UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

COMMODITY FUTURES TRADING COMMISSION,	:	CIVIL ACTION NO. 1:18-cv-00620
PLAINTIFF,	:	JURY DEMANDED
v.	:	
JIONGSHENG ZHAO,	:	
DEFENDANT.	:	

COMPLAINT FOR INJUNCTIVE RELIEF, CIVIL MONETARY PENALTIES, AND OTHER RELIEF

Plaintiff Commodity Futures Trading Commission ("CFTC") alleges as follows:

I.   SUMMARY

1.   From at least July 2012 through at least March 2017 (the "Relevant Period"),

Defendant Jiongsheng Zhao ("Zhao") engaged in a manipulative and deceptive scheme while

placing orders for and trading futures contracts on a registered entity. In furtherance of this

scheme, Zhao repeatedly engaged in manipulative or deceptive acts and practices by "spoofing"

(bidding or offering with the intent to cancel the bid or offer before execution). On thousands of

occasions, Zhao placed an order that he wanted to execute and thereafter entered a larger order

on the opposite side of the market that he intended to cancel before execution. In placing these

larger spoof orders, Zhao intentionally or recklessly sent false signals of increased supply or

demand designed to trick market participants into executing against the orders he wanted filled.

2.   By virtue of this conduct, as further described herein, Zhao has engaged in acts and practices that violate Sections 4c(a)(5)(C) and 6(c)(1) of the Commodity Exchange Act ("Act"), 7 U.S.C. §§ 6c(a)(5)(C), 9(1) (2012), and Commission Regulation ("Regulation") 180.1(a)(1) and (3), 17 C.F.R. § 180.1(a)(1), (3) (2017).

3.   The CFTC brings this action pursuant to Section 6c of the Act, 7 U.S.C. § 13a-1 (2012), to enjoin Zhao's violative acts and practices and to compel Zhao's compliance with the Act and Regulation. In addition, the CFTC seeks civil monetary penalties and such other relief, including but not limited to disgorgement and trading and registration prohibitions, as the Court deems necessary and appropriate.

II.   JURISDICTION AND VENUE

4.   This Court has jurisdiction over this action under 28 U.S.C. § 1331 (2012) (federal question jurisdiction) and 28 U.S.C. § 1345 (2012), which provides that district courts have original jurisdiction over civil actions commenced by the United States or by any agency expressly authorized to sue by Act of Congress. Section 6c(a) of the Act, 7 U.S.C. § 13a-1(a) (2012), authorizes the Commission to seek injunctive relief in any proper district court of the United States against any person whenever it shall appear to the Commission that such person has engaged, is engaging, or is about to engage in any act or practice constituting a violation of any provision of the Act or any rule, regulation or order thereunder.

5.   Venue properly lies with this Court pursuant to Section 6c(e) of the Act, because Zhao transacts business in the Northern District of Illinois, and the acts and practices in violation of the Act and Regulation have occurred within this District.

III.   THE PARTIES

6. Plaintiff **Commodity Futures Trading Commission** is the independent federal regulatory agency charged by Congress with the administration and enforcement of the Act and

2

rules, regulations, and orders thereunder. The CFTC is headquartered at 1155 21st Street, NW, Washington, DC 20581.

7.   Defendant **Jiongsheng Zhao** is a resident of New South Wales, Australia. Zhao has been employed by a proprietary trading firm (the "Trading Firm") as a trader for nearly nine years. Zhao has never been registered with the CFTC.

IV.   OTHER RELEVANT ENTITIES

8.   The **Chicago Mercantile Exchange** ("CME") is a commodity exchange located at 20 S. Wacker Street, Chicago, Illinois 60606. It is registered with the CFTC as a designated contract market and a swap execution facility.

9.   **CME Group Inc.** ("CME Group") is a Delaware corporation with its principal place of business in Chicago, Illinois. CME Group is the holding company that owns CME.

V.   FACTS

A. Futures Trading Background

10. A futures contract is an agreement to purchase or sell a commodity for delivery or cash settlement in the future at a specified price. A futures contract traded on an exchange has standard, non-negotiable contract specifications.

11. The E-mini S&P 500 Index futures contract (the "ES contract") is traded on CME, a registered entity. There are four ES contract delivery months: March, June, September, and December. The ES contract is cash settled so no delivery of the stocks that make up the underlying index takes place.

12. The ES contract trades 24 hours per day from 5:00 PM Central Time on Sunday night to 4:00 PM Central Time on Friday afternoon, except for a 15-minute window each day when trading halts. The trading day for the ES contract is commonly regarded as consisting of two trading sessions: the daytime session and the overnight session. The daytime session

3

corresponds with open-outcry trading at the CME and runs from 8:30 AM to 3:15 PM Central

Time. The overnight session begins after the 15-minute trading halt and runs from 3:30 PM to

8:29:59 AM Central Time the next day. The daytime session corresponds with, but does not

perfectly overlap, the trading day for the stocks that make up the underlying index, which runs

from 8:30 AM to 3:00 PM Central Time on the NYSE and NASDAQ exchanges.

13. The value of the ES contract is the S&P 500 stock index multiplied by fifty dollars.

The price of the ES contract is quoted in index points, and the minimum price change allowed

during a trading session is one-quarter of an index point (0.25); thus, if a trader wished to place

an order above the last traded ES contract price of 2648.25 points, that trader would have to

place the order at 2648.50 points or higher. This minimum price change is commonly called a

"tick."

14. An "order," in the context of electronic exchange trading, is a request submitted to

an exchange to buy (that is, "bid") or sell (that is, "offer" or "ask") a certain number of a

specified futures contract. An order is for one or more contracts. Contracts may also be called

"lots," among other things. Orders are entered into the exchange's order book. When there

exists both a willing buyer and seller for a contract at a given price, a transaction occurs and is

referred to as a "fill" (or a "trade" or "execution"). At any time before the order is fully filled,

the trader can "cancel" the order. When an order is canceled, the contracts that have not yet been

bought or sold are pulled from the order book.

15. Each trader can view the aggregate number of contracts and orders that all traders are

actively bidding or offering at a given price level. Only the total numbers of orders and contracts

at various price levels are visible, not the identities of the traders who placed the orders. The

best-bid level, or first-bid level, is the highest price at which someone is willing to buy. The

best-ask level, or first-ask level, is the lowest price at which someone is willing to sell. The bid-ask spread is the difference between those two prices.

16. Traders can view the aggregate resting contracts and orders up to the tenth-bid and tenth-ask levels. This combined bid and ask information is often referred to as the visible order book and represents the visible market depth. Traders often consider information in the order book when making trading decisions.

17. An "aggressive" order is an order that crosses the bid-ask spread. On the buy side of the market, an aggressive buy order is placed at the best-ask price or higher so, put simply, it is an offer to buy at a price that another trader is currently willing to sell. On the sell side of the market, an aggressive sell order is placed at the best-bid price or lower so, put simply, it is an offer to sell at a price that another trader is currently willing to buy. Accordingly, aggressive orders are guaranteed to execute, at least partially, immediately after being placed.

18. A "passive" order, on the other hand, does not give up the spread in price. On the buy side of the market, a passive buy order is placed at the best-bid price or lower so, put simply, it is an offer to buy at a price that is lower than the price that other traders are currently willing to sell. On the sell side of the market, a passive sell order is placed at the best-ask price or higher, so, put simply, it is an offer to sell at a price that is higher than the price that other traders are currently willing to buy. Passive orders rest for at least some amount of time after being placed and are not guaranteed to execute.

19. The ES contract is traded electronically on the CME Globex trading system ("Globex"). Globex employs a matching algorithm to match bids and offers for execution. The matching algorithm for the ES market is known as "FIFO," which denotes first-in, first-out. Under the FIFO method, orders on the same side of the market (i.e., the buy side or sell side) and

at the same price are filled based on time priority; thus, with a few exceptions not pertinent here, the order that was placed first trades first, irrespective of the order's size.

B. Zhao's Manipulative and Deceptive Scheme

20. Zhao has worked as a trader at the Trading Firm for nearly nine years. In this role, he trades futures contracts on U.S. and international exchanges. Zhao does not trade on behalf of any party other than the Trading Firm. He shares any profits generated from his trading with the Trading Firm. Zhao's direct supervisor is the Trading Firm's CEO.

21. During the Relevant Period, Zhao engaged in a manipulative and deceptive scheme (the "Scheme") that consisted of the following general pattern: (1) placing one or more passive small orders (that is, fewer than fifty contracts) on one side of the market, which he intended to execute ("Genuine Orders"); (2) placing one or more passive large orders (that is, fifty contracts or more) on the opposite side of the market, within two minutes of placing the Genuine Order and while the Genuine Order is still pending, which he intended to cancel ("Spoof Orders"); (3) reaching at least a five-to-one total contract size imbalance between his Spoof Orders and Genuine Orders, respectively; and (4) canceling the Spoof Orders within two seconds after they were placed. Each instance of this pattern comprises a single "Event." Collectively, "Genuine Orders" and "Spoof Orders" are referred to as "Event Orders."

22. Zhao's Scheme was designed to benefit financially from market participants' reactions to his Spoof Orders. The following is a simplified explanation of how his Scheme was intended to work, using a hypothetical example of a Spoof Order on the buy side. A large Spoof Order to buy would result in an increase in demand in the order book (i.e., create or add to an order book imbalance in which orders to buy outweigh orders to sell). This increase would be visible to other market participants and may lead them to conclude that the price is likely to rise. This conclusion, in turn, would impact market participants' decisions, including prompting some

6

to attempt to purchase contracts before the predicted rise in price happens. In such a case, these participants would place aggressive orders to buy (i.e., at a higher price than the currently resting bids in the market), making execution of orders resting on the opposite side of the Spoof Order more likely. Finally, these bids would enable orders on the opposite side of the Spoof Order— including Zhao's Genuine Orders—to sell sooner, at a better price, or in larger quantities than they otherwise would.

23. Zhao carried out his Scheme on the ES contract market traded on CME. For some or all of the Relevant Period, Zhao traded manually, by submitting orders, cancelations, and modifications using a computer mouse or keyboard.

24. During the Relevant Period, as part of the ongoing Scheme, Zhao engaged in approximately 2,300 Events. As part of those Events, Zhao entered about 2,300 Genuine Orders and 3,100 Spoof Orders, with all of the Spoof Orders, according to the pattern described herein, quickly being canceled.

25. Zhao intended to cancel the Spoof Orders before execution, and often did so after his Genuine Orders were filled. The predictable sequence inherent in Zhao's spoofing pattern, which he engaged in thousands of times, demonstrates that Zhao was not reacting to market changes when he canceled the Spoof Orders; rather, he was carrying out a predetermined strategy that was not dependent on market conditions.

26. By engaging in the Scheme as described herein, Zhao entered Spoof Orders either to intentionally send a false signal to the market that he actually wanted to buy or sell the number of contracts specified in the Spoof Orders, or while recklessly disregarding the fact that entering his spoof orders would send such a false signal—a signal that injected false information about supply and demand into the market that could affect market activity. Zhao engaged in this

7

Scheme to trick other market participants into executing against his Genuine Orders on the opposite side of the market—allowing them to fill sooner, at a better price, or in larger quantities than they otherwise would. Zhao knew or recklessly disregarded that the Spoof Orders would create the false appearance of market depth and result in misinformation, thereby luring market participants to trade based on Zhao's spoofing. The risk that the Spoof Orders could mislead other market participants into believing there was genuine interest in purchasing or selling the specified number of contracts represented by Zhao's Spoof Orders was so obvious that Zhao must have been aware of it. He knew that his Spoof Orders would appear in the order book and that traders often consider order-book information in making trading decisions; thus, Zhao was, at least, reckless with respect to the danger that his Spoof Orders would mislead other market participants.

27. Although Zhao's Spoof Orders were visible to the rest of the market, his identity as the originator of those orders was not. Only the total numbers of orders and contracts at various price levels are visible, not the number of traders or identities of the traders who placed the orders. Accordingly, Zhao knew that other market participants could not see that the same trader had placed both the Spoof Orders and the Genuine Orders, which might have tipped off market participants that his Spoof Orders were not bona fide.

28. Trading overnight was a key component of Zhao's Scheme and indicative of his wrongful intent. Zhao carried out his Scheme more than 99% of the time during overnight sessions, when trading volume and volatility were substantially decreased. As a result of the reduced volume and volatility depth during overnight sessions, Zhao was able to use smaller Spoof Orders (with concomitant lower financial risk) to provoke the market reactions he desired.

29.   The near-perfect correlation between Zhao's Scheme and his use of overnight sessions cannot be explained by his residing in Australia, where the overnight session largely occurs during daylight hours. Setting the Scheme aside, Zhao often traded during daytime sessions, which overlaps with nighttime in Australia. Indeed, nearly one-third of Zhao's non-Event orders (i.e., orders that were not part of the Scheme) were placed during daytime sessions; thus, Zhao's focus on carrying out his Scheme almost exclusively during overnight sessions is indicative of his wrongful intent.

30.   Further, Zhao's trading pattern shows he avoided placing large Spoof Orders when they were more likely to execute. Had Zhao actually wanted to trade the quantities in his Spoof Orders, he would have placed similar-size orders during daytime sessions, when trading volume was higher and the larger quantities were more likely to execute; however, he did not. As reflected in the table below, during the Relevant Period, Zhao placed only about 2% of his large orders (both Spoof and non-Spoof) during daytime sessions. By contrast, Zhao placed about 29% of his small orders during daytime sessions; thus, Zhao avoided placing large orders when they had better chances of executing, but he did not similarly curtail his small orders. This further indicates that large order sizes were not an aspect of Zhao's legitimate trading. Rather, they were part of a scheme to mislead market participants by falsely signaling increased supply or demand for the purpose of luring market participants to trade based on his spoofing.

Orders by Time of Day During the Relevant Period **Event and Non-Event Combined** **(values are approximate)**			
	Total Number of Orders	**% Placed in Daytime Sessions**	**% Placed in Overnight Sessions**
Large orders (≥ 50 contracts)	3,790	2%	98%
Small orders (<50 contracts)	62,700	29%	71%

31. Zhao's Scheme frequently worked as planned; that is, his Spoof Orders tricked other market participants into executing against his Genuine Orders. However, there were times that Zhao's Genuine Orders continued to sit, unfilled, even after he placed and canceled his Spoof Orders; thus, not all of the Events resulted in executions of Zhao's Genuine Orders. Still, Zhao's Genuine Orders seldom terminated in cancelations, again demonstrating the differing intent behind his Spoof and Genuine Orders. Even though, by definition, 100% of Spoof Orders terminated with at least a partial cancelation, the same was true for only about 22% of the Genuine Orders. The difference is that Zhao wanted his Genuine Orders to execute.

32. Zhao also took steps to protect his Spoof Orders from execution. For example, he canceled the Spoof Orders almost immediately after placing them; their median cancelation time was 737 milliseconds, as illustrated in the table below. By contrast, on those rarer occasions when Zhao canceled his Genuine Orders, the median cancelation time was 106 seconds. This means that Zhao allowed his Genuine Orders to rest prior to cancelation for a much longer period than his Spoof Orders. The consistently fast cancelation times for Zhao's Spoof Orders reflect his intent to cancel them from the outset.

Cancelations of Event Orders (values are approximate)	
	Median Time to Cancelation
Spoof Orders	0.737 seconds
Genuine Orders	106 seconds

33. Zhao's efforts to avoid execution of his Spoof Order were successful. This is reflected in vastly diverging rates in which Zhao's Genuine and Spoof Orders were partially or fully filled (the "hit rate"). As reflected in the table below, Zhao placed approximately 2,300 Genuine Orders during the Relevant Period. Of these, about 79% were hit. By contrast, less than 1% of the approximately 3,100 Spoof Orders were hit. Thus, Zhao's Genuine Orders were about 180 times more likely to be hit. As a general matter, whether an order is hit is not dependent on its size; rather, orders at the same price level execute according to time priority under the FIFO matching algorithm. Here, the stark contrast in hit rates results from differences in the orders' relative competitiveness, over which Zhao had control, and illustrates his success in avoiding execution of his Spoof Orders.

Orders Hit in Events (values are approximate)			
	Total Orders in Events	**Number of Orders Hit**	**Percentage of Orders Hit**
Genuine Orders	2,300	1,800	79%
Spoof Orders	3,100	10	<1%

34. The use of large orders was a hallmark of Zhao's Scheme; he rarely placed large orders otherwise. He placed about 3,800 large orders during the Relevant Period; 82% of those were placed pursuant to the Scheme as Spoof Orders. By contrast, Zhao placed about 62,700 small orders during the Relevant Period. Only about 4% of these orders fell within the Scheme as Genuine Orders. Zhao's limited use of large order sizes, nearly always as part of the Scheme and not as part of a legitimate trading strategy, is indicative of his illegal conduct. He primarily used large orders to send false signals of increased supply or demand to market participants.

C. Examples of Zhao's Scheme

35. Zhao's Scheme is illustrated in the three Events set forth below. Detailed trade data associated with these Events is provided in Exhibit A to this Complaint.

1. *Event Example 1: April 15, 2013*

36. Zhao's trading in the early morning of April 15, 2013 constitutes an Event pursuant to his Scheme. *See* Ex. A at 1–8 (displaying detailed trade data). At 1:11:16.287 AM Central Time (denoted in hours, minutes, seconds, and milliseconds), Zhao placed an order to sell one contract (the Genuine Order) at the best-ask level. *See id.* at 1, row 2. About ten seconds later, at 1:11:25.537 AM, Zhao placed an order to buy 151 contracts at the best-bid level (the first Spoof Order). *See id.* at 2, row 33. The first Spoof Order doubled the number of contracts then resting at that level of the order book, but the order was not at risk of executing until the 151 contracts resting ahead of it executed or were withdrawn. Zhao's first Spoof Order did not immediately induce execution of his Genuine Order, and he canceled it at 1:11:26.240 AM (only 703 milliseconds after placing it). *See id.* at 2, row 47. A short time later, Zhao tried again. At 1:11:33.363 AM, he placed an order to buy 171 contracts at the best-bid level (the second Spoof Order), more than doubling the number of contracts resting at that level of the order book. *See id.* at 3, row 89. This time, Zhao's Genuine Order executed at 1:11:33.366 AM, immediately

12

after the second Spoof Order was placed. *See id.* at 4, row 103. He then canceled his second

Spoof Order at 1:11:34.161 AM, within 798 milliseconds of placing it. *See id.* at 8, row 252.

2.   *Event Example 2: March 5, 2014*

37. Zhao's trading in the final hours of March 5, 2014 shows an Event that did not result

in execution of the Genuine Order, contrary to Zhao's plan. *See* Ex. A at 9–12. At 22:44:12.924

PM Central Time, Zhao placed an order to buy one contract (the Genuine Order) at the best-bid

level. *See id.* at 9, row 2. Three seconds later, at 22:44:15.720 PM, Zhao placed an order to sell

201 contracts (the Spoof Order) at the best-ask level. *See id.* at 9, row 15. Zhao's Spoof Order

was nearly 2.5 times the size of the combined orders then resting at that price level of the order

book, but it was not at risk of executing until the 82 contracts resting ahead of it executed or

were withdrawn. Zhao's Genuine Order did not immediately execute. Zhao canceled his Spoof

Order at 22:44:16.394 PM, only 674 milliseconds after placing it. *See id.* at 10, row 40. He let

his Genuine Order rest longer, but canceled it as well at 22:44:40.533 PM, about half a minute

after placing it. *See id.* at 12, row 97.

3.   *Event Example 3: March 21, 2016*

38. A third example occurred on March 21, 2016. *See* Ex. A at 13–18. At 7:31:28.726

AM Central Time, Zhao placed an order to sell 11 contracts (the Genuine Order) at the best-ask

level. *See id.* at 13, row 2. About five seconds later, at 7:31:33.645 AM, Zhao placed an order

to buy 82 contracts (the Spoof Order) at the best-bid level. *See id.* at 13, row 441. The Spoof

Order was over half the size of the combined orders then resting at that price level, but it was not

at risk of executing until the 153 contracts resting ahead of it executed or were withdrawn.

Almost immediately, at 7:31:33.980 AM and 7:31:33.981 AM, Zhao's Genuine Order executed

through one trade of one and one trade of ten contracts. *See id.* at 13, rows 456 & 458. Zhao

then canceled his Spoof Order at 7:31:34.389 AM, just 744 milliseconds after placing it. *See id.*

at 18, row 617.

VI. VIOLATIONS OF THE ACT

COUNT I

VIOLATIONS OF SECTION 4c(a)(5)(C) OF THE ACT, 7 U.S.C. § 6c(a)(5)(C)

Spoofing

39. Paragraphs 1 to 38 are re-alleged and incorporated herein by reference.

40. By reason of the conduct described above, Zhao engaged in trading, practices, or

conduct on or subject to the rules of a registered entity that is, is of the character of, or is

commonly known to the trade as, "spoofing" (bidding or offering with the intent to cancel the

bid or offer before execution).

41. In placing each Spoof Order, Zhao acted with the intent to cancel the bid or offer

before execution.

42. By reason of the foregoing, Zhao violated Section 4c(a)(5) of the Act, 7 U.S.C. §

6c(a)(5) (2012).

43. Each Spoof Order constitutes a separate and distinct violation of Section 4c(a)(5)(C)

of the Act.

COUNT II

VIOLATIONS OF SECTION 6(c)(1) OF THE ACT, 7 U.S.C. § 9(1), AND REGULATION 180.1(a)(1) AND (3), 17 C.F.R. § 180.1(a)(1), (3)

Use of a Manipulative and Deceptive Device, Scheme, or Artifice

44. Paragraphs 1 to 38 are re-alleged and incorporated herein by reference.

45. By reason of the conduct described above, Zhao, in connection with a contract for

future delivery on a registered entity, intentionally or recklessly: (1) used or employed, or

attempted to use or employ, manipulative devices, schemes, or artifices to defraud; or (2)

engaged, or attempted to engage, in acts, practices, or courses of business, which operated or

would have operated as a fraud or deceit upon market participants.

46. Zhao acted intentionally or recklessly.

47. By reason of the foregoing, Zhao violated Section 6(c)(1) of the Act, 7 U.S.C. § 9(1)

(2012), and Regulation 180.1(a)(1) and (3), 17 C.F.R. § 180.1(a)(1), (3) (2017).

48. Each Spoof Order, Event, and Scheme constitutes a separate and distinct violation of

Section 6(c)(1) of the Act and Regulation 180.1(a)(1) and (3).

VII. RELIEF REQUESTED

WHEREFORE, the CFTC respectfully requests that the Court, as authorized by Section

6c of the Act, 7 U.S.C. § 13a-1 (2012), and pursuant to its own equitable powers:

A.   Find that Zhao violated Sections 4c(a)(5)(C) and 6(c)(1) of the Act, 7 U.S.C.

§§ 6c(a)(5)(C), 9(1) (2012), and Regulation 180.1(a)(1) and (3), 17 C.F.R. § 180.1(a)(1), (3)

(2017);

B.   Enter an order of permanent injunction enjoining Zhao, and his affiliates, agents,

servants, employees, successors, assigns, attorneys, and all persons in active concert with him

who receive actual notice of such order by personal service or otherwise, from violating Sections

4c(a)(5)(C) and 6(c)(1) of the Act and Regulation 180.1(a)(1) and (3);

C.   Enter an order of permanent injunction enjoining Zhao, and his affiliates, agents,

servants, employees, successors, assigns, attorneys, and all persons in active concert with him,

from directly or indirectly:

1. Trading on or subject to the rules of any registered entity (as that term is defined in Section 1a(40) of the Act, 7 U.S.C. § 1a(40) (2012));

2. Entering into any transactions involving "commodity interests" (as that term is defined in Regulation 1.3(yy), 17 C.F.R. § 1.3(yy) (2017)) for his own personal account or for any account in which he has a direct or indirect interest;

3. Having any commodity interests traded on his behalf;

4. Controlling or directing the trading for or on behalf of any other person or entity, whether by power of attorney or otherwise, in any account involving commodity interests;

5. Soliciting, receiving or accepting any funds from any person for the purpose of purchasing or selling any commodity interests;

6. Applying for registration or claiming exemption from registration with the CFTC in any capacity, and engaging in any activity requiring such registration or exemption from registration with the CFTC, except as provided for in Regulation 4.14(a)(9), 17 C.F.R. § 4.14(a)(9) (2017); and/or

7. Acting as a principal (as that term is defined in Regulation 3.1(a), 17 C.F.R. § 3.1(a) (2017)), agent or any other officer or employee of any person (as that term is defined in Section 1a(38) of the Act, 7 U.S.C. § 1a(38) (2012)), registered, exempted from registration or required to be registered with the CFTC except as provided for in Regulation 4.14(a)(9), 17 C.F.R. § 4.14(a)(9) (2017).

D.   Enter an order directing Zhao to be assessed by the Court, in an amount not to exceed the penalty prescribed by Section 6c(d)(1) of the Act, 7 U.S.C. § 13a-1(d)(1) (2012), as adjusted for inflation pursuant to the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015, Pub. L. 114-74, 129 Stat. 584 (2015), title VII, Section 701, *see* Regulation 143.8, 17 C.F.R. § 143.8 (2017), for each violation of the Act, as described herein;

E.   Enter an order requiring Zhao to pay costs and fees, as permitted by 28 U.S.C. §§ 1920 and 2412(a)(2) (2012); and

16

F.   Enter an order providing for such other and further remedial and ancillary relief,

including but not limited to disgorgement, as this Court may deem necessary and appropriate.

Dated: January 28, 2018   Respectfully submitted,

                                       PLAINTIFF COMMODITY FUTURES
                                       TRADING COMMISSION

                                       s/Christopher A. Reed
                                       Deputy Regional Counsel

                                       Christopher A. Reed (MO Bar # 59025)
                                       Laura Brookover (DC Bar # 1007639)
                                       Commodity Futures Trading Commission
                                       4900 Main Street, Suite 500
                                       Kansas City, Missouri 64112
                                       Telephone: (816) 960-7700
                                       Facsimile: (816) 960-7751
                                       creed@cftc.gov
                                       lbrookover@cftc.gov

                                       Attorneys for Plaintiff

17

Exhibit A

TO COMPLAINT FOR INJUNCTIVE RELIEF, CIVIL MONETARY PENALTIES, AND OTHER RELIEF

EVENT EXAMPLE 1

April 15, 2013

ES Contract June Delivery (ESM3)

Row	Time	Second Bid Level			First Bid Level			Action	Side	Lots	Price	Type	First Ask Level			Second Ask Level		
		Lots	Orders	Price	Lots	Orders	Price						Price	Orders	Lots	Price	Orders	Lots
1	1:11:15.670	193	61	157500	149	39	157525						157550	14	60	157575	72	261
2	1:11:16.287							Order	S	1	157550	Genuine						
3	1:11:16.287	193	61	157500	149	39	157525						157550	15	61	157575	72	261
4	1:11:16.390	193	61	157500	149	39	157525						157550	13	58	157575	72	261
5	1:11:16.390	193	61	157500	151	40	157525						157550	13	58	157575	72	261
6	1:11:16.390	193	61	157500	149	39	157525						157550	14	60	157575	72	261
7	1:11:16.390	193	61	157500	151	40	157525						157550	12	56	157575	72	261
8	1:11:16.391	193	61	157500	151	40	157525						157550	11	54	157575	72	261
9	1:11:16.392	193	61	157500	151	40	157525						157550	11	54	157575	72	261
10	1:11:17.289	193	61	157500	151	40	157525						157550	10	52	157575	72	261
11	1:11:17.343	193	61	157500	151	40	157525						157550	10	52	157575	73	262
12	1:11:17.343	193	61	157500	151	40	157525						157550	10	52	157575	73	262
13	1:11:17.446	193	61	157500	151	40	157525						157550	10	52	157575	72	261
14	1:11:17.446	193	61	157500	151	40	157525						157550	10	52	157575	72	261
15	1:11:19.310	193	61	157500	151	40	157525						157550	11	54	157575	72	261
16	1:11:20.443	193	61	157500	151	40	157525						157550	11	54	157575	73	262
17	1:11:20.443	193	61	157500	151	40	157525						157550	11	54	157575	73	262
18	1:11:20.734	193	61	157500	151	40	157525						157550	11	54	157575	72	261
19	1:11:20.734	193	61	157500	151	40	157525						157550	11	54	157575	72	261
20	1:11:21.264	193	61	157500	151	40	157525						157550	12	56	157575	72	261
21	1:11:21.286	193	61	157500	151	40	157525						157550	12	56	157575	73	262
22	1:11:21.286	193	61	157500	151	40	157525						157550	12	56	157575	73	262
23	1:11:21.286	193	61	157500	151	40	157525						157550	13	58	157575	73	262
24	1:11:21.532	193	61	157500	151	40	157525						157550	13	58	157575	73	262
25	1:11:21.532	193	61	157500	151	40	157525						157550	13	58	157575	73	262
26	1:11:21.532	193	61	157500	151	40	157525						157550	13	58	157575	73	262
27	1:11:21.532	193	61	157500	151	40	157525						157550	13	58	157575	73	262
28	1:11:21.532	193	61	157500	151	40	157525						157550	13	58	157575	73	262

1

Row	Time	Second Bid Level			First Bid Level			Action	Side	Lots	Price	Type	First Ask Level			Second Ask Level		
		Lots	Orders	Price	Lots	Orders	Price						Price	Orders	Lots	Price	Orders	Lots
29	1:11:23.654	193	61	157500	151	40	157525						157550	13	58	157575	72	261
30	1:11:23.654	193	61	157500	151	40	157525						157550	13	58	157575	72	261
31	1:11:25.313	193	61	157500	151	40	157525						157550	14	59	157575	72	261
32	1:11:25.313	193	61	157500	151	40	157525						157550	14	59	157575	71	260
33	1:11:25.537							Order	B	151	157525	Spoof						
34	1:11:25.537	193	61	157500	302	41	157525						157550	14	59	157575	71	260
35	1:11:25.538	193	61	157500	302	41	157525						157550	13	56	157575	71	260
36	1:11:25.538	193	61	157500	302	41	157525						157550	9	47	157575	71	260
37	1:11:25.538	193	61	157500	302	41	157525						157550	9	47	157575	71	260
38	1:11:25.538	193	61	157500	302	41	157525						157550	9	47	157575	71	260
39	1:11:25.538	193	61	157500	302	41	157525						157550	10	49	157575	71	260
40	1:11:25.538	193	61	157500	302	41	157525						157550	11	51	157575	71	260
41	1:11:25.538	193	61	157500	302	41	157525						157550	12	54	157575	71	260
42	1:11:25.541	193	61	157500	302	42	157525						157550	9	47	157575	71	260
43	1:11:25.561	198	62	157500	303	42	157525						157550	9	47	157575	71	260
44	1:11:25.561	198	62	157500	303	42	157525						157550	9	47	157575	71	260
45	1:11:25.753	198	62	157500	303	42	157525						157550	8	44	157575	71	260
46	1:11:26.053	198	62	157500	303	42	157525						157550	7	41	157575	71	260
47	1:11:26.240							Cancel	B	151	157525	Spoof						
48	1:11:26.240	198	62	157500	152	41	157525						157550	7	41	157575	71	260
49	1:11:26.241	198	62	157500	152	41	157525						157550	15	61	157575	71	260
50	1:11:26.241	198	62	157500	152	41	157525						157550	15	61	157575	71	260
51	1:11:26.241	198	62	157500	152	41	157525						157550	15	61	157575	72	266
52	1:11:26.241	198	62	157500	152	41	157525						157550	14	59	157575	71	260
53	1:11:26.241	198	62	157500	152	41	157525						157550	8	44	157575	71	260
54	1:11:26.241	198	62	157500	152	41	157525						157550	13	56	157575	71	260
55	1:11:26.241	198	62	157500	152	41	157525						157550	11	51	157575	71	260
56	1:11:26.241	198	62	157500	152	41	157525						157550	10	48	157575	71	260
57	1:11:26.241	198	62	157500	152	41	157525						157550	9	46	157575	71	260
58	1:11:26.241	198	62	157500	152	41	157525						157550	12	53	157575	71	260
59	1:11:26.241	198	62	157500	152	41	157525						157550	15	61	157575	71	260
60	1:11:26.242	198	62	157500	152	41	157525						157550	15	61	157575	72	266
61	1:11:26.242	198	62	157500	152	41	157525						157550	15	61	157575	72	266

EVENT EXAMPLE 1

2

Row	Time	Second Bid Level Lots	Orders	Price	First Bid Level Lots	Orders	Price	Action	Side	Lots	Price	Type	First Ask Level Price	Orders	Lots	Second Ask Level Price	Orders	Lots
62	1:11:26.242	198	62	157500	152	41	157525						157550	15	61	157575	72	266
63	1:11:26.242	198	62	157500	152	41	157525						157550	15	61	157575	72	266
64	1:11:26.242	198	62	157500	152	41	157525						157550	15	61	157575	72	266
65	1:11:26.243	198	62	157500	151	40	157525						157550	15	61	157575	72	266
66	1:11:26.248	193	61	157500	151	40	157525						157550	15	61	157575	72	266
67	1:11:26.248	193	61	157500	151	40	157525						157550	15	61	157575	72	266
68	1:11:26.334	193	61	157500	151	40	157525						157550	15	61	157575	72	266
69	1:11:26.887	193	61	157500	151	40	157525						157550	15	61	157575	73	267
70	1:11:27.045	193	61	157500	151	40	157525						157550	12	53	157575	73	267
71	1:11:27.045	193	61	157500	151	40	157525						157550	13	55	157575	73	267
72	1:11:27.045	193	61	157500	151	40	157525						157550	14	57	157575	73	267
73	1:11:27.045	193	61	157500	151	40	157525						157550	15	59	157575	73	267
74	1:11:27.047	193	61	157500	151	40	157525						157550	12	53	157575	73	267
75	1:11:27.047	193	61	157500	151	40	157525						157550	12	53	157575	73	267
76	1:11:27.047	193	61	157500	151	40	157525						157550	12	53	157575	73	267
77	1:11:27.047	193	61	157500	151	40	157525						157550	12	53	157575	73	267
78	1:11:27.047	193	61	157500	151	40	157525						157550	12	53	157575	73	267
79	1:11:27.548	193	61	157500	151	40	157525						157550	12	53	157575	72	261
80	1:11:27.712	193	61	157500	151	40	157525						157550	12	51	157575	72	261
81	1:11:27.713	193	61	157500	151	40	157525						157550	11	49	157575	72	261
82	1:11:27.716	193	61	157500	152	41	157525						157550	11	49	157575	72	261
83	1:11:28.395	193	61	157500	152	41	157525						157550	11	49	157575	72	261
84	1:11:31.777	193	61	157500	152	41	157525						157550	11	48	157575	72	261
85	1:11:31.778	193	61	157500	152	41	157525						157550	10	45	157575	72	261
86	1:11:32.151	193	61	157500	152	41	157525						157550	10	44	157575	72	261
87	1:11:32.184	193	61	157500	152	41	157525						157550	10	43	157575	72	261
88	1:11:32.836	193	61	157500	152	41	157525						157550	10	43	157575	72	261
89	1:11:33.363							Order	B	171	157525	Spoof						
90	1:11:33.364	193	61	157500	323	42	157525						157550	8	37	157575	72	261
91	1:11:33.364	193	61	157500	323	42	157525						157550	9	40	157575	72	261
92	1:11:33.364	193	61	157500	323	42	157525						157550	10	43	157575	72	261
93	1:11:33.365	193	61	157500	323	42	157525						157550	6	28	157575	71	260
94	1:11:33.365	193	61	157500	323	42	157525						157550	6	28	157575	71	260

EVENT EXAMPLE 1

3

Row	Time	Second Bid Level Lots	Orders	Price	First Bid Level Lots	Orders	Price	Action	Side	Lots	Price	Type	First Ask Level Price	Orders	Lots	Second Ask Level Price	Orders	Lots
95	1:11:33.365	193	61	157500	323	42	157525						157550	6	28	157575	72	261
96	1:11:33.365	193	61	157500	323	42	157525						157550	6	28	157575	72	261
97	1:11:33.365	193	61	157500	323	42	157525						157550	6	31	157575	72	261
98	1:11:33.365	193	61	157500	323	42	157525						157550	6	31	157575	72	261
99	1:11:33.365	193	61	157500	323	42	157525						157550	6	31	157575	72	261
100	1:11:33.365	193	61	157500	323	42	157525						157550	7	34	157575	72	261
101	1:11:33.365	193	61	157500	323	42	157525						157550	8	37	157575	72	261
102	1:11:33.365	193	61	157500	323	42	157525						157550	8	37	157575	72	261
103	1:11:33.366							Trade	S	1	157550	Genuine						
104	1:11:33.366	193	61	157500	323	42	157525						157550	6	26	157575	71	260
105	1:11:33.366	193	61	157500	323	42	157525						157550	6	24	157575	71	260
106	1:11:33.367	193	61	157500	323	42	157525						157575	69	258	157600	63	212
107	1:11:33.367	193	61	157500	323	42	157525						157575	70	259	157600	63	212
108	1:11:33.367	193	61	157500	323	42	157525						157575	71	260	157600	63	212
109	1:11:33.367	193	61	157500	323	42	157525						157575	71	260	157600	63	212
110	1:11:33.367	193	61	157500	323	42	157525						157575	71	260	157600	63	212
111	1:11:33.367	193	61	157500	323	42	157525						157575	71	260	157600	63	212
112	1:11:33.367	193	61	157500	323	42	157525						157575	68	257	157600	63	212
113	1:11:33.367	193	61	157500	323	42	157525						157575	71	260	157600	63	212
114	1:11:33.367	193	61	157500	323	42	157525						157575	71	260	157600	63	212
115	1:11:33.367	193	61	157500	323	42	157525						157575	71	260	157600	63	212
116	1:11:33.367	193	61	157500	323	42	157525						157575	71	260	157600	63	212
117	1:11:33.367	193	61	157500	323	42	157525						157575	71	260	157600	63	212
118	1:11:33.368	323	42	157525	6	2	157550						157575	64	251	157600	58	198
119	1:11:33.368	323	42	157525	6	2	157550						157575	64	251	157600	59	202
120	1:11:33.368	323	42	157525	6	2	157550						157575	64	251	157600	59	202
121	1:11:33.368	323	42	157525	6	2	157550						157575	65	252	157600	60	203
122	1:11:33.368	323	42	157525	3	1	157550						157575	65	252	157600	60	203
123	1:11:33.368	323	42	157525	3	1	157550						157575	65	252	157600	61	207
124	1:11:33.368	323	42	157525	6	2	157550						157575	65	252	157600	59	202
125	1:11:33.368	323	42	157525	3	1	157550						157575	65	252	157600	61	207
126	1:11:33.368	323	42	157525	3	1	157550						157575	65	252	157600	62	208
127	1:11:33.368	323	42	157525	6	2	157550						157575	64	251	157600	58	198

EVENT EXAMPLE 1

4

Row	Time	Second Bid Level			First Bid Level			Action	Side	Lots	Price	Type	First Ask Level			Second Ask Level		
		Lots	Orders	Price	Lots	Orders	Price						Price	Orders	Lots	Price	Orders	Lots
128	1:11:33.368	323	42	157525	3	1	157550						157575	65	252	157600	63	212
129	1:11:33.368	323	42	157525	3	1	157550						157575	65	254	157600	63	212
130	1:11:33.368	323	42	157525	3	1	157550						157575	65	254	157600	63	212
131	1:11:33.368	193	61	157500	323	42	157525						157575	65	254	157600	63	212
132	1:11:33.368	193	61	157500	323	42	157525						157575	66	255	157600	63	212
133	1:11:33.368	193	61	157500	323	42	157525						157575	67	256	157600	63	212
134	1:11:33.369	323	42	157525	12	5	157550						157575	63	250	157600	58	198
135	1:11:33.369	323	42	157525	12	5	157550						157575	63	250	157600	58	198
136	1:11:33.369	323	42	157525	12	5	157550						157575	63	250	157600	58	198
137	1:11:33.369	323	42	157525	12	5	157550						157575	63	250	157600	58	198
138	1:11:33.369	323	42	157525	11	4	157550						157575	63	250	157600	58	198
139	1:11:33.369	323	42	157525	11	4	157550						157575	63	250	157600	58	198
140	1:11:33.369	323	42	157525	11	4	157550						157575	63	250	157600	58	198
141	1:11:33.369	323	42	157525	11	4	157550						157575	63	250	157600	58	198
142	1:11:33.369	323	42	157525	11	4	157550						157575	63	250	157600	58	198
143	1:11:33.369	323	42	157525	11	4	157550						157575	63	250	157600	58	198
144	1:11:33.369	323	42	157525	11	4	157550						157575	63	250	157600	59	199
145	1:11:33.369	323	42	157525	11	4	157550						157575	63	250	157600	59	199
146	1:11:33.369	323	42	157525	11	4	157550						157575	63	250	157600	59	199
147	1:11:33.369	323	42	157525	11	4	157550						157575	63	250	157600	59	199
148	1:11:33.369	323	42	157525	11	4	157550						157575	63	250	157600	58	198
149	1:11:33.369	323	42	157525	11	4	157550						157575	64	251	157600	58	198
150	1:11:33.369	323	42	157525	11	4	157550						157575	64	251	157600	58	198
151	1:11:33.369	323	42	157525	11	4	157550						157575	64	251	157600	58	198
152	1:11:33.369	323	42	157525	11	4	157550						157575	64	251	157600	58	198
153	1:11:33.369	323	42	157525	8	3	157550						157575	64	251	157600	58	198
154	1:11:33.369	323	42	157525	8	3	157550						157575	64	251	157600	58	198
155	1:11:33.369	323	42	157525	6	2	157550						157575	64	251	157600	58	198
156	1:11:33.370	333	50	157525	15	6	157550						157575	63	250	157600	58	198
157	1:11:33.370	331	49	157525	15	6	157550						157575	63	250	157600	58	198
158	1:11:33.370	331	49	157525	15	6	157550						157575	63	250	157600	58	198
159	1:11:33.370	329	48	157525	15	6	157550						157575	63	250	157600	58	198
160	1:11:33.370	329	48	157525	15	6	157550						157575	63	250	157600	58	198

EVENT EXAMPLE 1

5

EVENT EXAMPLE 1

Row	Time	Second Bid Level			First Bid Level			Action	Side	Lots	Price	Type	First Ask Level			Second Ask Level		
		Lots	Orders	Price	Lots	Orders	Price						Price	Orders	Lots	Price	Orders	Lots
161	1:11:33.370	329	48	157525	15	6	157550						157575	63	250	157600	58	198
162	1:11:33.370	329	48	157525	12	5	157550						157575	63	250	157600	58	198
163	1:11:33.370	329	48	157525	12	5	157550						157575	63	250	157600	58	198
164	1:11:33.370	328	47	157525	12	5	157550						157575	63	250	157600	58	198
165	1:11:33.370	328	47	157525	12	5	157550						157575	63	250	157600	58	198
166	1:11:33.370	329	48	157525	15	6	157550						157575	63	250	157600	58	198
167	1:11:33.370	327	46	157525	12	5	157550						157575	63	250	157600	58	198
168	1:11:33.370	327	46	157525	12	5	157550						157575	63	250	157600	58	198
169	1:11:33.370	326	45	157525	12	5	157550						157575	63	250	157600	58	198
170	1:11:33.370	325	44	157525	12	5	157550						157575	63	250	157600	58	198
171	1:11:33.370	334	51	157525	15	6	157550						157575	63	250	157600	58	198
172	1:11:33.370	324	43	157525	12	5	157550						157575	63	250	157600	58	198
173	1:11:33.370	324	43	157525	12	5	157550						157575	63	250	157600	58	198
174	1:11:33.370	323	42	157525	12	5	157550						157575	63	250	157600	58	198
175	1:11:33.370	323	42	157525	12	5	157550						157575	63	250	157600	58	198
176	1:11:33.370	323	42	157525	12	5	157550						157575	63	250	157600	58	198
177	1:11:33.370	323	42	157525	12	5	157550						157575	63	250	157600	58	198
178	1:11:33.371	389	63	157525	12	5	157550						157575	62	252	157600	59	201
179	1:11:33.371	389	63	157525	12	5	157550						157575	62	252	157600	59	201
180	1:11:33.371	389	63	157525	12	5	157550						157575	62	252	157600	58	198
181	1:11:33.371	389	63	157525	12	5	157550						157575	63	255	157600	58	198
182	1:11:33.371	389	63	157525	12	5	157550						157575	64	256	157600	58	198
183	1:11:33.371	389	63	157525	12	5	157550						157575	64	256	157600	58	198
184	1:11:33.371	389	63	157525	12	5	157550						157575	64	256	157600	58	198
185	1:11:33.371	389	63	157525	15	6	157550						157575	64	256	157600	58	198
186	1:11:33.371	389	63	157525	15	6	157550						157575	64	256	157600	58	198
187	1:11:33.371	389	63	157525	15	6	157550						157575	63	250	157600	58	198
188	1:11:33.371	387	62	157525	15	6	157550						157575	63	250	157600	58	198
189	1:11:33.371	387	62	157525	15	6	157550						157575	63	250	157600	58	198
190	1:11:33.371	389	63	157525	15	6	157550						157575	64	256	157600	58	198
191	1:11:33.371	387	62	157525	15	6	157550						157575	63	250	157600	58	198
192	1:11:33.371	382	61	157525	15	6	157550						157575	63	250	157600	58	198
193	1:11:33.371	377	60	157525	15	6	157550						157575	63	250	157600	58	198

6

Row	Time	Second Bid Level			First Bid Level			Action	Side	Lots	Price	Type	First Ask Level			Second Ask Level		
		Lots	Orders	Price	Lots	Orders	Price						Price	Orders	Lots	Price	Orders	Lots
194	1:11:33.371	372	59	157525	15	6	157550						157575	63	250	157600	58	198
195	1:11:33.371	372	59	157525	15	6	157550						157575	63	250	157600	58	198
196	1:11:33.371	372	59	157525	15	6	157550						157575	63	250	157600	58	198
197	1:11:33.371	370	58	157525	15	6	157550						157575	63	250	157600	58	198
198	1:11:33.371	369	57	157525	15	6	157550						157575	63	250	157600	58	198
199	1:11:33.371	389	63	157525	12	5	157550						157575	62	252	157600	59	201
200	1:11:33.371	364	56	157525	15	6	157550						157575	63	250	157600	58	198
201	1:11:33.371	354	55	157525	15	6	157550						157575	63	250	157600	58	198
202	1:11:33.371	354	55	157525	15	6	157550						157575	63	250	157600	58	198
203	1:11:33.371	340	54	157525	15	6	157550						157575	63	250	157600	58	198
204	1:11:33.371	338	53	157525	15	6	157550						157575	63	250	157600	58	198
205	1:11:33.371	338	53	157525	15	6	157550						157575	63	250	157600	58	198
206	1:11:33.371	338	53	157525	15	6	157550						157575	63	250	157600	58	198
207	1:11:33.371	336	52	157525	15	6	157550						157575	63	250	157600	58	198
208	1:11:33.372	390	64	157525	19	8	157550						157575	61	247	157600	60	206
209	1:11:33.372	390	64	157525	19	8	157550						157575	61	247	157600	60	206
210	1:11:33.372	390	64	157525	19	8	157550						157575	61	247	157600	60	206
211	1:11:33.372	390	64	157525	19	8	157550						157575	61	247	157600	59	201
212	1:11:33.372	390	64	157525	19	8	157550						157575	62	252	157600	59	201
213	1:11:33.372	390	64	157525	16	7	157550						157575	62	252	157600	59	201
214	1:11:33.372	390	64	157525	14	6	157550						157575	62	252	157600	59	201
215	1:11:33.372	390	64	157525	14	6	157550						157575	62	252	157600	59	201
216	1:11:33.372	390	64	157525	19	8	157550						157575	61	247	157600	60	206
217	1:11:33.372	390	64	157525	14	6	157550						157575	62	252	157600	59	201
218	1:11:33.372	390	64	157525	14	6	157550						157575	62	252	157600	59	201
219	1:11:33.372	390	64	157525	12	5	157550						157575	62	252	157600	59	201
220	1:11:33.372	390	64	157525	12	5	157550						157575	62	252	157600	59	201
221	1:11:33.372	390	64	157525	12	5	157550						157575	62	252	157600	59	201
222	1:11:33.372	390	64	157525	12	5	157550						157575	62	252	157600	59	201
223	1:11:33.374	390	64	157525	19	8	157550						157575	61	247	157600	60	206
224	1:11:33.375	390	64	157525	19	8	157550						157575	60	246	157600	60	206
225	1:11:33.378	390	64	157525	19	8	157550						157575	60	246	157600	60	206
226	1:11:33.385	394	65	157525	19	8	157550						157575	59	238	157600	60	206

EVENT EXAMPLE 1

Row	Time	Second Bid Level Lots	Orders	Price	First Bid Level Lots	Orders	Price	Action	Side	Lots	Price	Type	First Ask Level Price	Orders	Lots	Second Ask Level Price	Orders	Lots
227	1:11:33.385	394	65	157525	19	8	157550						157575	59	238	157600	60	206
228	1:11:33.385	394	65	157525	19	8	157550						157575	59	238	157600	60	206
229	1:11:33.385	394	65	157525	19	8	157550						157575	60	246	157600	60	206
230	1:11:33.385	394	65	157525	19	8	157550						157575	60	246	157600	60	206
231	1:11:33.385	394	65	157525	19	8	157550						157575	60	246	157600	60	206
232	1:11:33.386	394	65	157525	19	8	157550						157575	59	238	157600	60	206
233	1:11:33.386	393	64	157525	19	8	157550						157575	59	238	157600	60	206
234	1:11:33.386	393	64	157525	19	8	157550						157575	59	238	157600	60	206
235	1:11:33.386	393	64	157525	19	8	157550						157575	59	238	157600	60	206
236	1:11:33.386	393	64	157525	19	8	157550						157575	59	238	157600	60	206
237	1:11:33.386	393	64	157525	19	8	157550						157575	59	238	157600	60	206
238	1:11:33.386	393	64	157525	19	8	157550						157575	59	238	157600	60	206
239	1:11:33.386	393	64	157525	19	8	157550						157575	59	238	157600	60	206
240	1:11:33.386	393	64	157525	19	8	157550						157575	59	238	157600	60	206
241	1:11:33.387	394	65	157525	19	8	157550						157575	59	238	157600	60	206
242	1:11:33.387	394	65	157525	19	8	157550						157575	59	238	157600	60	206
243	1:11:33.387	394	65	157525	19	8	157550						157575	59	238	157600	60	206
244	1:11:33.387	394	65	157525	19	8	157550						157575	59	238	157600	60	206
245	1:11:33.478	394	65	157525	20	9	157550						157575	59	238	157600	60	206
246	1:11:33.479	394	65	157525	22	10	157550						157575	59	238	157600	60	206
247	1:11:33.482	395	66	157525	22	10	157550						157575	59	238	157600	60	206
248	1:11:33.613	395	66	157525	20	9	157550						157575	59	238	157600	60	206
249	1:11:33.870	395	66	157525	20	9	157550						157575	58	232	157600	59	205
250	1:11:33.870	395	66	157525	20	9	157550						157575	58	232	157600	60	206
251	1:11:33.975	395	66	157525	39	10	157550						157575	58	232	157600	59	205
252	1:11:34.161							Cancel	B	171	157525	Spoof						
253	1:11:34.161	224	65	157525	39	10	157550						157575	58	232	157600	59	205

EVENT EXAMPLE 1

8

EVENT EXAMPLE 2

March 5, 2014

ES Contract March Delivery (ESH4)

Row	Time	Second Bid Level			First Bid Level			Action	Side	Lots	Price	Type	First Ask Level			Second Ask Level		
		Lots	Orders	Price	Lots	Orders	Price						Price	Orders	Lots	Price	Orders	Lots
1	22:44:12.829	195	36	187525	30	11	187550						187575	24	82	187600	38	228
2	22:44:12.924							Order	B	1	187550	Genuine						
3	22:44:12.924	195	36	187525	31	12	187550						187575	24	82	187600	38	228
4	22:44:13.346	195	36	187525	31	12	187550						187575	24	82	187600	38	228
5	22:44:13.346	195	36	187525	31	12	187550						187575	24	82	187600	38	228
6	22:44:14.737	195	36	187525	34	13	187550						187575	24	82	187600	38	228
7	22:44:14.807	195	36	187525	33	13	187550						187575	24	82	187600	38	228
8	22:44:14.909	195	36	187525	33	13	187550						187575	24	82	187600	38	228
9	22:44:14.909	195	36	187525	33	13	187550						187575	24	82	187600	38	228
10	22:44:14.971	195	36	187525	33	13	187550						187575	24	82	187600	38	228
11	22:44:14.972	195	36	187525	33	13	187550						187575	24	82	187600	38	228
12	22:44:15.441	195	36	187525	32	13	187550						187575	24	82	187600	38	228
13	22:44:15.704	195	36	187525	31	13	187550						187575	24	82	187600	38	228
14	22:44:15.705	195	36	187525	31	13	187550						187575	24	82	187600	39	230
15	22:44:15.720							Order	S	201	187575	Spoof						
16	22:44:15.720	195	36	187525	31	13	187550						187575	25	283	187600	39	230
17	22:44:15.720	195	36	187525	29	12	187550						187575	25	283	187600	39	230
18	22:44:15.720	195	36	187525	29	12	187550						187575	26	284	187600	39	230
19	22:44:15.721	195	36	187525	24	11	187550						187575	26	284	187600	39	230
20	22:44:15.721	195	36	187525	24	11	187550						187575	27	287	187600	39	230
21	22:44:15.722	195	36	187525	23	10	187550						187575	27	287	187600	39	230
22	22:44:15.722	195	36	187525	23	10	187550						187575	27	287	187600	39	230
23	22:44:15.722	195	36	187525	23	10	187550						187575	27	287	187600	40	232
24	22:44:15.722	195	36	187525	23	10	187550						187575	27	287	187600	40	232
25	22:44:15.723	195	36	187525	13	4	187550						187575	27	287	187600	40	232
26	22:44:15.723	195	36	187525	13	4	187550						187575	28	288	187600	40	232
27	22:44:15.723	195	36	187525	13	4	187550						187575	29	289	187600	40	232
28	22:44:15.723	195	36	187525	13	4	187550						187575	29	289	187600	41	234

Row	Time	Second Bid Level			First Bid Level			Action	Side	Lots	Price	Type	First Ask Level			Second Ask Level		
		Lots	Orders	Price	Lots	Orders	Price						Price	Orders	Lots	Price	Orders	Lots
29	22:44:15.768	195	36	187525	13	4	187550						187575	29	289	187600	41	234
30	22:44:15.825	195	36	187525	13	4	187550						187575	28	288	187600	41	234
31	22:44:15.825	195	36	187525	13	4	187550						187575	27	287	187600	41	234
32	22:44:15.825	195	36	187525	15	5	187550						187575	27	287	187600	41	234
33	22:44:15.838	195	36	187525	16	6	187550						187575	27	287	187600	41	234
34	22:44:15.857	200	37	187525	16	6	187550						187575	27	287	187600	41	234
35	22:44:15.945	200	37	187525	15	6	187550						187575	27	287	187600	41	234
36	22:44:16.145	200	37	187525	14	6	187550						187575	27	287	187600	41	234
37	22:44:16.221	198	36	187525	14	6	187550						187575	27	287	187600	41	234
38	22:44:16.353	198	36	187525	13	6	187550						187575	27	287	187600	41	234
39	22:44:16.354	198	36	187525	13	6	187550						187575	28	289	187600	41	234
40	22:44:16.394							Cancel	S	201	187575	Spoof						
41	22:44:16.394	198	36	187525	13	6	187550						187575	27	88	187600	41	234
42	22:44:16.394	198	36	187525	13	6	187550						187575	26	87	187600	41	234
43	22:44:16.394	198	36	187525	18	7	187550						187575	26	87	187600	41	234
44	22:44:16.394	198	36	187525	21	8	187550						187575	26	87	187600	41	234
45	22:44:16.395	198	36	187525	23	9	187550						187575	26	87	187600	41	234
46	22:44:16.395	198	36	187525	23	9	187550						187575	25	85	187600	41	234
47	22:44:16.543	198	36	187525	22	9	187550						187575	25	85	187600	41	234
48	22:44:16.544	200	37	187525	22	9	187550						187575	25	85	187600	41	234
49	22:44:16.728	200	37	187525	21	9	187550						187575	25	85	187600	41	234
50	22:44:16.762	200	37	187525	21	9	187550						187575	25	85	187600	41	234
51	22:44:16.845	200	37	187525	21	9	187550						187575	25	85	187600	41	234
52	22:44:16.895	200	37	187525	21	9	187550						187575	25	85	187600	40	232
53	22:44:16.901	200	37	187525	21	9	187550						187575	25	85	187600	39	230
54	22:44:16.901	200	37	187525	21	9	187550						187575	25	85	187600	39	230
55	22:44:16.912	200	37	187525	20	9	187550						187575	25	85	187600	39	230
56	22:44:18.111	200	37	187525	19	9	187550						187575	25	85	187600	39	230
57	22:44:18.112	200	37	187525	19	9	187550						187575	25	85	187600	40	232
58	22:44:18.997	197	36	187525	19	9	187550						187575	25	85	187600	40	232
59	22:44:18.997	197	36	187525	19	9	187550						187575	25	85	187600	40	232
60	22:44:18.997	195	35	187525	19	9	187550						187575	25	85	187600	40	232
61	22:44:18.997	195	35	187525	19	9	187550						187575	25	85	187600	40	232

EVENT EXAMPLE 2

Row	Time	Second Bid Level			First Bid Level			Action	Side	Lots	Price	Type	First Ask Level			Second Ask Level		
		Lots	Orders	Price	Lots	Orders	Price						Price	Orders	Lots	Price	Orders	Lots
62	22:44:18.997	195	35	187525	19	9	187550						187575	25	85	187600	40	232
63	22:44:18.999	195	35	187525	19	9	187550						187575	25	85	187600	41	234
64	22:44:18.999	195	35	187525	19	9	187550						187575	25	85	187600	41	234
65	22:44:19.228	195	35	187525	24	10	187550						187575	25	85	187600	41	234
66	22:44:19.385	195	35	187525	24	10	187550						187575	25	85	187600	42	236
67	22:44:21.882	195	35	187525	24	10	187550						187575	25	85	187600	42	236
68	22:44:21.882	195	35	187525	24	10	187550						187575	25	85	187600	42	236
69	22:44:25.948	195	35	187525	24	10	187550						187575	25	84	187600	42	236
70	22:44:26.047	198	36	187525	24	10	187550						187575	25	84	187600	42	236
71	22:44:26.047	198	36	187525	24	10	187550						187575	25	84	187600	42	236
72	22:44:26.047	200	37	187525	24	10	187550						187575	25	84	187600	42	236
73	22:44:26.047	200	37	187525	24	10	187550						187575	25	84	187600	42	236
74	22:44:26.047	200	37	187525	24	10	187550						187575	25	84	187600	42	236
75	22:44:26.449	200	37	187525	24	10	187550						187575	25	84	187600	41	234
76	22:44:26.853	197	36	187525	24	10	187550						187575	25	84	187600	41	234
77	22:44:26.853	197	36	187525	24	10	187550						187575	25	84	187600	41	234
78	22:44:28.875	197	36	187525	24	10	187550						187575	26	86	187600	41	234
79	22:44:28.875	197	36	187525	24	10	187550						187575	26	86	187600	41	234
80	22:44:28.875	197	36	187525	24	10	187550						187575	26	86	187600	41	234
81	22:44:28.875	197	36	187525	24	10	187550						187575	26	86	187600	41	234
82	22:44:28.875	197	36	187525	24	10	187550						187575	26	86	187600	41	234
83	22:44:29.169	197	36	187525	24	10	187550						187575	25	84	187600	41	234
84	22:44:29.171	197	36	187525	24	10	187550						187575	25	84	187600	42	236
85	22:44:32.598	197	36	187525	19	9	187550						187575	25	84	187600	42	236
86	22:44:32.925	197	36	187525	23	10	187550						187575	25	84	187600	42	236
87	22:44:37.141	197	36	187525	23	10	187550						187575	25	84	187600	42	236
88	22:44:37.141	197	36	187525	23	10	187550						187575	25	84	187600	42	236
89	22:44:37.957	197	36	187525	23	10	187550						187575	25	84	187600	42	236
90	22:44:37.957	197	36	187525	23	10	187550						187575	25	84	187600	42	236
91	22:44:38.971	197	36	187525	23	10	187550						187575	25	84	187600	42	236
92	22:44:38.971	197	36	187525	23	10	187550						187575	25	84	187600	42	236
93	22:44:39.052	197	36	187525	23	10	187550						187575	26	85	187600	42	236
94	22:44:39.092	201	37	187525	23	10	187550						187575	26	85	187600	42	236

EVENT EXAMPLE 2

11

Row	Time	Second Bid Level			First Bid Level			Action	Side	Lots	Price	Type	First Ask Level			Second Ask Level		
		Lots	Orders	Price	Lots	Orders	Price						Price	Orders	Lots	Price	Orders	Lots
95	22:44:39.361	201	37	187525	23	10	187550						187575	26	85	187600	42	236
96	22:44:39.361	201	37	187525	23	10	187550						187575	26	85	187600	42	236
97	22:44:40.533							Cancel	B	1	187550	Genuine						
98	22:44:40.533	201	37	187525	22	9	187550						187575	26	85	187600	42	236

EVENT EXAMPLE 2

12

EVENT EXAMPLE 3

March 21, 2016

ES Contract June Delivery (ESM6)

Row	Time	Second Bid Level Lots	Orders	Price	First Bid Level Lots	Orders	Price	Action	Side	Lots	Price	Type	First Ask Level Price	Orders	Lots	Second Ask Level Price	Orders	Lots
1	7:31:28.503	309	78	203350	66	20	203375						203400	43	114	203425	57	210
2	7:31:28.726							Order	S	11	203400	Genuine						
3	7:31:28.726	309	78	203350	66	20	203375						203400	44	125	203425	57	210
4	7:31:28.727	309	78	203350	65	19	203375						203400	44	125	203425	57	210
					ROWS 5 THROUGH 438, REFLECTING OTHER PARTICIPANTS' MARKET ACTIONS NOT MATERIAL TO THIS EXAMPLE, HAVE BEEN OMITTED TO CONSERVE SPACE.														
439	7:31:33.494	301	81	203350	153	37	203375						203400	19	56	203425	55	207
440	7:31:33.539	301	81	203350	153	37	203375						203400	19	56	203425	55	207
441	7:31:33.645							Order	B	82	203375	Spoof						
442	7:31:33.645	301	81	203350	235	38	203375						203400	19	56	203425	55	207
443	7:31:33.645	301	81	203350	235	38	203375						203400	18	55	203425	55	207
444	7:31:33.645	301	81	203350	236	39	203375						203400	18	55	203425	55	207
445	7:31:33.645	301	81	203350	236	39	203375						203400	17	53	203425	55	207
446	7:31:33.645	301	81	203350	236	39	203375						203400	16	51	203425	55	207
447	7:31:33.646	301	81	203350	237	40	203375						203400	16	51	203425	55	207
448	7:31:33.646	301	81	203350	238	41	203375						203400	16	51	203425	55	207
449	7:31:33.658	301	81	203350	258	42	203375						203400	16	51	203425	55	207
450	7:31:33.658	301	81	203350	258	42	203375						203400	15	48	203425	55	207
451	7:31:33.658	301	81	203350	259	43	203375						203400	15	48	203425	55	207
452	7:31:33.702	301	81	203350	260	44	203375						203400	15	48	203425	55	207
453	7:31:33.839	301	81	203350	262	45	203375						203400	15	48	203425	55	207
454	7:31:33.862	301	81	203350	262	45	203375						203400	14	46	203425	55	207
455	7:31:33.873	301	81	203350	262	45	203375						203400	13	45	203425	55	207
456	7:31:33.980							Trade	S	1	203400	Genuine						
457	7:31:33.980	301	81	203350	262	45	203375						203400	12	43	203425	55	207
458	7:31:33.981							Trade	S	10	203400	Genuine						
459	7:31:33.981	301	81	203350	262	45	203375						203400	6	11	203425	55	207
460	7:31:33.981	262	45	203375	14	1	203400						203400	6	11	203425	55	207

Row	Time	Second Bid Level			First Bid Level			Action	Side	Lots	Price	Type	First Ask Level			Second Ask Level		
		Lots	Orders	Price	Lots	Orders	Price						Price	Orders	Lots	Price	Orders	Lots
461	7:31:33.981	262	45	203375	14	1	203400						203425	55	207	203450	66	283
462	7:31:33.981	262	45	203375	14	1	203400						203425	55	207	203450	66	283
463	7:31:33.981	262	45	203375	17	2	203400						203425	55	207	203450	66	283
464	7:31:33.981	262	45	203375	18	3	203400						203425	55	207	203450	66	283
465	7:31:33.981	262	45	203375	20	4	203400						203425	55	207	203450	66	283
466	7:31:33.981	262	45	203375	22	5	203400						203425	55	207	203450	66	283
467	7:31:33.982	262	45	203375	33	6	203400						203425	55	207	203450	66	283
468	7:31:33.982	262	45	203375	33	6	203400						203425	55	207	203450	66	283
469	7:31:33.982	264	46	203375	33	6	203400						203425	55	207	203450	66	283
470	7:31:33.982	267	47	203375	33	6	203400						203425	55	207	203450	66	283
471	7:31:33.982	244	46	203375	33	6	203400						203425	55	207	203450	66	283
472	7:31:33.982	246	47	203375	33	6	203400						203425	55	207	203450	66	283
473	7:31:33.982	246	47	203375	38	7	203400						203425	55	207	203450	66	283
474	7:31:33.982	246	47	203375	40	8	203400						203425	55	207	203450	66	283
475	7:31:33.982	256	48	203375	40	8	203400						203425	55	207	203450	66	283
476	7:31:33.982	256	48	203375	40	8	203400						203425	55	207	203450	65	281
477	7:31:33.982	256	48	203375	40	8	203400						203425	55	207	203450	65	281
478	7:31:33.982	256	48	203375	40	8	203400						203425	55	207	203450	65	281
479	7:31:33.982	256	48	203375	40	8	203400						203425	55	207	203450	65	281
480	7:31:33.982	256	48	203375	40	8	203400						203425	55	207	203450	64	279
481	7:31:33.982	256	48	203375	40	8	203400						203425	55	207	203450	64	279
482	7:31:33.982	256	48	203375	40	8	203400						203425	55	207	203450	64	279
483	7:31:33.982	256	48	203375	40	8	203400						203425	55	207	203450	64	279
484	7:31:33.982	256	48	203375	40	8	203400						203425	55	207	203450	63	277
485	7:31:33.982	256	48	203375	40	8	203400						203425	55	207	203450	63	277
486	7:31:33.982	256	48	203375	40	8	203400						203425	55	207	203450	62	275
487	7:31:33.982	256	48	203375	40	8	203400						203425	55	207	203450	62	275
488	7:31:33.982	256	48	203375	40	8	203400						203425	55	207	203450	61	273
489	7:31:33.982	256	48	203375	44	9	203400						203425	55	207	203450	61	273
490	7:31:33.982	256	48	203375	44	9	203400						203425	56	212	203450	61	273
491	7:31:33.982	256	48	203375	45	10	203400						203425	56	212	203450	61	273
492	7:31:33.982	256	48	203375	25	6	203400						203425	56	212	203450	61	273
493	7:31:33.983	256	48	203375	25	6	203400						203425	56	208	203450	61	273

EVENT EXAMPLE 3

14

Row	Time	Second Bid Level			First Bid Level			Action	Side	Lots	Price	Type	First Ask Level			Second Ask Level		
		Lots	Orders	Price	Lots	Orders	Price						Price	Orders	Lots	Price	Orders	Lots
494	7:31:33.983	253	47	203375	25	6	203400						203425	56	208	203450	61	273
495	7:31:33.983	253	47	203375	25	6	203400						203425	56	208	203450	61	273
496	7:31:33.983	253	47	203375	26	7	203400						203425	56	208	203450	61	273
497	7:31:33.983	253	47	203375	26	7	203400						203425	57	210	203450	61	273
498	7:31:33.983	253	47	203375	26	7	203400						203425	56	193	203450	61	273
499	7:31:33.983	253	47	203375	26	7	203400						203425	57	195	203450	61	273
500	7:31:33.983	253	47	203375	26	7	203400						203425	57	195	203450	60	272
501	7:31:33.983	255	48	203375	26	7	203400						203425	57	195	203450	60	272
502	7:31:33.983	255	48	203375	26	7	203400						203425	57	195	203450	60	272
503	7:31:33.983	255	48	203375	26	7	203400						203425	57	195	203450	60	272
504	7:31:33.983	255	48	203375	26	7	203400						203425	58	197	203450	60	272
505	7:31:33.983	277	49	203375	26	7	203400						203425	58	197	203450	60	272
506	7:31:33.983	277	49	203375	15	6	203400						203425	58	197	203450	60	272
507	7:31:33.983	277	49	203375	15	6	203400						203425	57	192	203450	60	272
508	7:31:33.983	277	49	203375	10	5	203400						203425	57	192	203450	60	272
509	7:31:33.983	277	49	203375	10	5	203400						203425	57	192	203450	60	272
510	7:31:33.983	277	49	203375	10	5	203400						203425	58	194	203450	60	272
511	7:31:33.983	277	49	203375	10	5	203400						203425	58	194	203450	60	272
512	7:31:33.983	312	87	203350	277	49	203375						203425	58	194	203450	60	272
513	7:31:33.983	312	87	203350	277	49	203375						203425	58	194	203450	60	272
514	7:31:33.983	312	87	203350	277	49	203375						203425	57	193	203450	60	272
515	7:31:33.983	312	87	203350	279	50	203375						203425	57	193	203450	60	272
516	7:31:33.983	312	87	203350	279	50	203375						203425	57	193	203450	60	272
517	7:31:33.984	312	87	203350	254	49	203375						203425	57	193	203450	60	272
518	7:31:33.984	310	86	203350	254	49	203375						203425	57	193	203450	60	272
519	7:31:33.984	308	85	203350	254	49	203375						203425	57	193	203450	60	272
520	7:31:33.984	308	85	203350	254	49	203375						203425	57	193	203450	60	272
521	7:31:33.984	306	84	203350	254	49	203375						203425	57	193	203450	60	272
522	7:31:33.984	304	83	203350	254	49	203375						203425	57	193	203450	60	272
523	7:31:33.984	302	82	203350	254	49	203375						203425	57	193	203450	60	272
524	7:31:33.984	302	82	203350	254	49	203375						203400	1	2	203425	57	193
525	7:31:33.984	302	82	203350	259	50	203375						203400	1	2	203425	57	193
526	7:31:33.984	302	82	203350	259	50	203375						203400	1	2	203425	57	193

EVENT EXAMPLE 3

15

Row	Time	Second Bid Level Lots	Orders	Price	First Bid Level Lots	Orders	Price	Action	Side	Lots	Price	Type	First Ask Level Price	Orders	Lots	Second Ask Level Price	Orders	Lots
527	7:31:33.984	302	82	203350	257	49	203375						203400	1	2	203425	57	193
528	7:31:33.984	302	82	203350	257	49	203375						203400	1	2	203425	56	191
529	7:31:33.984	302	82	203350	257	49	203375						203400	1	2	203425	56	191
530	7:31:33.984	302	82	203350	256	48	203375						203400	1	2	203425	56	191
531	7:31:33.984	302	82	203350	256	48	203375						203400	1	2	203425	56	191
532	7:31:33.984	302	82	203350	256	48	203375						203400	2	4	203425	56	191
533	7:31:33.984	302	82	203350	254	47	203375						203400	2	4	203425	56	191
534	7:31:33.984	302	82	203350	254	47	203375						203400	3	6	203425	56	191
535	7:31:33.984	302	82	203350	254	47	203375						203400	4	7	203425	56	191
536	7:31:33.984	302	82	203350	254	47	203375						203400	4	7	203425	57	196
537	7:31:33.984	302	82	203350	249	46	203375						203400	4	7	203425	57	196
538	7:31:33.984	302	82	203350	227	45	203375						203400	4	7	203425	57	196
539	7:31:33.984	302	82	203350	227	45	203375						203400	4	7	203425	56	194
540	7:31:33.984	302	82	203350	227	45	203375						203400	4	7	203425	57	211
541	7:31:33.985	302	82	203350	227	45	203375						203425	57	211	203450	60	272
542	7:31:33.985	302	82	203350	227	45	203375						203425	57	211	203450	60	272
543	7:31:33.985	302	82	203350	227	45	203375						203425	56	209	203450	60	272
544	7:31:33.985	302	82	203350	227	45	203375						203425	56	209	203450	60	272
545	7:31:33.985	302	82	203350	227	45	203375						203425	55	204	203450	60	272
546	7:31:33.985	302	82	203350	227	45	203375						203425	54	202	203450	60	272
547	7:31:33.985	302	82	203350	227	45	203375						203425	55	204	203450	60	272
548	7:31:33.985	302	82	203350	227	45	203375						203425	56	206	203450	60	272
549	7:31:33.985	302	82	203350	227	45	203375						203425	55	189	203450	60	272
550	7:31:33.986	302	82	203350	227	45	203375						203425	55	189	203450	60	272
551	7:31:33.986	302	82	203350	227	45	203375						203425	55	189	203450	60	272
552	7:31:33.986	302	82	203350	227	45	203375						203425	55	189	203450	60	272
553	7:31:33.986	302	82	203350	227	45	203375						203425	56	191	203450	60	272
554	7:31:33.986	302	82	203350	227	45	203375						203425	55	189	203450	60	272
555	7:31:33.987	302	82	203350	227	45	203375						203425	55	189	203450	60	272
556	7:31:33.988	302	82	203350	227	45	203375						203425	56	191	203450	60	272
557	7:31:33.988	302	82	203350	227	45	203375						203425	56	191	203450	60	272
558	7:31:33.990	302	82	203350	227	45	203375						203425	55	188	203450	60	272
559	7:31:33.991	302	82	203350	227	45	203375						203425	56	190	203450	60	272

EVENT EXAMPLE 3

16

Row	Time	Second Bid Level Lots	Orders	Price	First Bid Level Lots	Orders	Price	Action	Side	Lots	Price	Type	First Ask Level Price	Orders	Lots	Second Ask Level Price	Orders	Lots
560	7:31:33.994	302	82	203350	227	45	203375						203425	56	190	203450	60	272
561	7:31:33.994	302	82	203350	227	45	203375						203425	56	190	203450	60	272
562	7:31:33.994	302	82	203350	227	45	203375						203425	56	190	203450	60	272
563	7:31:33.994	302	82	203350	227	45	203375						203425	56	190	203450	60	272
564	7:31:33.999	302	82	203350	227	45	203375						203425	56	190	203450	60	272
565	7:31:33.999	302	82	203350	227	45	203375						203425	56	190	203450	60	272
566	7:31:34.015	302	82	203350	227	45	203375						203400	1	4	203425	56	190
567	7:31:34.015	302	82	203350	227	45	203375						203400	1	4	203425	56	190
568	7:31:34.015	302	82	203350	227	45	203375						203400	1	4	203425	56	190
569	7:31:34.015	302	82	203350	227	45	203375						203400	2	6	203425	56	190
570	7:31:34.015	302	82	203350	227	45	203375						203400	2	6	203425	56	190
571	7:31:34.015	302	82	203350	227	45	203375						203400	2	6	203425	56	190
572	7:31:34.015	302	82	203350	227	45	203375						203400	2	6	203425	56	190
573	7:31:34.015	302	82	203350	227	45	203375						203400	2	6	203425	56	190
574	7:31:34.015	302	82	203350	227	45	203375						203400	2	6	203425	56	190
575	7:31:34.015	302	82	203350	227	45	203375						203400	2	6	203425	55	188
576	7:31:34.015	302	82	203350	227	45	203375						203400	2	6	203425	54	186
577	7:31:34.015	302	82	203350	227	45	203375						203400	2	6	203425	53	184
578	7:31:34.016	302	82	203350	227	45	203375						203400	2	6	203425	53	184
579	7:31:34.017	302	82	203350	227	45	203375						203400	2	6	203425	53	184
580	7:31:34.018	301	81	203350	227	45	203375						203400	2	6	203425	53	184
581	7:31:34.037	301	81	203350	227	45	203375						203400	2	6	203425	53	184
582	7:31:34.045	301	81	203350	227	45	203375						203400	2	6	203425	53	184
583	7:31:34.045	301	81	203350	227	45	203375						203400	2	6	203425	53	184
584	7:31:34.053	301	81	203350	227	45	203375						203400	1	2	203425	53	184
585	7:31:34.106	301	81	203350	228	46	203375						203400	1	2	203425	53	184
586	7:31:34.150	301	81	203350	228	46	203375						203400	1	2	203425	53	184
587	7:31:34.159	301	81	203350	228	46	203375						203400	1	2	203425	53	184
588	7:31:34.159	301	81	203350	228	46	203375						203400	1	2	203425	53	184
589	7:31:34.159	301	81	203350	228	46	203375						203400	1	2	203425	53	184
590	7:31:34.159	301	81	203350	228	46	203375						203400	1	2	203425	53	184
591	7:31:34.330	301	81	203350	228	46	203375						203400	1	2	203425	53	184
592	7:31:34.330	301	81	203350	228	46	203375						203400	1	2	203425	54	187

EVENT EXAMPLE 3

17

Row	Time	Second Bid Level			First Bid Level			Action	Side	Lots	Price	Type	First Ask Level			Second Ask Level		
		Lots	Orders	Price	Lots	Orders	Price						Price	Orders	Lots	Price	Orders	Lots
593	7:31:34.330	301	81	203350	228	46	203375						203400	2	4	203425	54	187
594	7:31:34.352	301	81	203350	223	43	203375						203400	2	4	203425	54	187
595	7:31:34.352	301	81	203350	223	43	203375						203400	3	5	203425	54	187
596	7:31:34.352	301	81	203350	223	43	203375						203400	4	6	203425	54	187
597	7:31:34.352	301	81	203350	223	43	203375						203400	5	22	203425	54	187
598	7:31:34.352	301	81	203350	223	43	203375						203400	6	38	203425	54	187
599	7:31:34.352	301	81	203350	223	43	203375						203400	7	40	203425	54	187
600	7:31:34.352	301	81	203350	223	43	203375						203400	8	48	203425	54	187
601	7:31:34.352	301	81	203350	223	43	203375						203400	9	50	203425	54	187
602	7:31:34.352	301	81	203350	223	43	203375						203400	10	51	203425	54	187
603	7:31:34.352	301	81	203350	223	43	203375						203400	11	52	203425	54	187
604	7:31:34.353	301	81	203350	223	43	203375						203400	12	54	203425	54	187
605	7:31:34.353	301	81	203350	223	43	203375						203400	13	57	203425	54	187
606	7:31:34.353	301	81	203350	223	43	203375						203400	14	59	203425	54	187
607	7:31:34.353	301	81	203350	223	43	203375						203400	15	60	203425	54	187
608	7:31:34.353	301	81	203350	221	42	203375						203400	15	60	203425	54	187
609	7:31:34.353	301	81	203350	221	42	203375						203400	16	61	203425	54	187
610	7:31:34.353	301	81	203350	221	42	203375						203400	17	64	203425	54	187
611	7:31:34.353	301	81	203350	221	42	203375						203400	18	66	203425	54	187
612	7:31:34.353	301	81	203350	221	42	203375						203400	19	69	203425	54	187
613	7:31:34.353	301	81	203350	221	42	203375						203400	19	69	203425	55	192
614	7:31:34.353	301	81	203350	221	42	203375						203400	20	72	203425	55	192
615	7:31:34.353	301	81	203350	221	42	203375						203400	21	73	203425	55	192
616	7:31:34.353	301	81	203350	220	41	203375						203400	21	73	203425	55	192
617								Cancel	B	82	203375	Spoof						
618	7:31:34.389	301	81	203350	138	40	203375						203400	21	73	203425	55	192

EVENT EXAMPLE 3

18