxes, assessed taxes, tax preparation fees, and payment of any and all administrative and notice expenses associated with the Futures Action or this Settlement. Settling Defendants shall have no liability, obligation

or responsibility for the investment, disbursement, or other administration or oversight of the Settlement Fund. The Futures Class and each member of the Futures Class are limited solely to the Net Settlement Fund for the satisfaction of all Released Claims against all Settling Defendants and Released Parties as provided herein. Except as provided by order of the Court pursuant to this Settlement Agreement, no Class Member shall have any interest in the Settlement Fund or any portion thereof.

- (b) Attorneys' Fees, Expenses and Incentive Awards. Futures Lead Counsel have represented that they will seek attorneys' fees on behalf of themselves and Other Futures Plaintiffs' Counsel, and incentive fees on behalf of the Futures Plaintiffs in a total sum amount of no more than approximately 32.8% of the Settlement Fund and reimbursement of their costs and expenses in the amount of no more than approximately \$750,000. Additionally, the Futures Plaintiffs will seek reimbursement of their own expenses and compensation for their time devoted to this litigation in an aggregate amount of no more than approximately \$70,000. Except for the up to \$750,000 that Futures Lead Counsel intend to seek as reimbursement of their costs and expenses, the Settling Defendants have not consented to such requests and reserve all rights to object and file papers respecting the amount of such requests. If and when any of the foregoing funds in this Section 5(b) are approved by the Court, Futures Lead Counsel may immediately withdraw up to twenty-five percent (25%) of any such approved amount subject to providing, for the amount withdrawn, a letter of credit in such amount satisfactory in form and substance to the Moore Defendants from a financial institution acceptable to the Moore Defendants.
- (c) The remainder of any funds in Section 5(b) that are approved by the Court may be withdrawn from the Settlement Fund only upon the occurrence of the Effective Date. If the

Effective Date does not occur for any reason, then within five business days after receiving notice from counsel for the Moore Defendants or from a court with appropriate jurisdiction, Futures Lead Counsel shall refund to the Settlement Fund any amounts that were withdrawn plus interest thereon at the same rate at which interest is accruing for the Settlement Fund.

- (d) Additionally, Futures Lead Counsel may apply at the time of any application for distribution to Claiming Futures Class Members for an award from the Settlement Fund of attorneys' fees for services performed and reimbursement of expenses incurred in connection with the administration of the Settlement after the date of the Fairness Hearing, including the costs and expenses of the Settlement Administrator. Futures Lead Counsel reserves the right to make additional applications for fees and expenses incurred. The Settling Defendants have not consented to any such requests and reserve all rights to object and file papers respecting the amount of such requests.
- (e) Approval of the attorneys' fees requested by Futures Lead Counsel and/or any incentive payments that may be requested by the Futures Plaintiffs is not a condition to the effectiveness of this Settlement Agreement or the issuance of the Scheduling Order or Final Judgment.
- Class Notice and Settlement Administration Costs and Expenses. The Settling Defendants agree to permit use of up to two hundred and fifty thousand dollars (\$250,000.00) of the Settlement Fund towards the reasonable and appropriate costs of providing notice of the Settlement to the Futures Class and for the costs of administration of the Settlement without further order from the Court, provided that documentation of such expenses is provided to the Settling Defendants. Only to the extent feasible and practicable (if at all), the Settlement Administrator shall combine the provision of notice and administration of the Settlement with

notice and administration of the settlement being entered in respect of the Physical Action so as to minimize the amounts expended on notice and administration under both settlements. Any shared notice (but not administration) expenses (if any) shall be paid from the Futures Settlement Fund and the settlement fund in the Physical Action in proportion to the respective size of the gross settlement payment to each class by the Moore Defendants. Any amounts expended or incurred in notice and administration expenses are not recoverable if this Settlement does not become final or is terminated. Neither the Futures Plaintiffs, the Futures Class, nor Futures Lead Counsel or Other Futures Plaintiffs' Counsel shall have any responsibility, financial obligation, or liability for any fees, costs or expenses related to providing notice of the Settlement to the Futures Class or for any fees, costs or expenses related to the administration of the Settlement. All reasonable and appropriate fees, costs and expenses shall be satisfied solely by the Settlement Fund. In the event that the reasonable and appropriate notice and administration costs exceed the \$250,000.00 provided for in this Section, Futures Lead Counsel shall apply to the Court to pay such notice costs and administration costs from the Settlement Fund. To the extent ordered by the Court, such costs shall be non-refundable.

6. Release and Covenant Not to Sue

(a) In addition to the effect of any final judgment entered in accordance with this Settlement Agreement, and provided that the Court approves this Settlement Agreement, effective upon the Effective Date each and every Futures Class member, all of their past, present or future parents, subsidiaries, divisions, affiliates, shareholders, general or limited partners, attorneys, spouses, insurers, beneficiaries, employees, officers, directors, legal and equitable owners, members, predecessors in interest, successors in interest, legal representatives, trustees, associates, heirs, executors, administrators and/or assigns and each and any of their respective shareholders, parents, subsidiaries, divisions, affiliates, shareholders, general or limited partners,

assigns, attorneys, insurers, beneficiaries, employees, officers, directors, legal and equitable owners, members, predecessors in interest, successors in interest, legal representatives, trustees, associates, heirs, executors, administrators and/or assigns (together the "Releasing Parties"), releases and forever discharges, to the fullest extent permitted by law, the Released Parties from and against any and all present, past, or future claims, demands, debts, damages, losses, offsets, obligations, warranties, costs, fees, penalties, expenses, whenever incurred, rights of action, suits, and causes of action of every kind and nature whatsoever, whether based on contract, tort, federal, state or foreign law, statutory, or other legal or equitable theory of recovery, liabilities of any nature and kind whatsoever, whether known or unknown, suspected or unsuspected, existing, or claimed to exist, and whether arising in the past or future, in law or in equity, that each and every Futures Class member ever had, now has, or hereafter can, shall or may have, directly, representatively, derivatively or in any other capacity, in any way arising from or related to, in full or in part, any transactions in Class Contracts, whether or not asserted in the Futures Action, or from any losses incurred, in whole or in part, as a result of such transactions. Notwithstanding any other provision of this Settlement (a) the foregoing release shall not include any claims which a Futures Class member may have in its capacity as a member of any class that may be certified with respect to the claims asserted in the Complaint in the Physical Action, and (b) as to Defendant Welsh only, the foregoing release shall not include, shall not apply to, shall have no effect whatsoever on, and shall not release in any way, the negligence and the negligent conduct or omissions as alleged, and relief that may be obtained on, the Futures Plaintiffs' fifth claim in the Complaint. Welsh is released as to the non-negligence claims (including the Futures Plaintiffs' claims in the Complaint for violations of the Commodity Exchange Act and the Sherman Act) as previously set forth above in this Section 6(a).

(b) In addition, each Releasing Party hereby expressly waives and releases any and all provisions, rights, and benefits conferred by § 1542 of the California Civil Code, which reads:

Section 1542. General release extent. A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her must have materially affected his or her settlement with the debtor[.]

From the Effective Date each Releasing Party also expressly waives and releases any and all provisions, rights, and benefits conferred by any law of any state or territory of the United States or other jurisdiction, or principle of common law, which is similar, comparable or equivalent to § 1542 of the California Civil Code. Each Releasing Party may hereafter discover facts other than or different from those which he, she or it knows or believes to be true with respect to the claims which are the subject matter of this Section 6 but each Releasing Party, through this Settlement Agreement, and with the ability to seek independent advice of counsel, expressly waives and fully, finally and forever settles and releases, as of the Effective Date any known or unknown, suspected or unsuspected, contingent or non-contingent claim that would otherwise fall within the definition of Released Claims, whether or not concealed or hidden, without regard to the subsequent discovery or existence of such different or additional facts. From the Effective Date, the releases herein given by the Releasing Parties shall be and remain in effect as full and complete releases of the claims set forth in the Futures Action, notwithstanding the later discovery or existence of any such additional or different facts relative hereto or the later discovery of any such additional or different claims that would fall within the scope of the release provided in Section 6(a) of this Settlement Agreement, as if such facts or claims had been known at the time of this release. Notwithstanding any of the provisions of the Final Judgment or any provisions of this Settlement Agreement or otherwise, the Futures Plaintiffs and the

Futures Class do not release or dismiss and shall not release or dismiss Defendant Welsh from the Futures Plaintiffs' fifth claim in the Complaint for negligence against Defendant Welsh.

- (c) Each Futures Class member must execute a release and covenant not to sue in conformity with this Section in order to receive his/her/its pro rata share of the Net Settlement Fund. The Settlement Administrator shall ensure that each claim form provided to Futures Class members contains a copy of the release and covenant not to sue set forth in this Section, which must be signed by each member of the Futures Class or its authorized representative as a precondition to receiving any portion of the Net Settlement Fund. Each Futures Class member's claims shall be released pursuant to Sections 6(a) and 6(b) of this Settlement Agreement, regardless of whether he/she/it executes a release and covenant not to sue pursuant to this Section 6(c).
- (d) The Released Parties fully, finally and forever discharge Futures Plaintiffs,

 Futures Lead Counsel and Other Futures Plaintiffs' Counsel from all claims by Settling

 Defendants relating to, arising from, or connected with the institution, prosecution, or assertion

 of the Futures Action, except for claims relating to the enforcement of the Settlement Agreement

 which are expressly reserved.

7. Motions for Entry of Scheduling Order and Preliminary Approval

- (a) As soon as practicable after this Settlement Agreement has been executed, Futures Lead Counsel shall submit to the Court this Settlement Agreement and shall move the Court for entry of the Scheduling Order in the form attached hereto as Exhibit D, which will make provisions for notice of the Settlement to the Futures Class and will schedule deadlines leading up to the Fairness Hearing.
- (b) Futures Lead Counsel shall, in accordance with Rule 23 of the Federal Rules of Civil Procedure and any other applicable law or regulation, request that the Court preliminarily

certify the Class as defined in Section 1(p) (it being understood and agreed that the preliminary certification of the Class is a condition to the effectiveness of this Settlement Agreement).

- (c) The Settlement Administrator shall be responsible for the reproduction and distribution of the Class Notice, substantially in the forms attached hereto as Exhibits A and B, in the manner provided in the Scheduling Order or as otherwise approved by the Court. Futures Class members shall have no recourse as to the Released Parties, Futures Plaintiffs or Futures Lead Counsel with respect to any claims they may have that arise from any failure in the notice process.
- (d) The Settling Defendants may, but are not obligated, to submit papers in connection with the motion for entry of the Scheduling Order.

8. Motion for Entry of Final Judgment

- (a) In connection with the Fairness Hearing to be held by the Court on the motion for final approval of this Settlement Agreement, the Parties hereto shall seek entry of the Final Judgment substantially in the form attached hereto as Exhibit E and which, *inter alia*:
 - (i) finally certifies the Futures Class solely for settlement purposes;
- (ii) finally approves this Settlement and its terms as being a fair, reasonable and adequate settlement of the Futures Class' claims under Rule 23 of the Federal Rules of Civil Procedure;
- (iii) directs that, except for the negligence claim against Defendant Welsh only, all claims in the Futures Action as to the Settling Defendants will be dismissed with prejudice and without costs;
- (iv) directs that the Futures Plaintiffs and the Futures Class have a judgment against Defendant Welsh only in the amount of thirty-five million dollars (\$35,000,000.00) on

and solely on the Fifth Claim (Common Law Negligence) of the Complaint subject to the limitations on enforcement set forth in fn. 1 of the proposed Final Judgment;

- (v) sets forth the Release and Covenant Not to Sue contained in Sections 6(a) and 6(b) and enjoins pursuit of any claim covered by the release;
- (vi) sets forth the Protection Against Contribution contained in Section 17 and enjoins pursuit of any claim covered by the release;
- (vii) determines pursuant to Fed. R. Civ. P. 54(b) that there is no just reason for delay and directing that the judgment of dismissal shall be final and appealable;
- (viii) reserves continuing and exclusive jurisdiction over the Settlement and this Settlement, including the administration and consummation of this Settlement;
- (ix) fully, finally and forever discharges Futures Plaintiffs, Futures Lead

 Counsel and Other Futures Plaintiffs' Counsel from all claims by the Released Parties relating to,
 arising from, or connected with the institution, prosecution, or assertion of the Futures Action,
 except for claims relating to the enforcement of the Settlement Agreement which are expressly
 reserved;
- (x) approves a record of Opt Outs, which Futures Lead Counsel shall have filed with the Court and provided to counsel for the Settling Defendants in advance of the Fairness Hearing; and
- (xi) provides for a deadline for Futures Lead Counsel to file a report on the progress in the distribution to members of the Futures Class of the Net Settlement Fund.

9. Plan of Allocation

(a) Futures Lead Counsel shall be responsible for establishing a Plan of Allocation. Futures Lead Counsel's proposed Plan of Allocation is attached hereto as Exhibit F. The Plan of Allocation may be modified by the Court.

(b) The Net Settlement Fund shall be distributed per the terms of this Agreement and the Plan of Allocation or per such other modified or other terms that the Court may, as permitted by this Agreement, direct, in the Final Judgment or other order of the Court. The Settling Defendants shall have no responsibility for implementing the Plan of Allocation and the approval, disapproval, or modification of any proposed plan of allocation shall not affect the preliminary or final approval of the Settlement or enforceability of this Settlement Agreement.

10. Process for Submitting and Reviewing Proofs of Claim

- (a) The Net Artificiality Paid and the Net Losses of each Futures Class member shall be determined as set forth in the Plan of Allocation.
- (b) A condition of receiving payment from the Net Settlement Fund shall be that a Person within the definition of the Futures Class must execute a Proof of Claim form and submit such form to the Settlement Administrator by the Claims Bar Date and in substantial conformity with the procedures established by the Scheduling Order. Claiming Futures Class Members must provide adequate supporting documentation to ensure the integrity of the Futures Class member's claim. At a minimum, adequate documentation shall include documents establishing: (i) the date of acquisition of each position in any NYMEX platinum futures contract or NYMEX palladium futures contract for which recovery is sought by a Futures Class member or that was acquired or sold during the Class Period; (ii) when such position(s) was/were acquired, closed out or sold; (iii) as to the Net Loss aspect of the Plan of Allocation only, at what price such position(s) was/were acquired, closed out or sold; (iv) the names of any and all broker(s) or futures commission merchant(s) used; (v) a statement and description of whether positions in NYMEX platinum futures contracts or NYMEX palladium futures contracts were acquired as a hedge; and (vi) whether such Futures Class member was a swaps dealer (as defined in the Proof of Claim).

- (c) Futures Class members must also execute a waiver and request to the NYMEX permitting the NYMEX to "unmask" their account information for verification prior to receiving a payment from the Net Settlement Fund. The Settlement Administrator shall determine whether or not it is necessary to request such "unmasked" account information from NYMEX either on a class-wide basis or with respect to specific proof of claim submissions.
- The Settlement Administrator shall promptly forward all submitted Proofs of (d) Claim and accompanying documentation to Futures Lead Counsel and counsel for the Settling Defendants, as and when they are received. The Settlement Administrator shall notify any Futures Class member of any deficiencies in their proof of claim or supporting documentation, and provide a reasonable time to correct same. When practicable, the Settlement Administrator shall also forward its determination as to the validity of the Proof of Claim and the amount, if any, of Net Artificiality Paid and/or Net Losses it establishes. On notice to the other Parties, any Party shall have ten (10) business days to provide comments or objections respecting any such Proofs of Claim, request further information or explanation from the Settlement Administrator, and/or request that the Settlement Administrator seek additional information or materials from the Person submitting the Proof of Claim. After the Settlement Administrator's final response(s) to such requests for information, the Parties will have twenty (20) business days to object to the Settlement Administrator's determination with respect to the documentation and information provided in connection with any particular Proof of Claim. Any remaining disputes as and between Futures Lead Counsel and counsel for the Settling Defendants concerning the Settlement Administrator's determination(s) will be submitted to the Mediator for binding resolution however any member of the Futures Class may object to the Settlement Administrator's and/or the Mediator's determinations before the Court.

(e) There is no guaranty that the Settlement Administrator will determine each and every Proof of Claim to be valid, or establish Net Artificiality Paid or Net Losses in the amount claimed by the Person submitting it. A Class Member whose claim is determined to be invalid or result in no Net Artificiality Paid or Net Losses or a different amount of Net Artificiality Paid or Net Losses than that claimed shall have no recourse against any Parties or any counsel but may solely object to such determination before the Court.

11. Procedures For Requesting Exclusion

- (a) In order to be excluded from the Futures Class and be deemed an Opt-Out, a Person within the definition of the Futures Class must execute a Request For Exclusion form, and submit such form to the Settlement Administrator by the Exclusion Bar Date in substantial conformity with the requirements established by the Scheduling Order. The Person shall submit documents establishing: (i) the date of acquisition of each position in any NYMEX platinum futures contract or NYMEX palladium futures contract for which recovery is sought by a Futures Class member or that was acquired or sold during the Class Period; (ii) when and at what price such position(s) was/were acquired, closed out or sold; (iii) any and all broker(s) or futures commission merchant(s) used; and (iv) a statement and description of whether positions in NYMEX platinum futures contracts or NYMEX palladium futures contracts were acquired as a hedge to off-exchange positions or exposures that relate to platinum or palladium during the Class Period.
- (b) Any Person who has submitted a timely and valid Request for Exclusion may revoke such request by filing written notice of such revocation with the Court at any time prior to entry of the Final Judgment.

- (c) Any request to be excluded from the Futures Class must be made in writing and received by the Settlement Administrator no later than the Exclusion Bar Date. Any such request for exclusion must contain the information identified in Section 11(a).
- (d) The Settlement Administrator shall provide counsel for Moore Capital Management LLP and Futures Lead Counsel with copies of any requests for exclusion and any written revocations of requests for exclusion as soon as possible after receipt by the Settlement Administrator and, in any event, within three (3) business days after receipt by the Settlement Administrator and, in no event, later than ten business days before the Fairness Hearing (as defined in the Scheduling Order).

12. Potential Reversion

- (a) The Net Artificiality Paid and the Net Losses of each Futures Class member shall be determined as set forth in the Plan of Allocation; i.e. including a 10% premium for interest less any applicable reduction.
- (b) The Moore Defendants may be entitled to reversion from the Net Settlement Fund as a return of some or all of the settlement consideration paid by the Moore Defendants, as set forth in Section 3(a) above, but only to the extent set forth in sub-paragraphs (i) and (ii) below:
- (i) In the event that the Net Settlement Fund allocated to pay claims for Net Artificiality Paid exceeds 100% of Net Artificiality Paid by all Claiming Futures Class Members, as finally determined by the Settlement Administrator and/or the Mediator, then the Moore Defendants shall be entitled to a reversion in the amount of one-half (i.e., 50%) of the amount by which the Net Settlement Fund allocated to pay claims for Net Artificiality Paid exceeds 100% of Net Artificiality Paid. The remaining 50% of the excess will be distributed among Claiming Futures Class Members according to the Plan of Allocation.

- (ii) In the event that the Net Settlement Fund allocated to pay claims for Net Losses exceeds 100% of Net Losses by all Claiming Futures Class Members, as finally determined by the Settlement Administrator and/or the Mediator, then the Moore Defendants shall be entitled to a reversion of the entire amount that the Net Settlement Fund allocated to pay claims for Net Losses exceeds 100% of Net Losses.
- Once the Settlement Administrator has completed a review of all Proofs of Claim (c) and the information supplied in response to deficiency notices, the time for further comment or objection thereto has expired, and the Mediator has resolved any disputes respecting individual Proofs of Claim submitted to him, which may be after the Final Judgment has been issued, the Settlement Administrator will provide Futures Lead Counsel and Settling Defendants with (1) the dollar value of 100% of the Net Artificiality Paid of Claiming Futures Class Members, (2) the dollar value of 100% of the Net Losses of Claiming Futures Class Members, and (3) the difference between the amounts in (1) and (2) respectively and the estimated 90% and 10% of the Net Settlement Fund allocated to pay each type of claim. The Parties will have ten (10) business days after receipt of the above-described information from the Settlement Administrator to request additional information or explanation from the Settlement Administrator respecting the aggregate calculations. Within ten (10) business days after the last of the Settlement Administrator's responses to such requests for information, the Parties will have ten (10) business days to object to the Settlement Administrator's information or calculations. Any disputes will be submitted to the Mediator for binding resolution.
- (d) Subject to Court approval, the Settlement Administrator shall disburse any reversion due to the Moore Defendants pursuant to this Section 12 at the same time as it disburses any funds to Claiming Futures Class Members.

(e) The Parties agree that any disputes relating to any of the Moore Defendants' reversion rights shall be determined by the Mediator, whose determinations shall be binding for such issues.

13. Best Efforts to Effectuate This Settlement

- (a) The Parties agree to recommend approval of this Settlement Agreement by the Court. They agree to undertake their best efforts, including all steps and efforts contemplated by this Settlement Agreement and any other steps and efforts that may reasonably be necessary and appropriate or merely appropriate to obtain Court approval of this Settlement and to carry out the terms of this Settlement Agreement, provided that this will not limit any express rights to withdraw from this Settlement Agreement that the Parties may have, or to object to the amount or reasonableness of any fees and expenses.
- (b) The Parties agree that the Court's authority includes, but is not limited to, awarding monetary and/or injunctive relief and discretion to impose specific performance, sanctions or penalties including imposition of any sanction up to and including contempt of court, pursuant to 28 U.S.C. § 636(e). The Parties agree that the terms of this Settlement Agreement satisfy the requirements for injunctive relief and specific performance.
- (c) In the event that any Party to this Settlement Agreement finds it necessary to bring an action or proceeding against another Party to this Settlement Agreement as a result of a breach or default hereunder or to enforce the terms and conditions hereof, the prevailing party in such action or proceedings shall be paid all its reasonable attorneys' fees and costs and necessary disbursements incurred in connection with such action.

14. Finality, Effective Date

- (a) The effectiveness of this Settlement shall in no way be contingent upon the effectiveness or realization of any settlement between the Settling Defendants and the plaintiffs or class in the Physical Action.
- (b) Unless terminated earlier as provided in Section 16, this Settlement Agreement shall become final upon the occurrence of all of the following three events:
- (i) approval in all respects by the Court as required by Rule 23(e) of the Federal Rules of Civil Procedure;
- (ii) entry by the Court of the Final Judgment substantially in the form of Exhibit E hereto, including, without limitation, the incorporation of the release and covenant not to sue contained in Section 6(a) and 6(b) hereof; and
- (iii) expiration of the time for appeal or the time to seek permission to appeal from the Court's entry of the Final Judgment or, if appealed, either (i) the Final Judgment has been affirmed in its entirety by the court of last resort to which such appeal has been taken and such affirmance has become no longer subject to further appeal or review, or (ii) withdrawal or dismissal with prejudice of all such appeals.

15. Confidentiality Protection

(a) All documents, materials, and information produced during the discovery process in the Futures Action, either before, during or after the date of this Settlement Agreement, may be used by the Futures Plaintiffs on behalf of the Futures Class and Futures Lead Counsel solely in pursuit of their claims in the Futures Action against MF Global, Inc., other Non-Settling Defendants or against the Relevant Insurers in any action, bankruptcy proceeding or enforcement proceedings against or relating to the Relevant Insurers or the Policy and/or related excess policies. Such use shall be governed by all confidentiality and/or

protective orders in force as of the date of this Settlement Agreement and by such additional confidentiality and/or protective orders as may be in effect on the date the discovery takes place.

- (b) The existence and terms and conditions of this Settlement Agreement are and shall remain confidential until the Futures Plaintiffs file the motion for the Scheduling Order as described in Section 7 hereof; provided, however, that this paragraph shall not prevent Settling Defendants or their corporate parents, subsidiaries, or affiliates from disclosing such information, prior to that date, to regulators, government agencies, rating agencies, independent accountants, actuaries, auditors, advisors, financial analysts, members, shareholders, insurers, attorneys, employers, or in any other manner required by law or regulation, nor shall it prevent the Parties or their counsel from disclosing such information to Persons (such as experts, courts, co-counsel, or the Settlement Administrator) to whom the Parties agree disclosure must be made in order to effectuate the terms and conditions of this Settlement Agreement; nor shall it prevent any of the Parties from disclosing the existence and terms of the Settlement Agreement to the Court in connection with any of the proceedings in the Futures Action, including, without limitation, in the filings made seeking preliminary approval of the Settlement or in status reports or in response to requests for information by the Court.
- (c) Within sixty (60) days after the final termination of the Action, (or the actions against the Relevant Insurers), as well as any appeals and settlement administration, as to all defendants (*i.e.*, Settling Defendants and Non-Settling Defendants), Futures Lead Counsel and the Futures Plaintiffs agree to return to the Settling Defendants all materials (and all copies of materials, kept in any format) designated as confidential, restricted confidential, or Rule 408 material provided or produced to the Futures Plaintiffs in the course of the Futures Action, or, in the alternative, to destroy all such confidential materials (and all copies of materials, kept in any

format) and provide Settling Defendants with written confirmation that all such confidential materials and all copies thereof have been destroyed.

(d) Neither the existence, fact of or contents of (a) this Settlement Agreement, (b) the Final Judgment and/or (c) any papers, pleadings and transcripts submitted or generated by any of the Parties in connection with the approval of this Settlement may be admitted into evidence or utilized in any way in the Futures Action, or in any other action or proceeding, including any action brought by an Opt-Out (or any plaintiff alleging the same or similar facts and claims or any action brought by a regulator), except as may be required to (a) approve or enforce this Settlement Agreement, (b) to bring, prosecute or collect on the claims against the Relevant Insurers, or (c) to defend or enjoin any such other litigation or proceeding.

16. Termination

- (a) Settling Defendants' Right To Terminate. The Settling Defendants shall have the right, but not the obligation, in their sole discretion, to terminate this Settlement Agreement by providing written notice by email to Futures Lead Counsel of its election to do so within twenty-one (21) days of any of the following events, provided that any such termination shall be dependent upon the realization of the condition subsequent that the Futures Plaintiffs' claims shall not be dismissed pursuant to this Settlement Agreement or, if they have been dismissed, that the Futures Plaintiffs' claims dismissed pursuant to this Settlement Agreement are reinstated such that the Parties are returned to their respective positions before the Settlement Agreement was signed. Such events of termination are as follows:
- (i) the Court declines to enter the Scheduling Order in substantially the form attached as Exhibit D;
- (ii) the Court declines to enter the Final Judgment in substantially the form attached as Exhibit E:

- (iii) the Final Judgment is withdrawn, rescinded, reversed, vacated, or modified by the Court or on appeal;
- (b) Moore Capital Management, LP shall have the right, but not the obligation, in its sole discretion, to terminate this Settlement Agreement pursuant to the terms and conditions of the Supplemental Agreement.
- (c) If the Futures Plaintiffs' claims are dismissed pursuant to this Settlement

 Agreement and not reinstated, then any termination by the Settling Defendants shall be null and void.
- Defendants, for any reason, fail to provide any of the Settlement consideration as set forth in Section 3(a), or the Court (for any reason) fails to enter the judgment related to the Welsh Consideration, the Futures Plaintiffs shall have the right, but not the obligation, in their sole discretion, to terminate this Settlement Agreement by Futures Lead Counsel providing written notice by email to the Settling Defendants of their election to do so within twenty-one (21) days or to sue to enforce under Section 13, including reasonable attorneys' fees, costs and necessary disbursements incurred in connection with such action. Notwithstanding the foregoing, the Futures Plaintiffs shall not have the right to terminate the Settlement in the event that, for any reason whatsoever, they ultimately are unable collect any consideration from any Relevant Insurer.
- (e) Any termination under Section 16(d) will become effective immediately upon written notice by Futures Plaintiffs to Settling Defendants.
- (f) In the event that this Settlement Agreement is terminated pursuant to any of the sub-Sections above, then: (i) the Settlement Fund, minus any funds expended or incurred for

Class Notice or settlement administration referenced in Section 5 above or approved by the Court and any costs and/or expenses required to notify the Futures Class of such termination, shall be returned to the Settling Defendants in accordance with their respective settlement payments, if any, together with the interest earned thereon (less any portion of such interest properly reserved for the payment of Taxes); (ii) this Settlement Agreement and the Final Judgment shall be null and void and of no further effect, and no Party shall be bound by any of their terms, except that in addition to this Section, Sections 18 and 26 shall survive (iii) the Futures Plaintiffs' claims shall not be dismissed pursuant to this Settlement Agreement or, if they have been dismissed pursuant to this Settlement Agreement was signed, and all releases and covenants not to sue shall be of no further force and effect; (iv) all the Settling Defendants' rights to defend shall be reinstated; and (v) the Parties are returned to the *status quo ante* and the Parties shall jointly request that the Court modify any existing scheduling order to ensure that the Parties will have sufficient time to prepare for the resumption of litigation.

17. Protection Against Contribution

(a) The Final Judgment shall include a provision barring claims for contribution or indemnification (however denominated) to recover all or a portion of any amounts a Released Party, Non-Settling Defendant or Relevant Insurer has paid or may in the future pay to or for the benefit of the Futures Class by way of settlement, or judgment, or otherwise in any action respecting the Final Judgment, the Futures Action or any other action or proceeding asserting similar claims (i) by any Non-Settling Defendant, their insurers, and/or anyone claiming to be subrogated to such Non-Settling Defendant's rights against any of the Released Parties; (ii) by any of the Released Parties against any of the Non-Settling Defendants; (iii) by any of the Moore

Defendants against Welsh, and (iv) by Welsh, the Relevant Insurers, and/or anyone claiming to be subrogated to Welsh's rights, against any of the Moore Defendants.

(b) In the event that a judgment is obtained against one or more of the Non-Settling Defendants by any or all the members of the Futures Class, such a judgment shall be reduced by the greater of (i) the total amount of the Settlement Fund that Futures Plaintiffs have recovered at the time of that judgment or (ii) the proportionate share of the liability of the Settling Defendants at the time a damages judgment is entered. Nothing herein shall preclude (i) the Futures Plaintiffs from asserting that any damages against which an offset must be credited must be determined in accordance with applicable law or (ii) the Non-Settling Defendants from asserting that the judgment against which the credit shall be applied must reflect actual damages demonstrated by each of the members of the Futures Class, and all such arguments are fully preserved by and in favor of the Futures Plaintiffs and Non-Settling Defendants.

18. This Settlement is Not an Admission

This Settlement Agreement, including but not limited to its exhibits, whether or not it shall become final, and any and all negotiations, documents and discussions associated with it, is not and shall not be deemed or construed to be an admission, adjudication or evidence of any violation of any statute or law or of any liability or wrongdoing by the Settling Defendants or any Released Party, or of the truth of any of the claims or allegations alleged in the Futures Action or the incurrence of any damage, loss or injury by any Person. In the event that the Settlement does not become final or is terminated in accordance with the terms hereof, then this Settlement Agreement, including its exhibits, and any and all negotiations, documents and discussions associated with it and the releases set forth herein, shall be without prejudice to the rights of any Party and shall be of no force or effect and shall not be offered or received in evidence in any proceeding. Further, this Settlement Agreement and the Final Judgment are not

and shall not be deemed or construed to be an admission, adjudication or evidence of any lack of merit of any of the claims asserted in the Futures Action. The Parties hereto agree that this Settlement Agreement, including its exhibits and the Final Judgment, whether or not it shall become final, and any and all negotiations, documents and discussions associated with it, (a) shall not be deemed or construed to be an admission or evidence of any violation of any statute or law or of any liability or wrongdoing by Settling Defendants or any Released Party, or of the truth of any of the claims or allegations, or the incurrence of any damage, loss or injury by any Person, or of any lack of merit of any of the claims asserted in the Futures Action, and (b) shall not be discoverable or used directly or indirectly, in any way, whether in the Futures Action or in any other action or proceeding of any nature, whether by the Futures Class or Opt Outs, except if warranted by existing law in connection with a dispute under this Settlement Agreement or an action in which this Settlement Agreement is asserted as a defense. Notwithstanding any other provision in this Settlement Agreement, nothing herein shall be construed to modify the judgment on the common law negligence claim into anything other than a liability judgment and the provision in Section 3(b)(vii) whereby Welsh denies liability shall not apply to the extent of Welsh's personal assets that have been assigned to Futures Plaintiffs in Section 3(b)(ii), and the Futures Plaintiffs have the full enforcement rights on such liability judgment provided in footnote one (fn. 1) of paragraph 15 of the Final Judgment. Settling Defendants and Futures Plaintiffs expressly reserve all of their rights if the Settlement does not become final in accordance with the terms of this Settlement Agreement.

19. Binding Effect

(a) This Settlement Agreement shall be binding upon, and inure to the benefit of, the successors and assigns of the Settling Defendants, the Released Parties, the Futures Plaintiffs and the Futures Class.

(b) The waiver by one Party of any breach of this Settlement Agreement by another Party shall not be deemed a waiver of any other prior or subsequent breach of this Settlement Agreement.

20. Integrated Agreement

This Settlement Agreement, including its exhibits and the Supplemental Agreement, contains an entire, complete, and integrated statement of each and every term and provision agreed to by and among the Parties and is not subject to any condition not provided for herein. This Settlement Agreement supersedes all prior or contemporaneous discussions, agreements, and understandings among the Parties to this Settlement Agreement with respect hereto. This Settlement Agreement shall not be modified in any respect except by a writing that is executed by all the Parties hereto.

21. Documents

Nothing in this Settlement Agreement may be interpreted as creating or extinguishing any obligation for Defendants to retain any records or documents, in any form.

22. Headings

The headings used in this Settlement Agreement are for the convenience of the Parties only and shall not have substantive effect.

23. Neither Party is the Drafter

None of the Parties hereto shall be considered to be the drafter of this Settlement

Agreement or any provision hereof for the purpose of any statute, case law or rule of
interpretation or construction that might cause any provision to be construed against the drafter
hereof.

24. Choice of Law

All terms of this Settlement Agreement and the exhibits hereto shall be governed by and interpreted according to the substantive laws of the State of New York without regard to its choice of law or conflict of laws principles.

25. Execution in Counterparts

This Settlement Agreement may be executed in counterparts. Facsimile and scanned/PDF signatures shall be considered as valid signatures. Until fully signed counterparts have been exchanged and delivered on behalf of all Parties, there shall be no agreement.

26. Submission to and Retention of Exclusive Jurisdiction

The Parties and Futures Class hereby irrevocably submit, to the fullest extent permitted by law, to the exclusive jurisdiction of the United States District Court for the Southern District of New York for any suit, action, proceeding or dispute arising out of or relating to this Settlement Agreement, or to the applicability of this Settlement Agreement, and exhibits hereto. Solely for purposes of such suit, action or proceeding, to the fullest extent permitted by law, the Parties hereto irrevocably waive and agree not to assert, by way of motion, as a defense or otherwise, any claim or objection that they are not subject to the jurisdiction of such Court, or that such Court is, in any way, an improper venue or an inconvenient forum or that the Court lacked power to approve this Settlement Agreement or enter any of the orders contemplated hereby. Notwithstanding any other provision in this Settlement, if, for any reason, the enforcement of paragraph 15 of the Final Judgment and obtaining complete relief thereunder against the Relevant Insurers may not be accomplished in the United States District Court for the Southern District of New York, then the Futures Plaintiffs and the Futures Class may bring suit against such insurer(s) in other jurisdictions.

27. **Notices**

All notices under this Settlement Agreement shall be sent to each of the undersigned

counsel or such other address as a party to this Settlement Agreement may designate in writing,

from time to time, in accordance with this Settlement Agreement.

28. **Execution by Counsel**

Each counsel executing this Settlement Agreement on behalf of any Party hereto hereby

warrants that he/she has full authority to do so.

29. **Timing**

If any deadline imposed herein falls on a non-business day, then the deadline is extended

until the next business day.

30. Good Faith

No Futures Plaintiff, Futures Class member, or Settling Defendant shall assert in any

forum that the Futures Action was brought by the Futures Plaintiffs or defended by Settling

Defendants in bad faith, nor shall any of them assert any claim of any violation of Fed. R. Civ. P.

11 relating to the prosecution, defense, or settlement of the Futures Action.

[Signatures follow on next page]

Dated: August 20, 2013

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Counsel for Defendant Joseph Welsh

Exhibit A

IMPORTANT LEGAL NOTICE TO ALL MEMBERS OF THE CLASS FORWARD TO CORPORATE HEADQUARTERS/LEGAL COUNSEL

UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

In Re: Platinum And Palladium Commodities

Litigation

MASTER FILE No. 10 Civ. 3617 (WHP)

This Document Relates To:

Platinum/Palladium Futures Action

NOTICE OF PROPOSED CLASS ACTION SETTLEMENT, __ 2013 HEARING_ THEREON, AND CLASS MEMBERS' RIGHTS

TO: ALL PERSONS AND ENTITIES WHO PURCHASED OR SOLD A NYMEX PLATINUM FUTURES CONTRACT OR NYMEX PALLADIUM FUTURES CONTRACT BETWEEN JUNE 1, 2006 AND APRIL 29, 2010, INCLUSIVE

PLEASE READ THIS ENTIRE NOTICE CAREFULLY. YOUR RIGHTS WILL BE AFFECTED BY THE ABOVE CAPTIONED CLASS ACTION LAWSUIT PENDING IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK. THIS NOTICE ADVISES YOU OF YOUR OPTIONS REGARDING THE CLASS ACTION SETTLEMENT, INCLUDING WHAT YOU MUST DO IF YOU WISH TO SHARE IN THE NET SETTLEMENT FUND.

If you are a brokerage firm, trustee, or futures contract merchant, through whom New York Mercantile Exchange ("NYMEX") platinum futures contracts or NYMEX palladium futures contracts were purchased or sold during June 1, 2006 through April 29, 2010, then for customers or persons that are potential members of the above Futures Class, you should provide the name and last known address for such customers to the Settlement Administrator at the address listed below within two weeks of receiving this Notice. The Settlement Administrator will cause copies of this Notice to be forwarded to each customer identified at the address so designated.

The purpose of this Notice is to inform you of your rights in connection with a proposed Settlement of the above captioned class action ("Futures Action") against, *inter alia*, defendants Moore Capital Management, LP; Moore Capital Management, LLC; Moore Capital Advisors, LLC; Moore Advisors, Ltd.; Moore Macro Fund, LP; Moore Global Fixed Income Master Fund, LP; Christopher Pia; Louis Bacon; Eugene Burger (together the "Moore Defendants"); and Joseph Welsh ("Welsh" and together with the Moore Defendants, the "Settling Defendants"). In

the Futures Action, the Futures Plaintiffs¹ allege that the Settling Defendants, non-settling defendant MF Global, Inc. and other persons engaged in unlawful or actionable conduct between June 1, 2006 and May 21, 2008, which allegedly created an artificial impact on prices beginning at least in or around October 2007 and continuing to and after May 21, 2008. This includes allegations that, between at least October 17, 2007 and June 6, 2008, certain of such persons combined, conspired, and agreed to upwardly manipulate the prices of New York Mercantile Exchange ("NYMEX") platinum futures contracts and NYMEX palladium futures contracts in violation of the Commodity Exchange Act ("CEA"), 7 U.S.C. §§ 1, et seq. and the Sherman Antitrust Act ("Sherman Act"), 15 U.S.C. §1 et seq. The Futures Plaintiffs also allege that defendant Welsh negligently breached duties and is liable for negligence. This Settlement covers the period from June 1, 2006 until April 29, 2010.

Defendant MF Global, Inc. is <u>not</u> part of this Settlement. Also, there is a separate settlement involving certain transactions in physical platinum and physical palladium.

This Notice of the proposed partial settlement of the Futures Action is being given pursuant to Rule 23 of the Federal Rules of Civil Procedure and an Order of the United States District Court for the Southern District of New York (the "Court").

In order to resolve the claims against them, and in exchange for the releases and other terms and conditions embodied in the Settlement, the Moore Defendants have agreed to pay the Futures Class \$48,250,000. Further, in order to quite the litigation involving claims against the Moore Defendants and Defendant Welsh, the Moore Defendants have agreed to pay an additional \$150,000 provided that they will receive the first \$50,000 back from any proceeds that the Futures Class recovers on the judgment described below. The Moore Defendants' foregoing total payment of \$48,400,000, plus interest thereon, and any recoveries or settlements made as a result of the judgment described below, constitute the Settlement Fund of which notice is being given hereunder.

With respect to Defendant Welsh, Futures Lead Counsel has determined that he could not satisfy any significant judgment that Futures Lead Counsel might, by continuing to prosecute the claims, be able to obtain against him. Accordingly, Future Lead Counsel negotiated for and obtained the \$150,000 payment from the Moore Defendants described above and the assignment and judgment from Defendant Welsh described next. Specifically, in order to resolve the claims against him, Defendant Welsh has agreed to a judgment of \$35,000,000 for the benefit of the Futures Class, which the Futures Class will seek to collect **solely** from Welsh's assets consisting of his rights in respect of certain insurers ("Relevant Insurers"). The Relevant Insurers have denied insurance coverage to Defendant Welsh for multiple reasons. They may assert additional defenses in the future either to coverage of Defendant Welsh or to other matters, including defenses to the judgment as well as multiple other defenses. Futures Lead Counsel disputes the Relevant Insurers denials of coverage and additional defenses to coverage. Any one of these multiple asserted reasons for the denial of the coverage or multiple defenses could, by itself,

¹ Unless otherwise stated, capitalized terms used herein shall have the same meanings as set forth in the Stipulation and Agreement of Settlement dated August 20, 2013. The terms and conditions of this notice are qualified by the Settlement Agreement.

prevent any recovery whatsoever by the Futures Class on their claims against the Relevant Insurers based upon such judgment. For any of these or other reasons, such judgment may not produce any value whatsoever for the Futures Class.

In the foregoing context, Futures Lead Counsel will seek to collect on or, in Futures Lead Counsel's judgment, settle the Futures Class' claims arising from such judgment. If any such settlement or collection is successfully made in the amount of in excess of \$50,000, then such settlements or recoveries will add to the Settlement Fund to be paid to Futures Class members. But there is no assurance that any such settlements or recoveries will be made and, on the contrary, there are multiple defenses and arguments that must be overcome in order to obtain any such recoveries. See Futures Plaintiffs' Preliminary Approval Brief pp. _____ available at www.______.com.

Right to Submit a Proof of Claim. Members of the Futures Class may be entitled to share in the Net Settlement Fund if they submit a valid and timely Proof of Claim that is received by the Settlement Administrator no later than ______, 2013. See III.A. below. The Proof of Claim form is attached. By remaining in this action, you may not separately bring or file the claims asserted herein, including the negligence claim against Defendant Welsh. If you are a member of the Futures Class but do not file a Proof of Claim, you will still be bound by the foregoing and the releases set forth in the Settlement Agreement if the Court enters an order approving the Settlement Agreement. See II.H. below.

Fairness Hearing and Right to Object. The Court has scheduled a public Fairness Hearing on ______, 2013 at ______ [a.m. / p.m.]. The purpose of the Fairness Hearing is to determine, among other things, whether the proposed Settlement, the Plan of Allocation and the application by Futures Lead Counsel for attorneys' fees and reimbursement of expenses are fair, reasonable, and adequate. If you remain in the Futures Class, then you may object to any aspect of the Settlement, the Plan of Allocation, Futures Lead Counsel's request for attorneys' fees and expenses or any other matters. See III.B. below. All objections must be made in accordance with the instructions set forth below and must be filed with the Court and served on counsel for the Parties by ______, 2013 or they will not be considered. See III.B below.

Right to Exclude Yourself From The Settlement. You will be excluded from the Settlement and the Futures Class if you make a written request for exclusion and provide adequate supporting documentation in substantial conformity with the procedures established by the Court that is received by the Settlement Administrator (A.B. Data, Ltd.) at the address set forth in VII below on or before ______, 2013. See III.C. below. If you are excluded from the Settlement you will not be not be entitled to object to any aspect of the Settlement or share in the Net Settlement fund or otherwise participate in the Settlement. A Request For Exclusion form is attached hereto.

I. BACKGROUND OF THE LITIGATION

A. The Nature of This Lawsuit

The Futures Plaintiffs allege that the Settling Defendants, non-settling defendant MF Global, Inc. and other persons engaged in unlawful or actionable conduct between June 1, 2006 and May 21, 2008, which allegedly continued to have artificial impact on prices after May 21, 2008. This includes allegations that, between at least October 17, 2007 and June 6, 2008, certain of such persons combined, conspired, and agreed to manipulate the prices of NYMEX platinum futures contracts and NYMEX palladium futures contracts in violation of the CEA and Sherman Act. They alleged did so by multiple steps. These include by allegedly repeatedly overpaying to purchase NYMEX platinum futures contracts and NYMEX palladium futures contracts during the end of the trading day. The Futures Plaintiffs also allege that Defendant Welsh negligently breached duties and is liable for negligence. The Futures Plaintiffs contend that the foregoing conduct caused them and others similarly situated to pay artificial prices in order to purchase NYMEX platinum futures contracts and NYMEX palladium futures contracts.

Absent a settlement, the Settling Defendants would continue to vigorously oppose each and every aspect of the Futures Plaintiffs' claims and alleged damages. See Section I.B. below. Except to the extent provided for in the Settlement Agreement and the Final Judgment with respect to Defendant Welsh only, (a) the Settling Defendants have consistently and vigorously denied the Futures Plaintiffs' claims; and (b) by entering into the Settlement Agreement with the Futures Plaintiffs, the Settling Defendants do not admit and instead continue to deny that they engaged in any unlawful conduct, and that any member of the Futures Class suffered compensable damages. The District Court previously dismissed the Futures Plaintiffs' claims without prejudice, additional motions to dismiss were filed and contemplated, and the Court (so far) has never rendered a final ruling on whether the Futures Plaintiffs have alleged valid claims nor has the Court (so far) considered all the other matters that the Futures Plaintiffs would have to establish in order to prove those claims at a trial on behalf of any class and establish damages.

B. Procedural History of the Action

On April 30, 2010, the Futures Plaintiffs filed an initial class action complaint against defendants in the United States District Court for the Southern District of New York. Docket No. 1. By order dated July 20, 2010, the Court appointed Lovell Stewart Halebian Jacobson LLP as interim class counsel for the putative class in the Futures Action. See Docket No. 18.

On August 10, 2010, the Futures Plaintiffs filed a first amended consolidated complaint. Docket No. 22.

On August 26, 2010 the defendants filed a motion seeking a stay of discovery pending a decision on their anticipated motion to dismiss the Futures Plaintiffs' complaint. Docket No. 33. On September 30, 2010, the Futures Plaintiffs filed their second amended consolidated complaint. Docket No. 50.

On November 5, 2010, defendants moved to strike and dismiss the Futures Plaintiffs' second amended consolidated complaint. Docket No. 55. On November 30, 2010 the Court denied in part defendants' motion to stay discovery and ordered the defendants to provide the Futures Plaintiffs with copies of the approximately 250,000 pages of documents that defendants previously produced to the Commodity Futures Trading Commission ("CFTC"). Separately, the

Futures Plaintiffs issued subpoenas and, for example, received and reviewed the production of documents and deposition transcripts from the CFTC.

On September 13, 2011, the Court granted in part and denied in part, without prejudice, defendants' motion to strike and to dismiss the second amended consolidated complaint. Docket No. 70. As part of the same order, the Court granted the Futures Plaintiffs leave to re-plead their allegations. *Id*.

On November 8, 2011 Defendant MF Global filed a suggestion of bankruptcy. Docket No. 75.

On November 21, 2011, the Futures Plaintiffs filed their third consolidated amended class action complaint. Docket No. 80. On January 20, 2012, the defendants moved to dismiss certain of the Futures Plaintiffs' claims in their third consolidated amended complaint. Docket No. 98. The Moore Defendants did not move to dismiss the Futures Plaintiffs' CEA claims. *Id.* On January 17, 2013, the Futures Plaintiffs' filed their fourth consolidated amended complaint. Docket No. 127.

On February 7, 2013, prior to the time Defendants' motions to dismiss were due to be filed, the court adjourned such deadline to allow the parties time to explore settlement negotiations.

On July 29, 2013, the Futures Plaintiffs filed their Fifth Consolidated Amended Class Action Complaint which added, in the alternative, a negligence claim against Defendant Welsh.

On August 20, 2013, after sixteen months of on and off arm's length negotiations, which included two days of mediation before a retired Judge experienced in complex class action litigation, the Futures Plaintiffs and the Settling Defendants entered into the Settlement Agreement.

At the time the Settlement was reached, the Settling Defendants had significant defenses which created real risk that the Futures Plaintiffs would not establish liability and, even if they did, would not establish an entitlement to the damages they sought. The Futures Plaintiffs acknowledge that, if these risks materialized, their impact on the Plaintiffs' claims would have been substantial, and perhaps dispositive. That is, they include the risk of receiving no recovery whatsoever.

Even if the Futures Plaintiffs survived the Settling Defendants' anticipated motion to dismiss the Fifth Consolidated Amended Complaint, then the Futures Plaintiffs would have faced further risks. These include risks in obtaining class certification over Defendants' anticipated opposition, prevailing at trial on liability and damages and, to the extent successful at trial, prevailing on post-trial motions and then appeal. Futures Lead Counsel would have tried to overcome all the risks of continued litigation including those listed above. However, in Futures Lead Counsel's judgment, the amount to be paid to Claiming Futures Class Members from the

Net Settlement Fund represents fair, reasonable and adequate consideration for Claiming Futures Class Members.

In addition to all the foregoing risks, during the course of the parties' settlement negotiations, the Settling Defendants and their experts have vigorously disputed and criticized the methodology and assumptions underlying the Futures Plaintiffs' experts' methodologies for estimating damages. The Settling Defendants presented their expert analysis tending to show that, even assuming, *arguendo*, that multiple risks could be overcome and any liability could be established, then any alleged damages were non-existent or at most \$6.5 million for the entirety of the Class Period. Absent a settlement, these attacks would be further developed and pursued in Court, creating real risks for the Futures Plaintiffs with respect to the amount of damages they might recover, several years from now, *even if successful on the issue of liability*.

MF Global Inc. was the futures commission merchant which executed the commodities futures trades at issue in the case, which Futures Plaintiffs' contend were manipulative, and allegedly participated in the illegal agreement to inflate futures prices. The Futures Plaintiffs also contend that certain named and unnamed floor brokers were complicit in inflating futures prices. MF Global and the unnamed floor brokers are excluded from the Settlement. MF Global is in liquidation. Amounts that may be recovered, if any, from MF Global or the unnamed floor brokers by way of judgment or settlement would be in addition to the Settlement herein.

Accordingly, Futures Lead Counsel has recommended that the Court approve the proposed Settlement and urge Futures Class members to file a Proof of Claim.

C. The Definition of The Futures Class

The Court has certified, for purposes of settlement only, the Futures Class, defined as

All Persons that purchased or sold a NYMEX platinum futures contract or a NYMEX palladium futures contract during the period from June 1, 2006 through April 29, 2010, inclusive. Excluded from the Futures Class are (i) the Settling Defendants, MF Global, Inc., any co-conspirators alleged in the Complaint or any subsequent amended complaint filed prior to the Exclusion Bar Date, Alan Craig Kleinstein, Dominick Frank Terrone, Richard Peter Trifoglio Sr., Frederick Charles Ferriola, Peter Michael Venus, Lawrence Frasca Favuzza, and John Anthony Sakulich and any NYMEX floor brokers or NYMEX floor traders who refuse to execute the certification in the Proof of Claim attesting that they were not co-conspirators, or aiders or abettors of the Settling Defendants or Non-Settling Defendants, and (ii) Opt Outs.

II. SUMMARY OF THE PROPOSED SETTLEMENT

On behalf of the Futures Class, the Futures Plaintiffs entered into the Settlement on August 20, 2013. The following description of the proposed Settlement is only a summary. This description and this entire Notice are qualified in their entirety by the Settlement Agreement and

the exhibits thereto which is on file with the Court at the address indicated in this Notice and is available at the official Settlement website www._____.com

A. The Settlement Fund

The Moore Defendants. The Moore Defendants have agreed to wire transfer \$24,125,000 into the Escrow Account no later than seven days after entry by the Court of the Scheduling Order and an additional \$24,125,000 into the Escrow account at least three business days before the Fairness Hearing. Additionally, the Moore Defendants have agreed to wire transfer \$150,000 into the Escrow Account within seven days of entry by the Court of the Scheduling Order as a separate and distinct payment to quiet the litigation and for other consideration enumerated in the Stipulation of Settlement.

<u>Defendant Welsh.</u> As described at pp. 2-3 above, Defendant Welsh has agreed to a judgment of \$35,000,000 for the benefit of the Futures Class, which the Futures Class may seek to collect solely from Welsh's assets consisting of his claims and rights against certain of his insurers, and not otherwise from Defendant Welsh. There are multiple risks involved in successfully obtaining any recoveries on such judgment. Futures Lead Counsel and the Settling Defendants do not represent or warrant that any sums are collectable or will ultimately be collected in respect of such settlement. Together, the foregoing payments, plus all interest earned thereon, constitute the Settlement Fund.

B. Plan of Allocation

A copy of the Plan of Allocation that has been preliminarily approved by the Court is attached hereto. Examples of potential computations under the Plan of Allocation are available on the settlement website at www._____.com. The following description of the Plan of Allocation is only a summary, which is qualified in its entirety by the Plan of Allocation and the Settlement Agreement.

Generally, under the Plan of Allocation, ninety percent (90%) of Net Settlement Funds are reserved to pay for valid claims premised on the alleged artificiality of NYMEX platinum and NYMEX palladium futures contract prices. The remaining ten percent (10%) of the Net Settlement Funds are reserved to pay valid claims based on net trading losses (to be determined and weighted as described in the Plan of Allocation). The Plan of Allocation covers transactions in NYMEX platinum and palladium futures contracts during the Class Period.

By entering the Settlement, the Settling Defendants do not concede in any respect whatsoever that either alleged artificiality (as calculated by the Futures Plaintiffs) or simple net trading losses would be recoverable under any applicable state or federal law. The Plan of Allocation may be changed by the Court without providing further notice. The final approval, disapproval, or modification of any proposed plan of allocation shall not affect the preliminary or final approval of the Settlement or enforceability of the Settlement Agreement.

C. Payment to the Class Members Who Submit Valid Proofs of Claim

Futures Class members should read the Plan of Allocation. Pursuant to the Plan of Allocation, Claiming Futures Class Members will be eligible to receive a share of the Net Settlement Fund, subject to the determinations of the Settlement Administrator and, if necessary, the Court. Under the Plan of Allocation, the amount of the payment will depend on, among other things, the size of the Net Settlement Fund, the size of the Claiming Future Class Member's allowed claim, and the total amount of allowed claims of all Claiming Future Class Members. In the latter regard, Futures Lead counsel encourages you to review the Plan of Allocation and submit a proof of claim if you have Net Artificiality Paid or Net Losses as weighted under the Plan. To a maximum extent of in excess of 100% of Net Artificiality Paid (which includes a 10% premium for interest) and/or of 100% of Net Losses (which includes a 10% premium for interest), the share of Futures Class members who do not submit a proof of claim will be redistributed to those Futures Class members who do submit a proof of claim and do have Net Artificially Paid and/or Net Losses as weighted under the Plan of Allocation.

D. Attorneys' Fees, Costs and Incentive Awards

To date, the attorneys representing the Futures Plaintiffs and the Futures Class in the Futures Action have not received payment for their services or reimbursement for their expenses. Futures Class members are not personally responsible for payment of attorneys' fees or expenses. Instead, as compensation for their time and their risk in prosecuting the litigation on a wholly contingent fee basis for more than three years, Futures Lead Counsel will ask the Court for an award of attorneys' fees in the amount of not more than 32.8% of the Settlement Fund, as a common fund, and for reimbursement of their costs and expenses in the amount of no more than \$750,000, all to be deducted from the Settlement Fund.

At the time the Net Settlement Fund is distributed to Claiming Futures Class Members, the Futures Plaintiffs will seek reimbursement of their own expenses and compensation for their time devoted to this litigation in the aggregate amount of no more than \$70,000 to be paid from the Settlement Fund.

E. The Moore Defendants' Potential Right To Reversion

Section 12 of the Settlement Agreement provides the Moore Defendants with limited rights of reversion. Specifically, the Moore Defendants may be entitled to reversion from the Net Settlement Fund but only to the extent set forth in sub-paragraphs (1) and (2) below:

(1) In the event that the Net Settlement Fund allocated to pay claims for Net Artificiality Paid exceeds 100% of Net Artificiality Paid (which includes a 10% premium for interest) by all Claiming Futures Class Members, as finally determined by the Settlement Administrator and/or the Mediator, then the Moore Defendants shall be entitled to a reversion in the amount of one-half (i.e., 50%) of the amount that the Net Settlement Fund allocated to pay claims for Net Artificiality Paid exceeds 100% of Net Artificiality Paid (which includes a 10% premium for interest). The remaining 50% of the excess will be distributed among to Futures Class members according to the Plan of Allocation.

(2) In the event that the Net Settlement Fund allocated to pay claims for Net Losses exceeds 100% of Net Losses (which includes a 10% premium for interest) by all Claiming Futures Class Members, as finally determined by the Settlement Administrator and/or the Mediator, then the Moore Defendants shall be entitled to a reversion of the entire amount that the Net Settlement Fund allocated to pay claims for Net Losses exceeds 100% of Net Losses (which includes a 10% premium for interest).

Futures Class members are referred to the Settlement Agreement, particularly Section 12 thereof, and the Plan of Allocation for the full terms of the Moore Defendants' reversion rights.

F. The Settling Defendants' Potential Right To Termination

Section 16 of the Settlement Agreement describes the Settling Defendants' right to terminate if certain conditions anticipated by the Parties are not satisfied. These conditions are set forth in Section 16 of the Settlement Agreement. With respect to each such condition, Settling Defendants have the right (as qualified in the Settlement Agreement), but not the obligation, to determine to exercise, in their sole discretion, a termination notice if the condition is not satisfied.

G. Changes Or Further Orders By The Court

Any change by the Court in the Plan of Allocation, in the time and place of the Fairness Hearing, or in any other matter and all further orders or requirements by the Court will be posted on the Settlement website at www.______.com as soon as practicable. It is important that you refer to such website as no other notice apart from the docket of the Futures Action may be published of such changes.

H. The Releases, Discharge and Covenant Not To Sue

IF YOU HAVE NOT BEEN PREVIOUSLY EXCLUDED FROM THE FUTURES CLASS, WHEN THE SETTLEMENT BECOMES FINAL YOU WILL BE RELEASING THE SETTLING DEFENDANTS AND RELATED RELEASED PARTIES FOR THE CLAIMS DESCRIBED BELOW, AND YOU WILL BE BOUND BY THE RELEASES IN THE SETTLEMENT AGREEMENT—INCLUDING THE COVENANT NOT TO SUE—EVEN IF YOU DO NOT FILE A PROOF OF CLAIM

In exchange for the Settling Defendants' consideration described in "A" above, members of the Futures Class will release certain claims against the Settling Defendants as specifically set forth below.

(a) In addition to the effect of any final judgment entered in accordance with this Settlement Agreement, and provided that the Court approves this Settlement Agreement, effective upon the Effective Date each and every Futures Class member, all of their past, present

or future parents, subsidiaries, divisions, affiliates, shareholders, general or limited partners, attorneys, spouses, insurers, beneficiaries, employees, officers, directors, legal and equitable owners, members, predecessors in interest, successors in interest, legal representatives, trustees, associates, heirs, executors, administrators and/or assigns and each and any of their respective shareholders, parents, subsidiaries, divisions, affiliates, shareholders, general or limited partners, assigns, attorneys, insurers, beneficiaries, employees, officers, directors, legal and equitable owners, members, predecessors in interest, successors in interest, legal representatives, trustees, associates, heirs, executors, administrators and/or assigns (together the "Releasing Parties"), releases and forever discharges, to the fullest extent permitted by law, the Released Parties from and against any and all present, past, or future claims, demands, debts, damages, losses, offsets, obligations, warranties, costs, fees, penalties, expenses, whenever incurred, rights of action, suits, and causes of action of every kind and nature whatsoever, whether based on contract, tort, federal, state or foreign law, statutory, or other legal or equitable theory of recovery, liabilities of any nature and kind whatsoever, whether known or unknown, suspected or unsuspected, existing, or claimed to exist, and whether arising in the past or future, in law or in equity, that each and every Futures Class member ever had, now has, or hereafter can, shall or may have, directly, representatively, derivatively or in any other capacity, in any way arising from or related to, in full or in part, any transactions in Class Contracts, whether or not asserted in the Futures Action, or from any losses incurred, in whole or in part, as a result of such transactions. Notwithstanding any other provision of this Settlement (a) the foregoing release shall not include any claims which a Futures Class member may have in its capacity as a member of any class that may be certified with respect to the claims asserted in the Complaint in the Physical Action, and (b) as to Defendant Welsh only, the foregoing release shall not include, shall not apply to, shall have no effect whatsoever on, and shall not release in any way, the negligence and the negligent conduct or omissions as alleged, and relief that may be obtained on, the Futures Plaintiffs' fifth claim in the Complaint. Welsh is released as to the non-negligence claims (including the Futures Plaintiffs' claims in the Complaint for violations of the Commodity Exchange Act and the Sherman Act) as previously set forth above in this Section 6(a).

(b) In addition, each Releasing Party hereby expressly waives and releases any and all provisions, rights, and benefits conferred by § 1542 of the California Civil Code, which reads:

Section 1542. General release extent. A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her must have materially affected his or her settlement with the debtor[.]

From the Effective Date each Releasing Party also expressly waives and releases any and all provisions, rights, and benefits conferred by any law of any state or territory of the United States or other jurisdiction, or principle of common law, which is similar, comparable or equivalent to § 1542 of the California Civil Code. Each Releasing Party may hereafter discover facts other than or different from those which he, she or it knows or believes to be true with respect to the claims which are the subject matter of this Section 6 but each Releasing Party, through this Settlement Agreement, and with the ability to seek independent advice of counsel, expressly waives and fully, finally and forever settles and releases, as of the Effective Date any known or unknown,

suspected or unsuspected, contingent or non-contingent claim that would otherwise fall within the definition of Released Claims, whether or not concealed or hidden, without regard to the subsequent discovery or existence of such different or additional facts. From the Effective Date, the releases herein given by the Releasing Parties shall be and remain in effect as full and complete releases of the claims set forth in the Futures Action, notwithstanding the later discovery or existence of any such additional or different facts relative hereto or the later discovery of any such additional or different claims that would fall within the scope of the release provided in Section 6(a) of this Settlement Agreement, as if such facts or claims had been known at the time of this release. Notwithstanding any of the provisions of the Final Judgment or any provisions of this Settlement Agreement or otherwise, the Futures Plaintiffs and the Futures Class do not release or dismiss and shall not release or dismiss Defendant Welsh from the Futures Plaintiffs' fifth claim in the Complaint for negligence against Defendant Welsh.

The Settlement Agreement does not settle or compromise any claims other than those set out therein. All rights of the Futures Plaintiffs or any member of the Futures Class against any other Person or entity other than the Released Parties are specifically reserved by the Futures Plaintiffs and the members of the Futures Class.

III. YOUR OPTIONS

A. Submit A Proof of Claim

As a member of the Futures Class, you may be entitled to share in the Net Settlement Fund if you submit a valid and timely Proof of Claim demonstrating that you are entitled to a recovery under the Plan of Allocation. Proofs of Claim must be received by the Settlement Administrator (see address in VII below) no later than _______, 2013. A copy of the Proof of Claim is attached hereto. You may also obtain a Proof of Claim on the Settlement website at www.______.com.

Again, an important aspect of the Settlement is that the Moore Defendants are not entitled to any reversion of the Net Settlement Fund unless and until Claiming Futures Class Members, in aggregate, have been paid 100% of Net Artificiality Paid (which includes a 10% premium for interest) and 100% of Net Losses (which includes a 10% premium for interest). See II.C above. Moreover, the Moore Defendants' reversion only captures 50% of the amounts in excess of 100% of Net Artificiality Paid such that Claiming Futures Class Members may receive in excess of 100% of their Net Artificiality Paid (which includes a 10% premium for interest). Again, to the foregoing extent, the shares of Futures Class members who fail to file a Proof of Claim will be redistributed to Futures Class Members who do file Proofs of Claim and who do qualify for Net Artificially Paid and/or Net Losses as described in the Plan of Allocation. Futures Class members are encouraged to file proofs of claim.

B. Object To The Settlement

Any member of the Futures Class may appear at the Fairness Hearing (see Section V below) in person or by counsel and may be heard, to the extent allowed by the Court, either in

support of or in opposition to the fairness, reasonableness, and adequacy of the Settlement Agreement or any related matter (including the request for attorneys' fees or the Plan of Allocation or any other matter).

However, no Person other than Futures Lead Counsel and counsel for the Settling Defendants shall be heard, and no papers, briefs, pleadings, or other documents submitted by any member of the Futures Class shall be considered by the Court unless the objecting member of the Futures Class files the following with the Court:

- a. a written notice of intention to appear;
- b. proof of membership in the Futures Class;
- c. a detailed statement of the objections to any matters before the Court;
- d. a statement advising of any court proceeding in which said objector has made an objection to a proposed class action settlement within the past three years, including case name, docket number, and court;
- e. the grounds or reasons why the member of the Futures Class desires to appear and be heard; and
- f. all documents or writings the member of the Futures Class desires the Court to consider.

This written statement must be filed with the Court and served by hand or overnight mail on the Futures Lead Counsel and all counsel of record for the Settling Defendants no later than ______, 2013, or it will not be considered.

The contact information for Futures Lead Counsel and counsel of record for the Settling Defendants is set forth below:

Christopher McGrath **Lovell Stewart Halebian Jacobson LLP** 61 Broadway Suite 501 New York, NY, 10006

Counsel for Futures Plaintiffs

David Zensky **Akin Gump Strauss Hauer & Feld LLP** One Bryant Park New York, New York 10036

Counsel for Defendants Moore Capital Management, LP; Moore Capital Management, LLC; Moore Capital Advisors, LLC; Moore Advisors, Ltd.; Moore Macro Fund, LP; and Moore Global Fixed Income Master Fund, LP Louis Bacon Jennifer Rochon **Kramer Levin Naftalis & Frankel, LLP** 1177 Avenue of the Americas New York, New York 10036

Counsel for Defendant Christopher Pia

Marc Weinstein **Hughes Hubbard & Reed LLP**One Battery Park Plaza

New York, New York 10004

Counsel for Defendant Eugene Burger

Andrew Lourie **Kobre & Kim, LLP** 1919 M Street, N.W., Suite 410 Washington, D.C. 20036

Counsel for Defendant Joseph Welsh

C. Request To Be Excluded From The Settlement

Any request for exclusion from the Settlement by a member of the Futures Class must be made in writing and received by the Settlement Administrator no later than ______, 2013. Any such request for exclusion must contain the following information:

- (i) the date of acquisition of each position in any NYMEX platinum futures contract or NYMEX palladium futures contract for which recovery is sought by a Futures Class member or that was acquired or sold during the Class Period;
- (ii) when and at what price such position(s) was/were acquired, closed out or sold;
- (iii) any and all broker(s) or futures commission merchant(s) used; and
- (iv) a statement and description of whether positions in NYMEX platinum futures contracts or NYMEX palladium futures contracts were acquired as a hedge to off-exchange positions or exposures that relate to platinum or palladium during the Class Period.

Requests for exclusion from the Settlement must be sent by First-Class mail (preferably certified mail) to counsel for the Futures Plaintiffs, counsel for Settling Defendants (see addresses in B. above) and the Settlement Administrator (see address in VII below). A Request For Exclusion form is attached hereto.

If you exclude yourself from the Futures Class, you will not be bound by the Settlement Agreement and can independently pursue claims you may have against the Settling Defendants at your own expense. However, if you exclude yourself, you will not be eligible to share in the Net Settlement Fund.

IV. PROOF OF CLAIM

The Proof of Claim, which includes instructions on how and when to make a claim, is attached hereto. You should consider reading the Settlement Agreement and you should read the Proof of Claim carefully before submitting your Proof of Claim or determining another course of action.

V. FAIRNESS APPROVAL HEARING

The Court has scheduled a public Fairness Hearing for ______, 2013 at _____ a.m. to be held at the Daniel Patrick Moynihan United States Courthouse, 500 Pearl Street, New York, NY, Courtroom 20B. At the Fairness Hearing, the Court will determine if the proposed Settlement is fair, reasonable, and adequate. The Court will also consider Futures Lead Counsel's request for attorneys' fees and reimbursement of litigation expenses. See II.D. above.

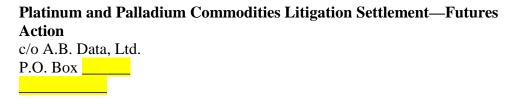
The time and date of the Fairness Hearing may be continued from time to time without further notice and you are advised to confirm the time and location if you wish to attend; as soon as practicable after any change in the scheduled date and time, such change will be posted on the settlement website www._____.com.

VI. CHANGE OF ADDRESS

If this Notice reached you at an address other than the one on the mailing label, or if your address changes, please enter your current information online at www.____.com, or send it to the Settlement Administrator at the address set forth in VII below.

VII. THE SETTLEMENT ADMINISTRATOR

The Court has appointed A.B. Data, Ltd. as the Settlement Administrator. Among other things, the Settlement Administrator is responsible for providing notice of the Settlement to the Class and processing Proofs of Claim. You may contact the Settlement Administrator through the Settlement website (www._____om), by telephone toll free at _____, or by writing to the Settlement Administrator at the below address:



VIII. ADDITIONAL INFORMATION

The Settlement Agreement and other important documents related to this Action are available online at www._____.com and also available for review during normal business hours at the office of the Clerk of Court, United States District Court for the Southern

District of New York, 500 Pearl Street, New York, NY 10007. If you have questions about this Notice, the procedure for registering, or the Settlement Agreement, you may contact Futures Lead Counsel at the address listed in III.B. above.

DO NOT CONTACT THE JUDGE OR THE CLERK OF COURT

Dated:, 2013	
	BY ORDER OF THE COURT

Clerk of the United States District Court Southern District of New York

Exhibit B

NOTICE OF CLASS ACTION SETTLEMENT

If You Purchased or Sold a NYMEX Platinum Futures Contract or NYMEX Palladium Futures Contract Between June 1, 2006 and April 29, 2010, Inclusive, Then Your Rights Will Be Affected and You May Be Entitled To A Benefit

The purpose of this notice is to inform you of a Settlement with defendants Moore Capital Management, LP; Moore Capital Management, LLC; Moore Capital Advisors, LLC; Moore Advisors, Ltd.; Moore Macro Fund, LP; Moore Global Fixed Income Master Fund, LP; Christopher Pia; Louis Bacon; Eugene Burger (together the "Moore Defendants"); and Joseph Welsh ("Welsh" and together with the Moore Defendants, the "Settling Defendants") in the class action *In re: Platinum and Palladium Commodities Litig.* (Platinum/Palladium Futures Action), 10-cv-3617 (WHP) (S.D.N.Y.) ("Futures Action") pending in the U.S. District Court for the Southern District of New York. The Court has scheduled a public Fairness Hearing on _______, 2013, _____ [a.m. / p.m.] at the Daniel Patrick Moynihan United States Courthouse, 500 Pearl Street, New York, NY, Courtroom 20B.

The Settling Defendants have consistently and vigorously denied the Futures Plaintiffs' claims. By entering into the Settlement Agreement with the Futures Plaintiffs, the Settling Defendants do not admit and instead continue to deny that they engaged in any unlawful conduct, and that any member of the Futures Class suffered compensable damages. The District Court previously dismissed the Futures Plaintiffs' claims without prejudice, additional motions to dismiss were filed and contemplated, and the Court has never rendered a final ruling on the factual or legal sufficiency of the Futures Plaintiffs' claims. Absent a settlement, the defendants would continue to vigorously oppose each and every aspect of the Futures Plaintiffs' claims and alleged damages.

Defendant MF Global, Inc. is <u>not</u> part of this Settlement. Also, there is a separate settlement involving certain transactions in physical platinum and physical palladium.

A copy of the Settlement Agreement, the formal Settlement Notice, Plan of Allocation	,
Proof of Claim, Request For Exclusion form and other important documents are available on t	he
settlement website at wwwcom. For additional information, you may also contact	
the Settlement Administrator (A.B. Data, Ltd.) at 1 (888) or at the below addres	s:
Platinum and Palladium Litigation Settlement—Futures Action c/o A.B. Data, Ltd.	

If you are a member of the Futures Class, you may seek to participate in the Settlement by submitting a Proof of Claim that is received by the Settlement Administrator on or before ______, 2013. You may obtain a Proof of Claim on the settlement website referenced above. If you are a member of the Futures Class but do not file a Proof of Claim, you will still be bound by the releases set forth in the Settlement Agreement if the Court enters an order approving the Settlement Agreement. All objections must be made in accordance with the instructions set forth in the formal Settlement Notice and must filed with the Court and served on the Parties' counsel by ______, 2013. All requests to be excluded from the Settlement must be made in accordance with the instructions set forth in the formal Settlement Notice and must be received by the Settlement Administrator no later than _______, 2013. You may obtain a Request for Exclusion form on the settlement website referenced above.

Exhibit C

ESCROW AGREEMENT

THIS ESCROW AGREEMENT, dated as of August 20, 2013 (this "Agreement"), is entered by and among; defendants Moore Capital Management, LP; Moore Capital Management, LLC; Moore Capital Advisors, LLC; Moore Advisors, Ltd.; Moore Macro Fund, LP; Moore Global Fixed Income Master Fund, LP ("Defendants"); Akin Gump Strauss Hauer & Feld, as counsel for Defendants ("Akin Gump"); Greg Galan and Richard White ("Plaintiffs"), individually, and as representatives of the certified Class in the Litigation (as defined below); Lovell Stewart Halebian Jacobson LLP, ("Futures Lead Class Counsel"); and A.B. Data, Ltd. in the capacity of Escrow Agent (as defined below).

RECITALS:

WHEREAS, Defendants and the Plaintiffs are parties to a certified class action litigation captioned *In Re: Platinum and Palladium Commodities Litigation* (Platinum/Palladium Futures Action) (WHP) (S.D.N.Y.) (the "<u>Litigation</u>") filed in the United States District Court for the Southern District of New York ("Court");

WHEREAS, Defendants, other parties named as defendants in the Litigation, and Plaintiffs have reached an agreement with respect to the settlement and resolution of the Litigation as reflected in the Stipulation and Agreement of Settlement among such parties, dated August 20, 2013 (the "Settlement Agreement"), a true and correct copy of which is attached hereto as Exhibit 1.

WHEREAS, the Settlement Agreement has been submitted to, and is subject to the approval of, the Court; and

WHEREAS, the Settlement Agreement contemplates the execution and delivery of this Agreement and the deposit of cash by Defendants into an escrow account to be controlled and disbursed by the Escrow Agent in accordance with the terms of the Settlement Agreement.

NOW THEREFORE, in consideration of the foregoing, the mutual covenants and agreements set forth herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound, the parties hereto, hereby agree as follows:

AGREEMENT:

1. Definitions:

- (a) All capitalized terms used herein and not otherwise defined shall have meaning ascribed thereto in the Stipulation and Agreement of Settlement.
 - (b) "Bank" shall mean The Huntington National Bank.

- (c) "Business Day" means any day other than a Saturday or a Sunday or a day on which banks located in New York, New York generally are authorized or required by law to close.
 - (d) "Code" means the Internal Revenue Code of 1986, as amended.
- (e) "<u>Escrow Agent</u>" means A.B. Data, Ltd. or any successor escrow agent appointed pursuant to Section 9 hereof.
- (f) "<u>Escrow Account</u>" means an account established by Escrow Agent with the Bank to directly receive Defendants' deposit of the Settlement Funds, as more specifically described in Section 3 below.
- (g) "<u>Escrow Funds</u>" means (i) the Settlement Funds deposited into the Escrow Account, and (ii) any and all earnings and/or interest from investment of the Settlement Funds.
- (h) "<u>Regulations</u>" means the income tax regulations, including temporary regulations promulgated under the Code, as such regulations are amended from time to time.
- (i) "<u>Settlement</u>" means the settlement of the Litigation pursuant to the terms of the Settlement Agreement.
 - (j) "<u>Tax Expenses</u>" shall have the meaning ascribed thereto in Section 8(d) below.
 - (k) "<u>Taxes</u>" shall have the meaning ascribed thereto in Section 8(d) below.
 - (1) "Terminating Event" shall have the meaning ascribed thereto in Section 7 below.
- (m) "<u>Written Direction</u>" shall mean a written notification, signed by both Class Counsel, and by Akin Gump, substantially in the form attached hereto as <u>Exhibit B</u>.
- 2. <u>Appointment of and Acceptance by Escrow Agent</u>. Futures Lead Class Counsel, on behalf of the Plaintiffs and Class Members and themselves, and Akin Gump, on behalf of Defendants, hereby appoint A.B. Data, Ltd. to serve as Escrow Agent under the terms and conditions of this Agreement. Escrow Agent hereby accepts such appointment, and agrees to control and disburse the Escrow Funds, subject to and in accordance with the terms and conditions of the Settlement Agreement.
- 3. <u>Establishment of Escrow Account</u>. The Escrow Agent has established an escrow account with the Bank. The name of the Escrow Account is: *In Re: Platinum and Palladium Commodities Litigation Fund (QSF)*. The wire instructions for the Escrow Account have been provided to Futures Lead Class Counsel and Akin Gump.
- 4. <u>Deposit of Escrow Funds</u>. No later than seven (7) calendar days after the Scheduling Order is entered, Defendants shall deposit via wire transfer directly into the Escrow Account an amount in cash equal to \$24,125,000.00 (the "<u>First Payment</u>"). No later than three (3) Business Days before the Fairness Hearing on final approval of the Settlement, Defendants shall deposit via wire transfer directly into the Escrow Account an amount in cash equal to \$24,125,000.00

(the "Second Payment"). Additionally, no later than seven (7) calendar days after the Scheduling Order is entered, Defendants shall deposit via wire transfer directly into the Escrow Account an amount in cash equal to \$150,000.00. Promptly upon receipt of notification and confirmation of such First Payment and Second Payment from the Bank, as well as any Welsh Settlement Consideration, Escrow Agent shall confirm in writing to Futures Lead Class Counsel and Akin Gump their receipt into the Escrow Account.

5. Investment of the Escrow Funds.

- The Escrow Funds shall be invested and reinvested in any one or a combination of (a) the following investment options pursuant to Written Directions signed by both Futures Lead Class Counsel and Akin Gump: (i) obligations issued or guaranteed by the United States of America or its agencies or instrumentalities with maturity dates of one year or less; (ii) certificates of deposit with maturity dates of ninety (90) days or less issued by any United States bank having combined capital, surplus and undistributed profits of at least \$15,000,000,000, (iii) repurchase agreements fully collateralized by securities described in clause (i); (iv) money market funds having a rating in the highest investment category granted thereby by a nationally recognized credit rating agency at the time of acquisition; or (v) demand deposits with any United States bank having combined capital, surplus and undistributed profits of at least \$15,000,000,000. In the event no written investment instructions are received by the Escrow Agent, the Escrow Funds shall be invested and reinvested in (i) above. The Escrow Funds shall be deemed and considered to be in custodia legis of the Court, and shall remain subject to the jurisdiction of the Court, until such time as the Escrow Funds are fully distributed or upon further order(s) of the Court.
- (b) To the extent practicable, monies and income credited to the Escrow Account shall be invested in such a manner so as to be available for uses at the times where monies are expected to be disbursed by the Escrow Agent as set forth herein.
- (c) The Escrow Agent shall have no responsibility for any investment losses resulting from the investment, reinvestment or liquidation of the Escrow Funds if done in accordance with the terms of this Agreement.
- 6. <u>Disbursement of Escrow Funds</u>. Subject to the terms hereof, Escrow Agent shall only disburse the Escrow Funds in accordance with the following:
 - i) Escrow Agent shall transfer and distribute the Escrow Funds in accordance with a Written Direction signed by both Futures Lead Class Counsel and Akin Gump.
 - ii) Escrow Agent shall otherwise dispose of the Escrow Funds as the Court may direct by an order issued in the Litigation.
 - iii) Escrow Agent shall withhold from such transfer and distribution amounts necessary for payment of or reserves for payment of Taxes, associated Tax Expenses (if any) and expenses of Escrow Agent in connection herewith.
 - iv) Notwithstanding anything in this Paragraph 6, upon entry of the Scheduling Order, up to \$250,000.00 in the aggregate of the Settlement Fund may be

disbursed upon instruction by Futures Lead Class Counsel from the Escrow Account and used for Class notice and administration expenses without further order of the Court.

7. Termination of Settlement Agreement. If the Settlement in this action is not approved or the Settlement Agreement is terminated, canceled, or voided for any reason (a "Terminating Event"), all Escrow Funds paid into the Escrow Account by Defendants (and all interest and/or earnings incurred thereon) shall be refunded to Defendants net of any disbursements from the Escrow Account in accordance with Section 6 of this Agreement. In such case, the refund shall occur within five (5) Business Days of (i) Futures Lead Class Counsel and Akin Gump providing Written Directions notifying Escrow Agent of the Terminating Event, (ii) receipt of notice by the Court in the Litigation notifying the Escrow Agent of a Terminating Event or (iii) receipt of an order issued by the Court in the Litigation directing that the Escrow Funds be refunded to Defendants. Futures Lead Class Counsel of Akin Gump will promptly notify the Escrow Agent upon occurrence of a Terminating Event. The refund to Defendants shall be reduced by any Taxes and Tax Expenses (as those terms are defined below) paid or owed, as applicable, to the date of the Terminating Event, unless otherwise set forth in the applicable Court order.

8. <u>Preparation and Payment of Taxes.</u>

- The Defendants and Plaintiffs agree that the Escrow Account is to be treated for federal income tax purposes as a qualified settlement fund within the meaning of Section 468B of the Code and the regulations promulgated thereunder. The Defendants, Plaintiffs and Escrow Agent will take all steps necessary to ensure that the Escrow Account will qualify as and will remain a qualified settlement fund within the meaning of Section 468B of the Code and the Regulations promulgated thereunder. The Defendants and Plaintiffs agree that A.B. Data, Ltd. shall, in addition to serving as Escrow Agent, also be appointed tax administrator as defined under Section 1.468B-2(k)(3) of the Regulations (the "Tax Administrator") of the Escrow Account and as such will file such federal, state or local returns, pay such federal, state or local taxes, comply with applicable federal, state or local information reporting requirements and otherwise generally comply with the rules and regulations applicable to qualified settlement funds under the Code, relevant Regulations and relevant provisions of state and local tax law. The Tax Administrator and the Escrow Agent shall be empowered to take all such actions, including such actions as may be inconsistent with those expressly set forth above, as deemed necessary to ensure that the Escrow Account is treated as a qualified settlement fund under Section 468B of the Code and the Regulations promulgated thereunder. Further, the Tax Administrator may request that the parties petition the Court to amend, either in whole or in part, any administrative provision of this Escrow Agreement, which causes unanticipated tax consequences or liabilities inconsistent with the foregoing.
- (b) The Tax Administrator shall, on behalf of the Escrow Agent, apply for an employer identification number for the Escrow Account in accordance with Section 1.468B-2(k)(4) of the Regulations and provide the Escrow Agent with the appropriate IRS Form W9 as soon as available.
- (c) It is further intended that all transfers to the Escrow Account by the Defendants will satisfy the "all events test" and the "economic performance" requirement of Section

461(h)(1) of the Code. The Escrow Account shall be subject to annual U.S. federal income tax as provided in Section 468B(b) of the Code and the Regulations promulgated thereunder. All taxes (including any estimated taxes, interest or penalties) arising with respect to the income earned by each Escrow Account ("Taxes") shall be paid out of such Escrow Account. Expenses and costs incurred in connection with the operation and implementation of this Section 8(d) (including, without limitation, reasonable and customary out-of-pocket expenses of tax attorneys and/or accountants and reasonable and customary mailing and distribution costs and expenses relating to filing (or failing to file) the returns described herein) ("Tax Expenses"), shall be paid in accordance with Section 12 below. Further, Taxes shall be treated as, and considered to be, a cost of administration of the Settlement Agreement and shall be timely paid out of each Escrow Account without prior order from the Court, and the Escrow Agent shall be obligated (notwithstanding anything herein to the contrary) to withhold from distribution to Class Members any monies necessary to pay such amounts including the establishment of adequate reserves for any Taxes and (as well as any amounts that may be required to be withheld under Section 1.468B-2(1) of the Regulations under Information Reporting and Withholding Requirements, all as directed by terms of the Settlement and/or Orders.

- (d) The Tax Administrator, and, as required, the Defendants, shall jointly and timely make (or cause to be jointly and timely made) the "relation-back election" (as defined in Section 1.468B-1(j)(2)) back to the earliest permitted date. Such election shall be made in compliance with the procedures and requirements contained in such regulations (or any successor regulations). It shall be the responsibility of the Tax Administrator to timely and properly prepare, and deliver the necessary documentation (including but not limited to the disclosures and elections referred to above) for signature by all necessary parties, and thereafter to cause the appropriate filing to occur through either in the qualified settlement fund income tax return and through supplying the Defendants a copy of the executed election statement for inclusion in its income tax return.
- (e) The parties hereto acknowledge that the Tax Administrator shall not be held accountable for any fines, penalties or interest associated with late filings and/or late payments as a result of the failure or refusal of others to cooperate with the Tax Administrator causing such filings and/or payments not to occur on a timely basis. The Tax Administrator may retain or hire a qualified third party or parties (each a "Qualified Third Party") to perform any of its duties or responsibilities specified herein or in Section 468B of the Code. The fees or costs of such Qualified Third Party shall be billed to the Tax Administrator and shall be paid from amounts on deposit in the Settlement Fund; provided, however, that in no event shall the fees or costs paid to such Qualified Third Parties exceed \$75,000 in the aggregate.
- (f) Settling Defendants, Futures Plaintiffs and Futures Lead Counsel are not responsible and shall have no liability therefore or for any reporting requirements that may relate thereto. The parties hereto agree to exercise their commercially reasonable efforts to cooperate with the Escrow Agent, each other, and their tax attorneys and accountants to the extent reasonably necessary to carry out the provisions of this Section.

9. Resignation and Removal of Escrow Agent.

- (a) Escrow Agent may resign from the performance of its duties hereunder at any time by giving thirty (30) days prior written notice of its resignation to Futures Lead Class Counsel and Akin Gump or may be removed, with or without cause, by Futures Lead Class Counsel and Akin Gump by them collectively furnishing thirty (30) days prior written notice to Escrow Agent. Such resignation or removal shall take effect upon the earlier of: (a) the appointment of a successor Escrow Agent as provided below, or (b) thirty (30) days after the written notice referenced above is received by Futures Lead Class Counsel and Akin Gump.
- (b) Upon any such notice of resignation or removal, Futures Lead Class Counsel and Akin Gump shall jointly appoint a successor Escrow Agent hereunder. Upon the acceptance in writing of any appointment as Escrow Agent hereunder by a successor Escrow Agent, such successor Escrow Agent shall thereupon succeed to and become vested with all the rights, powers, privileges and duties of the retiring Escrow Agent, and the retiring Escrow Agent shall be discharged from its duties and obligations under this Agreement, but shall not be discharged from any liability for actions taken as Escrow Agent hereunder prior to such succession.
- (c) The retiring Escrow Agent shall transmit all records pertaining to the Escrow Funds and shall transfer all Escrow Funds to the successor Escrow Agent, after making copies of such records as the retiring Escrow Agent deems advisable. If Futures Lead Class Counsel and Akin Gump fail to designate a successor Escrow Agent within thirty (30) days of receiving Escrow Agent's written notice of resignation, Escrow Agent may, at its sole discretion and option, petition any court of competent jurisdiction for the appointment of a successor Escrow Agent. Notwithstanding anything to the contrary in the foregoing, the Escrow Agent or any successor escrow agent shall continue to act as Escrow Agent until a successor is appointed and qualified to act as Escrow Agent hereunder.
- 10. <u>Conflicting Demands or Claims</u>. In the event Escrow Agent receives or becomes aware of conflicting demands or claims with respect to some or all of the Escrow Funds or the rights of any of the parties hereto, Escrow Agent shall have the right to discontinue any or all further acts with respect to the Escrow Funds in question until such conflict is resolved. Escrow Agent shall have the further right to commence or defend an action or proceeding for the resolution of such conflict. The Escrow Agent shall have the option, after 30 calendar days' notice to the other parties of its intention to do so, to file an action in interpleader requiring the parties to answer and litigate any claims and rights among themselves.
- 11. <u>Liability of Escrow Agent</u>. The duties and obligations of Escrow Agent shall be determined by the express provisions of this Agreement, and no implied duties or obligations shall be inferred or otherwise imposed upon or against Escrow Agent, and Escrow Agent shall not be liable except for the performance of such duties and obligations as are specifically set out in this Escrow. Escrow Agent shall be protected in acting upon any written notice, request, waiver, consent, certificate, receipt, authorization, power of attorney or other paper or document which Escrow Agent in good faith believes to be genuine and what it purports to be, including, but not limited to, items requesting or authorizing release, disbursement or retainage of the subject matter of this Agreement and items amending the terms of this Agreement. It is expressly understood that Escrow Agent is obligated only to receive, hold and invest the Escrow Funds as set forth in this Agreement, and to disburse the same in accordance with the Written Instructions given under the provisions of this Agreement. Escrow Agent shall not be liable or

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responsible to anyone for any damages, losses or expenses unless the same shall be caused by the gross negligence, bad faith, fraud, or willful misconduct of Escrow Agent (provided that, if any Escrow Funds are placed in the wrong account or otherwise misplaced due to the Escrow Agent's mistake, said Escrow Funds shall be returned or reimbursed to the Escrow Account by the Escrow Agent). In any event, Escrow Agent's liability shall not exceed the return or reimbursement of the Escrow Account, plus interest accruing thereon, as it is then constituted as set forth in the preceding sentence. The other parties to this Agreement agree to and hereby waive any suit, claim demand or cause of action of any kind which it or they may have or may assert against Escrow Agent arising out of or relating to the execution or performance by Escrow Agent under this Agreement, unless such suit, claim, demand or cause of action is based upon gross negligence, bad faith, fraud, or willful misconduct of Escrow Agent. The other parties to this Agreement further agree to indemnify and hold harmless Escrow Agent against and from any and all claims, demands, costs, liabilities and expenses, including reasonable attorneys' fees and expenses, which may be asserted against Escrow Agent or to which it may be exposed or which it may incur by reason of its execution or performance under this Agreement, except those resulting from gross negligence, bad faith, fraud, or willful misconduct. This Section shall survive the termination of this Agreement for any reason.

- 12. <u>Compensation of Escrow Agent</u>. Escrow Agent shall be entitled to reasonable compensation as agreed among Escrow Agent, Futures Lead Class Counsel and Akin Gump, as well as reimbursement for its reasonable costs and expenses incurred in connection with the performance of its obligations under this Agreement (including, without limitation, reasonable attorneys' fees and legal expenses). Futures Lead Class Counsel shall be solely responsible for effectuating payment to the Escrow Agent to which it is entitled under this Section, and any such compensation shall be from the Escrow Funds.
- 13. Reports and Accounting. Escrow Agent will provide reports as requested to Futures Lead Class Counsel and Akin Gump reflecting income and disbursement activity in the Escrow Account for the period and year to date. The Escrow Agent shall further issue a final report and accounting that summarizes the income, expenses, and disbursements associated with the administration of the Escrow Account and such other reports as request may reasonably require from time to time. Escrow Agent shall provide copies of the final report and accounting as requested to the parties.
- 14. <u>Notices</u>. All notices and other communications hereunder shall be in writing and shall be deemed to have been validly served, given or delivered five (5) days after deposit in the United States mail, by certified mail with return receipt requested and postage prepaid, when delivered personally, one (1) day after delivery to any overnight courier, or when transmitted by facsimile transmission facilities, and addressed to the party entitled to be notified as follows:

If to Futures Lead Class Counsel, then to:

Christopher McGrath

LOVELL STEWART HALEBIAN JACOBSON LLP
61 Broadway, Suite 501
New York, New York 10006
Tel: (212) 608-1900

If to Akin Gump, then to:

David Zensky
AKIN GUMP STRAUSS HAUER & FELD
One Bryant Park
New York, New York 10036

Tel: (212) 872-1000

If to Escrow Agent, then to:

Anya Verkhovskaya
Partner and COO
anya.verkhovskaya@abdata.com
Tel: (414) 964-6441
A.B. Data, Ltd.
600 A.B. Data Drive
Milwaukee, WI 53217

or to such other address as each party may designate for itself by like notice.

- 15. <u>Rights to Accounts</u>. Neither the Plaintiffs nor any Class Members shall have any right or title to or interest in any portion of the Escrow Funds except as provided by order of the Court and as set forth in the Settlement Agreement.
- 16. <u>Amendment or Waiver</u>. This Agreement may be changed, waived, discharged or terminated only by a writing signed by all of the parties to this Agreement. No delay or omission by any party in exercising any right with respect hereto shall operate as a waiver. A waiver on any one occasion shall not be construed as a bar to, or waiver of, any right or remedy on any future occasion. Escrow Agent agrees to negotiate an amendment of this Agreement with respect to the treatment, designation and/or use of the Escrow Funds, including, without limitation, the tax treatment of the Escrow Funds, should such amendment be deemed warranted by Futures Lead Class Counsel and Defendants.
- 17. <u>Governing Law</u>. This Agreement shall be construed and interpreted in accordance with the internal laws of the State of New York without giving effect to the conflict of laws principles thereof.
- 18. <u>Entire Agreement</u>. The Settlement Agreement, including this Agreement, constitutes the entire agreement between the parties relating to the holding, investment and disbursement of the Escrow Funds and set forth in their entirety the obligations and duties of Escrow Agent with respect to the Escrow Funds.
- 19. <u>Binding Effect/Assignment</u>. All of the terms of this Agreement, as may be amended from time to time in accordance with the terms hereof, shall be binding upon, inure to the benefit of and be enforceable by the parties hereto and their respective heirs, successors and permitted

assigns. No party may assign any of its rights or obligations under this Agreement without the prior written consent of the other parties hereto.

20. <u>Counterparts</u>. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Agreement may be executed and delivered in counterpart signature pages and delivered via facsimile or .pdf transmission, and any such counterpart executed and delivered via facsimile or .pdf transmission shall be deemed an original for all intents and purposes.

{Signature page follows.}

IN WITNESS WHEREOF, Futures Lead Class Counsel, on behalf of the Plaintiffs and Class Members and themselves, Akin Gump, on behalf of Defendant and themselves, and Escrow Agent have each caused this Agreement to be executed under seal as of the date first above written.

Dated: August 20, 2013

Futures Lead Class Counsel:

Christopher Lovell

LOVELL STEWART HALEBIAN

JACOBSON LLP

61 Broadway, Suite 501 New York, New York 10006

Tel: (212) 608-1900

Counsel for Defendants Moore Capital

Management, LP;

Moore Capital Management, LLC;

Moore Capital Advisors, LLC;

Moore Advisors, Ltd.;

Moore Maero Fund, LP; and

Moore Global Fixed Income

Master Fund, LP:7

By: ______ David Zensky

AKIN GUMP STRAUSS HAUER & FELD

One Bryant Park

New York, New York 10036

Tel: (212) 872-1000

Escrow Agent: A.B. Data, Ltd.

By:

Name: Anya Verkhovskaya Title: Partner and COO IN WITNESS WHEREOF, Futures Lead Class Counsel, on behalf of the Plaintiffs and Class Members and themselves, Akin Gump, on behalf of Defendant and themselves, and Escrow Agent have each caused this Agreement to be executed under seal as of the date first above written.

Dated: August 20, 2013

Futures Lead Class Counsel:

By: Christopher Lovell LOVELL STEWART HALEBIAN JACOBSON LLP 61 Broadway, Suite 501 New York, New York 10006 Tel: (212) 608-1900

Counsel for Defendants Moore Capital Management, LP; Moore Capital Management, LLC; Moore Capital Advisors, LLC; Moore Advisors, Ltd.; Moore Macro Fund, LP; and **Moore Global Fixed Income** Master Fund, LP:

By: David Zensky AKIN GUMP STRAUSS HAUER & FELD One Bryant Park New York, New York 10036 Tel: (212) 872-1000

Name: Anya Verkhovskaya

Title: Partner and COO

EXHIBIT A

Settlement Agreement

EXHIBIT B

JOINT WRITTEN DIRECTION

	ACCOUNT #
the Settlement Agreement referenced in the	ent, dated, 2013 and Escrow Agreement, Futures Lead Class Counsel and Escrow Agent, to take the following action with
The Escrow Agent shall	
DATED:, 2013	
By: Christopher Lovell LOVELL STEWART HALEBIAN JACOBSON LLP 61 Broadway, Suite 501 New York, New York 10006 Tel: (212) 608-1900	Counsel for Defendants Moore Capital Management, LP; Moore Capital Management, LLC; Moore Capital Advisors, LLC; Moore Advisors, Ltd.; Moore Macro Fund, LP; and Moore Global Fixed Income Master Fund, LP: By: David Zensky AKIN GUMP STRAUSS HAUER & FELD One Bryant Park New York, New York 10036 Tel: (212) 872-1000

Exhibit D

UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

In Re: Platinum And Palladium Commodities

Litigation

MASTER FILE No. 10 Civ. 3617 (WHP)

This Document Relates To:

Platinum/Palladium Futures Action

ORDER PRELIMINARILY APPROVING PROPOSED SETTLEMENT, SCHEDULING HEARING FOR FINAL APPROVAL THEREOF, AND APPROVING THE PROPOSED FORM AND PROGRAM OF NOTICE TO THE CLASS

The Parties (as defined in Section 1(y) of the Stipulation and Agreement of Settlement entered into by the Parties on August 20, 2013 (the "Settlement Agreement")) to the consolidated class action captioned In re: Platinum and Palladium Commodities Litig. (Platinum/Palladium Futures Action), 10-cv-3617 (WHP) (S.D.N.Y.) ("Futures Action"), having applied for an order preliminarily approving the proposed settlement of the Futures Action in accordance with the Settlement Agreement and for (a) dismissal, except for the negligence claim against Joseph Welsh, of the Futures Action as to defendants Moore Capital Management, LP; Moore Capital Management, LLC; Moore Capital Advisors, LLC; Moore Advisors, Ltd.; Moore Macro Fund, LP; Moore Global Fixed Income Master Fund, LP; Christopher Pia; Louis Bacon; Eugene Burger and Joseph Welsh (collectively, the "Settling Defendants"), on the merits and with prejudice upon the terms and conditions set forth in the Settlement Agreement, and (b) a judgment against Defendant Welsh as set forth in Section 3(b)(i) of the Settlement Agreement and paragraph 15 of the proposed Final Judgment; the Court having read and considered the Settlement Agreement and accompanying documents; and all Parties having consented to the entry of this Order,

NOW, THEREFORE, this	day of	, 2013 upon application of the
Parties,		

IT IS HEREBY ORDERED that:

- 1. Except for the terms defined herein, the Court adopts and incorporates the definitions in the Settlement Agreement for the purposes of this Order.
- 2. For purposes of settlement only, the Futures Class shall be preliminarily certified and maintained as a class action, pursuant to Rule 23 of the Federal Rule of Civil Procedure finding that the applicable provisions of Rule 23 of the Federal Rules of Civil Procedure have been satisfied. The Futures Class is defined as:

All Persons that purchased or sold a NYMEX platinum futures contract or a NYMEX palladium futures contract during the period from June 1, 2006 through April 29, 2010, inclusive. Excluded from the Futures Class are (i) the Settling Defendants, MF Global, Inc., any co-conspirators alleged in the Complaint or any subsequent amended complaint filed prior to the Exclusion Bar Date, Alan Craig Kleinstein, Dominick Frank Terrone, Richard Peter Trifoglio Sr., Frederick Charles Ferriola, Peter Michael Venus, Lawrence Frasca Favuzza, and John Anthony Sakulich and any NYMEX floor brokers or NYMEX floor traders who refuse to execute the certification in the Proof of Claim attesting that they were not co-conspirators, or aiders or abettors of the Settling Defendants or Non-Settling Defendants, and (ii) Opt Outs.

- 3. The Court hereby reaffirms its appointment of Lovell Stewart Halebian Jacobson LLP as class counsel for the Futures Class, having determined that the requirements of Rule 23(g) of the Federal Rules of Civil Procedure are fully satisfied by this appointment.
- 4. Plaintiffs Greg Galan and Richard White are hereby appointed as representatives to the Futures Class.
- 5. A hearing will be held on _______, 2013 at _____ [a.m./p.m.] [approximately 95 days after entry of this Order] in Courtroom 20B of this Courthouse before the undersigned, to consider the fairness, reasonableness, and adequacy of the Settlement Agreement (the "Fairness").

Hearing"). The foregoing date, time, and place of the Fairness Hearing shall be set forth in the notice and publication notice which is ordered herein, but shall be subject to adjournment or change by the Court without further notice to the members of the Futures Class other than that which may be posted at the Court and on the Court's website.

- 6. The Court reserves the right to approve the Settlement at or after the Fairness
 Hearing with such modifications as may be consented to by the Parties and without further notice to the Futures Class.
- Administrator shall cause copies of the Class Notice, substantially in the form attached as Exhibit A to the Settlement Agreement, to begin to be mailed by United States first class mail, postage prepaid, to (a) all large traders in New York Mercantile Exchange ("NYMEX") platinum and palladium contracts during the Class Period whose names have been obtained by the Futures Plaintiffs pursuant to a subpoena to the NYMEX; (b) all clearing brokers on the NYMEX during the Class Period whose names have been obtained by the Futures Plaintiffs pursuant to a subpoena to the NYMEX (with the direction that they should forward the Class Notice to their customers who transacted in NYMEX platinum or NYMEX palladium futures contracts during the Class Period or provide the names and addresses of such customers to the Settlement Administrator); and (c) any additional reasonably identifiable members of the Futures Class. The foregoing mailings shall be completed no later than 15 days after the date of entry of this Order.
- 8. As soon as practicable after the mailing of the Class Notice commences, the Settlement Administrator shall cause to be published a publication notice substantially in the form of Exhibit B to the Settlement Agreement as follows: (a) for two consecutive months in

Futures Magazine; (b) on the Futures Magazine website for one month; (c) for two consecutive months in Stock and Commodities Magazine; (d) on the Stock and Commodities Magazine website for one month; and (e) in one edition of The Wall Street Journal.

- 9. The Settlement Administrator shall also cause the Class Notice to be published on a website established for this Settlement, www.______.com, within 10 days after the entry of this Order. Both the Class Notice and the summary notice will direct members of the Futures Class to the website, www.______.com, where they can access the Settlement Agreement, this Order, the motion for preliminary approval, answers to anticipated questions about class action settlements or the Proof of Claim, and other information. The Futures Class website, www._____.com, will be searchable on the internet.
- 10. The Court approves, in form and substance, the Class Notice. The form and method of notice specified herein is the best notice practicable and shall constitute due and sufficient notice of the Fairness Hearing to all persons entitled to receive such notice, and fully satisfies the requirements of due process, Rule 23 of the Federal Rules of Civil Procedure, and applicable law.
- 11. The terms of the Settlement Agreement are hereby preliminarily approved. The Court finds that the Settlement Agreement was entered into at arm's-length by experienced counsel and is sufficiently within the range of reasonableness that notice of the Settlement Agreement should be given as provided in this Order. The terms of the Plan of Allocation are preliminarily approved as within the range of reasonableness.
- 12. All proceedings in the Futures Action, other than such proceedings as may be necessary to carry out the terms and conditions of the Settlement, are hereby stayed and suspended until further order of this Court.

- 13. Futures Class Counsel shall file their motions for payment of attorneys' fees and reimbursement of expenses and for final approval of the Settlement at least 30 days prior to the Fairness Hearing.
- 14. Any member of the Futures Class who objects to any aspect of the Settlement, application for attorneys' fees and expenses, or the Final Judgment, or who otherwise wishes to be heard, may appear in person or by his or her attorney at the Fairness Hearing and present evidence or argument that may be proper and relevant; provided, however, that, except for good cause shown, no person other than Futures Lead Counsel and counsel for the Settling Defendants shall be heard and no papers, briefs, pleadings, or other documents submitted by any member of the Futures Class shall be considered by the Court unless, not later than 23 days prior to the Fairness Hearing directed herein, the objecting member of the Futures Class files the following with the Court and serves the same on or before such filing by hand or overnight mail on the Futures Lead Counsel and all counsel of record for the Settling Defendants:
 - a. a written notice of intention to appear;
 - b. proof of membership in the Futures Class;
 - c. a detailed statement of the objections to any matters before the Court;
 - d. a statement advising of any court proceeding in which said objector has made an objection to a proposed class action settlement within the past three years, including case name, docket number, and court;
 - e. the grounds or reasons why the member of the Futures Class desires to appear and be heard; and
 - f. all documents or writings the member of the Futures Class desires the Court to consider.
- 15. Any member of the Futures Class who fails to object in the manner described in Paragraph 14 of this Order shall be deemed to have waived the right to object (including any

right of appeal) and shall be forever barred from raising such objection in this or any other action or proceeding. Discovery concerning any purported objections to the Settlement shall be completed no later than three days before the Fairness Hearing.

- 16. Counsel for the Futures Class, counsel for the Settling Defendants, and any other Persons wishing to oppose timely-filed objections, pursuant to Paragraph 14 hereof, may do so not later than seven days before the Fairness Hearing.
- 17. Any request for exclusion from the Settlement by a member of the Futures Class must be made in writing and received by the Settlement Administrator no later than thirty-five days before the Fairness Hearing (the "Exclusion Bar Date"). Any such request for exclusion must contain the following information:
 - a. the date of acquisition of each position in any NYMEX platinum futures contract or NYMEX palladium futures contract for which recovery is sought by a Futures Class member or that was acquired or sold during the Class Period;
 - b. when and at what price such position(s) was/were acquired, closed out or sold;
 - c. any and all broker(s) or futures commission merchant(s) used; and
 - d. a statement and description of whether positions in NYMEX platinum futures contracts or NYMEX palladium futures contracts were acquired as a hedge to offexchange positions or exposures that relate to platinum or palladium during the Class Period.
- 18. At least seven days prior to the Fairness Hearing, the Settlement Administrator shall serve and file a sworn statement attesting to compliance with the notice provisions in Sections 7, 8 and 9 of this Order.
- 19. All Proofs of Claim shall be submitted by Futures Class members as directed in the Class Notice and must be received by the Settlement Administrator no later than seventy-five days after the Fairness Hearing.

- 20. To effectuate the Settlement Agreement and the notice provisions, the Court hereby approves A.B. Data, Ltd. (the "Settlement Administrator") to be responsible for: (a) establishing a P.O. Box, information telephone line and website (to be included in the Class Notice and publication notice) for the purpose of communicating with members of the Futures Class; (b) disseminating notice of the Settlement to the members of the Futures Class; (c) accepting and maintaining documents sent from Futures Class members including Proofs of Claim, and other documents relating to claims administration; (d) administering claims for allocation of funds among members of the Futures Class; and (e) acting as Escrow Agent for the Settlement Fund.
- 21. Except to the extent provided for in the Settlement Agreement and the Final Judgment with respect to Defendant Welsh only, (a) the Settlement Agreement, including but not limited to its exhibits, whether or not it shall become final, and any and all negotiations, documents and discussions associated with it, is not and shall not be deemed or construed to be an admission, adjudication or evidence of any violation of any statute or law or of any liability or wrongdoing by the Settling Defendants or any Released Party, or of the truth of any of the claims or allegations alleged in the Futures Action or the incurrence of any damage, loss or injury by any Person; (b) the Settlement Agreement, including its exhibits, whether or not it shall become final, and any and all negotiations, documents and discussions associated with it, (i) shall be without prejudice to the rights of any Party, (ii) shall not be deemed or construed to be an admission or evidence of any violation of any statute or law or of any liability or wrongdoing by Settling Defendants or any Released Party, or of the truth of any of the claims or allegations, or the incurrence of any damage, loss or injury by any Person, or of any lack of merit of any of the claims asserted in the Futures Action, and (iii) shall not be discoverable or used directly or

indirectly, in any way, whether in the Futures Action or in any other action or proceeding of any nature, whether by the Futures Class or Opt Outs, except if warranted by existing law in connection with a dispute under this Settlement Agreement or an action in which this Settlement Agreement is asserted as a defense.

- 22. If the Settlement is approved by the Court following the Fairness Hearing, a Final Judgment will be entered as described in the Settlement Agreement.
- 23. If the Settlement, including any amendment made in accordance with the Settlement Agreement, is not approved by the Court or shall not become effective for any reason, the Settlement (including any modification thereof made with the consent of the Parties as provided for in the Settlement Agreement), and preliminary certifications herein and any actions taken or to be taken in connection therewith (including any papers filed in connection with the Settlement Agreement, this Order, and any judgment entered herein) shall be terminated and shall become void and of no further force and effect, and shall not be deemed an admission or concession, or received as evidence in this or any other action or proceeding, except as expressly provided to the contrary in the Settlement Agreement, and without prejudice to the *status quo* ante rights of the Parties.
- 24. The Court may, for good cause, extend any of the deadlines set forth in this Order without notice to members of the Futures Class, except that the Exclusion Bar Date may only be extended in the event that notice to the Futures Class is materially delayed, and then only to the same extent needed to provide the Futures Class with the contemplated amount of time to request exclusion from the Settlement.
- 25. In the event that the Settlement Agreement is terminated in accordance with its provisions, the Settlement Agreement and all proceedings had in connection therewith shall be

null and void, except as expressly provided to the contrary in the Settlement Agreement, and without prejudice to the *status quo ante* rights of the Parties.

26. If the Settlement Agreement is terminated or is ultimately not approved, the Court will modify any existing scheduling order to ensure that the Parties will have sufficient time to prepare for the resumption of litigation.

27. If any deadline imposed herein falls on a non-business day, then the deadline is extended until the next business day.

IT IS SO ORDERED.

	Signed this	_ day of	, 2013, at t	he Courthous	se for the	United Sta	ates Distric	t
Court	for the Southern	District of New	York.					
				The Honora	ıble Willi	am H. Pau	ley, III	
				United State	es Distric	t Court Jud	dge	

Exhibit E

UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

In Re: Platinum And Palladium Commodities

Litigation

MASTER FILE No. 10 Civ. 3617 (WHP)

This Document Relates To:

Platinum/Palladium Futures Action

FINAL ORDER AND JUDGMENT

This matter came for a duly-noticed fairness hearing on ________, 2013 (the "Fairness Hearing"), upon the Futures Plaintiffs' Motion for Final Approval of Settlement with Defendants Moore Capital Management, LP; Moore Capital Management, LLC; Moore Capital Advisors, LtC; Moore Advisors, Ltd.; Moore Macro Fund, LP; Moore Global Fixed Income Master Fund, LP; Christopher Pia; Louis Bacon; Eugene Burger; and Joseph Welsh ("Settling Defendants") in the above-captioned action (the "Futures Action"), which was joined and consented to by the Settling Defendants. Due and adequate notice of the Stipulation and Agreement of Settlement dated August 20, 2013 (the "Settlement Agreement"), including Section 3(b) thereof relating to the limitations of the enforceability of this Final Order and Judgment against Defendant Welsh, having been given to the members of the Futures Class, the Fairness Hearing having been held and the Court having considered all papers filed and proceedings had herein and otherwise being fully informed in the premises and good cause appearing therefor, and a determination having been made expressly pursuant to Rule 54(b) of the Federal Rules of Civil Procedure that there is no justification for delay,

IT IS HEREBY ORDERED, ADJUDGED AND DECREED:

- 1. This Final Order and Judgment hereby incorporates by reference the definitions in the Settlement Agreement and all terms used herein shall have the same meanings as set forth in the Settlement Agreement, including the limitations in Section 3(b) of the Settlement Agreement and paragraph 15 of this Final Order and Judgment with respect to Defendant Welsh.
- 2. The Court hereby finally certifies the Futures Class, as defined in the Court's _______, 2013 Order Preliminarily Approving Proposed Settlement, Scheduling Hearing for Final Approval thereof, and Approving the Proposed Form and Program of Notice to the Class. Based on the record, the Court reconfirms that the applicable provisions of Rule 23 of the Federal Rules of Civil Procedure have been satisfied.
- 3. This Court has jurisdiction over the subject matter of the Futures Action and over all Parties to the Futures Action.
- 4. The Court finds that due process and adequate notice have been provided pursuant to Rule 23 of the Federal Rules of Civil Procedure to all members of the Futures Class, notifying the Futures Class of, among other things, the pendency of the Futures Action and the proposed Settlement.
- 5. The notice provided was the best notice practicable under the circumstances and included individual notice to those members of the Futures Class who were able to be identified through reasonable efforts. The Court finds that notice was also given by publication in three publications and through a settlement website, as set forth in the Declaration of dated ______, 2013, and previously submitted. Such notice fully complied in all respects with the requirements of Rule 23 of the Federal Rules of Civil Procedure, due process of law, and other applicable law. Based upon the Settling Defendants' submission to the Court dated ______, 2013, the Court further finds that the Settling Defendants have complied

with the obligations imposed on them under the Class Action Fairness Act of 2005, Pub. L. 109-2, Feb. 18, 2005, 119 Stat. 4.

- 6. Pursuant to and in compliance with Rule 23 of the Federal Rules of Civil
 Procedure, the Court hereby finds that due and adequate notice of these proceedings was directed
 to all Futures Class members of their right to object to the Settlement, the Plan of Allocation,
 Futures Lead Counsel's application for attorneys' fees and reimbursement of expenses associated
 with the Futures Action, and the limitations on this Final Order and Judgment with respect to
 Defendant Welsh. A full and fair opportunity was accorded to all members of the Futures Class
 to be heard with respect to the foregoing matters.
- 7. The Court finds that the members of the Futures Class identified on the schedule attached hereto as Exhibit A, and no others, have validly requested to be excluded from the Futures Class. Accordingly the Persons listed on Exhibit A are not included in the Futures Class nor bound by this Final Order and Judgment.
- 8. It is hereby determined that all members of the Futures Class whose names are not on Exhibit A hereto are bound by this Final Order and Judgment.
- 9. Pursuant to Rule 23 of the Federal Rules of Civil Procedure, this Court hereby approves the Settlement, as set forth in the Settlement Agreement, and finds that the Settlement is, in all respects, fair, reasonable and adequate, and in the best interests of the Futures Class, including the Futures Plaintiffs. This Court further finds that the Settlement set forth in the Settlement Agreement is the result of arm's length negotiations between experienced counsel representing the interests of the Parties. Accordingly, the Settlement embodied in the Settlement Agreement is hereby approved in all respects. The Parties are hereby directed to carry out the

Settlement Agreement in accordance with all of its terms and provisions, including the termination provisions.

- Judgment, if the Settlement Agreement is validly terminated by Settling Defendants, then, by automatic operation of this paragraph, this Final Order and Judgment shall be null and void except for the provisions in this paragraph; the Futures Plaintiffs' claims shall be reinstated; Settling Defendants' defenses shall be reinstated; and the Parties shall be returned to their respective positions before the Settlement Agreement was signed. Any termination of the Settlement Agreement shall be dependent upon the realization of the condition subsequent that Futures Plaintiffs' claims shall not be dismissed or if they have been dismissed that the Futures Plaintiffs' claims are reinstated such that the Parties are returned to their respective positions before the Settlement Agreement was signed. If the Futures Plaintiffs' claims are dismissed and not reinstated, then Settling Defendants termination of the Settlement Agreement shall be null and void.
- 11. The Settlement Fund has been established as a trust and as a Settlement Fiduciary Account. The Court further approves the establishment of the Settlement Fiduciary Account under the Settlement Agreement as a qualified settlement fund pursuant to Internal Revenue Code Section 4688 and the Treasury Regulations promulgated thereunder.
- 12. The Court reserves exclusive jurisdiction over the implementation and enforcement of the Settlement Agreement and the Settlement contemplated thereby and the enforcement of this Final Order and Judgment. The Court also retains exclusive jurisdiction to resolve any disputes that may arise with respect to the Settlement Agreement, the Settlement, or the Settlement Fund, to consider or approve administration costs and fees, and to consider or

approve the amounts of distributions to members of the Futures Class. In addition, without affecting the finality of this judgment, the Parties and the Futures Class hereby irrevocably submit to the exclusive jurisdiction of the United States District Court for the Southern District of New York for any suit, action, proceeding or dispute arising out of or relating to this Final Order and Judgment or the Settlement Agreement. Notwithstanding any other provision in this Final Order and Judgment, if, for any reason, the enforcement of paragraph 15 of this Final Order and Judgment and obtaining complete relief thereunder against the insurers of Defendant Welsh may not be accomplished in this Court, then the Futures Plaintiffs and the Futures Class may bring suit against such insurer(s) in another jurisdiction.

13. The Court hereby approves the Releasing Parties' releases of claims as set forth in Section 6 of the Settlement Agreement, Specifically: effective upon the Effective Date each and every Futures Class member, all of their past, present or future parents, subsidiaries, divisions, affiliates, shareholders, general or limited partners, attorneys, spouses, insurers, beneficiaries, employees, officers, directors, legal and equitable owners, members, predecessors in interest, successors in interest, legal representatives, trustees, associates, heirs, executors, administrators and/or assigns and each and any of their respective shareholders, parents, subsidiaries, divisions, affiliates, shareholders, general or limited partners, assigns, attorneys, insurers, beneficiaries, employees, officers, directors, legal and equitable owners, members, predecessors in interest, successors in interest, legal representatives, trustees, associates, heirs, executors, administrators and/or assigns (together the "Releasing Parties"), releases and forever discharges, to the fullest extent permitted by law, the Released Parties from and against any and all present, past, or future claims, demands, debts, damages, losses, offsets, obligations, warranties, costs, fees, penalties, expenses, whenever incurred, rights of action, suits, and causes of action of every kind and

nature whatsoever, whether based on contract, tort, federal, state or foreign law, statutory, or other legal or equitable theory of recovery, liabilities of any nature and kind whatsoever, whether known or unknown, suspected or unsuspected, existing, or claimed to exist, and whether arising in the past or future, in law or in equity, that each and every Futures Class member ever had, now has, or hereafter can, shall or may have, directly, representatively, derivatively or in any other capacity, in any way arising from or related to, in full or in part, any transactions in Class Contracts, whether or not asserted in the Futures Action, or from any losses incurred, in whole or in part, as a result of such transactions. Notwithstanding any other provision of this Settlement (a) the foregoing release shall not include any claims which a Futures Class member may have in its capacity as a member of any class that may be certified with respect to the claims asserted in the Complaint in the Physical Action, and (b) as to Defendant Welsh, the foregoing release shall not include, shall not apply to, shall have no effect whatsoever on, and shall not release in any way, the negligence and the negligent conduct or omissions as alleged, and relief that may be obtained on, the Futures Plaintiffs' fifth claim in the Complaint. Welsh is released as to the nonnegligence claims (including the Futures Plaintiffs' claims in the Complaint for violations of the Commodity Exchange Act and the Sherman Act) as previously set forth above in this Section 6(a). In addition, each Releasing Party hereby expressly waives and releases any and all provisions, rights, and benefits conferred by § 1542 of the California Civil Code, which reads:

Section 1542. General release extent. A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her must have materially affected his or her settlement with the debtor[.]

From the Effective Date each Releasing Party also expressly waives and releases any and all provisions, rights, and benefits conferred by any law of any state or territory of the United States

or other jurisdiction, or principle of common law, which is similar, comparable or equivalent to § 1542 of the California Civil Code. Each Releasing Party may hereafter discover facts other than or different from those which he, she or it knows or believes to be true with respect to the claims which are the subject matter of this Section 6 but each Releasing Party, through this Settlement Agreement, and with the ability to seek independent advice of counsel, expressly waives and fully, finally and forever settles and releases, as of the Effective Date any known or unknown, suspected or unsuspected, contingent or non-contingent claim that would otherwise fall within the definition of Released Claims, whether or not concealed or hidden, without regard to the subsequent discovery or existence of such different or additional facts. From the Effective Date, the releases herein given by the Releasing Parties shall be and remain in effect as full and complete releases of the claims set forth in the Futures Action, notwithstanding the later discovery or existence of any such additional or different facts relative hereto or the later discovery of any such additional or different claims that would fall within the scope of the release provided in Section 6(a) of this Settlement Agreement, as if such facts or claims had been known at the time of this release. Notwithstanding any of the provisions of the Final Judgment or any provisions of this Settlement Agreement or otherwise, the Futures Plaintiffs and the Futures Class do not release or dismiss and shall not release or dismiss Defendant Welsh from the Futures Plaintiffs' fifth claim in the Complaint for negligence against Defendant Welsh.

14. Each Futures Class member must execute a release and covenant not to sue in conformity with Section 6 of the Settlement Agreement in order to receive his/her/its pro rata share of the Net Settlement Fund. The Settlement Administrator shall ensure that each claim form provided to Futures Class members contains a copy of the release and covenant not to sue set forth in Section 6 of the Settlement Agreement, which must be signed by the member of the

Futures Class or its authorized representative as a precondition to receiving any portion of the Net Settlement Fund. Each Futures Class member's claims shall be released pursuant to Section 6 of the Settlement Agreement, regardless of whether he/she/it executes a release and covenant not to sue pursuant to this paragraph 14.

- 15. It is hereby adjudged, decreed and ordered that the Futures Plaintiffs and the Futures Class have a judgment against Defendant Welsh in the amount of thirty-five million dollars (\$35,000,000.00) on and solely on the Fifth Claim (Common Law Negligence) of the Fifth Consolidated Amended Class Action Complaint, Docket No. 133.¹
- 16. The Court hereby approves the Released Parties' releases of claims set forth in Section 6(d) of the Settlement Agreement.
- 17. The Settlement Agreement, including but not limited to its exhibits, and any and all negotiations, documents and discussions associated with it, is not and shall not be deemed or construed to be an admission, adjudication or evidence of any violation of any statute or law or of any liability or wrongdoing by the Settling Defendants or any Released Party, or of the truth

¹ The Futures Plaintiffs, the Futures Class and Futures Lead Counsel have agreed (a) that they will refrain from enforcing this judgment against Defendant Welsh's personal assets except those listed in the following sub-paragraph (b), and (b) that, in view of Defendant Welsh's inability to pay, the Futures Plaintiffs, the Futures Class and Futures Lead Counsel will enforce this judgment only against Defendant Welsh's personal assets consisting of the entirety of Defendant Welsh's claims, causes of action, rights, title, interest in, and any other entitlement to any benefits, of any nature whatsoever from, under, or by any reason of, or against the Relevant Insurers, including in respect of any insurance policy (specifically including a certain Directors & Officers insurance policy (No. 14-MGU-11-A23947) with effective dates of May 31, 2011 through May 31, 2012 (the "Policy")) issued by U.S. Specialty Insurance Company ("U.S. Specialty") and/or other companies and all related excess policies including, but not limited to, any excess policy underwritten by: XL Specialty; Axis Insurance Co., Ace American Insurance Co., Illinois National, Federal, Ace Westchester Specialty, New Hampshire Insurance, Ironshore Indemnity, Inc., Hartford Accident & Indemnity, St. Paul Mercy, Ironshore/Starr, AWAC, Axis Specialty Ltd., Catlin Ins. Co., Continental Casualty, Federal, Everest National Scottsdale Indemnity, New Hampshire Insurance, U.S. Specialty (together the "Relevant Insurers").

of any of the claims or allegations alleged in the Futures Action or the incurrence of any damage, loss or injury by any Person. In the event that the Settlement does not become final or is terminated in accordance with the terms of the Settlement, then the Settlement Agreement, including its exhibits, and any and all negotiations, documents and discussions associated with it and the releases set forth therein, shall be without prejudice to the rights of any Party and shall be of no force or effect and shall not be offered or received in evidence in any proceeding. Further, the Settlement Agreement is not and shall not be deemed or construed to be an admission, adjudication or evidence of any lack of merit of any of the claims asserted in the Futures Action. The Settlement Agreement, including its exhibits, and any and all negotiations, documents and discussions associated with it, (a) shall not be deemed or construed to be an admission or evidence of any violation of any statute or law or of any liability or wrongdoing by Settling Defendants or any Released Party, or of the truth of any of the claims or allegations, or the incurrence of any damage, loss or injury by any Person, or of any lack of merit of any of the claims asserted in the Futures Action, and (b) shall not be discoverable or used directly or indirectly, in any way, whether in the Futures Action or in any other action or proceeding of any nature, whether by the Futures Class or Opt Outs (or any plaintiff alleging the same or similar facts and claims or any action brought by a regulator), except if warranted by existing law in connection with a dispute under this Settlement Agreement or an action in which this Settlement Agreement is asserted as a defense. Notwithstanding any other provision in this Settlement Agreement, nothing herein shall be construed to modify the judgment on the common law negligence claim into anything other than a liability judgment and the provision in Section 3(b)(vii) of the Settlement whereby Welsh denies liability shall not apply to the extent of Welsh's personal assets that have been assigned to Futures Plaintiffs in Section 3(b)(ii), and the

Futures Plaintiffs have the full enforcement rights on such liability judgment provided in footnote one (fn. 1) of paragraph 15 of this Final Judgment. Settling Defendants and Futures Plaintiffs expressly reserve all of their rights if the Settlement does not become final in accordance with the terms of this Settlement Agreement.

- 18. (a) Claims for contribution or indemnification (however denominated) to recover all or a portion of any amounts a Released Party, Non-Settling Defendant or Relevant Insurer has paid or may in the future pay to or for the benefit of the Futures Class by way of settlement or judgment or otherwise in any action respecting this Final Judgment, the Futures Action or any other action or proceeding asserting similar claims (i) by any Non-Settling Defendant, their insurers, and/or anyone claiming to be subrogated to such Non-Settling Defendant's rights against any of the Released Parties; (ii) by any of the Released Parties against any of the Non-Settling Defendants; (iii) by any of the Moore Defendants against Welsh, and (iv) by Welsh, the Relevant Insurers, and/or anyone claiming to be subrogated to Welsh's rights, against any of the Moore Defendants, are hereby barred and enjoined.
- (b) In the event that a judgment is obtained against one or more of the Non-Settling Defendants by any or all members of the Futures Class, such a judgment shall be reduced by the greater of (i) the total amount of the Settlement Fund that Futures Plaintiffs have recovered at the time of that judgment or (ii) the proportionate share of the liability of the Settling Defendants at the time a damages judgment is entered. Nothing herein shall preclude (i) the Futures Plaintiffs from asserting that any damages against which an offset must be credited must be determined in accordance with applicable law, or (ii) the Non-Settling Defendants from asserting that the judgment against which the credit shall be applied must reflect actual damages demonstrated by

each of the members of the Futures Class, and all such arguments are fully preserved by and in favor of the Futures Plaintiffs and Non-Settling Defendants.

- 19. The Court finds that, during the course of the Futures Action, the Parties and their respective counsel at all times complied with the requirements of Rule 11 of the Federal Rules of Civil Procedure.
- 20. All documents, materials, and information produced during the discovery process in the Futures Action, either before, during or after the date of this Settlement Agreement, may be used by the Futures Plaintiffs, Futures Class and Futures Lead Counsel solely in pursuit of their claims in the Futures Action against MF Global, Inc. or other Non-Settling Defendants and may also be used by the Futures Plaintiffs, the Futures Class and Futures Lead Counsel in pursuit of their claims against the Relevant Insurers. Such use shall be governed by all confidentiality and/or protective orders in force as of the date of this Settlement Agreement and by such additional confidentiality and/or protective orders as may be in effect on the date the discovery takes place.
- 21. Any data or other information provided by Futures Class members in connection with the submission of claims will be held in strict confidence, available only to the Settlement Administrator, Futures Lead Counsel, experts or consultants acting on behalf of the Futures Class, Settling Defendants' counsel, Settling Defendants, and experts or consultants acting on behalf of Settling Defendants. In no event will a Futures Class member's data or information be made publicly available, except as provided for herein or upon Court Order for good cause shown.
 - 22. The proposed Plan of Allocation is approved as fair, reasonable and adequate.

23. Except for the negligence claim against Defendant Welsh only, all claims in the			
Futures Action as to the Settling Defendants are hereby dismissed with prejudice and without			
costs.			
24. Futures Lead Counsel shall file, no later than [approximately fourteen			
months from the Effective Date of this Final Order], a report on progress in the distribution to			
members of the Futures Class of the Net Settlement Fund. Prior order of the Court shall be			
required before any such distribution.			
25. The Court has reviewed Futures Lead Counsel's petition for an award of			
attorneys' fees and reimbursement of expenses. The Court determines that an attorneys' fee of			
% of the Settlement Fund is fair, reasonable, and adequate and that Class Counsel should be			
paid \$ as reimbursement for their expenses.			
26. If any deadline imposed herein falls on a non-business day, then the deadline is			
extended until the next business day.			

27.

Signed this ____ day of ______, 2013, at the Courthouse for the United States District Court for the Southern District of New York.

which is both final and appealable, and immediate entry by the Clerk of the Court is expressly

directed pursuant to Rule 54(b) of the Federal Rules of Civil Procedure.

There is no just reason for delay in the entry of this Final Order and Judgment,

The Honorable William H. Pauley, III United States District Court Judge

Exhibit F

UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

In Re: Platinum And Palladium Commodities

Litigation

MASTER FILE No. 10 Civ. 3617 (WHP)

This Document Relates To:

Platinum/Palladium Futures Action

[PROPOSED] PLAN OF ALLOCATION

(a) Except for the terms defined herein, this Plan of Allocation adopts and incorporates the definitions in the Stipulation and Agreement of Settlement, dated August 20, 2013, to which this Plan of Allocation is attached as an exhibit.

(b) As used in this Plan, "NAP" refers to net artificiality paid as defined below. "NL" means net losses. "NAP Transactions" means any purchase and/or sale transactions in Class Contracts executed between 1:00 pm Eastern Time¹ on November 1, 2007 for palladium futures contracts, and 1:05 pm on November 19, 2007 for platinum futures contracts, and any time on June 18, 2008, inclusive, as well as any offsetting purchase and/or sale transactions to such transactions. Examples: If an opening sale (or purchase) transaction was made in January 2007 and the closing purchase (or sale) transaction occurred on November 30, 2007, then both the sale and the purchase would be NAP Transactions. If an opening purchase (or sale) transaction occurred on May 6, 2008 and the closing sale (or purchase) transaction occurred on October 4, 2008, then both transactions would be NAP Transactions. Thus, all purchases (or sales) performed on a day where alleged inflation was not zero (as provided in Exhibit A and Exhibit B) will be credited (or debited) a dollar amount of inflation on each of these NAP

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¹ All times set forth herein are Eastern Time.

transactions in respect to their volume irrespective of when the accompanying offset transaction occurred, if any.

- (c) "NL Transactions" means round trip transactions in Class Contracts in which both legs of the transaction were executed outside of the period between 1:00 pm on November 1, 2007 for palladium futures contracts or 1:05 pm on November 19, 2007 for platinum futures contracts, and any time on June 18, 2008, inclusive, but one leg of which (either the purchase or the sale) was executed within the Class Period.
- 2. Ninety percent (90%) of the Net Settlement Fund will be paid and allocated according to Claiming Futures Class Member's NAP Transactions. The NAP for these transactions is described in ¶5 9 below and in the attached Platinum and Palladium artificiality tables (see Exhibits A and B hereto). In order to be entitled to NAP, the Claiming Futures Class Member must adequately support his, her or its claim as determined by the Settlement Administrator subject to the Class member's rights to object.
- 3. Ten percent (10%) of the Net Settlement Fund will be distributed to Claiming Futures Class Members' NL Transactions as explained in $\P10-14(a)-(d)$ below. The NL for these transactions is described in $\P10-14$ below. Each Claiming Futures Class Member must adequately support its NL as determined by the Settlement Administrator subject to the Class member's right to object.
- 4. Each Claiming Futures Class Member shall be entitled to receive the sum of their payment, if any, described in ¶9 and their payment, if any, described in ¶14(c)-(d). See paragraph ¶15 below. Net gains on the NL Transactions will **not** be netted against nor subtracted from the NAP Transactions. Negative NAP on the NAP Transactions will **not** be netted against

or subtracted from the NL on NL Transactions for purposes of calculating the Moore Defendants' reversion. But see ¶14(c)(iv) below.

- 5. NAP as used herein and in the Stipulation and Agreement of Settlement shall be the amount by which a Futures Class Member's Total Artificiality Paid exceeds their Total Artificiality Received, plus ten percent (10%) and less any applicable Hedging Reduction or Swaps-Dealer Reduction as defined below. Example: If a Futures Class member's Total Artificiality Paid is \$1,500 and Total Artificiality Received is \$1,000, then the NAP shall be \$550.00, which is \$1,500 minus \$1,000 equals \$500.00 plus 10% of \$500 equals \$550.00. However, to the extent that a Claiming Futures Class Member's trading was hedging (as defined in the Proof of Claim), the NAP shall be subject to a 50% reduction (the "Hedging Reduction"). Example: If the Claiming Futures Class Member's Total Artificiality Paid minus Total Artificiality Received is \$100, then the NAP is \$110.00 and if such Class member was a hedger throughout the Class Period, then the NAP shall be \$55.00. The Settlement Administrator shall also require Futures Class Members to identify whether they are swaps-dealers. The NAP of a Claiming Futures Class Member whose trading was undertaken as a swaps-dealer (as defined in the Proof of Claim) shall be subject to a reduction of 91%, rather than 50% (the "Swaps-Dealer Reduction").
- 6. The Total Artificiality Paid shall be determined by multiplying the number of Class Contracts purchased by the Claiming Futures Class Member on NAP Transactions by the amount of alleged artificiality, if any, as provided in Exhibit A and Exhibit B for such Class Contracts at the time of each such purchase for such Class Contract.
- 7. The Total Artificiality Received shall be determined by multiplying the number of Class Contracts sold by the Claiming Futures Class Member on NAP Transactions by the amount

of alleged artificiality, if any, as provided in Exhibit A and Exhibit B for such Class Contracts for each such Class Contract at the time of such sale.

- 8. If the Claiming Futures Class Member's Total Artificiality Paid exceeds their Total Artificiality Received, then the Claiming Futures Class Member will have NAP and will be entitled to participate on a pro rata basis in the 90% of the Net Settlement Fund being paid in respect of NAP.
- 9. (a) Specifically, Claiming Futures Class Members with NAP will be entitled to receive a pro rata share of 90% of the Net Settlement Fund. This share shall be calculated for each Claiming Futures Class Member by multiplying 90% of the Net Settlement Fund by a fraction the numerator of which is the Claiming Futures Class Member's NAP and the denominator of which is the sum total NAP of all Claiming Futures Class Members who have positive NAP.
- (b) No Claiming Futures Class Member will be entitled to payment under this ¶9 of more than 100% of their NAP except to the extent provided for in sub-paragraph (c) below.
- (c) If 90% of the Net Settlement Fund exceeds 100% of the sum total NAP of all Claiming Futures Class Members with positive NAP, then one-half (*i.e.*, 50%) of any such excess shall revert back to the Moore Defendants as set forth in Section 12 of the Stipulation and Agreement of Settlement. The remaining 50% of any such excess will be shared pro rata among those Claiming Futures Class Members with positive NAP. The remaining 50% would be paid to Claiming Futures Class members with NAP in the same proportion *inter se* as the NAP is paid to Claiming Futures Class members. Example: If 90% of the Net Settlement Fund is \$100,000 more than the total NAP (including the 10% enhancement for interest) then the Moore Defendants would be entitled to a reversion of \$50,000, *i.e.*, one-half of the \$100,000 excess.

The other \$50,000 would be paid to Claiming Futures Class members with NAP in the same proportion *inter se* as the NAP is paid to Claiming Futures Class members.

- Settlement and this Plan of Allocation, NL shall be the amount by which a Futures Class Member's Total Losses (see ¶11 below) on their NL Transactions exceed their Total Gains (see ¶12 below) on their NL Transactions, plus ten percent (10%) and less any applicable Hedging Reduction or Swaps-Dealer Reduction. Example: If the Total Losses are \$1,500 and Total Gains are \$1,000 on TL Transactions for a Claiming Futures Class Member, then NL shall be \$550.00 which (\$1,500 minus \$1,000) plus ten percent. However, to the extent that the Claiming Futures Class Members' trading was hedging, this amount shall be subject to a 50% reduction. Example: If the Claiming Futures Class Member's Total Losses minus Total Gains results in a figure of \$10, and such Class member's trading was hedging throughout the Class Period, then the NL shall be \$5.50. The Settlement Administrator shall also require Futures Class Members to identify whether they are swaps-dealers. The NL of a Claiming Futures Class Member whose trading was undertaken as a swaps-dealer, shall be subject to a reduction of 91%.
- 11. The Total Losses shall be determined by adding together the sum total of each Claiming Futures Class Member's losses on NL Transactions.
- 12. The Total Gains shall be determined by adding together the sum total of each Claiming Futures Class Member's gains on NL Transactions.
- 13. If the Claiming Futures Class Member's Total Losses exceed their Total Gains, then the Claiming Futures Class Member will have positive NL and will be entitled to participate as described in ¶14 below.

- 14. (a) Specifically, 10% of the Net Settlement Fund will be distributed to Claiming Futures Class Members who have positive NL as described in subparagraphs (c) (d) below.
- (b) If 10% of the Net Settlement Fund exceeds 100% of the sum total NL of all Claiming Futures Class Members with positive NL, then any such excess shall revert back to the Moore Defendants as set forth in Section 12 of the Stipulation and Agreement of Settlement.

 Example: If 10% of the Net Settlement Fund is \$10,000 more than the total NL (including the 10% enhancement for interest) then the Moore Defendants would be entitled to a reversion of \$10,000. For purposes of calculating reversion, if any, the sum total NL of all Claiming Futures Class Members shall be determined prior to, and without applying, the pooling described in subsections (c)(i)-(iv) below.
- (c) Solely for purposes of the distribution *inter se* among Claiming Futures Class Members with NL will be as set forth in (i)-(iv) below. Any inability by any Class member to supply data to complete the following calculations shall be a matter among Class members *inter se*, and shall not add to or subtract from any effect that such failure might otherwise have on certain Defendants' right to a reversion under the other parts of this Plan of Allocation.
- i. <u>First Pool</u>. Three percent (3%) of the Net Settlement Fund will be paid out pro rata based on each Claiming Futures Class Member's total NL. <u>Example</u>: If a Claiming Futures Class Member's NL constitutes 1% of the total NL of all Claiming Futures Class Members who have positive NL, then that Claiming Futures Class Member will receive 1% of the payment from this First Pool.
 - ii. **Second Pool**. Seven percent (7%) of the Net Settlement Fund (or, if there

is a reversion to the Moore Defendants for NL, then less than 7%) will be paid out pursuant to a method of distribution that will be proposed by Futures Class Counsel after (a) all the proofs of claim have been analyzed, (b) the Net Artificiality Paid and Net Losses have been determined, (c) any reversion to the Moore Defendants has been fixed, and (d) the profile of Claiming Futures Class Members' results from such prospective method of distribution is known or substantially known to Futures Class Counsel. (Also, by such time, more will likely be known about the potential degree of collection (if any) on the Welsh Consideration.)

- iii. Notice of this proposed method of distribution of the 7% (or, if there is a reversion to the Moore Defendants for NL, then less than 7%) of the Net Settlement Fund will be provided to Claiming Futures Class Members who will have a right to object such method. Such proposed method will be subject to approval by the Court.
- iv. Such proposed method of distribution will take reasonable, fair account of Futures Class Counsel's assessment of the strengths and weaknesses of Claiming Futures Class Members' potential equitable and legal entitlements. In this regard, it is anticipated that losses and gains incurred after September 17, 2008 will be discounted, significant net artificiality received by Claiming Futures Class Members will be deducted, and/or payouts in respect of pre-September 17, 2008 transactions may be enhanced in varying amounts. This will be proposed in the manner that, in Futures Class Counsel's judgment, is most fair and reasonable in light of all the circumstances including the resulting amounts of distribution to Claiming Futures Class Members.
- (d) For purposes of the distribution *inter se* among Claiming Futures Class Members, each Claiming Futures Class Member shall be entitled to receive the sum of their payments due,

if any, under the First Pool and Second Pool above. The enhancements in 14(c)(iv) shall have no effect on the Moore Defendants' potential reversion

- 15. Each Claiming Futures Class Member will be entitled to a total payment from the Net Settlement Fund equal to their NAP plus their sum total NL under ¶14(d). Again, negative NAP is not netted against NL and net gains in the NL are not netted against NAP.
- 16. All determinations under this Plan of Allocation shall be made by the Settlement Administrator subject to review by Futures Lead Counsel and the Court.
- 17. This Plan shall be subject to change by the Court without further notice to Class members.

Exhibit A

PLATINUM

For transactions between 1:05 p.m. for platinum futures contracts on November 19, 2007, and anytime on June 18, 2008, inclusive, the amount of positive artificiality for each futures contract is set forth below. For each day after November 19, 2007, the amount of artificiality shall be the amount reflected for the prior day UNTIL 1:05 p.m. for platinum. For transactions occurring after 1:05 p.m. for platinum the artificiality shall be the amount of artificiality listed for that day.

As a practical matter, a substantial portion of the trading volume in NYMEX platinum futures contracts is limited to the quarterly contract months of January, April, July and October. However, intermediate contracts (*i.e.*, contracts expiring between the foregoing four quarterly contracts) do occasionally trade.

The artificiality for further out contracts (*i.e.*, contracts trading beyond the third month contract in the quarterly cycle) shall be the same as the artificiality for the third month quarterly contract. The artificiality for intermediate contracts shall be based on a time-weighted average of the two bounding quarterly contracts. Example: The January NYMEX platinum futures contract is the first month quarterly contract and has artificiality of \$200. The April NYMEX platinum futures contract is the second month quarterly contract and has artificiality of \$170. The February NYMEX platinum futures contract is an intermediate contract. In the foregoing example, the artificiality of the intermediate February contract would be \$190 (*i.e.*, 2/3 of the artificiality of the first month January quarterly contract PLUS 1/3 of the artificiality of the second month April quarterly contract).

Platinum Daily Artificiality Estimates

(\$ per troy ounce)

Date	Front Month	Artificiality	Second Month	Artificiality	Third Month	Artificiality
19-Nov-07	Jan-08	\$1.9299	Apr-08	\$1.7673	Jul-08	\$1.1725
20-Nov-07	Jan-08	\$2.8948	Apr-08	\$2.6509	Jul-08	\$1.7587
21-Nov-07	Jan-08	\$4.8247	Apr-08	\$4.4182	Jul-08	\$2.9312
23-Nov-07	Jan-08	\$4.8247	Apr-08	\$4.4182	Jul-08	\$2.9312
26-Nov-07	Jan-08	\$4.8247	Apr-08	\$4.4182	Jul-08	\$2.9312
27-Nov-07	Jan-08	\$5.7897	Apr-08	\$5.3018	Jul-08	\$3.5174
28-Nov-07	Jan-08	\$7.7196	Apr-08	\$7.0690	Jul-08	\$4.6899
29-Nov-07	Jan-08	\$7.7196	Apr-08	\$7.0690	Jul-08	\$4.6899
30-Nov-07	Jan-08	\$9.6495	Apr-08	\$8.8363	Jul-08	\$5.8623
3-Dec-07	Jan-08	\$10.6144	Apr-08	\$9.7199	Jul-08	\$6.4486
4-Dec-07	Jan-08	\$12.5443	Apr-08	\$11.4872	Jul-08	\$7.6210
5-Dec-07	Jan-08	\$14.4742	Apr-08	\$13.2545	Jul-08	\$8.7935
6-Dec-07	Jan-08	\$16.4041	Apr-08	\$15.0217	Jul-08	\$9.9660
7-Dec-07	Jan-08	\$18.3340	Apr-08	\$16.7890	Jul-08	\$11.1384
10-Dec-07	Jan-08	\$20.2639	Apr-08	\$18.5563	Jul-08	\$12.3109
11-Dec-07	Jan-08	\$20.2639	Apr-08	\$18.5563	Jul-08	\$12.3109
12-Dec-07	Jan-08	\$24.1237	Apr-08	\$22.0908	Jul-08	\$14.6558
13-Dec-07	Jan-08	\$24.1237	Apr-08	\$22.0908	Jul-08	\$14.6558
14-Dec-07	Jan-08	\$27.0185	Apr-08	\$24.7417	Jul-08	\$16.4145
17-Dec-07	Jan-08	\$28.9484	Apr-08	\$26.5089	Jul-08	\$17.5870
18-Dec-07	Jan-08	\$30.8783	Apr-08	\$28.2762	Jul-08	\$18.7595
19-Dec-07	Jan-08	\$30.8783	Apr-08	\$28.2762	Jul-08	\$18.7595
20-Dec-07	Jan-08	\$30.8783	Apr-08	\$28.2762	Jul-08	\$18.7595
21-Dec-07	Jan-08	\$34.7381	Apr-08	\$31.8107	Jul-08	\$21.1044
24-Dec-07	Jan-08	\$34.7381	Apr-08	\$31.8107	Jul-08	\$21.1044
26-Dec-07	Jan-08	\$36.6680	Apr-08	\$33.5780	Jul-08	\$22.2769
27-Dec-07	Jan-08	\$38.5979	Apr-08	\$35.3452	Jul-08	\$23.4493
28-Dec-07	Jan-08	\$40.5278	Apr-08	\$37.1125	Jul-08	\$24.6218
31-Dec-07	Jan-08	\$44.3876	Apr-08	\$40.6470	Jul-08	\$26.9667
2-Jan-08	Jan-08	\$46.3175	Apr-08	\$42.4143	Jul-08	\$28.1392
3-Jan-08	Jan-08	\$50.1773	Apr-08	\$45.9488	Jul-08	\$30.4841
4-Jan-08	Jan-08	\$52.1072	Apr-08	\$47.7161	Jul-08	\$31.6566
7-Jan-08	Jan-08	\$54.0371	Apr-08	\$49.4833	Jul-08	\$32.8291
8-Jan-08	Jan-08	\$55.9670	Apr-08	\$51.2506	Jul-08	\$34.0015
9-Jan-08	Jan-08	\$57.8969	Apr-08	\$53.0179	Jul-08	\$35.1740
10-Jan-08	Jan-08	\$59.8268	Apr-08	\$54.7851	Jul-08	\$36.3465

11 Ion 00	Ion 00	¢61 7567	1 nr 00	\$56.5504	Iu1 00	¢27 5100
11-Jan-08	Jan-08	\$61.7567	Apr-08	\$56.5524	Jul-08	\$37.5189
14-Jan-08	Jan-08	\$65.6165	Apr-08	\$60.0869	Jul-08	\$39.8639
15-Jan-08	Jan-08	\$67.5464	Apr-08	\$61.8542	Jul-08	\$41.0363
16-Jan-08	Jan-08	\$67.5464	Apr-08	\$61.8542	Jul-08	\$41.0363
17-Jan-08	Jan-08	\$71.4062	Apr-08	\$65.3887	Jul-08	\$43.3813
18-Jan-08	Jan-08	\$75.2659	Apr-08	\$68.9232	Jul-08	\$45.7262
22-Jan-08	Jan-08	\$79.1257	Apr-08	\$72.4578	Jul-08	\$48.0711
23-Jan-08	Jan-08	\$82.9855	Apr-08	\$75.9923	Jul-08	\$50.4161
24-Jan-08	Jan-08	\$86.8453	Apr-08	\$79.5268	Jul-08	\$52.7610
25-Jan-08	Jan-08	\$90.7051	Apr-08	\$83.0613	Jul-08	\$55.1059
28-Jan-08	Jan-08	\$94.5649	Apr-08	\$86.5959	Jul-08	\$57.4508
29-Jan-08	Jan-08	\$98.4247	Apr-08	\$90.1304	Jul-08	\$59.7958
30-Jan-08	Apr-08	\$100.3546	Jul-08	\$91.8976	Oct-08	\$60.9682
31-Jan-08	Apr-08	\$100.3546	Jul-08	\$91.8976	Oct-08	\$60.9682
1-Feb-08	Apr-08	\$100.3546	Jul-08	\$91.8976	Oct-08	\$60.9682
4-Feb-08	Apr-08	\$102.2845	Jul-08	\$93.6649	Oct-08	\$62.1407
5-Feb-08	Apr-08	\$106.1443	Jul-08	\$97.1994	Oct-08	\$64.4856
6-Feb-08	Apr-08	\$110.0041	Jul-08	\$100.7340	Oct-08	\$66.8306
7-Feb-08	Apr-08	\$113.8639	Jul-08	\$104.2685	Oct-08	\$69.1755
8-Feb-08	Apr-08	\$117.7237	Jul-08	\$107.8030	Oct-08	\$71.5204
11-Feb-08	Apr-08	\$119.6536	Jul-08	\$109.5703	Oct-08	\$72.6929
12-Feb-08	Apr-08	\$123.5133	Jul-08	\$113.1048	Oct-08	\$75.0378
13-Feb-08	Apr-08	\$125.4432	Jul-08	\$114.8721	Oct-08	\$76.2103
14-Feb-08	Apr-08	\$129.3030	Jul-08	\$118.4066	Oct-08	\$78.5552
15-Feb-08	Apr-08	\$133.1628	Jul-08	\$121.9411	Oct-08	\$80.9002
19-Feb-08	Apr-08	\$133.1628	Jul-08	\$121.9411	Oct-08	\$80.9002
20-Feb-08	Apr-08	\$137.0226	Jul-08	\$125.4756	Oct-08	\$83.2451
21-Feb-08	Apr-08	\$140.8824	Jul-08	\$129.0102	Oct-08	\$85.5900
22-Feb-08	Apr-08	\$144.7422	Jul-08	\$132.5447	Oct-08	\$87.9350
25-Feb-08	Apr-08	\$148.6020	Jul-08	\$136.0792	Oct-08	\$90.2799
26-Feb-08	Apr-08	\$152.4618	Jul-08	\$139.6137	Oct-08	\$92.6248
27-Feb-08	Apr-08	\$156.3216	Jul-08	\$143.1483	Oct-08	\$94.9698
28-Feb-08	Apr-08	\$156.3216	Jul-08	\$143.1483	Oct-08	\$94.9698
29-Feb-08	Apr-08	\$160.1814	Jul-08	\$146.6828	Oct-08	\$97.3147
3-Mar-08	Apr-08	\$164.0412	Jul-08	\$150.2173	Oct-08	\$99.6596
4-Mar-08	Apr-08	\$165.9711	Jul-08	\$151.9846	Oct-08	\$100.8321
5-Mar-08	Apr-08	\$169.8309	Jul-08	\$155.5191	Oct-08	\$103.1770
6-Mar-08	Apr-08	\$173.6906	Jul-08	\$159.0536	Oct-08	\$105.5220
7-Mar-08	Apr-08	\$173.6906	Jul-08	\$159.0536	Oct-08	\$105.5220
10-Mar-08	Apr-08	\$177.5504	Jul-08	\$162.5881	Oct-08	\$107.8669
11-Mar-08	Apr-08	\$177.5504	Jul-08	\$162.5881	Oct-08	\$107.8669

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12-Mar-08	Apr-08	\$177.5504	Jul-08	\$162.5881	Oct-08	\$107.8669
13-Mar-08	Apr-08	\$177.5504	Jul-08	\$162.5881	Oct-08	\$107.8669
14-Mar-08	Apr-08	\$177.5504	Jul-08	\$162.5881	Oct-08	\$107.8669
17-Mar-08	Apr-08	\$177.5504	Jul-08	\$162.5881	Oct-08	\$107.8669
18-Mar-08	Apr-08	\$177.5504	Jul-08	\$162.5881	Oct-08	\$107.8669
19-Mar-08	Apr-08	\$177.5504	Jul-08	\$162.5881	Oct-08	\$107.8669
20-Mar-08	Apr-08	\$181.4102	Jul-08	\$166.1227	Oct-08	\$110.2118
24-Mar-08	Apr-08	\$183.3401	Jul-08	\$167.8899	Oct-08	\$111.3843
25-Mar-08	Apr-08	\$183.3401	Jul-08	\$167.8899	Oct-08	\$111.3843
26-Mar-08	Apr-08	\$187.1999	Jul-08	\$171.4245	Oct-08	\$113.7292
27-Mar-08	Apr-08	\$187.1999	Jul-08	\$171.4245	Oct-08	\$113.7292
28-Mar-08	Apr-08	\$191.0597	Jul-08	\$174.9590	Oct-08	\$116.0742
31-Mar-08	Apr-08	\$194.9195	Jul-08	\$178.4935	Oct-08	\$118.4191
1-Apr-08	Apr-08	\$198.7793	Jul-08	\$182.0280	Oct-08	\$120.7640
2-Apr-08	Apr-08	\$198.7793	Jul-08	\$182.0280	Oct-08	\$120.7640
3-Apr-08	Apr-08	\$200.7092	Jul-08	\$183.7953	Oct-08	\$121.9365
4-Apr-08	Apr-08	\$201.6741	Jul-08	\$184.6789	Oct-08	\$122.5227
7-Apr-08	Apr-08	\$203.6040	Jul-08	\$186.4462	Oct-08	\$123.6952
8-Apr-08	Apr-08	\$203.6040	Jul-08	\$186.4462	Oct-08	\$123.6952
9-Apr-08	Apr-08	\$207.4638	Jul-08	\$189.9807	Oct-08	\$126.0401
10-Apr-08	Apr-08	\$209.3937	Jul-08	\$191.7480	Oct-08	\$127.2126
11-Apr-08	Apr-08	\$211.3236	Jul-08	\$193.5152	Oct-08	\$128.3851
14-Apr-08	Apr-08	\$211.3236	Jul-08	\$193.5152	Oct-08	\$128.3851
15-Apr-08	Apr-08	\$211.3236	Jul-08	\$193.5152	Oct-08	\$128.3851
16-Apr-08	Apr-08	\$213.2535	Jul-08	\$195.2825	Oct-08	\$129.5575
17-Apr-08	Apr-08	\$215.1834	Jul-08	\$197.0498	Oct-08	\$130.7300
18-Apr-08	Apr-08	\$217.1133	Jul-08	\$198.8170	Oct-08	\$131.9025
21-Apr-08	Apr-08	\$219.0432	Jul-08	\$200.5843	Oct-08	\$133.0749
22-Apr-08	Apr-08	\$220.9731	Jul-08	\$202.3516	Oct-08	\$134.2474
23-Apr-08	Apr-08	\$220.9731	Jul-08	\$202.3516	Oct-08	\$134.2474
24-Apr-08	Apr-08	\$220.9731	Jul-08	\$202.3516	Oct-08	\$134.2474
25-Apr-08	Apr-08	\$220.9731	Jul-08	\$202.3516	Oct-08	\$134.2474
28-Apr-08	Apr-08	\$220.9731	Jul-08	\$202.3516	Oct-08	\$134.2474
29-Apr-08	Apr-08	\$222.9030	Jul-08	\$204.1188	Oct-08	\$135.4199
30-Apr-08	Jul-08	\$223.8679	Oct-08	\$205.0024	Jan-09	\$136.0061
1-May-08	Jul-08	\$225.7978	Oct-08	\$206.7697	Jan-09	\$137.1786
2-May-08	Jul-08	\$227.7277	Oct-08	\$208.5370	Jan-09	\$138.3510
5-May-08	Jul-08	\$227.7277	Oct-08	\$208.5370	Jan-09	\$138.3510
6 May 00		Φ000 (57)	004 00	\$210.3042	Jan-09	\$139.5235
6-May-08	Jul-08	\$229.6576	Oct-08	\$210.3042	Jan-09	\$139.3233
7-May-08	Jul-08 Jul-08	\$229.6576	Oct-08	\$210.3042	Jan-09 Jan-09	\$139.3233

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9-May-08 Jul-08 \$239.3071 Oct-08 \$219.1405 Jan-09 \$145.38 12-May-08 Jul-08 \$243.1669 Oct-08 \$222.6751 Jan-09 \$147.73 13-May-08 Jul-08 \$245.0968 Oct-08 \$224.4423 Jan-09 \$148.90 14-May-08 Jul-08 \$247.9916 Oct-08 \$227.0932 Jan-09 \$150.66 15-May-08 Jul-08 \$251.8514 Oct-08 \$230.6278 Jan-09 \$153.00 16-May-08 Jul-08 \$255.7112 Oct-08 \$234.1623 Jan-09 \$155.35 19-May-08 Jul-08 \$257.6411 Oct-08 \$235.9295 Jan-09 \$156.52	08 32 19 69 18 42
13-May-08 Jul-08 \$245.0968 Oct-08 \$224.4423 Jan-09 \$148.90 14-May-08 Jul-08 \$247.9916 Oct-08 \$227.0932 Jan-09 \$150.66 15-May-08 Jul-08 \$251.8514 Oct-08 \$230.6278 Jan-09 \$153.00 16-May-08 Jul-08 \$255.7112 Oct-08 \$234.1623 Jan-09 \$155.35	32 19 69 18 42
14-May-08 Jul-08 \$247.9916 Oct-08 \$227.0932 Jan-09 \$150.66 15-May-08 Jul-08 \$251.8514 Oct-08 \$230.6278 Jan-09 \$153.00 16-May-08 Jul-08 \$255.7112 Oct-08 \$234.1623 Jan-09 \$155.35	19 69 18 42 92
15-May-08 Jul-08 \$251.8514 Oct-08 \$230.6278 Jan-09 \$153.00 16-May-08 Jul-08 \$255.7112 Oct-08 \$234.1623 Jan-09 \$155.35	69 18 42 92
16-May-08 Jul-08 \$255.7112 Oct-08 \$234.1623 Jan-09 \$155.35	18 42 92
	42 92
19-May-08 Jul-08 \$257.6411 Oct-08 \$235.9295 Jan-09 \$156.52	92
12 1.12 00 420 1.01 420 1.2 42	
20-May-08 Jul-08 \$261.5009 Oct-08 \$239.4641 Jan-09 \$158.86	
21-May-08 Jul-08 \$263.4308 Oct-08 \$241.2313 Jan-09 \$160.04	16
22-May-08 Jul-08 \$263.4308 Oct-08 \$241.2313 Jan-09 \$160.04	16
23-May-08 Jul-08 \$263.4308 Oct-08 \$241.2313 Jan-09 \$160.04	16
27-May-08 Jul-08 \$248.1304 Oct-08 \$227.2203 Jan-09 \$150.74	62
28-May-08 Jul-08 \$157.8278 Oct-08 \$144.5275 Jan-09 \$95.884	8
29-May-08 Jul-08 \$95.0675 Oct-08 \$87.0561 Jan-09 \$57.756	2
30-May-08 Jul-08 \$95.0675 Oct-08 \$87.0561 Jan-09 \$57.756	2
2-Jun-08 Jul-08 \$91.2073 Oct-08 \$83.5212 Jan-09 \$55.411	0
3-Jun-08 Jul-08 \$89.8490 Oct-08 \$82.2774 Jan-09 \$54.585	8
4-Jun-08 Jul-08 \$76.6657 Oct-08 \$70.2051 Jan-09 \$46.576	6
5-Jun-08 Jul-08 \$64.8719 Oct-08 \$59.4051 Jan-09 \$39.411	5
6-Jun-08 Jul-08 \$64.8719 Oct-08 \$59.4051 Jan-09 \$39.411	5
9-Jun-08 Jul-08 \$64.8719 Oct-08 \$59.4051 Jan-09 \$39.411	5
10-Jun-08 Jul-08 \$39.9260 Oct-08 \$36.5614 Jan-09 \$24.256	1
11-Jun-08 Jul-08 \$39.9260 Oct-08 \$36.5614 Jan-09 \$24.256	1
12-Jun-08 Jul-08 \$39.9260 Oct-08 \$36.5614 Jan-09 \$24.256	1
13-Jun-08 Jul-08 \$39.9260 Oct-08 \$36.5614 Jan-09 \$24.256	1
16-Jun-08 Jul-08 \$15.1968 Oct-08 \$13.9162 Jan-09 \$9.2325	
17-Jun-08 Jul-08 \$14.4375 Oct-08 \$13.2208 Jan-09 \$8.7712	
18-Jun-08 Jul-08 \$14.4375 Oct-08 \$13.2208 Jan-09 \$8.7712	

Exhibit B

PALLADIUM

For transactions between 1:00 p.m. for palladium futures contracts on November 1, 2007, and any time on June 18, 2008, inclusive, the amount of positive artificiality for each futures contract is set forth below. For each day after November 1, 2007, the amount of artificiality shall be the amount reflected for the prior day UNTIL 1:00 p.m. for palladium. For transactions occurring after 1:00 p.m. for palladium, the artificiality shall be the amount of artificiality listed for that day.

As a practical matter, a substantial portion of the trading volume in NYMEX palladium futures contracts is limited to the quarterly contract months of March, June, September and December. However, intermediate contracts (*i.e.*, contracts expiring between the foregoing four quarterly contracts) do occasionally trade.

The artificiality for further out contracts (*i.e.*, contracts trading beyond the third month contract in the quarterly cycle) shall be the same as the artificiality for the third month quarterly contract. The artificiality for intermediate contracts shall be based on a time-weighted average of the two bounding quarterly contracts. Example: The March NYMEX palladium futures contract is the first month quarterly contract and has artificiality of \$70. The June NYMEX palladium futures contract is the second month quarterly contract and has artificiality of \$40. The May NYMEX palladium futures contract is an intermediate contract. In the foregoing example, the artificiality of the intermediate May contract would be \$50 (*i.e.*, 1/3 of the artificiality of the first month March quarterly contract PLUS 2/3 of the artificiality of the second month June quarterly contract).

Palladium Daily Artificiality Estimates

(\$ per troy ounce)

Date	Front Month	Artificiality	Second Month	Artificiality	Third Month	Artificiality
1-Nov-07	Dec-07	\$0.2715	Mar-08	\$0.2758	Jun-08	\$0.2744
2-Nov-07	Dec-07	\$0.2715	Mar-08	\$0.2758	Jun-08	\$0.2744
5-Nov-07	Dec-07	\$0.5429	Mar-08	\$0.5515	Jun-08	\$0.5488
6-Nov-07	Dec-07	\$1.0859	Mar-08	\$1.1031	Jun-08	\$1.0976
7-Nov-07	Dec-07	\$1.3574	Mar-08	\$1.3788	Jun-08	\$1.3720
8-Nov-07	Dec-07	\$1.6288	Mar-08	\$1.6546	Jun-08	\$1.6464
9-Nov-07	Dec-07	\$1.9003	Mar-08	\$1.9304	Jun-08	\$1.9208
12-Nov-07	Dec-07	\$2.1718	Mar-08	\$2.2062	Jun-08	\$2.1952
13-Nov-07	Dec-07	\$2.7147	Mar-08	\$2.7577	Jun-08	\$2.7440
14-Nov-07	Dec-07	\$2.9862	Mar-08	\$3.0335	Jun-08	\$3.0184
15-Nov-07	Dec-07	\$3.2577	Mar-08	\$3.3092	Jun-08	\$3.2928
16-Nov-07	Dec-07	\$3.2577	Mar-08	\$3.3092	Jun-08	\$3.2928
19-Nov-07	Dec-07	\$3.2577	Mar-08	\$3.3092	Jun-08	\$3.2928
20-Nov-07	Dec-07	\$3.5291	Mar-08	\$3.5850	Jun-08	\$3.5672
21-Nov-07	Dec-07	\$3.8006	Mar-08	\$3.8608	Jun-08	\$3.8416
23-Nov-07	Dec-07	\$4.0721	Mar-08	\$4.1365	Jun-08	\$4.1160
26-Nov-07	Dec-07	\$4.3436	Mar-08	\$4.4123	Jun-08	\$4.3904
27-Nov-07	Dec-07	\$4.8865	Mar-08	\$4.9638	Jun-08	\$4.9392
28-Nov-07	Dec-07	\$5.4294	Mar-08	\$5.5154	Jun-08	\$5.4880
29-Nov-07	Dec-07	\$5.7009	Mar-08	\$5.7912	Jun-08	\$5.7624
30-Nov-07	Dec-07	\$6.7868	Mar-08	\$6.8942	Jun-08	\$6.8600
3-Dec-07	Dec-07	\$7.0583	Mar-08	\$7.1700	Jun-08	\$7.1344
4-Dec-07	Dec-07	\$7.3297	Mar-08	\$7.4458	Jun-08	\$7.4088
5-Dec-07	Dec-07	\$7.8727	Mar-08	\$7.9973	Jun-08	\$7.9576
6-Dec-07	Dec-07	\$8.4156	Mar-08	\$8.5488	Jun-08	\$8.5064
7-Dec-07	Dec-07	\$8.4156	Mar-08	\$8.5488	Jun-08	\$8.5064
10-Dec-07	Dec-07	\$8.9586	Mar-08	\$9.1004	Jun-08	\$9.0552
11-Dec-07	Dec-07	\$8.9586	Mar-08	\$9.1004	Jun-08	\$9.0552
12-Dec-07	Dec-07	\$9.5015	Mar-08	\$9.6519	Jun-08	\$9.6040
13-Dec-07	Dec-07	\$10.0445	Mar-08	\$10.2035	Jun-08	\$10.1528
14-Dec-07	Dec-07	\$10.5874	Mar-08	\$10.7550	Jun-08	\$10.7016
17-Dec-07	Dec-07	\$11.1304	Mar-08	\$11.3065	Jun-08	\$11.2503
18-Dec-07	Dec-07	\$11.6733	Mar-08	\$11.8581	Jun-08	\$11.7991
19-Dec-07	Dec-07	\$11.6733	Mar-08	\$11.8581	Jun-08	\$11.7991
20-Dec-07	Dec-07	\$11.6733	Mar-08	\$11.8581	Jun-08	\$11.7991
21-Dec-07	Dec-07	\$12.2162	Mar-08	\$12.4096	Jun-08	\$12.3479

24-Dec-07	Dec-07	\$12.7592	Mar-08	\$12.9612	Jun-08	\$12.8967
26-Dec-07	Dec-07	\$13.3021	Mar-08	\$13.5127	Jun-08	\$13.4455
27-Dec-07	Dec-07	\$13.8451	Mar-08	\$14.0642	Jun-08	\$13.9943
28-Dec-07	Mar-08	\$14.3880	Jun-08	\$14.6158	Sep-08	\$14.5431
31-Dec-07	Mar-08	\$15.4739	Jun-08	\$15.7188	Sep-08	\$15.6407
2-Jan-08	Mar-08	\$16.0169	Jun-08	\$16.2704	Sep-08	\$16.1895
3-Jan-08	Mar-08	\$16.5598	Jun-08	\$16.8219	Sep-08	\$16.7383
4-Jan-08	Mar-08	\$17.1027	Jun-08	\$17.3735	Sep-08	\$17.2871
7-Jan-08	Mar-08	\$17.6457	Jun-08	\$17.9250	Sep-08	\$17.8359
8-Jan-08	Mar-08	\$18.1886	Jun-08	\$18.4765	Sep-08	\$18.3847
9-Jan-08	Mar-08	\$18.7316	Jun-08	\$19.0281	Sep-08	\$18.9335
10-Jan-08	Mar-08	\$19.2745	Jun-08	\$19.5796	Sep-08	\$19.4823
11-Jan-08	Mar-08	\$19.8175	Jun-08	\$20.1312	Sep-08	\$20.0311
14-Jan-08	Mar-08	\$20.9034	Jun-08	\$21.2342	Sep-08	\$21.1287
15-Jan-08	Mar-08	\$21.4463	Jun-08	\$21.7858	Sep-08	\$21.6775
16-Jan-08	Mar-08	\$21.4463	Jun-08	\$21.7858	Sep-08	\$21.6775
17-Jan-08	Mar-08	\$22.5322	Jun-08	\$22.8888	Sep-08	\$22.7751
18-Jan-08	Mar-08	\$23.6181	Jun-08	\$23.9919	Sep-08	\$23.8727
22-Jan-08	Mar-08	\$24.1610	Jun-08	\$24.5435	Sep-08	\$24.4215
23-Jan-08	Mar-08	\$24.7040	Jun-08	\$25.0950	Sep-08	\$24.9703
24-Jan-08	Mar-08	\$25.7899	Jun-08	\$26.1981	Sep-08	\$26.0679
25-Jan-08	Mar-08	\$26.8757	Jun-08	\$27.3012	Sep-08	\$27.1655
28-Jan-08	Mar-08	\$27.9616	Jun-08	\$28.4042	Sep-08	\$28.2631
29-Jan-08	Mar-08	\$29.0475	Jun-08	\$29.5073	Sep-08	\$29.3607
30-Jan-08	Mar-08	\$29.0475	Jun-08	\$29.5073	Sep-08	\$29.3607
31-Jan-08	Mar-08	\$29.0475	Jun-08	\$29.5073	Sep-08	\$29.3607
1-Feb-08	Mar-08	\$29.0475	Jun-08	\$29.5073	Sep-08	\$29.3607
4-Feb-08	Mar-08	\$29.5905	Jun-08	\$30.0588	Sep-08	\$29.9095
5-Feb-08	Mar-08	\$30.1334	Jun-08	\$30.6104	Sep-08	\$30.4583
6-Feb-08	Mar-08	\$31.2193	Jun-08	\$31.7135	Sep-08	\$31.5559
7-Feb-08	Mar-08	\$31.7622	Jun-08	\$32.2650	Sep-08	\$32.1047
8-Feb-08	Mar-08	\$32.8481	Jun-08	\$33.3681	Sep-08	\$33.2022
11-Feb-08	Mar-08	\$33.3911	Jun-08	\$33.9196	Sep-08	\$33.7510
12-Feb-08	Mar-08	\$33.9340	Jun-08	\$34.4711	Sep-08	\$34.2998
13-Feb-08	Mar-08	\$34.4770	Jun-08	\$35.0227	Sep-08	\$34.8486
14-Feb-08	Mar-08	\$35.5629	Jun-08	\$36.1258	Sep-08	\$35.9462
15-Feb-08	Mar-08	\$36.6487	Jun-08	\$37.2288	Sep-08	\$37.0438
19-Feb-08	Mar-08	\$37.7346	Jun-08	\$38.3319	Sep-08	\$38.1414
20-Feb-08	Mar-08	\$38.8205	Jun-08	\$39.4350	Sep-08	\$39.2390
21-Feb-08	Mar-08	\$39.9064	Jun-08	\$40.5381	Sep-08	\$40.3366
22-Feb-08	Mar-08	\$40.9923	Jun-08	\$41.6411	Sep-08	\$41.4342

25-Feb-08	Mar-08	\$42.0782	Jun-08	\$42.7442	Sep-08	\$42.5318
26-Feb-08	Mar-08	\$43.1641	Jun-08	\$43.8473	Sep-08	\$43.6294
27-Feb-08	Mar-08	\$44.2500	Jun-08	\$44.9504	Sep-08	\$44.7270
28-Feb-08	Mar-08	\$44.2500	Jun-08	\$44.9504	Sep-08	\$44.7270
29-Feb-08	Mar-08	\$45.3359	Jun-08	\$46.0535	Sep-08	\$45.8246
3-Mar-08	Mar-08	\$46.4217	Jun-08	\$47.1565	Sep-08	\$46.9222
4-Mar-08	Mar-08	\$47.5076	Jun-08	\$48.2596	Sep-08	\$48.0198
5-Mar-08	Mar-08	\$48.5935	Jun-08	\$49.3627	Sep-08	\$49.1174
6-Mar-08	Mar-08	\$49.6794	Jun-08	\$50.4658	Sep-08	\$50.2150
7-Mar-08	Mar-08	\$50.4938	Jun-08	\$51.2931	Sep-08	\$51.0382
10-Mar-08	Mar-08	\$51.5797	Jun-08	\$52.3961	Sep-08	\$52.1358
11-Mar-08	Mar-08	\$52.1227	Jun-08	\$52.9477	Sep-08	\$52.6846
12-Mar-08	Mar-08	\$52.6656	Jun-08	\$53.4992	Sep-08	\$53.2334
13-Mar-08	Mar-08	\$52.6656	Jun-08	\$53.4992	Sep-08	\$53.2334
14-Mar-08	Mar-08	\$53.7515	Jun-08	\$54.6023	Sep-08	\$54.3309
17-Mar-08	Mar-08	\$54.8374	Jun-08	\$55.7054	Sep-08	\$55.4285
18-Mar-08	Mar-08	\$54.8374	Jun-08	\$55.7054	Sep-08	\$55.4285
19-Mar-08	Mar-08	\$54.8374	Jun-08	\$55.7054	Sep-08	\$55.4285
20-Mar-08	Mar-08	\$55.9233	Jun-08	\$56.8085	Sep-08	\$56.5261
24-Mar-08	Mar-08	\$56.4662	Jun-08	\$57.3600	Sep-08	\$57.0749
25-Mar-08	Mar-08	\$57.5521	Jun-08	\$58.4631	Sep-08	\$58.1725
26-Mar-08	Mar-08	\$58.6380	Jun-08	\$59.5661	Sep-08	\$59.2701
27-Mar-08	Mar-08	\$58.6380	Jun-08	\$59.5661	Sep-08	\$59.2701
28-Mar-08	Jun-08	\$59.1809	Sep-08	\$60.1177	Dec-08	\$59.8189
31-Mar-08	Jun-08	\$60.5057	Sep-08	\$61.4634	Dec-08	\$61.1580
1-Apr-08	Jun-08	\$61.5916	Sep-08	\$62.5665	Dec-08	\$62.2556
2-Apr-08	Jun-08	\$62.6775	Sep-08	\$63.6696	Dec-08	\$63.3532
3-Apr-08	Jun-08	\$63.7634	Sep-08	\$64.7727	Dec-08	\$64.4508
4-Apr-08	Jun-08	\$64.8493	Sep-08	\$65.8757	Dec-08	\$65.5484
7-Apr-08	Jun-08	\$65.3922	Sep-08	\$66.4273	Dec-08	\$66.0972
8-Apr-08	Jun-08	\$65.3922	Sep-08	\$66.4273	Dec-08	\$66.0972
9-Apr-08	Jun-08	\$65.9352	Sep-08	\$66.9788	Dec-08	\$66.6460
10-Apr-08	Jun-08	\$67.0211	Sep-08	\$68.0819	Dec-08	\$67.7436
11-Apr-08	Jun-08	\$67.5640	Sep-08	\$68.6334	Dec-08	\$68.2924
14-Apr-08	Jun-08	\$68.1069	Sep-08	\$69.1850	Dec-08	\$68.8412
15-Apr-08	Jun-08	\$68.6499	Sep-08	\$69.7365	Dec-08	\$69.3899
16-Apr-08	Jun-08	\$69.1928	Sep-08	\$70.2881	Dec-08	\$69.9387
17-Apr-08	Jun-08	\$69.7358	Sep-08	\$70.8396	Dec-08	\$70.4875
18-Apr-08	Jun-08	\$70.8217	Sep-08	\$71.9427	Dec-08	\$71.5851
21-Apr-08	Jun-08	\$71.3646	Sep-08	\$72.4942	Dec-08	\$72.1339
22-Apr-08	Jun-08	\$71.9076	Sep-08	\$73.0457	Dec-08	\$72.6827

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23-Apr-08	Jun-08	\$71.9076	Sep-08	\$73.0457	Dec-08	\$72.6827
24-Apr-08	Jun-08	\$71.9076	Sep-08	\$73.0457	Dec-08	\$72.6827
25-Apr-08	Jun-08	\$72.7220	Sep-08	\$73.8731	Dec-08	\$73.5059
28-Apr-08	Jun-08	\$72.7220	Sep-08	\$73.8731	Dec-08	\$73.5059
29-Apr-08	Jun-08	\$73.8079	Sep-08	\$74.9761	Dec-08	\$74.6035
30-Apr-08	Jun-08	\$74.0793	Sep-08	\$75.2519	Dec-08	\$74.8779
1-May-08	Jun-08	\$74.6223	Sep-08	\$75.8034	Dec-08	\$75.4267
2-May-08	Jun-08	\$75.1652	Sep-08	\$76.3550	Dec-08	\$75.9755
5-May-08	Jun-08	\$75.7082	Sep-08	\$76.9065	Dec-08	\$76.5243
6-May-08	Jun-08	\$76.7941	Sep-08	\$78.0096	Dec-08	\$77.6219
7-May-08	Jun-08	\$77.3370	Sep-08	\$78.5611	Dec-08	\$78.1707
8-May-08	Jun-08	\$77.8799	Sep-08	\$79.1127	Dec-08	\$78.7195
9-May-08	Jun-08	\$78.4229	Sep-08	\$79.6642	Dec-08	\$79.2683
12-May-08	Jun-08	\$78.9658	Sep-08	\$80.2157	Dec-08	\$79.8171
13-May-08	Jun-08	\$80.0517	Sep-08	\$81.3188	Dec-08	\$80.9147
14-May-08	Jun-08	\$80.8661	Sep-08	\$82.1461	Dec-08	\$81.7379
15-May-08	Jun-08	\$81.9520	Sep-08	\$83.2492	Dec-08	\$82.8355
16-May-08	Jun-08	\$83.0379	Sep-08	\$84.3523	Dec-08	\$83.9331
19-May-08	Jun-08	\$84.1238	Sep-08	\$85.4554	Dec-08	\$85.0307
20-May-08	Jun-08	\$85.2097	Sep-08	\$86.5584	Dec-08	\$86.1283
21-May-08	Jun-08	\$86.2956	Sep-08	\$87.6615	Dec-08	\$87.2259
22-May-08	Jun-08	\$86.2956	Sep-08	\$87.6615	Dec-08	\$87.2259
23-May-08	Jun-08	\$86.2956	Sep-08	\$87.6615	Dec-08	\$87.2259
27-May-08	Jun-08	\$81.2834	Sep-08	\$82.5700	Dec-08	\$82.1597
28-May-08	Jun-08	\$51.7018	Sep-08	\$52.5201	Dec-08	\$52.2591
29-May-08	Jun-08	\$31.1425	Sep-08	\$31.6355	Dec-08	\$31.4783
30-May-08	Jun-08	\$31.1425	Sep-08	\$31.6355	Dec-08	\$31.4783
2-Jun-08	Jun-08	\$29.8780	Sep-08	\$30.3509	Dec-08	\$30.2001
3-Jun-08	Jun-08	\$29.4330	Sep-08	\$29.8989	Dec-08	\$29.7503
4-Jun-08	Jun-08	\$25.1144	Sep-08	\$25.5119	Dec-08	\$25.3852
5-Jun-08	Jun-08	\$21.2510	Sep-08	\$21.5873	Dec-08	\$21.4800
6-Jun-08	Jun-08	\$21.2510	Sep-08	\$21.5873	Dec-08	\$21.4800
9-Jun-08	Jun-08	\$21.2510	Sep-08	\$21.5873	Dec-08	\$21.4800
10-Jun-08	Jun-08	\$13.0791	Sep-08	\$13.2861	Dec-08	\$13.2201
11-Jun-08	Jun-08	\$13.0791	Sep-08	\$13.2861	Dec-08	\$13.2201
12-Jun-08	Jun-08	\$13.0791	Sep-08	\$13.2861	Dec-08	\$13.2201
13-Jun-08	Jun-08	\$13.0791	Sep-08	\$13.2861	Dec-08	\$13.2201
16-Jun-08	Jun-08	\$4.9782	Sep-08	\$5.0570	Dec-08	\$5.0319
17-Jun-08	Jun-08	\$4.7295	Sep-08	\$4.8043	Dec-08	\$4.7805
18-Jun-08	Jun-08	\$4.7295	Sep-08	\$4.8043	Dec-08	\$4.7805
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