

AO 91 (Rev. 11/11) Criminal Complaint

DOJ Fraud Section Trial Attorney Michael T. O'Neill  
(202) 616-1545UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF ILLINOIS  
EASTERN DIVISION

**FILED**  
JAN 19 2018  
JAN 19 2018  
THOMAS G. BRUTON  
CLERK, U.S. DISTRICT COURT

UNITED STATES OF AMERICA

v.

JAMES VORLEY and  
CEDRIC CHANUCASE NUMBER:  
UNDER SEAL**18CR****35****CRIMINAL COMPLAINT**

I, the complainant in this case, state that the following is true to the best of my knowledge and belief.

From in or about May 2008 through in or about March 2015, in Chicago, in the Northern District of Illinois, Eastern Division, and elsewhere, the defendants violated:

*Code Section**Offense Description*

Title 18, United States Code, Section 371

Defendants knowingly conspired with each other, and with others known and unknown, to commit an offense against the United States, that is, spoofing, in violation of Title 7, United States Code, Sections 6c(a)(5)(C) and 13(a)(2), and one or more co-conspirators committed an overt act in an effort to advance the goal of the conspiracy.

Title 18, United States Code, Section 1349

Defendants knowingly conspired with each other, and with others known and unknown, to commit offenses against the United States, that is, wire fraud and commodities fraud, in violation of Title 18, United States Code, Sections 1343 and 1348(1), respectively.

Title 18, United States Code, Sections 1343  
and 2

Defendants knowingly, and with the intent to defraud, devised and intending to devise, and willfully participated in, a scheme and artifice to defraud, and for obtaining money and property by means of materially false and fraudulent pretenses, representations, and promises, knowingly transmitted and caused to be transmitted by means of wire communication in interstate and foreign commerce, writings, signs, signals, pictures, and sounds for the purpose of executing the scheme and artifice.

Title 18, United States Code, Sections 1348  
and 2

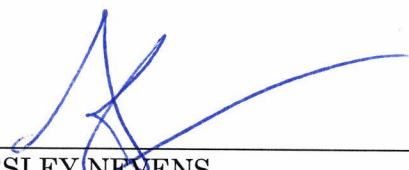
Defendants knowingly, and with the intent to defraud, executed, and attempted to execute, and willfully participated in, a material scheme and artifice to defraud a person in connection with a commodity for future delivery.

Title 7, United States Code, Sections  
6c(a)(5)(C), 13(a)(2), and 13c(a)

Defendants knowingly engaged in trading, practice, and  
conduct on or subject to the rules of a registered entity –  
COMEX – that was “spoofing,” that is, bidding and offering  
with the intent, at the time the bid or offer was entered, to  
cancel the bid or offer before execution.

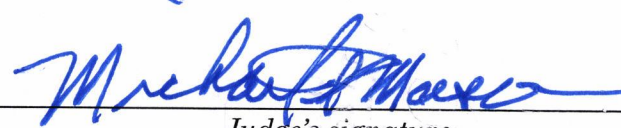
This criminal complaint is based upon these facts:

X Continued on the attached sheet.

  
\_\_\_\_\_  
A. WESLEY NEVENS  
Special Agent  
Federal Bureau of Investigation

Sworn to before me and signed in my presence.

Date: 1/19/18

  
\_\_\_\_\_  
Judge's signature

City and state: Chicago, Illinois

\_\_\_\_\_  
HON. MICHAEL T. MASON, U.S.M.J.  
Printed name and Title

**AFFIDAVIT IN SUPPORT OF CRIMINAL COMPLAINT**

I, A. WESLEY NEVENS, being duly sworn, state as follows:

1. I am a Special Agent with the Federal Bureau of Investigation ("FBI"), assigned to the Chicago Field Division. I have been employed by the FBI as a Special Agent since 2010. During my tenure with the FBI, I have received training in the investigation of financial crimes and in financial analysis. As part of my duties as a Special Agent, I have investigated criminal violations relating to complex corporate fraud. During my career, I have been the affiant on applications for search warrants and arrest warrants in federal criminal investigations.

2. I submit this Affidavit in support of a criminal complaint and arrest warrants for JAMES VORLEY ("VORLEY") and CEDRIC CHANU ("CHANU") for: (a) conspiracy, in violation of Title 18, United States Code, Section 371; (b) conspiracy, in violation of Title 18, United States Code, Section 1349; (c) wire fraud, in violation of Title 18, United States Code, Sections 1343 and 2; (d) commodities fraud, in violation of Title 18, United States Code, Sections 1348(1) and 2; and (e) spoofing, in violation of Title 7, United States Code, Sections 6c(a)(5)(C), 13(a)(2), and 13c(a).

3. For the reasons set forth below, there is probable cause to believe that on or about certain days beginning in or around at least May 2008 and continuing until in or around at least March 2015, VORLEY and

CHANU, along with their co-conspirators, in the Northern District of Illinois, Eastern Division, and elsewhere:

a. knowingly conspired with each other, and with others known and unknown, to commit an offense against the United States, that is spoofing (as set forth more fully below in subparagraph (e)), in violation of Title 7, United States Code, Sections 6c(a)(5)(C) and 13(a)(2), and one or more co-conspirators committed an overt act in an effort to advance the goal of the conspiracy, in violation of Title 18, United States Code, Section 371;

b. knowingly conspired with each other, and with others known and unknown, to commit offenses against the United States, that is wire fraud (as set forth more fully below in subparagraph (c)) and commodities fraud (as set forth more fully below in subparagraph (d)), in violation of Title 18, United States Code, Sections 1343 and 1348(1), respectively, in violation of Title 18, United States Code, Section 1349;

c. having knowingly, and with the intent to defraud, devised and intending to devise, and willfully participated in, a scheme and artifice to defraud participants in the market for futures contracts for gold, silver, platinum, and palladium (the “precious metals futures contracts”) on the Commodity Exchange, Inc. (“COMEX”) and for obtaining money and property by means of materially false and fraudulent pretenses, representations, and promises, knowingly transmitted and caused to be transmitted by means of wire communication in interstate and foreign commerce, writings, signs, signals, pictures, and sounds for the purpose of executing the scheme and artifice, in violation of Title 18, United States Code, Sections 1343 and 2;

d. knowingly, and with the intent to defraud, executed, and attempted to execute, and willfully participated in, a material scheme and artifice to defraud market participants in connection with commodities for future delivery, that is, precious metals futures contracts, in violation of Title 18, United States Code, Sections 1348(1)<sup>1</sup> and 2; and

e. knowingly engaged in trading, practice, and conduct on or subject to the rules of a registered entity – COMEX – that was “spoofing,” that is, bidding and offering with the intent, at the time the bid or offer was

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<sup>1</sup> The Fraud Enforcement and Recovery Act of 2009 (“FERA”), enacted on May 20, 2009, expanded the anti-fraud provisions of the federal securities fraud statute, 18 U.S.C. § 1348, to apply to fraud involving commodities options and futures. See FERA § 2(e)(1), Pub. L. 111-21, 123 Stat. 1618.

entered, to cancel the bid or offer before execution, in violation of Title 7, United States Code, Sections 6c(a)(5)(C), 13(a)(2), and 13c(a).<sup>2</sup>

4. The information supplied in this Affidavit is based upon: (a) my personal knowledge and observations; (b) my discussions with other law enforcement officers who have assisted in the investigation; (c) my training and experience; (d) my review of certain information obtained from witnesses, including a cooperating witness who has provided information related to his/her knowledge of the conduct under investigation (Bank A Trader #1)<sup>3</sup>; (e)

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<sup>2</sup> With respect to the spoofing object of the Title 18, United States Code, Section 371 conspiracy and the substantive spoofing offense, Congress enacted the anti-spoofing provision, 7 U.S.C. § 6c(a)(5)(C), as an amendment to the Commodity Exchange Act, as part of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the “Dodd-Frank Act”), which became effective on July 16, 2011. *See* Dodd-Frank Act §§ 747, 754, Pub. L. 111-203; *see also, e.g.*, Antidisruptive Practices Authority Contained in the Dodd-Frank Wall Street Reform and Consumer Protection Act, 75 Fed. Reg. 67301-01, 67302 (Nov. 2, 2010). Accordingly, the Dodd-Frank-Act “spoofing” object of the conspiracy offense and the substantive spoofing offenses described herein relate only to conduct by VORLEY, CHANU, and their co-conspirators *after* July 16, 2011.

In addition, on December 20, 2016, Chief Judge Rubén Castillo of the United States District Court for the Northern District of Illinois, Eastern Division, issued an order pursuant to 18 U.S.C. § 3292 (the “tolling order”) suspending the running of the statute of limitations as to, among other charges, the conspiracy, wire fraud, commodities fraud, and spoofing charges alleged herein, to permit the United States to obtain foreign evidence from the United Kingdom. The tolling order suspends the running of the statute of limitations for such charges from December 9, 2016 until the earlier of three years or such time as the United Kingdom takes final action on the requested assistance, which has not occurred at the time of this Affidavit. *See* Order, 16 GJ 1224 (Dec. 20, 2016); 18 U.S.C. § 3292.

<sup>3</sup> The identity of Bank A Trader #1 is known to Your Affiant. On June 1, 2017, Bank A Trader #1 pleaded guilty, pursuant to a plea agreement with the U.S. Department of Justice (“DOJ”), to a criminal information charging Bank A Trader #1 with one count of conspiracy, in violation of Title 18, United States Code, Section 371, to commit: (a) wire fraud affecting a financial institution, in violation of Title 18, United States Code, Section 1343; and (b) spoofing, in violation of Title 7, United States Code, Sections 6c(a)(5)(C) and 13(a)(2). Pursuant to Bank A Trader #1’s plea agreement, Bank A Trader #1 has agreed, among other things, to cooperate fully with the DOJ and to provide the DOJ with complete and truthful information.

my review of documents and records obtained during the investigation; and  
(f) analysis of trading data presently available and related information  
obtained by the FBI in connection with the investigation.

5. This Affidavit is being executed as part of an ongoing investigation and is based on my current understanding of the relevant facts based on the above. As the investigation proceeds, new facts may come to light that qualify or contradict prior facts. Because this Affidavit is being submitted for the limited purpose of establishing probable cause for the criminal complaint and arrest warrants, Your Affiant has not included each and every fact known concerning this investigation. Your Affiant has set forth only the facts that I submit are necessary to establish that there is probable cause to believe that VORLEY and CHANU have violated: (a) Title 18, United States Code, Section 371; (b) Title 18, United State Code, Section 1349; (c) Title 18, United States Code, Sections 1343 and 2; (d) Title 18, United States Code, Sections 1348(1) and 2; and (e) Title 7, United States Code, Sections 6c(a)(5)(C), 13(a)(2), and 13c(a).

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Pursuant to the plea agreement, the DOJ has agreed, among other things, that, at the time of sentencing, the government shall make known to Bank A Trader #1's sentencing judge the extent of defendant's cooperation. If the government determines that Bank A Trader #1 has provided full and truthful cooperation as required by his/her plea agreement, and has rendered substantial assistance, then the government shall move the Court, pursuant to United States Sentencing Guideline § 5K1.1, to depart downward from the low end of the applicable guideline range. Except as set forth in the plea agreement, the DOJ has further agreed not to initiate further criminal charges against Bank A Trader #1 based on conduct set forth in the criminal information and plea agreement.

### **BACKGROUND**

6. During the relevant time period, Bank A, together with its subsidiaries and affiliates, was one of the largest global banking and financial services companies in the world. Bank A had operations in the United States, Europe, Asia-Pacific, and other locations. Bank A operated a global commodities trading business that included the trading of precious metals futures contracts. Bank A's primary precious metals futures trading desks were located in: (a) the United States; (b) the United Kingdom; and (c) the Republic of Singapore.

7. From approximately May 2007 until approximately March 2015, VORLEY was employed as a precious metals trader at Bank A, and was based in London, United Kingdom. At all relevant times, VORLEY traded precious metals futures contracts in his capacity as a precious metals trader at Bank A.

8. From approximately March 2008 until approximately December 2013, CHANU was employed as a precious metals trader at Bank A. CHANU was based in London, United Kingdom, from approximately March 2008 to approximately May 2011, and in the Republic of Singapore from approximately May 2011 to approximately December 2013. At all relevant times, CHANU traded precious metals futures contracts in his capacity as a precious metals trader at Bank A.

9. The CME Group Inc. ("CME Group") was a commodities marketplace made up of several exchanges, including COMEX, which was based in New York, New York. At all relevant times, COMEX was a registered entity, operating as a Designated Contract Market. COMEX utilized an electronic trading system called "Globex."

10. Globex was a global electronic trading platform operated by the CME Group, which utilized computer servers located in Chicago and Aurora, Illinois, within the Northern District of Illinois. Trading on Globex was conducted electronically using a visible "order book" that displayed quantities of anonymous orders (*i.e.*, offers to sell futures contracts and bids to buy futures contracts) at various price points, or "levels." Globex allowed market participants to trade futures contracts either at the exchange itself or from a location virtually anywhere in the world. Through Globex, markets operated by the CME Group offered trading opportunities in futures contracts for various commodities, including precious metals futures contracts.

11. COMEX, through the Globex system, allowed traders to place orders in the form of "bids" to buy or "offers" to sell a futures contract. The minimum price increment at which a futures contract could trade on COMEX was called a "tick," and the value of a tick for each contract was set by COMEX. At any given time, the market for a given futures contract comprised the prevailing best (*i.e.*, highest) bid and prevailing best (*i.e.*, lowest) offer. The difference between the best bid and the best offer was the

“spread.” An order was “filled” or “executed” when a buyer and seller bought and sold a particular contract, with either the buyer “crossing the spread” to buy at the prevailing best offer, or the seller crossing the spread to sell at the prevailing best bid.

12. A futures contract was a standardized, legally binding agreement that, once executed, obligated the parties to the contract to buy or to sell a specific product or financial instrument in the future. That is, the buyer and seller of a futures contract agreed on a price today for a product or financial instrument to be delivered (by the seller), in exchange for money (to be provided by the buyer), on a future date. Futures contracts traded on set, periodic expiration cycles (*i.e.*, monthly or quarterly).

13. Futures contracts were traded on markets designated and regulated by the Commodity Futures Trading Commission (the “CFTC”), the federal agency established by statute to regulate, among many other things, transactions related to and involving the purchase and sale of futures contracts.

14. Gold, silver, platinum, and palladium futures contracts were contracts for the delivery of gold, silver, platinum, and palladium, respectively, in the future at an agreed-upon price. The gold, silver, platinum, and palladium futures contracts were traded on the COMEX, using the Globex system.

15. Based on my training and experience and information gathered during this investigation, Your Affiant has learned that:

- a. "Spoofing" was the unlawful practice of bidding or offering with the intent, at the time the bid or offer was placed, to cancel the bid or offer before it is executed. Spoofing could be used as a method to engage in market manipulation and deception.
- b. One of the many ways that spoofing could be used as a form of market manipulation and deception was as follows:
  - i. A trader places on one side of the market one or more genuine orders either to buy or to sell futures contracts that the trader intends to execute (the "Primary Orders").
  - ii. At or near the same time that the Primary Orders are placed, the same trader or his co-conspirator also places orders, of a much greater visible quantity, either to buy or to sell futures contracts on the opposite side of the market, which orders the trader, by contrast, intends, at the time the orders are placed, to cancel before they are executed (the "Spoof Orders").
  - iii. By placing the Spoof Orders, the trader intends to create or exacerbate a market imbalance in the visible order book, injecting false and misleading information (*i.e.*, orders the trader does not intend to execute) into the market to create the false impression of increased supply or demand.
  - iv. This false and misleading information may, and often does, cause other market participants to buy and to sell futures contracts at prices (including by crossing the spread), and at quantities, and at times, that they otherwise would not because, among other things, market participants react to the apparent (although artificial) increase in supply or demand that might, and often does, affect futures contract prices.

- v. When the trader who places Spoof Orders induces enough market participants to buy or to sell futures contracts at a price, quantity, or time that they otherwise would not have traded, the price of a given futures contract may change, resulting in the creation of a new, but artificially inflated or deflated, price. When the new artificial price has changed enough, the trader's Primary Orders trade at prices, at quantities, and at times that otherwise would not have been available, but for the Spoof Orders.

### **SUMMARY OF THE INVESTIGATION**

#### **Overview of the Scheme to Defraud and Spoofing Practice**

16. The FBI has been investigating the existence of materially deceptive trading activity in the markets for certain precious metals futures contracts by, among others, VORLEY, CHANU, and Bank A Trader #1.

17. Based on information obtained by the FBI during the investigation, which is discussed in more detail below, Your Affiant has learned that on certain days beginning in or around at least May 2008 and continuing until in or around at least March 2015, in the Northern District of Illinois, Eastern Division, and elsewhere, VORLEY, CHANU, and their co-conspirators (a) devised, executed, and participated in a scheme to defraud other market participants, and (b) engaged in the practice of spoofing, all in connection with precious metals futures contracts, all of which were financial products traded on the COMEX exchange. Bank A Trader #1 participated in this conspiracy from in or around at least December 2009 and continuing until in or around at least February 2012.

18. Specifically, based on documents and communications obtained by the FBI and an analysis of trade and order data performed during the investigation, and information provided by Bank A Trader #1, Your Affiant has learned that VORLEY, CHANU, and their co-conspirators placed one or more fully visible large Spoof Orders for precious metals futures contracts on one side of the market which, at the time VORLEY, CHANU, and their co-conspirators placed the orders, they intended to cancel before execution. The purpose of these Spoof Orders was to trick other market participants by injecting materially misleading information into the market that indicated increased supply or demand, but was not genuine because VORLEY, CHANU, and their co-conspirators never intended to execute the bids or offers contained in these Spoof Orders. This, in turn, was intended to induce and often did induce market participants to buy or to sell precious metals futures contracts at prices, at quantities, and at times that they would not have otherwise. While the Spoof Orders were pending, and in those instances when the Spoof Orders caused or assisted in causing price movements, VORLEY, CHANU, and their co-conspirators often executed Primary Orders of smaller visible quantities on the opposite side of the market in an attempt to profit, mitigate losses, or otherwise benefit from the artificial movement in price that they had caused or assisted in causing.

19. Based on my training and experience and work on this investigation, I have learned that the Spoof Order messages were wire

communications that traveled in foreign and interstate commerce because VORLEY, CHANU, and their co-conspirators placed the Spoof Orders from locations outside the United States, including from the United Kingdom and the Republic of Singapore, and such wires traveled into the United States, specifically into the Northern District of Illinois.

VORLEY and CHANU Engaged in both Solo and Coordinated Spoofing

20. As part of their scheme to defraud and spoofing practice, VORLEY, CHANU, and their co-conspirators engaged in the spoofing practice by themselves (“solo spoofing”) and with other traders at Bank A, including each other and Bank A Trader #1 (“coordinated spoofing”), all in furtherance of the conspiracy. When engaged in solo spoofing, either VORLEY or CHANU would place Spoof Orders individually in order to facilitate the execution of their own Primary Orders and without the placement of any Spoof Orders by the other or by other traders at Bank A. By contrast, coordinated spoofing involved one or more additional participants. When engaging in coordinated spoofing, VORLEY, CHANU, and/or one or more co-conspirators would place one or more Spoof Orders on one side of the market in order to facilitate the execution of Primary Orders placed on the opposite side of the market by either VORLEY, CHANU, or a co-conspirator. According to Bank A Trader #1, the individual compensation that VORLEY, CHANU, Bank A Trader #1, and other Bank A precious metals traders could receive came from a shared pool of funds that increased or decreased based

on the performance of the desk as a whole. Therefore, engaging in coordinated spoofing in order to facilitate the execution of co-conspirators' Primary Orders was a means to mitigate losses and increase profits for the desk and thereby increase the compensation pool for individual traders.

VORLEY's Personal Executions of the Scheme to Defraud and Spoofing Practice

21. Based on communications obtained by the FBI during the investigation, there is probable cause that VORLEY knew at all times relevant to the scheme to defraud and spoofing practice that the general practice of spoofing was deceptive, manipulative, and illegal.

22. For example, as early as on or about October 2, 2007, VORLEY wrote an instant-message "chat" to a trader at another firm about what VORLEY described as "spofing" by another financial institution.<sup>4</sup> Based on the date of this chat, the chat participants, and VORLEY's specific identification of another financial institution, it is not clear to Your Affiant whether VORLEY was referring to activity in the electronic market for precious metals futures contracts markets or some other market. Regardless of the specific market and product at issue, VORLEY remarked, "this spofing [sic] is annoying / its illegal for a start." VORLEY added, "its just not cricket." Based on my training and experience and my review of this

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<sup>4</sup> The identity of this trader and firm, as well as the other global financial institution referenced in this chat communication, are known to Your Affiant. In addition, based on my review of this chat, Your Affiant believes that "spofing" is a misspelling of "spoofing."

document, Your Affiant has learned that the phrase “not cricket” can be used as a form of British idiom meaning “not honest or moral,” and is synonymous with “unsuitable and unacceptable.” (See, e.g., Cambridge Dictionary, <https://dictionary.cambridge.org/us/dictionary/english/not-cricket> (last visited Dec. 7, 2017).)

23. Following VORLEY’s express acknowledgement in October 2007 that the general practice of spoofing was “illegal” and “just not cricket,” beginning in or around at least May 2008 through in or around at least July 2013, VORLEY sought to enrich himself, Bank A, and his co-conspirators through a scheme to defraud and spoofing practice in connection with the purchase and sale of precious metals futures contracts on the COMEX. By placing a fully visible large-volume order for precious metals futures contracts at certain price levels with the intent, at the time the order was placed, to cancel the order before execution, VORLEY created the false appearance of substantial supply or demand in order to fraudulently induce other market participants to react to his deceptive manipulation of supply and demand.

24. VORLEY implemented, at various times, the following pattern of order and trade activity in the precious metals futures contract markets. There is probable cause to believe that the pattern articulated below is materially deceptive and constitutes spoofing:

- a. First, VORLEY would place a Primary Order to buy or to sell using an “iceberg” functionality<sup>5</sup> on one side of the market close to the prevailing price at which that given precious metals futures contract was trading;
- b. Second, after placement of the Primary Order and while the Primary Order was pending, VORLEY would place one or more fully visible orders of at least 10 lots, without using iceberg functionality, on the opposite side of the market from the Primary Order and close to—*i.e.*, typically within five ticks of—the prevailing price at which that given precious metals futures contract was trading (the “Opposite Order”);
- c. Third, at least one lot of VORLEY’s Primary Order would be filled; and
- d. Fourth, after filling at least one lot of his Primary Order, VORLEY would quickly cancel his Opposite Order, typically within five seconds after placing the Opposite Order and before the Opposite Order could be executed.

25. For example, VORLEY engaged in the following activity in the silver futures contracts market on or about January 12, 2012:

- a. On or about January 12, 2012, at approximately 4:54:53.958,<sup>6</sup> VORLEY placed an iceberg Primary Order to sell 20 lots of silver futures contracts (showing only one visible lot) at the price of \$30.450, which was the prevailing best offer at that point in time. Within approximately three seconds, 11 lots of VORLEY’s Primary Order were filled.

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<sup>5</sup> An “iceberg” order was a type of order that traders could place when trading futures contracts on the COMEX. In an iceberg order, the total amount of the order was divided into a visible portion of a certain pre-set quantity that was visible to other market participants, and a portion of the order (*i.e.*, the remainder of the order) that was not. Whenever the visible portion of the order was filled, the same, pre-set quantity of the remaining, hidden portion automatically became visible; this process repeated until the remainder of the order was either executed or canceled.

<sup>6</sup> All times included in this Affidavit are in the Central Time Zone, unless otherwise noted, and are based on a 24-hour clock.

- b. Second, from approximately 4:55:03.054 to 4:55:03.543, VORLEY placed four non-iceberg Opposite Orders to buy 10 lots of silver futures contracts each (for a total of 40 visible lots bid) at the price of \$30.445, which was the prevailing best bid at that point in time. By the time VORLEY's fourth Opposite Order was placed, his four Opposite Orders combined represented over 97% of the visible order quantity at that price point.
- c. Third, less than one second after VORLEY placed these four Opposite Orders, five more lots of VORLEY's iceberg Primary Order to sell were filled, from approximately 4:55:03.554 to 4:55:03.747.
- d. Fourth, at approximately 4:55:03.883, VORLEY canceled all four of his 10-lot non-iceberg Opposite Orders to buy without any part of these Opposite Orders being filled. Each of these Opposite Orders had been active in the market for less than one second before VORLEY canceled it.
- e. Fifth, at approximately 4:55:04.316, the remaining four lots of VORLEY's iceberg Primary Order to sell silver futures contracts were filled.

26. VORLEY employed the general pattern of trading activity summarized above in Paragraph 24 in the precious metals futures contracts markets numerous times during the approximate time period of May 2008 to July 2013, including but not limited to the instances set forth in the following table, which is incorporated as part of this paragraph:

<b>Approx. Date</b>	<b>Futures Contract</b>	<b>Approx. Placement Time(s) of Opposite Order(s)</b>
1/30/2012	Silver	4:17:50.622; 4:17:50.846; 4:17:51.029
1/31/2012	Silver	7:58:57.039; 7:58:57.208; 7:58:57.375; 7:58:57.528

<b>Approx. Date</b>	<b>Futures Contract</b>	<b>Approx. Placement Time(s) of Opposite Order(s)</b>
2/14/2012	Gold	5:13:41.271; 5:13:41.738; 5:13:41.899; 5:13:42.069; 5:13:42.248
5/9/2012	Silver	6:18:15.356; 6:18:15.701; 6:18:17.067
6/27/2012	Gold	4:39:26.306; 4:39:26.478; 4:39:26.629; 4:39:26.910; 4:39:27.074
1/28/2013	Gold	10:33:12.415
7/9/2013	Gold	11:52:04.617

27. In addition, based on the market-depth, trade, and order data obtained in the investigation and analyzed to date to identify the general pattern of trading activity summarized above in Paragraph 24, between the approximate time period of May 2008 and July 2013, VORLEY engaged in this pattern of trading activity, summarized above, over a thousand times, placing over ten thousand Opposite Orders, and participated in over one hundred instances of coordinated spoofing with CHANU that are consistent with the pattern of activity summarized above.<sup>7</sup>

28. Based on information provided by Bank A Trader #1, he/she believes that, based on his/her personal interactions with VORLEY, and the manner in which VORLEY trained him/her to trade, and Bank A Trader #1's own experience of engaging in the spoofing practice, including instances of

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<sup>7</sup> These approximate summary figures are based on an analysis to date of available RAPID order message data and ARMADA market-depth data obtained from the CME Group. The data analysis is ongoing, and these approximate summary figures may change as additional data covering the relevant time period is obtained.

coordinated spoofing with VORLEY, the trading pattern summarized above in Paragraph 24 is consistent with an effort to trick other market participants and to place orders with the intent to cancel them before execution.

CHANU's Personal Executions of the Scheme to Defraud and Spoofing Practice

29. Based on communications obtained by the FBI during the investigation, there is probable cause that CHANU knew at all times relevant to the scheme to defraud and spoofing practice that the practice of spoofing was deceptive, manipulative, and illegal.

30. For example, as early as on or about January 28, 2009, CHANU communicated via chat with another Bank A precious metals trader ("Bank A Trader #2").<sup>8</sup> Based on their chat communication on this date and an analysis of trade and order data corresponding to the time of this chat, there is probable cause that Bank A Trader #2 placed numerous Opposite Orders to buy gold futures contracts in an effort to facilitate the execution of CHANU's Primary Order to sell gold futures contracts. When Bank A Trader #2 remarked in the chat, "that does show u how easy it is to manipulate it soemtimes [sic]," CHANU replied, "yeah yeah of course." Bank A Trader #2 added, "that was a lot of clicking," which Your Affiant believes, based on a review of this chat and the corresponding trade and order data, was a reference to the trader's rapid clicking of the computer mouse to place and

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<sup>8</sup> The identity of Bank A Trader #2 is known to Your Affiant.

cancel the Opposite Orders. CHANU replied, “basically you tricked alkl [sic] the algorythm [sic] . . . THAT IS BRILLIANT.”

31. The very next day, on or about January 29, 2009, another Bank A precious metals trader (“Bank A Trader #3”)<sup>9</sup> asked CHANU in a chat, “you flashing bids to help me get done? hahaha.” CHANU replied, “yep . . . just to trigger algorythm [sic].”

32. Based on my training and experience and work on this investigation, Your Affiant has learned that many market participants use computer algorithms to engage in high-frequency, automated trading strategies. Because the volume of orders in the visible order book often is a factor that can influence the trading decisions of these automated trading strategies, such algorithms are susceptible to being “tricked” or “triggered” by Spoof Orders, as CHANU himself noted in the foregoing chat communications.

33. Based on evidence obtained by the FBI during the investigation, beginning in or around at least December 2008 through in or around at least June 2013, CHANU sought to enrich himself, Bank A, and his co-conspirators through a scheme to defraud and spoofing practice in connection with the purchase and sale of precious metals futures contracts on the COMEX. By placing a fully visible large-volume order for precious metals futures contracts at certain price levels with the intent, at the time the order was placed, to cancel the order before execution, CHANU created the false

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<sup>9</sup> The identity of Bank A Trader #3 is known to Your Affiant.

appearance of substantial supply or demand in order to fraudulently induce—or, as CHANU himself put it, to “trick”—other market participants to react to his deceptive market manipulation.

34. Like VORLEY, CHANU implemented, at various times, the same basic pattern of order and trade activity summarized above in Paragraph 24 in the precious metals futures contract markets. There is probable cause to believe that this pattern is materially deceptive and constitutes spoofing.

35. For example, CHANU engaged in the following activity in the gold futures contract market on or about August 13, 2012:

- a. On or about August 13, 2012, at approximately 23:16:34.855, CHANU placed an iceberg Primary Order to buy 45 lots of gold futures contracts (showing only one visible lot) at the price of \$1614.70, which was the prevailing best bid at that point in time.
- b. Second, from approximately 23:16:43.963 to 23:16:44.475, CHANU placed four non-iceberg Opposite Orders to sell 10 lots of gold futures contracts each (for a total of 40 visible lots offered), at the price of \$1614.80, which was the prevailing best offer at that point in time.
- c. Third, approximately nine milliseconds after CHANU placed his fourth Opposite Order, 14 lots of CHANU's iceberg Primary Order to buy were filled, from approximately 23:16:44.480 to 23:16:44.484.
- d. Fourth, from approximately 23:16:44.634 to 23:16:44.788, CHANU placed two additional non-iceberg Opposite Orders to sell 10 lots of gold futures contracts at the price of \$1614.80, which was still the prevailing best offer at that point in time. By the time CHANU's sixth Opposite Order was placed, his six Opposite Orders combined

represented over 89% of the visible order quantity at that price point.

- e. Fifth, approximately nine milliseconds after CHANU placed his sixth Opposite Order, two additional lots of CHANU's iceberg Primary Order to buy were filled, from approximately 23:16:44.793 to 23:16:44.797.
- f. Sixth, CHANU placed an additional non-iceberg Opposite Order to sell 10 lots of gold futures contracts at the price of \$1614.80, which was still the prevailing best offer at that point in time.
- g. Seventh, CHANU canceled all seven of his 10-lot non-iceberg Opposite Orders to sell without any part of these Opposite Orders being filled. Each of these Opposite Orders had been active in the market for less than two seconds before CHANU canceled it.
- h. Eighth, at approximately 23:17:19.309 and 23:17:19.484, CHANU placed two more non-iceberg Opposite Orders to sell 10 lots of gold futures contracts each, at the price of \$1614.80, which was still the prevailing best offer at that point in time.
- i. Ninth, within approximately 50 milliseconds after CHANU placed the second of these Opposite Orders, two more lots of CHANU's iceberg Primary Order to buy were filled, from approximately 23:17:19.531 to 23:17:19.532.
- j. Tenth, CHANU placed five more non-iceberg Opposite Orders to sell 10 lots of gold futures contracts each, at the price of \$1614.80, which was still the prevailing best offer at that point in time, before canceling all seven of his 10-lot non-iceberg Opposite Orders to sell without any part of these Opposite Orders being filled. Each of these Opposite Orders had been active in the market for less than two seconds before CHANU canceled it.

36. CHANU employed the pattern of trading activity summarized above in Paragraphs 24 and 34 in the precious metals futures contracts markets numerous times during the approximate time period of December

2008 to June 2013, including but not limited to the instances set forth in the following table, which is incorporated as part of this paragraph:

<b>Approx. Date</b>	<b>Futures Contract</b>	<b>Approx. Placement Time(s) of Opposite Order(s)</b>
6/6/2012	Gold	2:27:09.808; 2:27:10.010; 2:27:10.215; 2:27:10.465; 2:27:10.673; 2:27:12.240
7/5/2012	Gold	6:04:10.885
7/13/2012	Gold	3:13:52.029; 3:13:52.170; 3:13:52.341; 3:13:52.484; 3:13:52.602; 3:13:52.753; 3:13:52.898; 3:13:53.057; 3:13:53.195; 3:13:53.329; 3:13:53.483; 3:13:53.642; 3:13:53.785; 3:13:53.932; 3:13:54.226; 3:13:54.410; 3:13:54.545; 3:13:54.704; 3:13:54.872
10/04/2012	Silver	20:50:17.727
10/25/2012	Silver	10:47:29.793
5/23/2013	Gold	1:07:55.630

37. In addition, based on the market-depth, trade, and order data obtained in the investigation and analyzed to date to identify the general pattern of trading activity summarized above in Paragraphs 24 and 34, between the approximate time period of December 2008 and June 2013, CHANU engaged in this pattern of activity, summarized above, hundreds of times, placing over ten thousand Opposite Orders, and participated in over one hundred instances of coordinated spoofing with VORLEY that are consistent with the pattern of activity summarized above.<sup>10</sup>

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<sup>10</sup> As noted above, the data analysis is ongoing, and these approximate summary figures may change as additional data covering the relevant time period is obtained.

38. Based on information provided by Bank A Trader #1, he/she believes that, based on his/her personal interactions with CHANU and the manner in which CHANU trained him/her to trade, and Bank A Trader #1's own experience of engaging in the spoofing practice, including instances of coordinated spoofing with CHANU, the trading pattern summarized above in Paragraphs 24 and 34 is consistent with an effort to trick other market participants and to place orders with the intent to cancel them before execution.

VORLEY and CHANU Train Others on the Scheme to Defraud and  
Spoofing Practice

39. Bank A Trader #1 has admitted to engaging in the practice of spoofing, including solo spoofing and coordinated spoofing with VORLEY, CHANU, and other traders at Bank A. According to Bank A Trader #1, while he/she was a precious metals futures trader at Bank A, he/she was supervised by and interacted with more experienced traders on the team. Due to the nature of the nearly 24-hour trading cycle, these more experienced traders were located in Republic of Singapore and in other locations, including the United Kingdom, where VORLEY and CHANU were each located during the relevant period before CHANU transferred to the Republic of Singapore in approximately May 2011. After joining the precious metals desk and observing and interacting with VORLEY and CHANU, Bank A Trader #1 was taught by VORLEY and CHANU a trading strategy that was intended to deceive and manipulate other market participants by placing

orders with the intent, at the time the orders were placed, to cancel them before execution.

40. According to Bank A Trader #1, beginning in or around December 2009, when he/she was assigned to Bank A's metals trading desk (which included precious metals trading) in the Republic of Singapore, Bank A Trader #4<sup>11</sup> was the primary trader assigned to manage and supervise Bank A Trader #1. Bank A Trader #1 had received no formal training regarding precious metals trading before joining the Bank A trading desk. Instead, Bank A Trader #1 observed VORLEY, CHANU, Bank A Trader #4, and other more experienced traders as they traded.

41. According to Bank A Trader #1, Bank A Trader #4 instructed him/her to learn by observing both VORLEY and CHANU. VORLEY and CHANU, in turn, introduced Bank A Trader #1 to the practice of entering orders with the intent, at the time the orders were placed, to cancel them before execution. Specifically, Bank A Trader #1 observed each of VORLEY and CHANU engaging in this spoofing practice several times. Because they shared a common electronic trading platform screen that identified the individual trader's account through which specific orders were being placed, Bank A Trader #1 also observed VORLEY and CHANU personally place orders for certain precious metals futures contracts that, based on Bank A Trader #1's observation, communications, and experience with VORLEY and

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<sup>11</sup> The identity of Bank A Trader #4 is known to Your Affiant.

CHANU, he/she believed VORLEY and CHANU had each intended, at the time the orders were placed, to cancel before their execution.

42. According to Bank A Trader #1, VORLEY and CHANU would typically (a) place an “iceberg” Primary Order on one side of the market and then (b) place one or more bids or offers, which were not icebergs and therefore showed a large fully visible quantity, on the opposite side of the market, close to (typically within five ticks of) the best bid or offer, which Opposite Orders were canceled typically within five seconds of their placement (the “Deceptive Strategy”).

43. For example, CHANU engaged in the following coordinated activity with Bank A Trader #1 in the gold futures contract market on or about January 5, 2012:

- a. On or about January 5, 2012, at approximately 1:57:54.703, Bank A Trader #1 first placed an iceberg Primary Order to sell 100 lots of gold futures contracts (showing only one visible lot) at the price of \$1626.00, which was approximately one level from the prevailing offer at that point in time. At approximately 2:00:02.054, this Primary Order began to be executed, and continued to be filled until approximately 2:00:49.381, by which time 63 out of 100 lots of this Primary Order were filled.
- b. Second, starting at approximately 2:00:49.550, CHANU placed a non-iceberg Opposite Order to buy 10 lots of gold futures contracts at \$1625.20, which was approximately six levels from the prevailing bid at that point in time. Approximately one second later, at approximately 2:00:50.637, CHANU placed a second non-iceberg Opposite Order to buy 10 lots of gold futures contracts at \$1625.40, which was approximately four levels from the prevailing bid at that point in time. CHANU's 10-lot non-iceberg Opposite

Order to buy at \$1625.40 represented over 71% of the total visible order quantity at that price point.

- c. Third, approximately one second after CHANU placed his second 10-lot non-iceberg Opposite Order to buy, one lot of Bank A Trader #1's Primary Order to sell was filled at approximately 2:00:51.679.
- d. Fourth, at approximately 2:00:53.088, CHANU placed a third non-iceberg Opposite Order to buy 10 lots of gold futures contracts at \$1625.60, which was approximately two levels from the prevailing bid at that point in time.
- e. Fifth, from approximately 2:00:54.393 to 2:00:55.664, CHANU canceled all three of his 10-lot non-iceberg Opposite Orders without any of the Opposite Orders being filled. None of these Opposite Orders had been active in the market for more than six seconds before CHANU canceled it.

44. According to Bank A Trader #1, VORLEY would use the phrase "jam it" to describe placing Opposite Orders as part of the Deceptive Strategy. Aspects of Bank A Trader #1's statements regarding VORLEY's use of the phrase "jam it" at or near the same time that he and Bank A Trader #1 were engaging in the Deceptive Strategy are corroborated by at least one chat communication obtained by the FBI in the investigation, as well as an analysis of trade and order data corresponding to the date of this chat:

- a. On or about November 3, 2010, VORLEY and CHANU, together with Bank A Trader #1, engaged in coordinated spoofing activity by placing Opposite Orders to facilitate Bank A Trader #1's trading of gold futures contracts. VORLEY and Bank A Trader #1 communicated via chat during and shortly after this activity. According to Bank A Trader #1, he/she and VORLEY also communicated via video-teleconference during this activity.

- b. At approximately 2:43:46.462, Bank A Trader #1 placed an iceberg Primary Order to sell 400 lots of gold futures contracts (showing only one visible lot). According to Bank A Trader #1, this was a genuine order.
- c. At approximately 2:44:03.587, CHANU placed a non-iceberg Opposite Order to buy 100 lots of gold futures contracts within approximately two levels of the prevailing bid, which he canceled less than half a second after one lot of Bank A Trader #1's Primary Order to sell had traded and within three seconds of CHANU's placing the 100-lot Opposite Order to buy.
- d. Minutes later, as Bank A Trader #1 continued to work his/her Primary Order to sell by canceling and replacing the remainder of the original Primary Order at different price points, Bank A Trader #1 placed multiple non-iceberg Opposite Orders to buy 10 lots of gold futures contracts which were placed within approximately two levels of the prevailing bid, and canceled within two seconds of each order's placement.
- e. While Bank A Trader #1's Primary Order to sell was pending, VORLEY and CHANU placed multiple additional non-iceberg Opposite Orders to buy gold futures contracts, with VORLEY placing his Opposite Orders in two groups of multiple 10-lot orders, each placed within approximately two levels of the prevailing bid, and all of which were canceled within five seconds of their placement, and with CHANU placing his Opposite Order to buy 50 lots, within approximately two levels of the prevailing bid, and canceled within nine seconds of placement.
- f. Shortly after this trading activity, and as Bank A Trader #1's 400-lot Primary Order to sell was finishing being filled, VORLEY remarked to Bank A Trader #1, among other things, that their activity "was cladsic [sic] / **jam it** / woooooooooooo . . . . bif [sic] it up." Bank A Trader #1 responded, in pertinent part, "tricks from the . . . master." (Emphasis supplied.)

45. According to Bank A Trader #1, both VORLEY and CHANU also would explain that they were trying to "help" Bank A Trader #1 when placing

Opposite Orders to facilitate the execution of Bank A Trader #1's Primary Order. Aspects of Bank A Trader #1's statements regarding CHANU's use of the phrase "help you" to describe Opposite Orders (*i.e.*, Spoof Orders) at or near the same time that CHANU and Bank A Trader #1 were engaging in the Deceptive Strategy, are corroborated by at least one chat communication obtained by the FBI in the investigation, as well as an analysis of trade and order data corresponding to the date of this chat:

- a. On or about August 8, 2011, CHANU and Bank A Trader #1 communicated via chat regarding their trading strategy and engaged in coordinated spoofing activity in gold futures contracts during this communication.
- b. For example, at approximately 4:42:57 (London time) in the chat, Bank A Trader #1 wrote CHANU, "i should job it here right / u think?" to which CHANU replied, "yup / sell 10k here / **i ll help you.**" (Emphasis supplied.)
- c. Minutes after this exchange, Bank A Trader #1 placed an iceberg order to sell 50 lots of gold futures contracts (showing only one visible lot). According to Bank A Trader #1, this was a genuine order. Within 10 seconds after Bank A Trader #1 placed this Primary Order to sell, CHANU engaged in the spoofing practice by placing, over the next 15 seconds, a series of multiple non-iceberg 10-lot Opposite Orders to buy, each placed and canceled using a pattern generally consistent with that described above in Paragraphs 24 and 34.
- d. In addition, at approximately 4:46:25 (London time), Bank A Trader #1 wrote to CHANU, "u be careful sweetie / dun get given here / lol." According to Bank A Trader #1, "dun" was shorthand for "don't" and "get given" meant "get sold," such that Bank A Trader #1 was cautioning CHANU not to get his buy-side Opposite Orders sold or executed. Approximately 90 seconds later, seven out of ten lots of one of CHANU's non-iceberg, Opposite Orders to buy were executed. Within less than a second, CHANU canceled the remainder of this

Opposite Order as well as his other pending Opposite Orders, and placed an iceberg order to sell seven lots of gold futures contracts. According to Bank A Trader #1, based on his/her personal interactions with CHANU and the manner in which CHANU trained him/her to trade, and Bank A Trader #1's own experience of engaging in the spoofing practice, this pattern of order and trade activity is consistent with CHANU's effort to (1) promptly cancel the remainder of his Opposite Order when it was partially filled; and (2) unwind the long position that CHANU had inadvertently acquired by getting filled on one of his Opposite Orders, which CHANU had intended to cancel before execution at the time he placed the order.

46. According to Bank A Trader #1, and based on training and instruction provided to him/her by VORLEY, CHANU, and others, Bank A Trader #1 personally engaged in the Deceptive Strategy on numerous occasions between the approximate time period of December 2009 to February 2012.

47. According to Bank A Trader #1, he/she learned from VORLEY and CHANU to engage in the Deceptive Strategy by implementing patterns of order and trade activity in precious metals futures contracts markets including the following:

- a. First, Bank A Trader #1 would place a Primary Order, using iceberg functionality, on one side of the market close to the prevailing price at which that precious metals futures contract was trading;
- b. Second, after placement of the Primary Order and while the Primary Order was pending, Bank A Trader #1 would place one or more fully visible Opposite Orders of at least 10 lots, without using iceberg functionality, on the opposite side of the market from the Primary Order and close to—i.e., typically within five ticks of—the prevailing

price at which that given precious metals futures contract was trading;

- c. Third, Bank A Trader #1 would quickly cancel his/her Opposite Order, typically within five seconds after placing the Opposite Order and before the Opposite Order could be executed; and
- d. Fourth, often, but not always, at least one lot of Bank A Trader #1's Primary Order would be filled before the Opposite Order was canceled.

48. In addition to corroborating aspects of Bank A Trader #1's statements regarding phrases used by VORLEY and CHANU to describe the spoofing practice, the investigation has corroborated aspects of Bank A Trader #1's statements regarding his/her own trading activity, as set forth in Paragraph 47. For example, Bank A Trader #1 engaged in the following activity in the gold futures contract market on or about January 10, 2012:

- a. On or about January 10, 2012, at approximately 1:21:32.230, Bank A Trader #1 first placed an iceberg Primary Order to sell 70 lots of gold futures contracts (showing only one visible lot) at the price of \$1621.80, which was approximately eight levels from the prevailing offer at that point in time. Nearly two minutes later, at approximately 1:23:24.617, one lot of this Primary Order was filled.
- b. Second, starting at approximately 1:23:31.628, approximately seven seconds after the last fill of his/her Primary Order to sell, Bank A Trader #1 placed a group of fully visible non-iceberg Opposite Orders to buy 20 lots of gold futures contracts at the following times and prices:
  - i. Approximately 1:23:31.628: 20 lots to buy at \$1620.80, which was approximately seven levels from the prevailing bid at that point in time;

- ii. Approximately 1:23:31.839: 20 lots to buy at \$1620.90, which was approximately six levels from the prevailing bid at that point in time;
  - iii. Approximately 1:23:32.041: 20 lots to buy at \$1621.10, which was approximately four levels from the prevailing bid at that point in time;
  - iv. Approximately 1:23:32.225: 20 lots to buy at \$1621.30, which was approximately two levels from the prevailing bid at that point in time; and
  - v. Approximately 1:23:32.377: 20 lots to buy at \$1621.30, which was still approximately two levels from the prevailing bid at that point in time.
- c. Third, approximately one second after placing his/her last non-iceberg 20-lot Opposite Order to buy, one lot of Bank A Trader #1's iceberg Primary Order to sell was filled at approximately 1:23:33.455.
- d. Fourth, from approximately 1:23:33.544 to 1:23:35.820, Bank A Trader #1 canceled all of his/her 20-lot Opposite Orders without any of these Opposite Orders being filled. None of these Opposite Orders had been active in the market for more than four seconds before Bank A Trader #1 canceled it.

49. In addition, based on the market and order data obtained and analyzed in the investigation to date to identify instances of the pattern of trading activity summarized above in Paragraph 47, in which at least one lot of Bank A Trader #1's Primary Order was filled before the Opposite Order was canceled, between the approximate time period of May 2010 and January 2012, Bank A Trader #1 engaged in this pattern over a hundred times, placing hundreds of Opposite Orders, and participated in over one hundred instances of such coordinated spoofing activity involving either VORLEY or

CHANU, or both, during that time period that are consistent with the pattern summarized above.<sup>12</sup>

VORLEY Denies His Participation in the Scheme to Defraud and Spoofing Practice

50. Based on documents and information obtained by the FBI during the investigation, Your Affiant has learned that, on or about March 17, 2015, VORLEY was interviewed by Bank A compliance and employee relations personnel about certain instances of VORLEY's prior trading conduct. The activity discussed during this interview included several, non-iceberg orders to buy gold futures contracts placed by VORLEY on or about March 16, 2011, as well as VORLEY's use of the phrase "spoofing it up / ahem ahem" in a chat communication on that date with Bank A Trader #4 around the time that these gold futures contract orders were placed. Notwithstanding that in October 2007—over three years before the chat communication in question and over seven years prior to this interview, VORLEY had expressly referred in a chat to "spofing" as "illegal" and "just not cricket"—VORLEY stated the following, in sum and substance, to Bank A's compliance and employee relations personnel:

[T]he term spoofing has taken on a meaning in the current climate with which none of us wish to be associated with. However in 2011 this was not the case. The term had not yet taken on the toxic connotations that it currently has. As such it was used in relation to or to describe more innocent and everyday occurrences. . . . What I'm trying to say is that the term spoofing in 2011, it was a widely used

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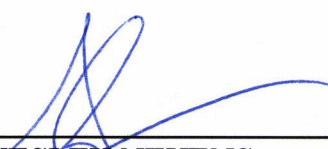
<sup>12</sup> As noted above, the data analysis is ongoing, and these approximate summary figures may change as additional data covering the relevant time period is obtained.

word . . . and it didn't have the obvious impact that it does in the modern day. Now in trying to analyse [sic] the reason for inopportune use of the word spoof, I can come up with no explanation other than a bad example of market banter masquerading as sarcasm.

51. Particularly in light of VORLEY's prior references to the general practice of spoofing as "illegal" and "just not cricket," and the numerous instances of VORLEY's solo and coordinated spoofing activity during the relevant period, as described above, there is probable cause to believe that VORLEY's statement to Bank A personnel on this occasion was materially deceptive and misleading, and was made in furtherance of, and for the purpose of concealing and minimizing his own participation in, the scheme to defraud and spoofing practice.

**CONCLUSION**


52. Based upon the foregoing, there is probable cause to believe that VORLEY and CHANU, along with others known and unknown, participated and engaged in: (a) conspiracy, in violation of Title 18, United States Code, Section 371; (b) conspiracy, in violation of Title 18, United States Code, Section 1349; (c) wire fraud, in violation of Title 18, United States Code, Sections 1343 and 2; (d) commodities fraud, in violation of Title 18, United States Code, Sections 1348(1) and 2; and (e) spoofing, in violation of Title 7, United States Code, Sections 6c(a)(5)(C), 13(a)(2), and 13c(a).

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A. WESLEY NEVENS  
Special Agent  
Federal Bureau of Investigation

Signed and sworn to before me this 19 day  
of January, 2018, in Chicago, Illinois.

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HON. MICHAEL T. MASON  
United States Magistrate Judge