

# EXHIBIT A

## GUS R. LESNEVICH, INC.

*Gus R. Lesnevich*                      *Khody R. Detwiler*  
*Forensic Document Examiners*

310 Airport Drive, Suite 4  
Martinsburg, PA 16662

Telephone: (814) 793-2377  
Facsimile: (814) 793-3790

August 8, 2012

**Re: *Paul D. Ceglia v Mark Elliot Zuckerberg and Facebook, Inc.,*  
Civil Action No. 1:10-cv-00569-RJA**

### **Supplemental Expert Report of Gus R. Lesnevich, Forensic Document Examiner**

My name is Gus R. Lesnevich and I am a Forensic Document Examiner. I incorporate into this supplemental Expert Report the entirety of my initial Expert Report, filed March 26, 2012 (Doc. No. 329), including all appendices and exhibits. My curriculum vitae is attached as Exhibit A to my initial Expert Report.

#### **I. PURPOSE OF EXAMINATION**

In my initial Expert Report, I described my examination of four images of the purported contract upon which Plaintiff Paul Ceglia has based this lawsuit, the "WORK FOR HIRE" CONTRACT (hereafter, Work for Hire document). Ceglia has proffered all four images of the Work for Hire document (collectively, the Questioned Documents) as images of the same physical document. However, in my initial Expert Report, I observed that there are at least 20 significant dissimilarities between the handwritten interlineations on page 1 of the Questioned Documents, again, all of which Ceglia has proffered as images of the same physical document. Thus, I concluded, to the highest degree of certainty possible, beyond any reasonable doubt, that Ceglia has proffered at least two different physical documents as the Work for Hire document. In the course of conducting this analysis, I also observed several handwriting anomalies on both pages 1 and 2 of the Work for Hire document.

On June 4, 2012, Ceglia filed, among other reports, the expert reports of James A. Blanco and Larry F. Stewart (Doc. Nos. 415, 416), both of which mischaracterized the conclusions I reached in my initial Expert Report. In particular, Messrs. Blanco and Stewart mistakenly argued that I had concluded that the first page of the Work for Hire Document was a forgery appended to a genuine second page.

Continuing my court-ordered examination and in response to the reports of Ceglia's experts, I conducted two different modes of supplemental analysis. First, I was asked to determine whether

the images of the handwritten signatures and dates of signature on page 2 of the Questioned Documents are, in fact, of the same physical document. The questioned written signatures and dates are “Paul Ceglia 4/28/03” and “Mark Zuckerberg 04.28.03.” This is the same type of analysis that I described in my initial Expert Report, which I now perform on the handwritten features that appear on page 2 of the Questioned Documents rather than page 1 (the page containing all references to the purported “The Face Book”).

Second, I continued my ongoing analysis and examination of the handwriting on both page 1 and 2 of the Work for Hire document. In particular, I was asked to determine whether the questioned initials “MZ” on page 1 and signatures and dates on page 2 of the Work for Hire document presented for inspection in 2011 are genuine. To perform this type of analysis, I compared the questioned handwritten entries to 43 known signatures, 12 known sets of initials, and multiple other known handwritten exemplars of Mark Zuckerberg and 11 known signatures of Paul Ceglia. This is a different type of analysis than that described in my initial Expert Report, and responds, in part, to the reports of Ceglia’s experts.

## **II. THE QUESTIONED DOCUMENTS**

The Questioned Documents I examined are the same Questioned Documents described in my initial Expert Report. For ease of reference, they are:

Exhibit Q-1: Image of the Work for Hire document in TIF file format sent by Ceglia to his attorney Paul Argentieri on June 27, 2010.

Exhibit Q-2: Image of the Work for Hire document attached to Ceglia’s Amended Complaint, filed April 11, 2011.

Exhibit Q-3: Image of the Work for Hire document taken by Ceglia’s expert Valery Aginsky during his January 13, 2011 examination of the Work for Hire Contract.

Exhibit Q-4: Image of the Work for Hire document taken by Defendants’ expert Peter V. Tytell during Defendants’ July 14, 2011 examination of the Work for Hire document presented by Ceglia’s counsel Paul Argentieri.

Again, Ceglia has proffered all four images as images of the same two-page physical document, the Work for Hire document. Images of page 2 of the Questioned Documents are attached hereto as Exhibit D.

## **III. THE KNOWN DOCUMENTS**

I compared the Questioned Documents to 43 known signatures, 12 known sets of initials, and multiple other known handwritten exemplars of Mark Zuckerberg and 11 known signatures of Paul Ceglia (collectively, the Known Documents). This compilation included all known

exemplars provided to me. These exemplars were provided (1) during my July 15, 2011 examination of the original documents made available to me in Buffalo, New York and (2) following discovery received from Ceglia and his experts during the litigation. I understand that all of the Known Documents were made available to both parties' experts. Images of the Known Documents are attached hereto as Exhibit E.

Exhibit K-1: Images of Exhibits 16, 19, 21 to the Declaration of James A. Blanco, dated June 4, 2012 (Doc. No. 415-2), which include REDACTED  
REDACTED Some of these documents are confidential and subject to the protective order in this matter (Doc. No. 86).

Exhibit K-2: Images of a May 12, 2005 and an August 8, 2005 Form D filing with the Securities and Exchange Commission on behalf of TheFacebook, Inc., bearing three signatures of Mark Zuckerberg. These documents were produced to Defendants by Ceglia through a subpoena directed to John Paul Osborn, one of Ceglia's experts in forensic document examination, on November 15, 2011.

Exhibit K-3: Original "StreetFax Back-End Technical Specification Document" (hereafter, the Specifications document), dated April 28, 2003, bearing the following ink handwriting:

- 1 set of initials of Mark Zuckerberg on page 4
- 1 signature of Paul Ceglia on page 6
- 1 date, "4/28/03," adjacent to signature of Paul Ceglia on page 6
- 1 signature of Mark Zuckerberg on page 6
- 1 date, "04.28.03," adjacent to signature of Mark Zuckerberg on page 6

I examined the original Specifications document.

Exhibit K-4: Original REDACTED  
REDACTED A copy of this document was included as part of Exhibits 16 and 21 to the Declaration of James A. Blanco (Doc. No. 415-2). I examined the original REDACTED document. This document is confidential and subject to the protective order in this matter (Doc. No. 86).

Exhibit K-5: Original REDACTED  
REDACTED . A copy of this document was included as part of Exhibit 16 to the Declaration of James A. Blanco (Doc. No. 415-2). I examined the original REDACTED document. This document is confidential and subject to the protective order in this matter (Doc. No. 86).

Exhibit K-6: Original REDACTED REDACTED . A copy of this document was included as part of Exhibit 16 to the Declaration of James A. Blanco (Doc. No. 415-2). I examined the original<sup>REDACTED</sup> document. This document is confidential and subject to the protective order in this matter (Doc. No. 86).

Exhibit K-7: Images of Declarations of Paul Ceglia provided to Defendants (on December 2, 2011 and December 23, 2011) or filed (Doc. Nos. 65, 225, 230, 339, 344, 398, 422) in this case bearing ten signatures of Paul Ceglia.

#### **IV. METHODOLOGY OF EXAMINATION**

##### **A. Comparison of Handwritten Entries on Page 2 of the Questioned Documents**

To analyze and compare the questioned signatures and dates on page 2 of the Questioned Documents, I performed a series of visual examinations using the procedures prescribed by ASTM International. These visual examinations included: (1) use of a hand-held glass possessing 3x magnification capabilities; (2) enlargement of the images of the handwritten text on page 2 on high-resolution computer screens using Mac Preview; (3) use of a hand-held glass to examine the enlarged images—an analytical method that provides the ability to examine the handwriting closely, without distorting the image; and (4) side-by-side comparison of the handwritten entries. Each of these methods is non-destructive and conforms with the ASTM International Standards as the most appropriate method for conducting this examination. *See* ASTM International Standards E 2331-04, 2290-07a.

To determine whether any dissimilarities exist among the questioned signatures and dates on page 2 of the Questioned Documents, and in accordance with the standards set out by ASTM International, some of the points I considered were: letter formation and the overall design of the letters and numerals (paying particularly close attention to loops and curves); direction of strokes; beginning and ending strokes (*i.e.*, the curvature and style of the beginning and ending strokes of each of the letters or numerals); letter spacing or placement on the document; the height-relationship of letters and numerals within each word or number; spacing; slant/slope of words, letters, and numerals; cross strokes; and embellishments. *See* ASTM International Standard E 2290-07a.

##### **B. Comparison of Questioned Handwritten Entries to Work for Hire Document and Known Zuckerberg and Ceglia Handwriting Exemplars**

To determine the genuineness of the handwritten Zuckerberg and Ceglia signatures, dates, and “MZ” initials on the Work for Hire document presented for inspection in 2011 (Exhibit Q-3), I performed the visual examinations described above using the procedures prescribed by ASTM International. In addition, I compared the handwritten questioned entries with corresponding known signatures, dates, and initials of Mark Zuckerberg and Paul Ceglia. Each of these methods is non-destructive and conforms with the ASTM International Standards as the most appropriate method for conducting this examination. *See* ASTM International Standards E 2331-04, 2290-07a.

To determine the genuineness of the handwritten Zuckerberg and Ceglia signatures and dates and the handwritten “MZ” initials on Exhibit Q-3, in accordance with the standards set out by ASTM International, some of the points I considered were: pen pressure; line quality; continuous writing movement; hesitation; letter formation and design; slant/slope dissimilarities; beginning/ending strokes; retouching; and blunt and tapered endings. *See* ASTM International Standard E 2290-07a.

## V. RESULTS OF EXAMINATION

### A. **Twelve (12) Differences Between and Among the Handwritten Entries on Page 2 of the Questioned Documents**

As discussed above, in my initial Expert Report, I concluded that Ceglia has proffered at least two different physical documents as the same Work for Hire document. That initial phase of analysis considered the handwritten features that appear on page 1 of the Questioned Documents, which are four images that Ceglia has presented as images of the same Work for Hire document. This supplemental Expert Report describes my findings resulting from the same type of analysis on the handwritten features (signatures and dates) that appear on page 2 of the Questioned Documents.

In sum, I observed at least 12 significant dissimilarities among and between the handwritten signatures and dates on page 2 of the Questioned Documents. These dissimilarities are not attributable to image-quality variations between documents. Rather, the differences between the handwriting on the Questioned Documents were generated at the time of the documents' creation, and not at the time of reproduction.

These dissimilarities confirm, to the highest degree of certainty possible, my earlier conclusion that the Questioned Documents are images of at least two different physical documents. *See* ASTM International standard E 1658-08. Ceglia has therefore produced at least two different physical documents purporting to be the same document. In particular, Ceglia produced a Work for Hire document to Defendants' experts in July 2011 that was different than the document he attached to his Amended Complaint.

The 12 handwriting dissimilarities found in my examination of the purported signatures and handwritten dates of signature on page 2 of the Work for Hire document are reflected in the images of the Questioned Documents in this supplemental Expert Report. In addition, images of the second page of each of the Questioned Documents with enlarged pull-outs of the questioned signatures and dates are attached hereto as Exhibit D.

#### 1. **Beginning/Ending Stroke Dissimilarities**

I observed several beginning/ending stroke dissimilarities regarding the questioned Ceglia signature and the questioned Zuckerberg date of signature appearing on page 2 of the Questioned Documents.

- a) I examined the handwritten name "Paul" in the questioned signature of "Paul Ceglia"

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1 I compared the characteristics of the handwritten text appearing on page 2 of all four Questioned Documents. However, in some instances, I have restricted my analysis to fewer than all four Questioned Documents due to varying reproduction quality and in accordance with my extensive professional experience and judgment following the ASTM Standards. *See* ASTM Standard E2209-07.

on page 2 and found that the ending stroke of the letter “I” ends below the printed signature line below on Exhibit Q-1. However, on Exhibits Q-3 and Q-4, the ending stroke of the letter “I” ends at, or on, the printed signature line below. *See* Figs. 21, 22.

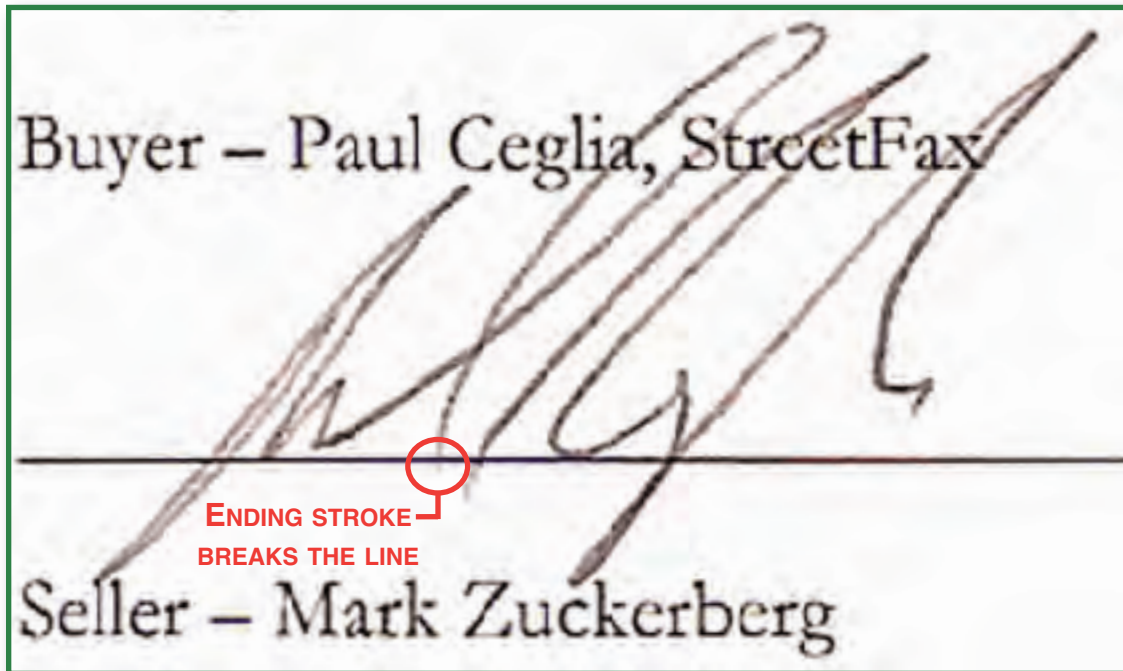
- b) I examined the handwritten number “04” in the questioned date of signature by Mark Zuckerberg on page 2 and found that the beginning stroke of the first numeral “0” points up on Exhibit Q-1. However, on Exhibits Q-3 and Q-4, the beginning stroke of the first numeral “0” points down. *See* Figs. 23, 24.
- c) I examined the handwritten name “Paul” in the questioned signature of “Paul Ceglia” on page 2 and found that the initial writing movement (*i.e.*, the beginning stroke) of the letter “P” is high on Exhibits Q-1 and Q-2. However, on Exhibits Q-3 and Q-4, the initial writing movement (*i.e.*, the beginning stroke) of the letter “P” is lower. *See* Figs. 25, 26.



**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” SIGNATURE**

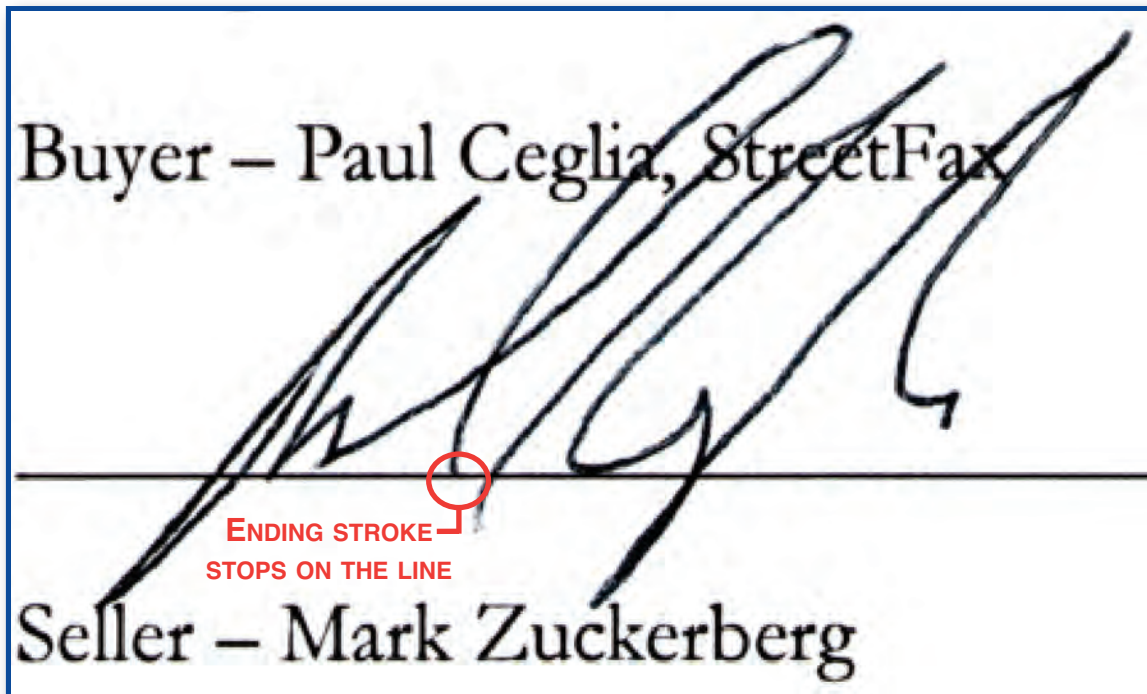
**EXHIBIT Q-1**



**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” SIGNATURE**

**EXHIBIT Q-3**



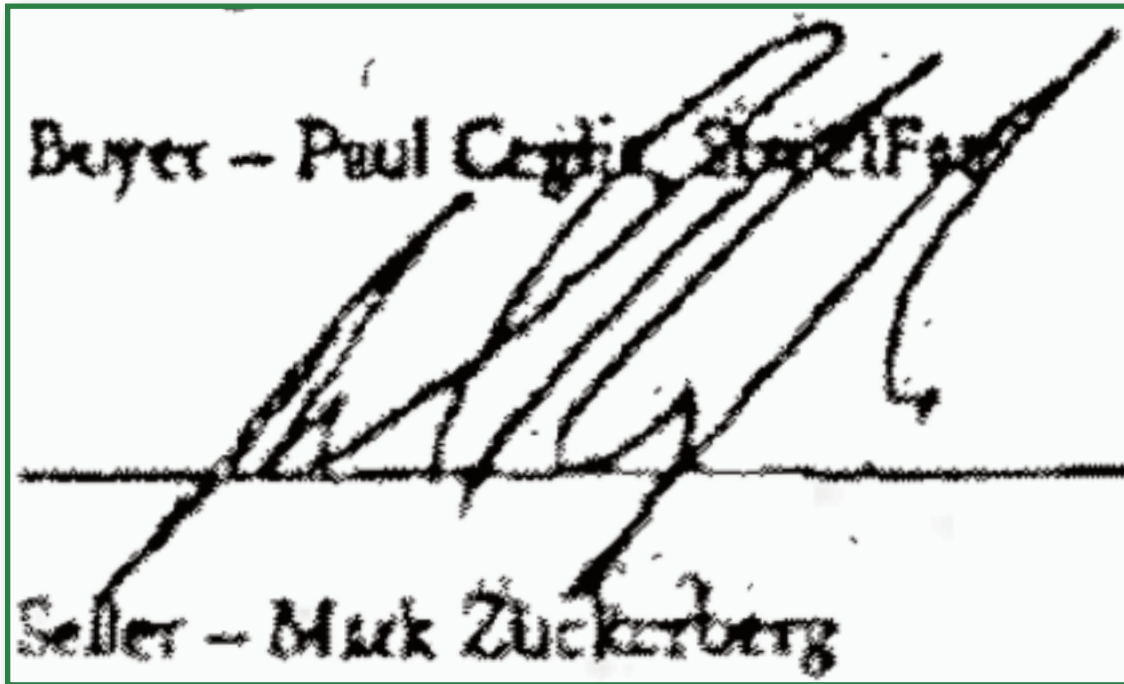
**FIG. 21.**

(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)

**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” SIGNATURE**

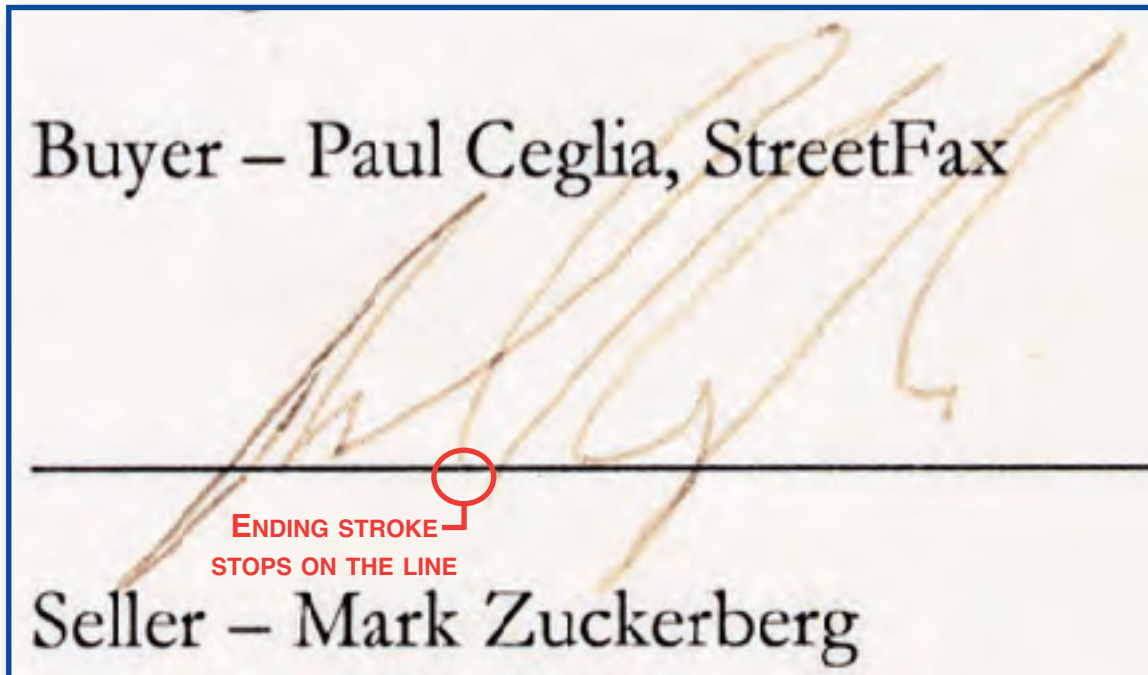
**EXHIBIT Q-2**



**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” SIGNATURE**

**EXHIBIT Q-4**

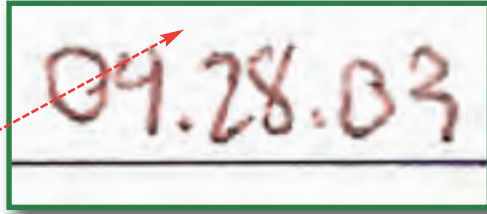


**FIG. 22.**

(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)

**“WORK FOR HIRE” DOCUMENT**  
**“MARK ZUCKERBERG” DATE “04.28.03”**

**EXHIBIT Q-1**

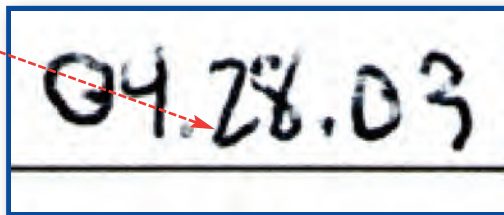


**INITIAL STROKE  
POINTS UP**

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**“WORK FOR HIRE” DOCUMENT**  
**“MARK ZUCKERBERG” DATE “04.28.03”**

**EXHIBIT Q-3**



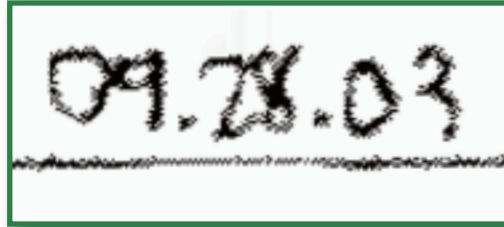
**INITIAL STROKE  
POINTS DOWN**

**FIG. 23.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**

**“WORK FOR HIRE” DOCUMENT**  
**“MARK ZUCKERBERG” DATE “04.28.03”**

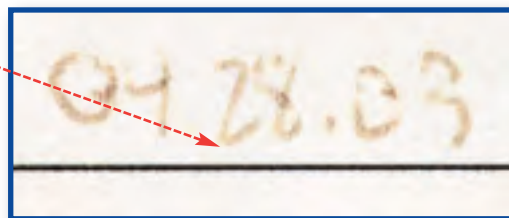
**EXHIBIT Q-2**



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**“WORK FOR HIRE” DOCUMENT**  
**“MARK ZUCKERBERG” DATE “04.28.03”**

**EXHIBIT Q-4**



**INITIAL STROKE  
POINTS DOWN**

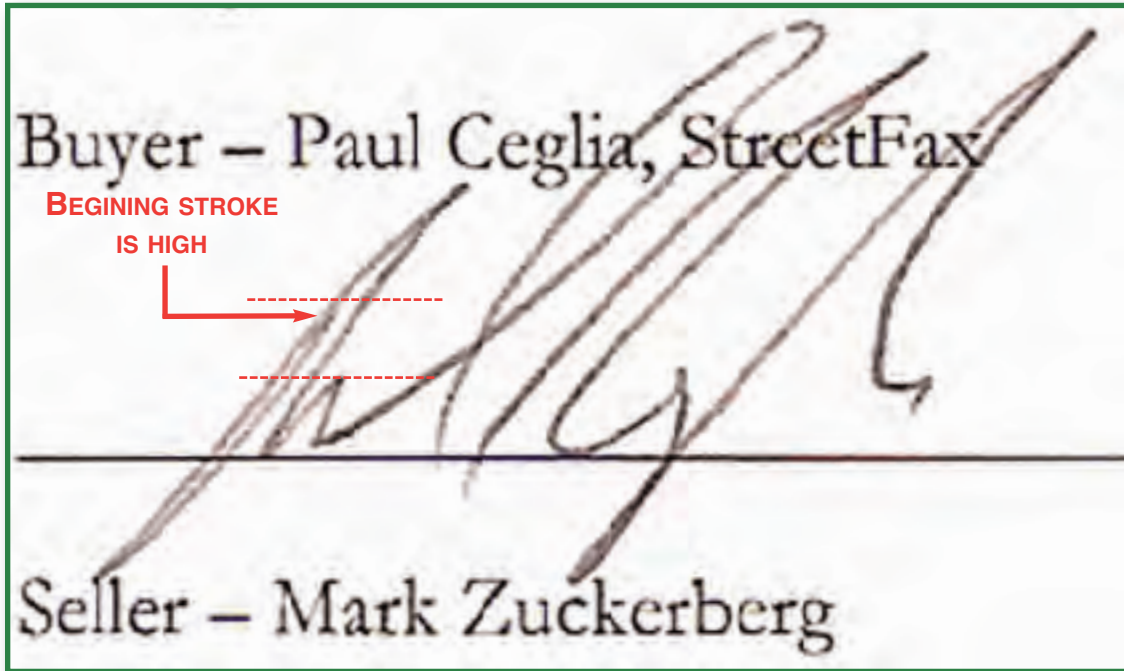
**FIG. 24.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**

**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” SIGNATURE**

**EXHIBIT Q-1**



**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” SIGNATURE**

**EXHIBIT Q-3**

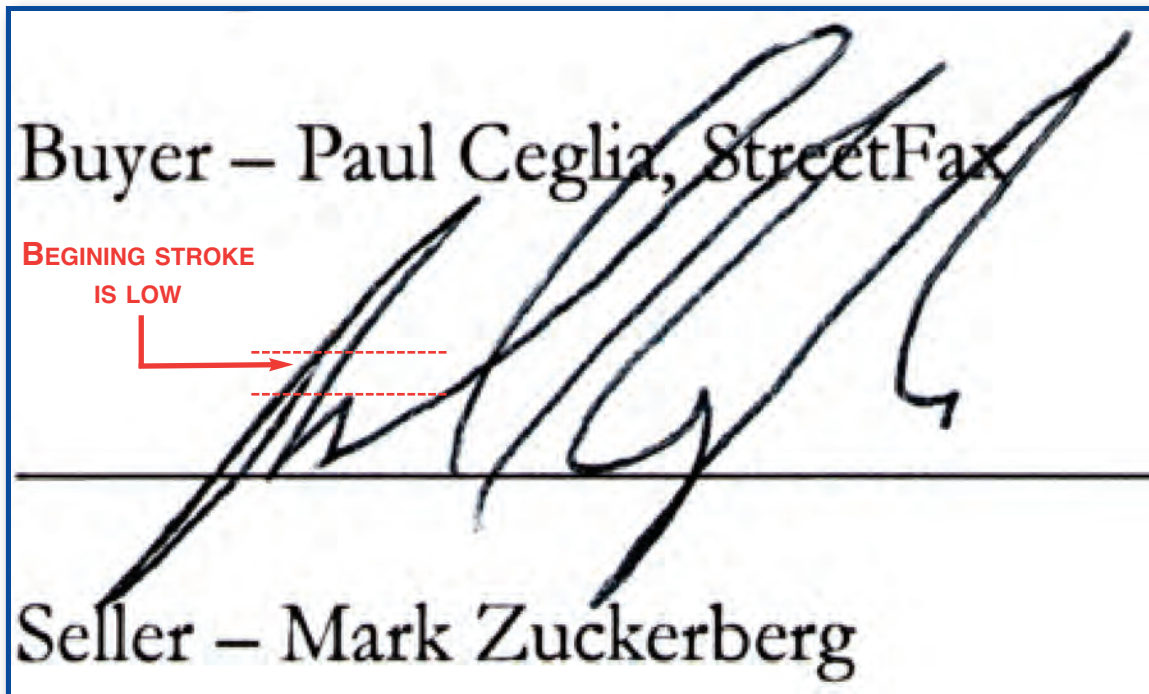


FIG. 25.

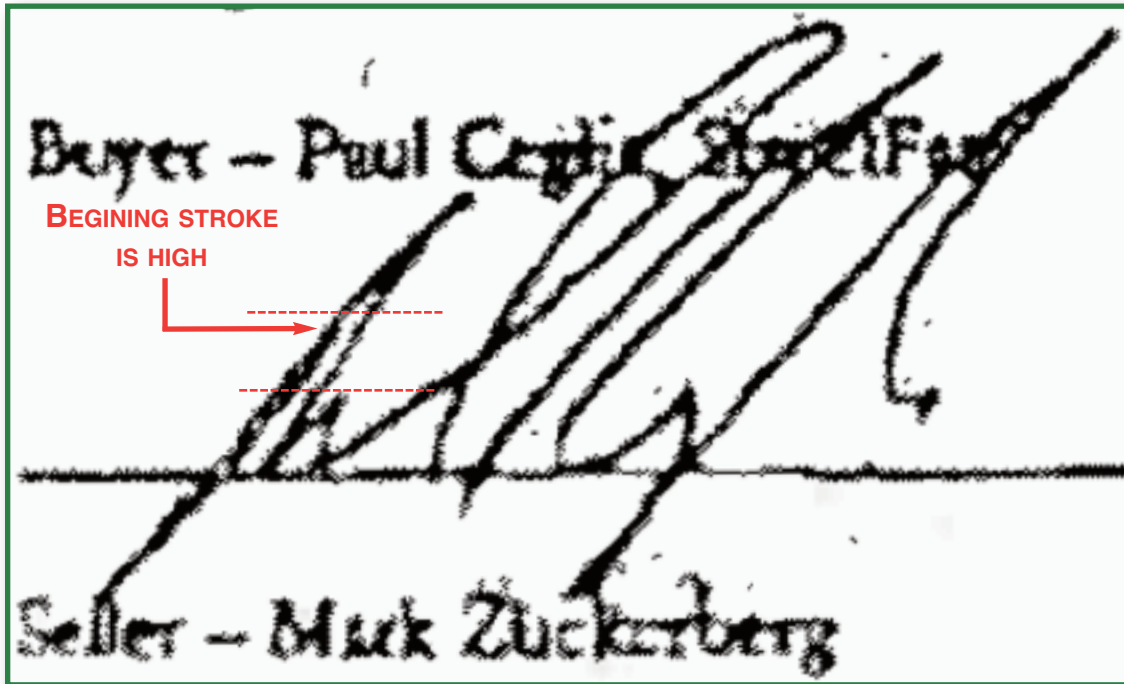
(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)



**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” SIGNATURE**

**EXHIBIT Q-2**



**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” SIGNATURE**

**EXHIBIT Q-4**

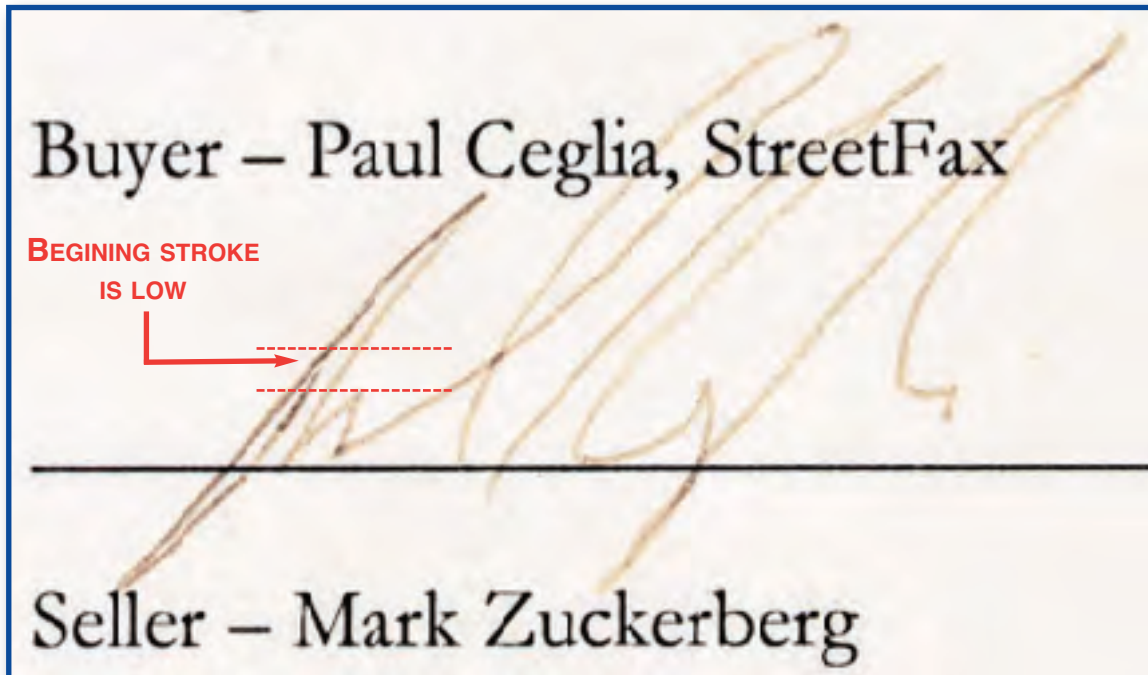


FIG. 26.

(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)

## 2. Letter Formation or Design of Letters

I observed several letter formation or letter design dissimilarities regarding the questioned Ceglia date of signature, as well as the questioned Zuckerberg signature and date of signature, appearing on page 2 of the Questioned Documents.

- a) I examined the handwritten number “4” in the questioned Ceglia date of signature and found that the first stroke connects with the staff on Exhibits Q-1 and Q-2. However, on Exhibits Q-3 and Q-4, the first stroke is separated from the staff. *See Figs. 27, 28.*
- b) I examined the handwritten number “28” in the questioned Ceglia date of signature and found that the top half of the numeral “8” is closed on Exhibit Q-1. However, on Exhibits Q-3 and Q-4, the top half of the numeral “8” is open. *See Figs. 29, 30.*
- c) I examined the handwritten number “03” in the questioned Ceglia date of signature and found that the space between the initial stroke of the numeral “3” and the first downward stroke is small or closed on Exhibit Q-1. However, on Exhibits Q-3 and Q-4, the space between the initial stroke of the numeral “3” and the first downward stroke is larger or open. *See Figs. 31, 32.*
- d) I examined the handwritten number “03” in the questioned Ceglia date of signature and found that there is a small or no opening between the ending stroke of the numeral “3” and the printed signature line on Exhibits Q-1 and Q-2. However, on Exhibits Q-3 and Q-4, there is a larger opening between the ending stroke of the numeral “3” and the printed signature line. *See Figs. 33, 34.*
- e) I examined the handwritten name “Zuckerberg” in the questioned Zuckerberg signature and found that the ending stroke of the letter “b” leaves a large opening on Exhibits Q-1 and Q-2. However, on Exhibits Q-3 and Q-4, the ending stroke of the letter “b” leaves a smaller opening. *See Figs. 35, 36.*
- f) I examined the handwritten name “Mark” in the questioned Zuckerberg signature and found that the downward stroke of the letter “r” touches, but does not retrace, the left staff before changing direction on Exhibit Q-1. However, on Exhibit Q-3, the downward stroke of the letter “r” not only touches the left staff, but retraces the staff before changing direction. *See Fig. 37.*
- g) I examined the handwritten number “28” in the questioned Zuckerberg date of signature on page 2 and found that the upstroke of the numeral “8” is formed with a continuous writing movement, forming a rounded bottom, on Exhibit Q-1. However, on Exhibit Q-3, the upstroke of the numeral “8” is formed with a sharp change in direction, forming an angled bottom. *See Fig. 38.*

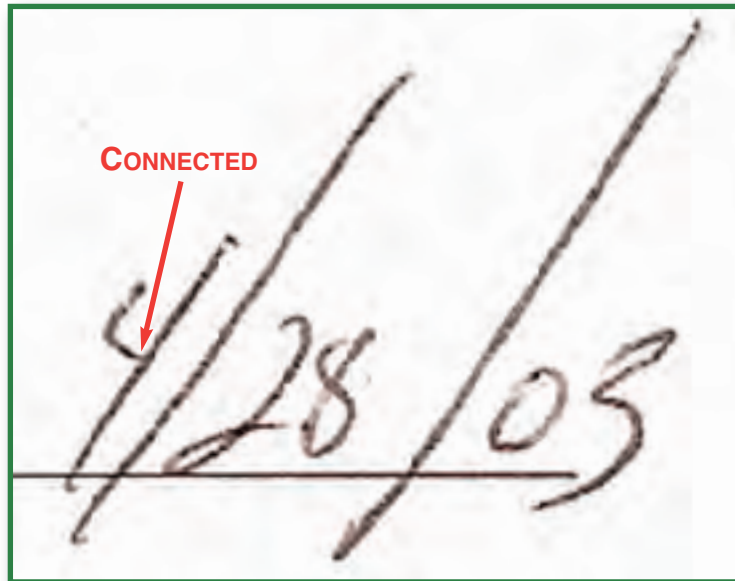
- h) I examined the handwritten number “03” in the questioned Zuckerberg date of signature and found that the bottom half of the numeral “3” is formed with a straight downward stroke on Exhibit Q-1. However, on Exhibits Q-3 and Q-4, the bottom half of the numeral “3” is formed in an angular fashion, creating a more acute curve. *See* Figs. 39, 40.



**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” DATE “4/28/03”**

**EXHIBIT Q-1**

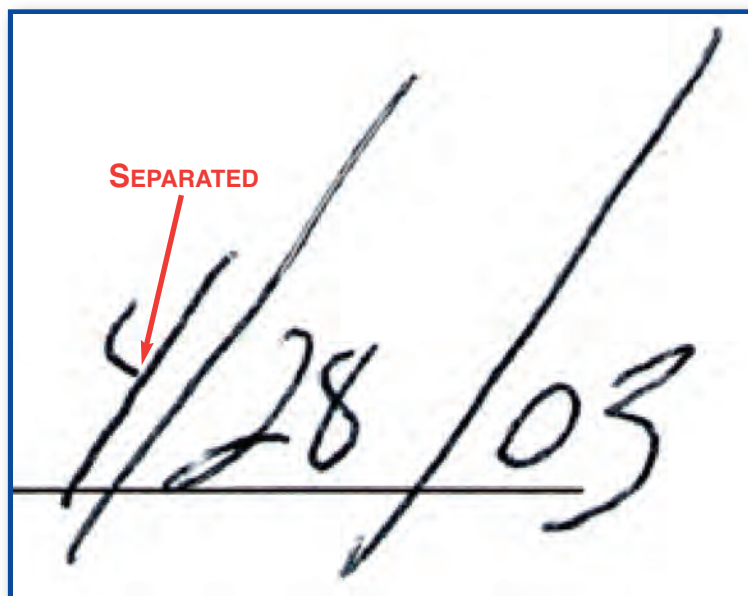


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**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” DATE “4/28/03”**

**EXHIBIT Q-3**



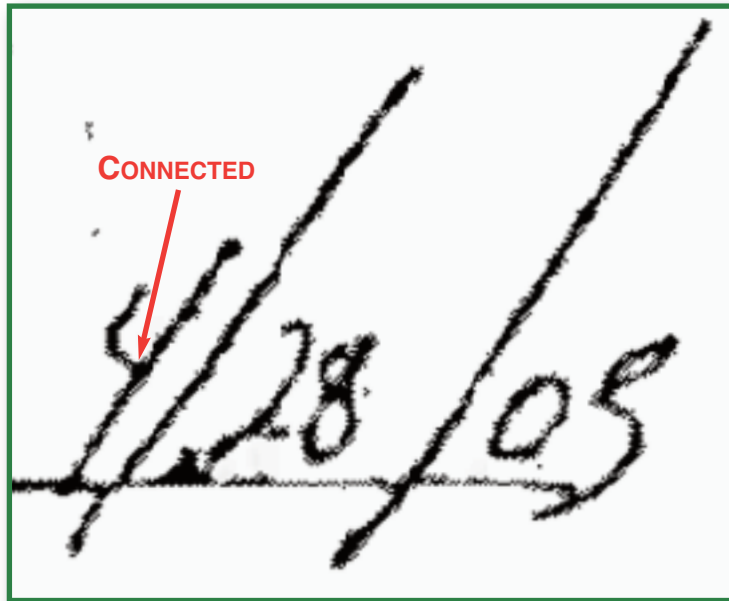
**FIG. 27.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**

**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” DATE “4/28/03”**

**EXHIBIT Q-2**

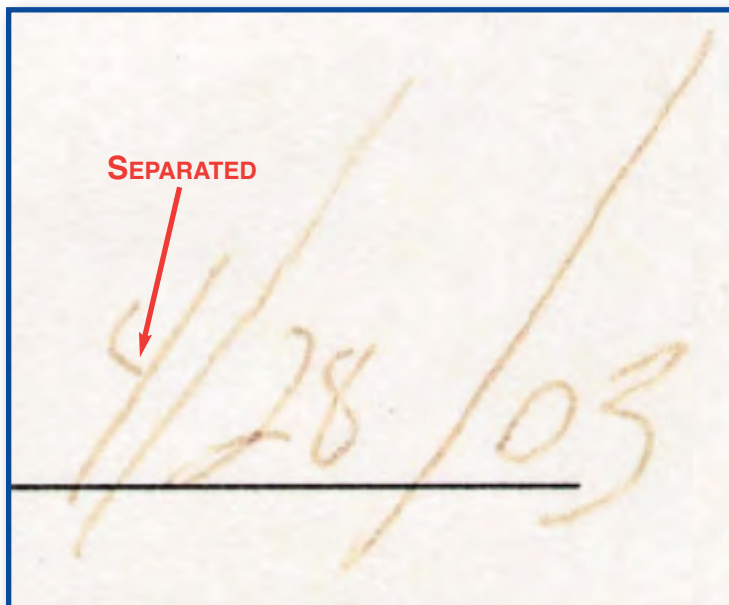


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**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” DATE “4/28/03”**

**EXHIBIT Q-4**



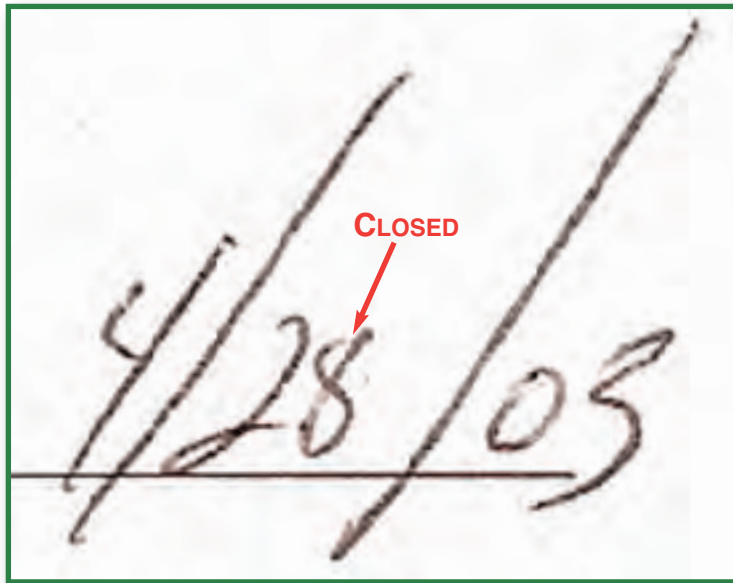
**FIG. 28.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**

**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” DATE “4/28/03”**

**EXHIBIT Q-1**

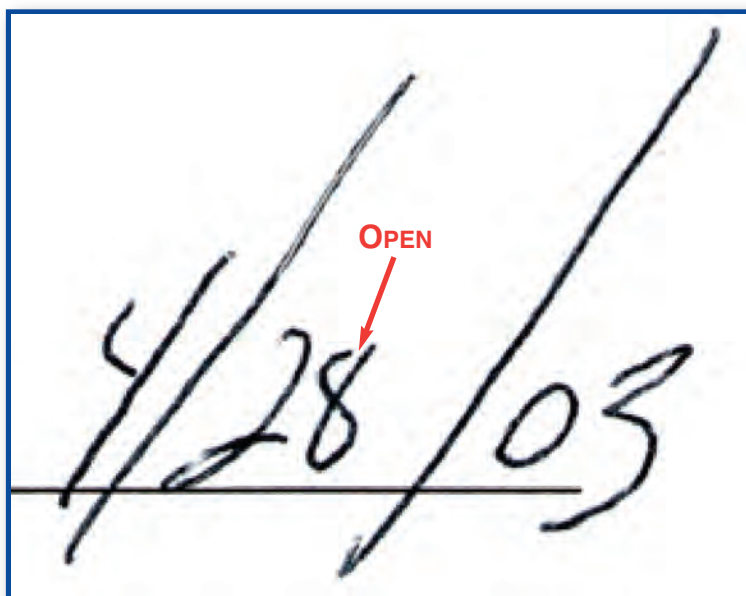


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**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” DATE “4/28/03”**

**EXHIBIT Q-3**



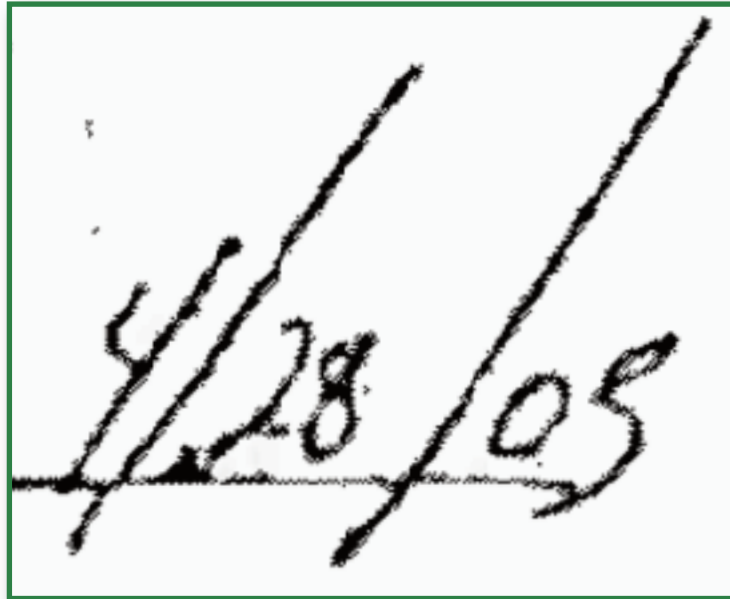
**FIG. 29.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**

**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” DATE “4/28/03”**

**EXHIBIT Q-2**

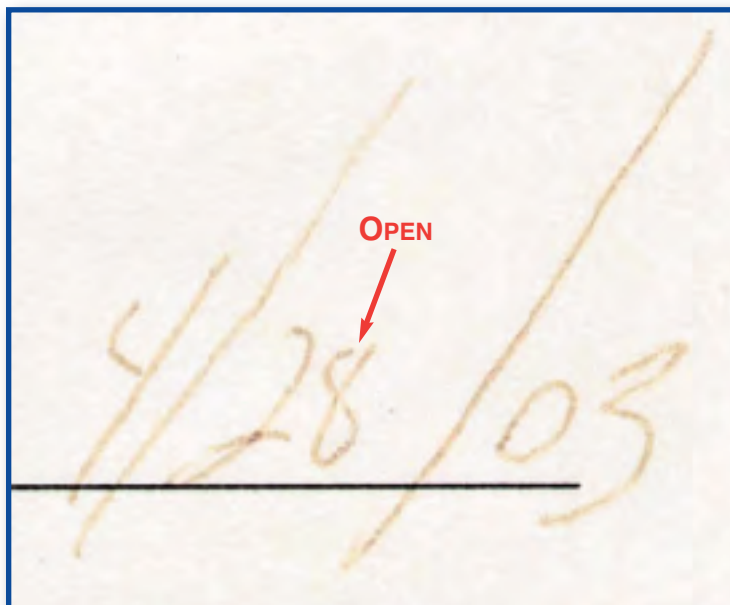


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**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” DATE “4/28/03”**

**EXHIBIT Q-4**



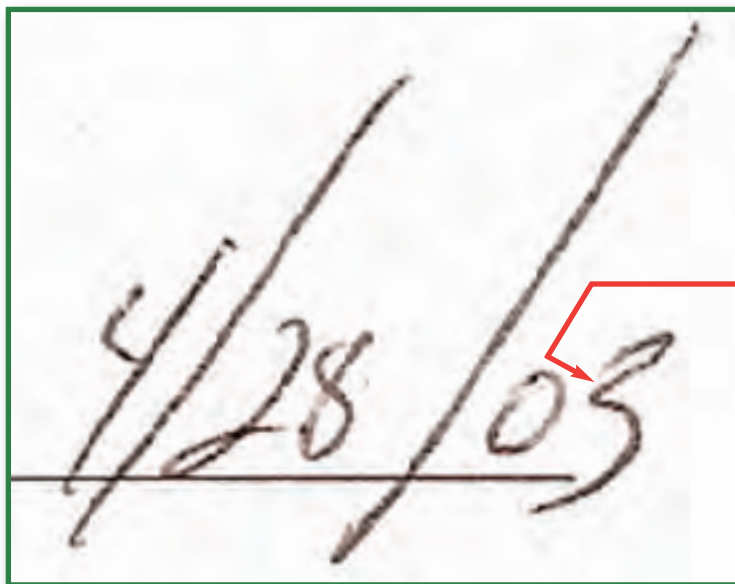
**FIG. 30.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**

**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” DATE “4/28/03”**

**EXHIBIT Q-1**



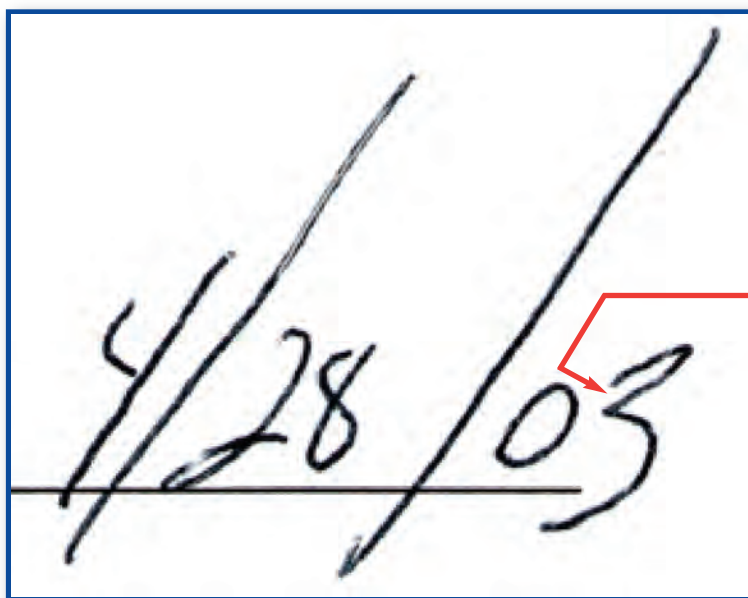
**SMALL OPENING**

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**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” DATE “4/28/03”**

**EXHIBIT Q-3**



**LARGER  
OPENING**

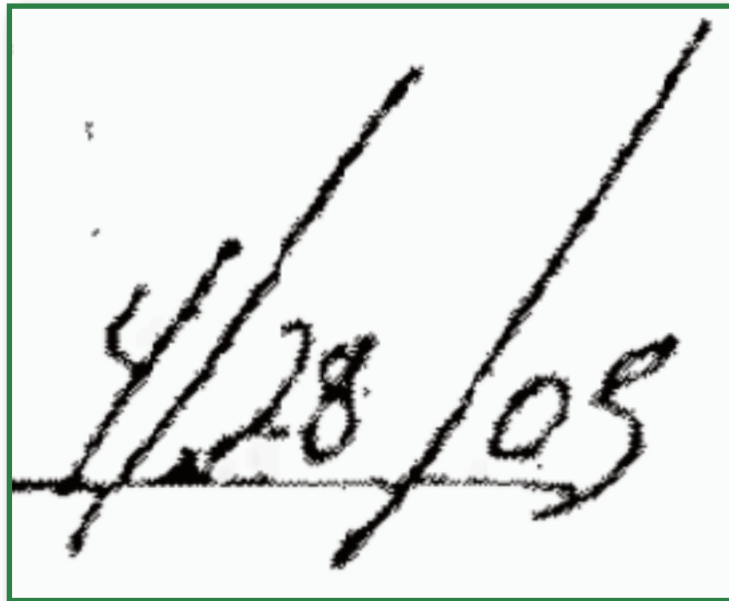
**FIG. 31.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**

**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” DATE “4/28/03”**

**EXHIBIT Q-2**

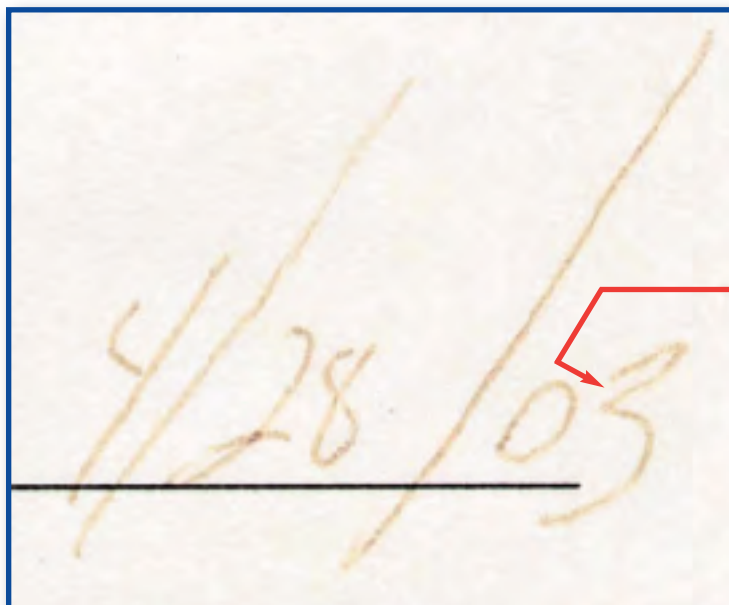


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**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” DATE “4/28/03”**

**EXHIBIT Q-4**



**LARGER  
OPENING**

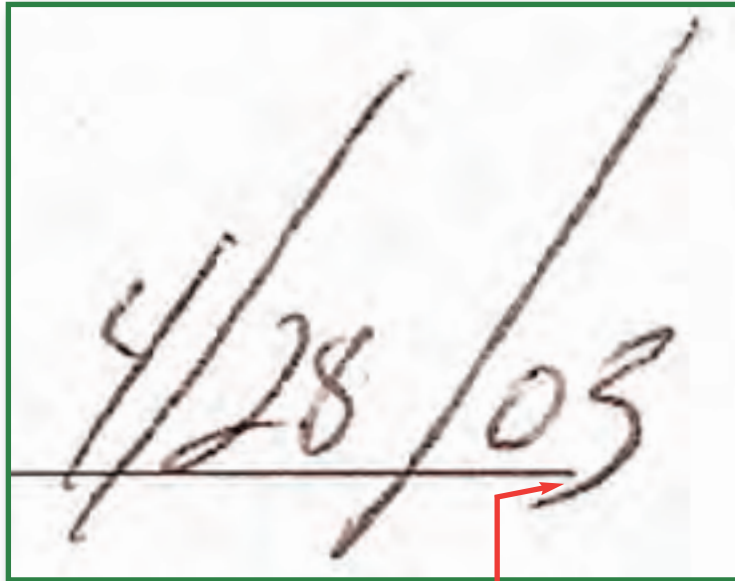
**FIG. 32.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**

**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” DATE “4/28/03”**

**EXHIBIT Q-1**



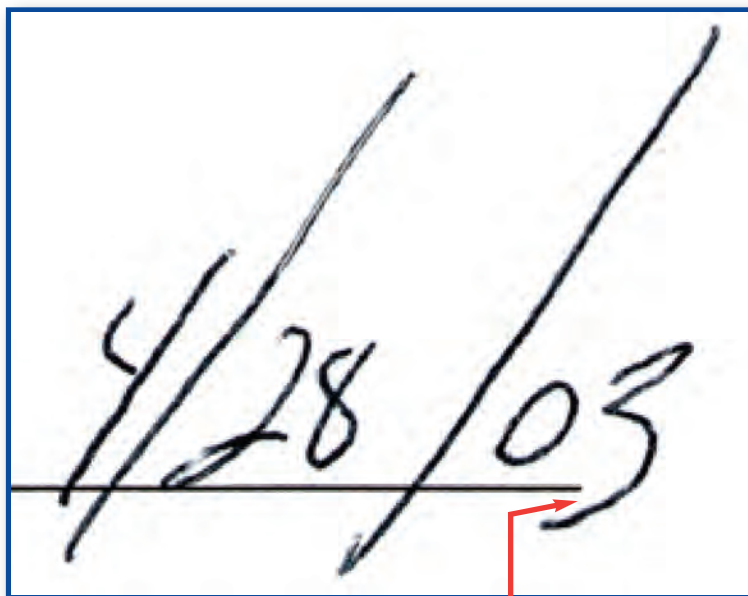
**SMALL OPENING**

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**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” DATE “4/28/03”**

**EXHIBIT Q-3**



**LARGER  
OPENING**

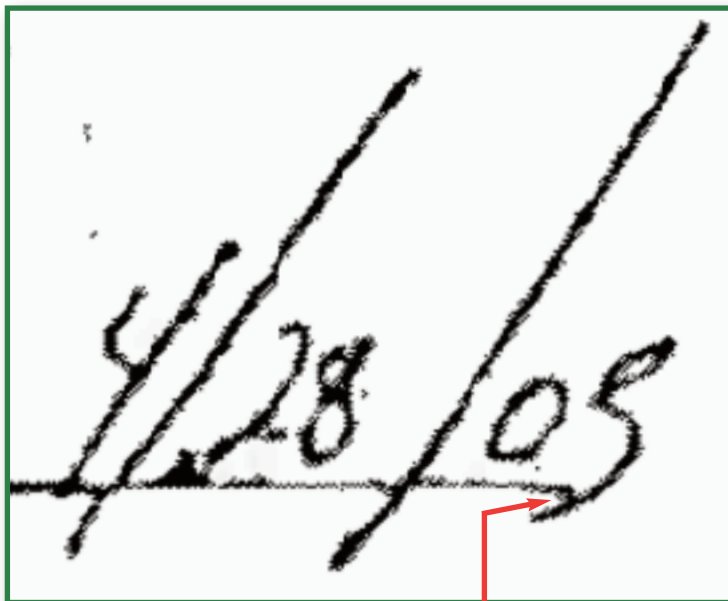
**FIG. 33.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**

**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” DATE “4/28/03”**

**EXHIBIT Q-2**



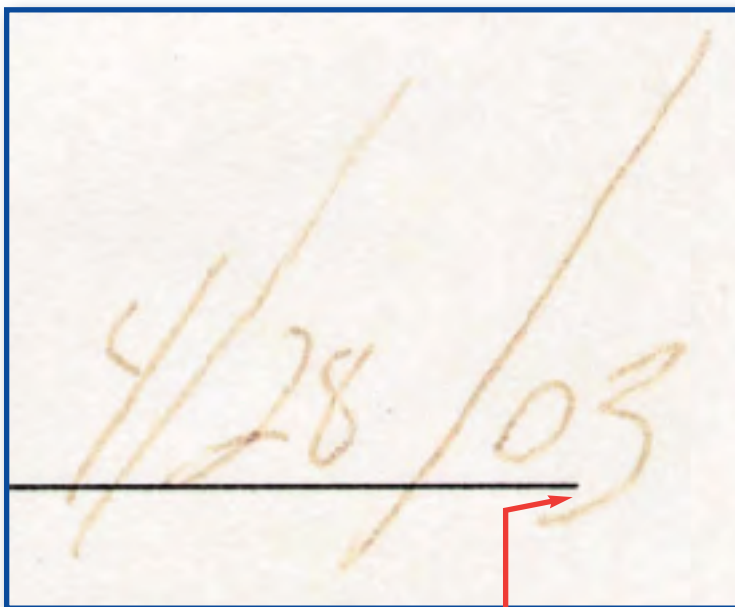
**SMALL OR NO  
OPENING**

---

**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” DATE “4/28/03”**

**EXHIBIT Q-4**



**LARGER  
OPENING**

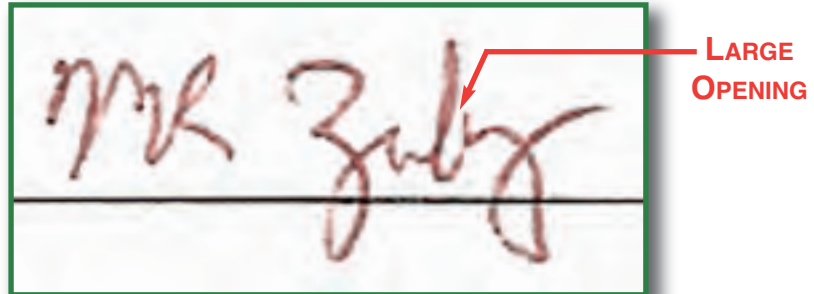
**FIG. 34.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**



**“WORK FOR HIRE” DOCUMENT**  
**“MARK ZUCKERBERG” SIGNATURE**

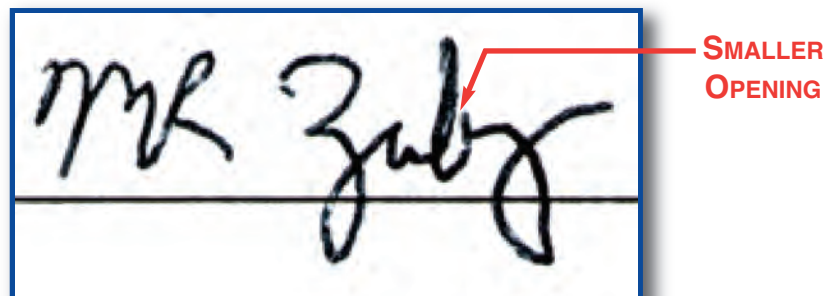
**EXHIBIT Q-1**



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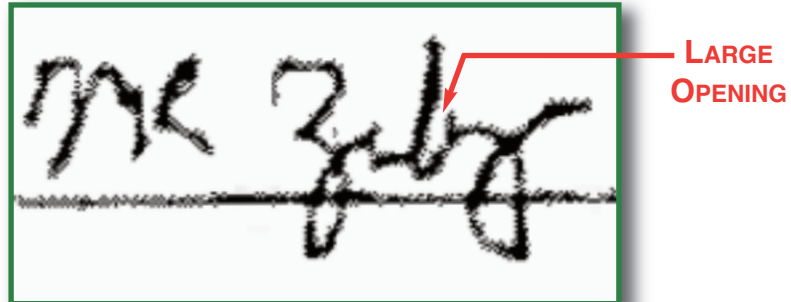
**“WORK FOR HIRE” DOCUMENT**  
**“MARK ZUCKERBERG” SIGNATURE**

**EXHIBIT Q-3**



**“WORK FOR HIRE” DOCUMENT  
QUESTIONED “MARK ZUCKERBERG” SIGNATURE**

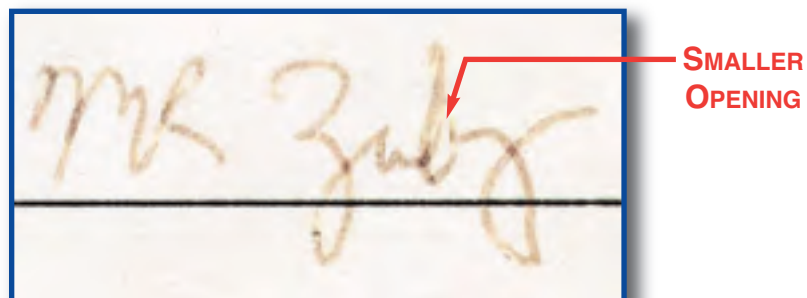
**EXHIBIT Q-2**



---

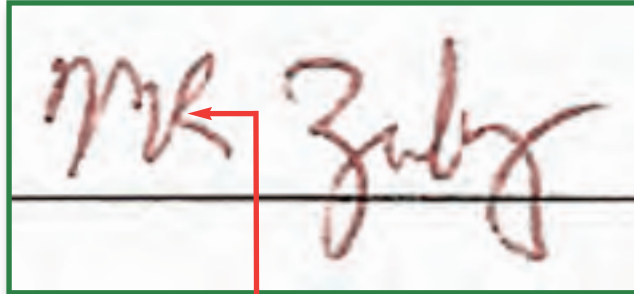
**“WORK FOR HIRE” DOCUMENT  
“MARK ZUCKERBERG” SIGNATURE**

**EXHIBIT Q-4**



**“WORK FOR HIRE” DOCUMENT  
“MARK ZUCKERBERG” SIGNATURE**

**EXHIBIT Q-1**

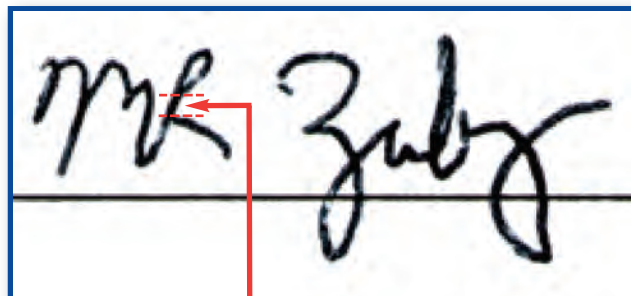


**DOES NOT RETRACE  
BEFORE CHANGING DIRECTION**

---

**“WORK FOR HIRE” DOCUMENT  
“MARK ZUCKERBERG” SIGNATURE**

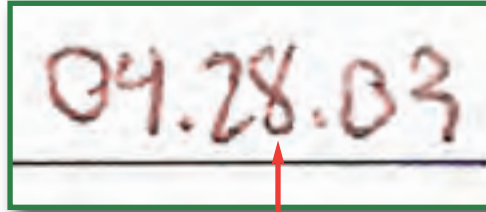
**EXHIBIT Q-3**



**TOUCHES AND RETRACES  
BEFORE CHANGING DIRECTION**

**“WORK FOR HIRE” DOCUMENT**  
**“MARK ZUCKERBERG” DATE “04.28.03”**

**EXHIBIT Q-1**

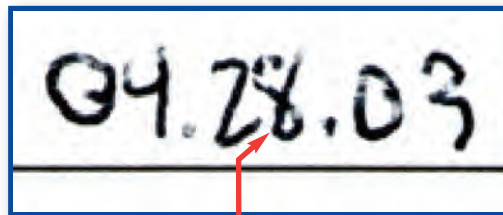


**CONTINUOUS  
WRITING MOVEMENT**

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**“WORK FOR HIRE” DOCUMENT**  
**“MARK ZUCKERBERG” DATE “04.28.03”**

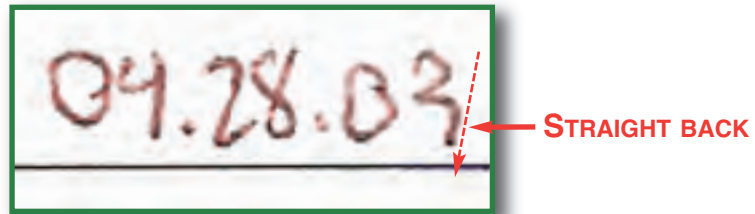
**EXHIBIT Q-3**



**SHARP  
CHANGE IN DIRECTION**

**“WORK FOR HIRE” DOCUMENT**  
**“MARK ZUCKERBERG” DATE “04.28.03”**

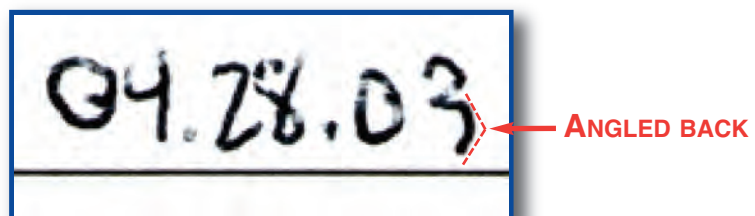
**EXHIBIT Q-1**



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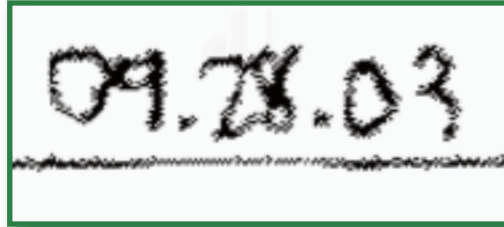
**“WORK FOR HIRE” DOCUMENT**  
**“MARK ZUCKERBERG” DATE “04.28.03”**

**EXHIBIT Q-3**



**“WORK FOR HIRE” DOCUMENT**  
**“MARK ZUCKERBERG” DATE “04.28.03”**

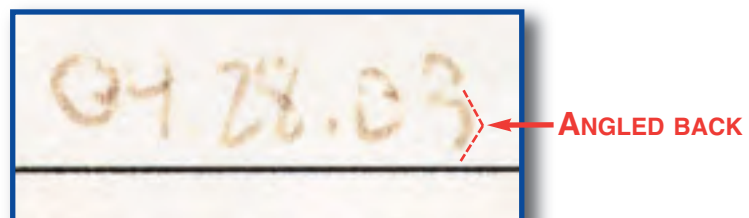
**EXHIBIT Q-2**



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**“WORK FOR HIRE” DOCUMENT**  
**“MARK ZUCKERBERG” DATE “04.28.03”**

**EXHIBIT Q-4**



### **3. Letter Spacing or Placement on the Document**

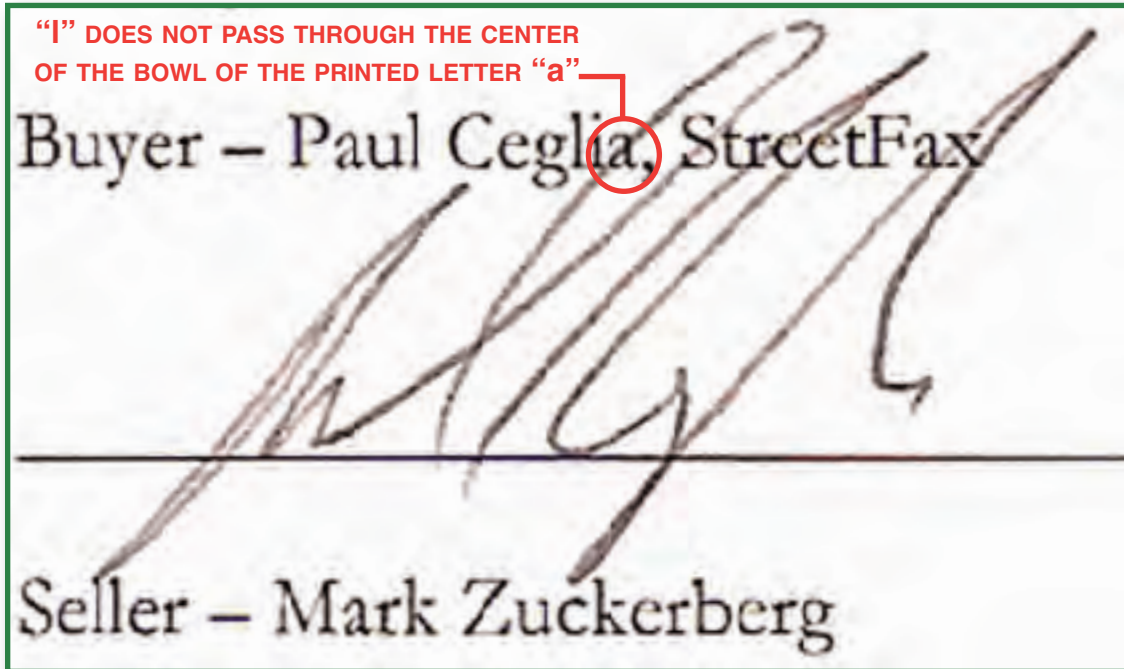
I observed one letter spacing or placement dissimilarity between the questioned Ceglia signature on Exhibit Q-1 and Exhibits Q-3 and Q-4.

- a) I examined the handwritten name “Paul” in the questioned Ceglia signature and found that the downstroke of the upper staff of the letter “l” on Exhibit Q-1 does not pass through the open bowl of the typed letter “a” in the typed text bearing the name “Ceglia” above. However, on Exhibits Q-3 and Q-4, the downstroke of the upper staff of the letter “l” passes through the center of the bowl of the typed letter “a” in the typed text bearing the name “Ceglia” above. *See* Figs. 41, 42.

**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” SIGNATURE**

**EXHIBIT Q-1**



**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” SIGNATURE**

**EXHIBIT Q-3**

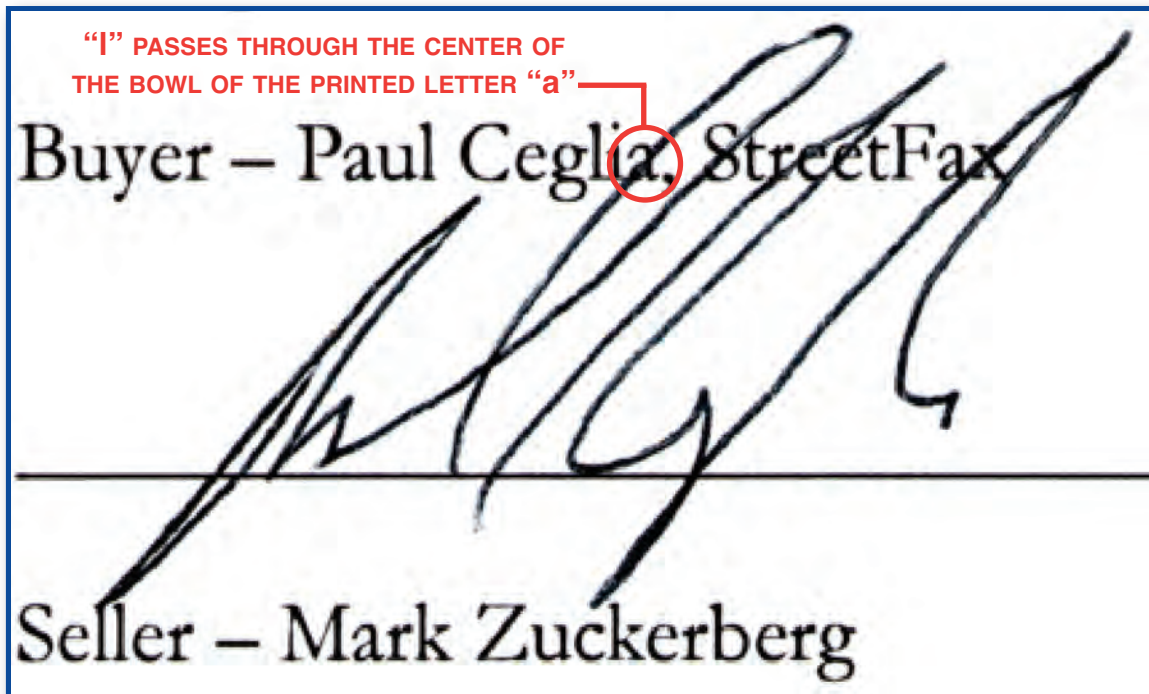


FIG. 41.

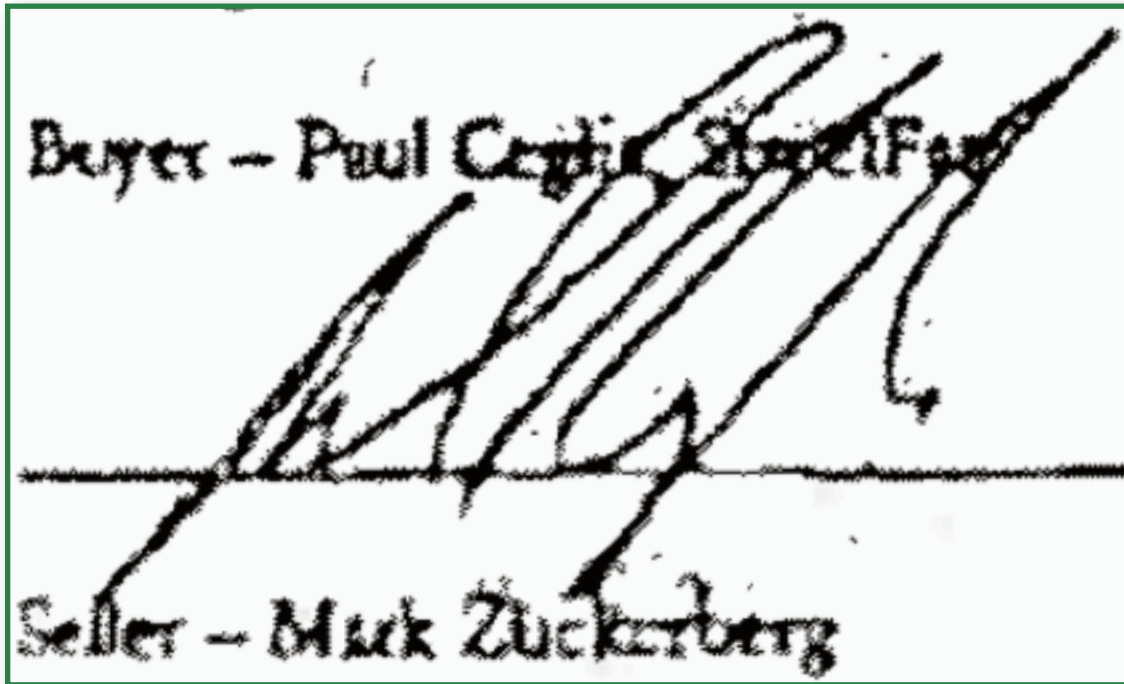
(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)



**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” SIGNATURE**

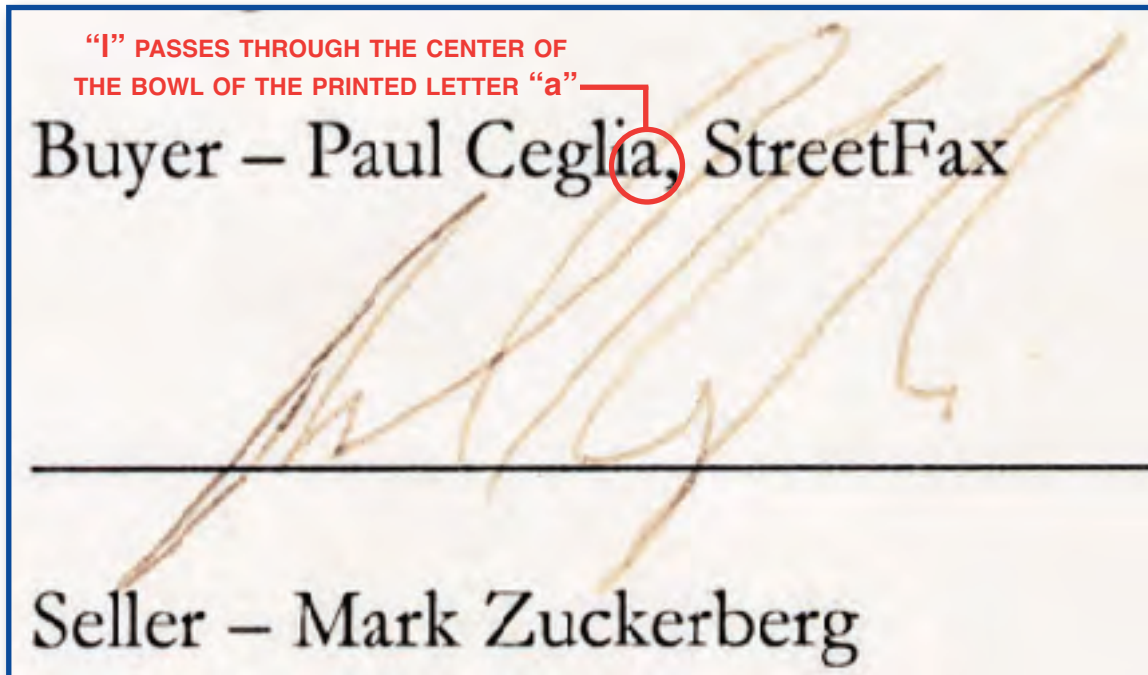
**EXHIBIT Q-2**



**“WORK FOR HIRE” DOCUMENT**

**“PAUL CEGLIA” SIGNATURE**

**EXHIBIT Q-4**



**FIG. 42.**

(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)

**B. Comparison of Questioned Writings to Known Zuckerberg Handwriting Exemplars Confirms That Mark Zuckerberg Did Not Write The Questioned Zuckerberg Signature and Date of Signature on Page 2 of the Work for Hire Document**

To determine the genuineness of the questioned Zuckerberg signature and date of signature on the Work for Hire document presented for inspection in January 2011 (Exhibit Q-3), I compared those handwritings with the several known signatures, dates of signatures, and numbers on Exhibits K-3, K-4, K-5, and K-6.<sup>1</sup> In comparison with these knowns, I observed significant evidence of changes in direction, hesitation, unnatural writing movement, poor line quality, angular writing movements, differences in letter formation and design, and beginning stroke dissimilarities in the questioned Zuckerberg signature and date of signature on Exhibit Q-3. Based upon my professional judgment and expertise, the evidence—captured in the images of the Questioned and Known Documents included in this supplemental Expert Report—reflects that the questioned Zuckerberg signature and date of signature on Exhibit Q-3 were slowly drawn and not naturally written.

**1. Line Quality<sup>2</sup> Dissimilarities**

I observed several dissimilarities in line quality between the questioned Zuckerberg date on Exhibit Q-3 and the known handwritten dates of signature of Mark Zuckerberg and numbers appearing on Exhibits K-3 and K-4.

- a) I examined the numbers “04” and “03” on the questioned Zuckerberg date and found that both numerals “0” were drawn in a shaky, slow manner with angular writing movements, evidencing poor line quality and indicating traced writing. However, on Exhibits K-3 and K-4, the numerals “0” were written in a smooth, rapid, and steady fashion, creating a more circular or oblong “0” and indicating natural writing. *See Fig 43.*

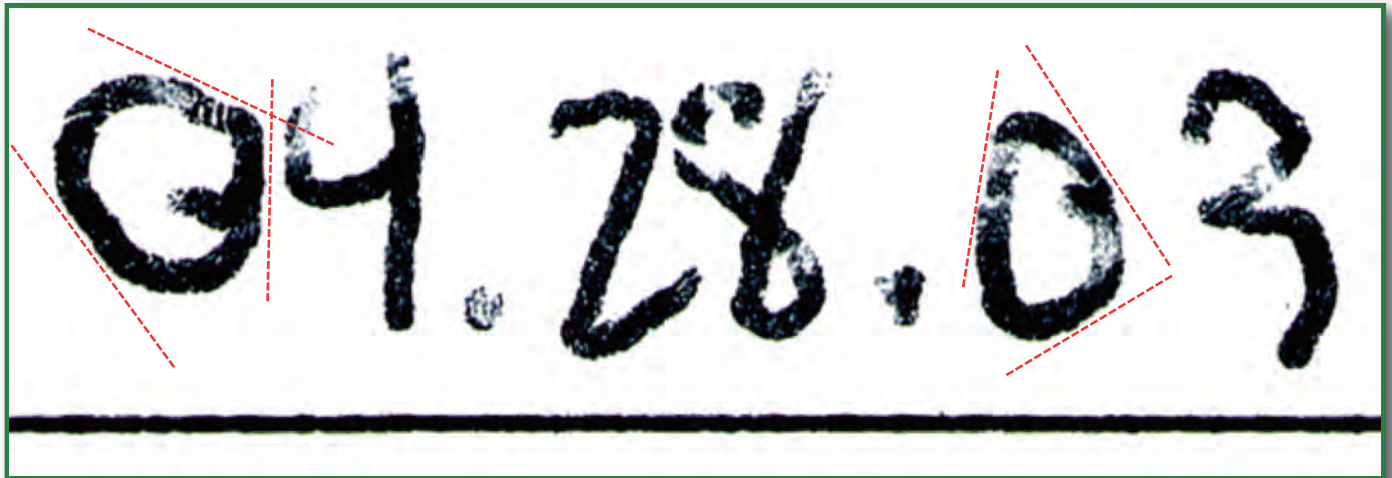
---

1 I also compared the questioned Zuckerberg signature in Exhibit Q-3 with additional known signatures of Mark Zuckerberg, identified as Exhibits K-1 and K-2. However, for illustrative purposes, I have focused on a detailed analysis here of the known signatures of Mark Zuckerberg contained in Exhibits K-3, K-4, K-5, and K-6 because these documents are originals. I note that my analysis of the signatures in Exhibits K-1 and K-2 support the conclusions I have reached in this supplemental Expert Report.

2 Line quality is an “important characteristic of handwriting. It is the combination of writing speed, skill, freedom of movement, execution rhythm, and pen pressure.” Kelly, J., Lindblom, B., Scientific Examination of Questioned Documents, (2d ed. 2006). The analysis of line quality contained in this supplemental Expert Report is based upon my more than 44 years of experience as a forensic document examiner, examining signatures and writings. *See also United States v. Rutland*, 372 F.3d 543, 544 (3d Cir. 2004) (commenting on Lesnevich’s “extensive qualifications and impressive past experience” as a forensic document examiner).

- b) I examined the number “28” on the questioned Zuckerberg date and found that the numeral “2” was drawn in a shaky, slow manner with angular writing movements, evidencing poor line quality and indicating traced writing. However, on Exhibits K-3 and K-4, the numerals “2” were written in a smooth, rapid, and steady fashion, creating a more curved top and indicating natural writing. *See Fig. 44.*
  
- c) I examined the number “03” on the questioned Zuckerberg date and found that the numeral “3” was drawn in a shaky, slow manner with angular writing movements, evidencing poor line quality and indicating traced writing. However, on Exhibits K-3 and K-4, the numerals “3” were written in a smooth, rapid, and steady fashion, creating more curved bowls on both the top and the bottom of the numerals “3” and indicating natural writing. *See Fig. 45.*

**EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT  
QUESTIONED "MARK ZUCKERBERG" DATE "04.28.03"**



**POOR LINE QUALITY  
(INDICATIVE OF TRACED WRITING)**

---

**KNOWN WRITINGS OF MARK ZUCKERBERG**

**K-3 (APRIL 28, 2003)**



**K-3 (APRIL 28, 2003)**



**K-4 (JULY 29, 2004)**



**K-4 (JULY 29, 2004)**

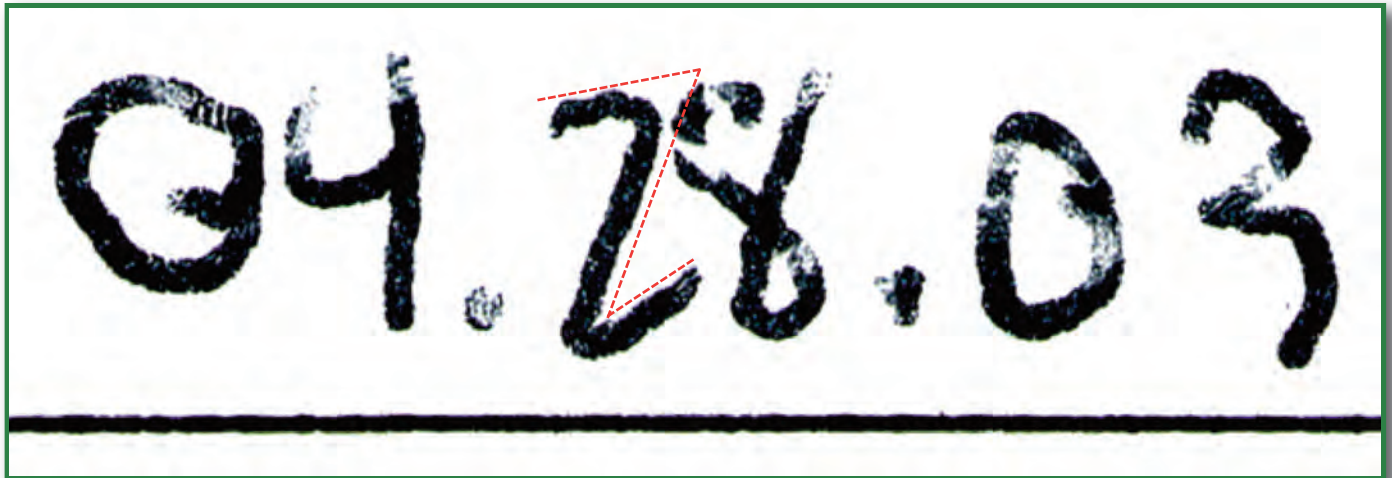


**SUPERIOR LINE QUALITY  
(INDICATIVE OF NATURAL WRITING)**

**FIG. 43.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**

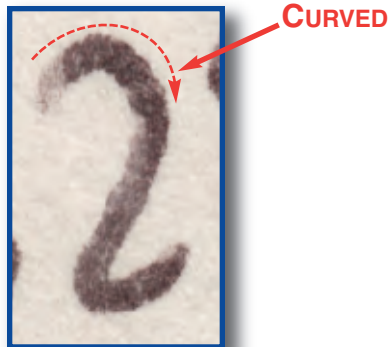
EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT  
QUESTIONED "MARK ZUCKERBERG" DATE "04.28.03"



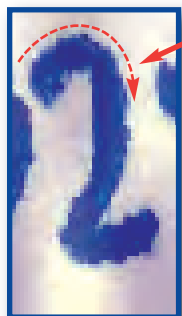
POOR LINE QUALITY  
(INDICATIVE OF TRACED WRITING)

KNOWN WRITINGS OF MARK ZUCKERBERG

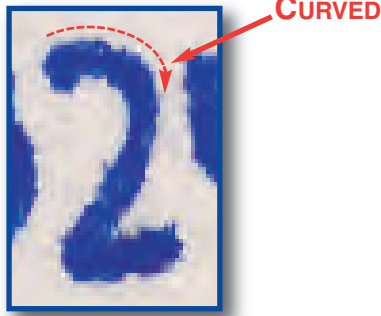
K-3 (APRIL 28, 2003)



K-4 (JULY 29, 2004)



K-4 (JULY 29, 2004)

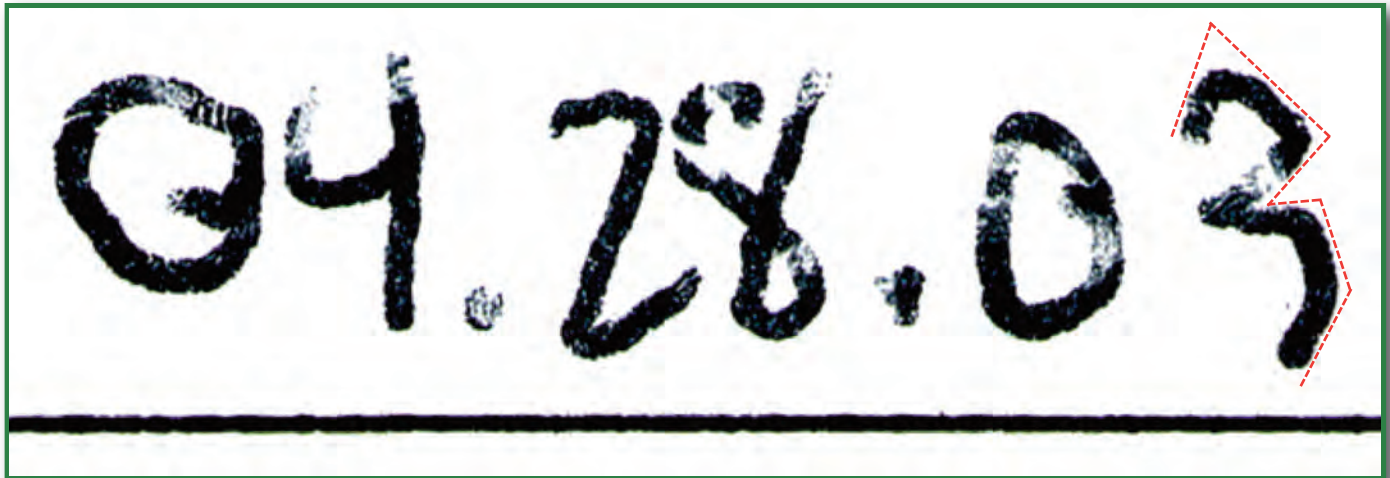


SUPERIOR LINE QUALITY  
(INDICATIVE OF NATURAL WRITING)

FIG. 44.

(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)

EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT  
QUESTIONED "MARK ZUCKERBERG" DATE "04.28.03"



POOR LINE QUALITY  
(INDICATIVE OF TRACED WRITING)

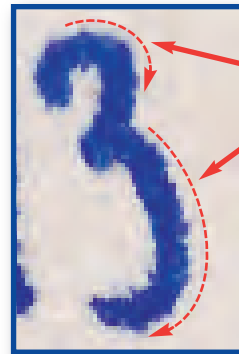
KNOWN WRITINGS OF MARK ZUCKERBERG

K-3 (APRIL 28, 2003)



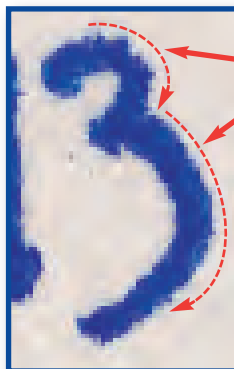
CURVED

K-4 (JULY 29, 2004)



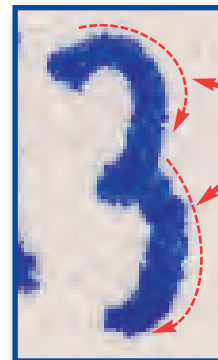
CURVED

K-4 (JULY 29, 2004)



CURVED

K-4 (JULY 29, 2004)



CURVED

SUPERIOR LINE QUALITY  
(INDICATIVE OF NATURAL WRITING)

FIG. 45.

(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)

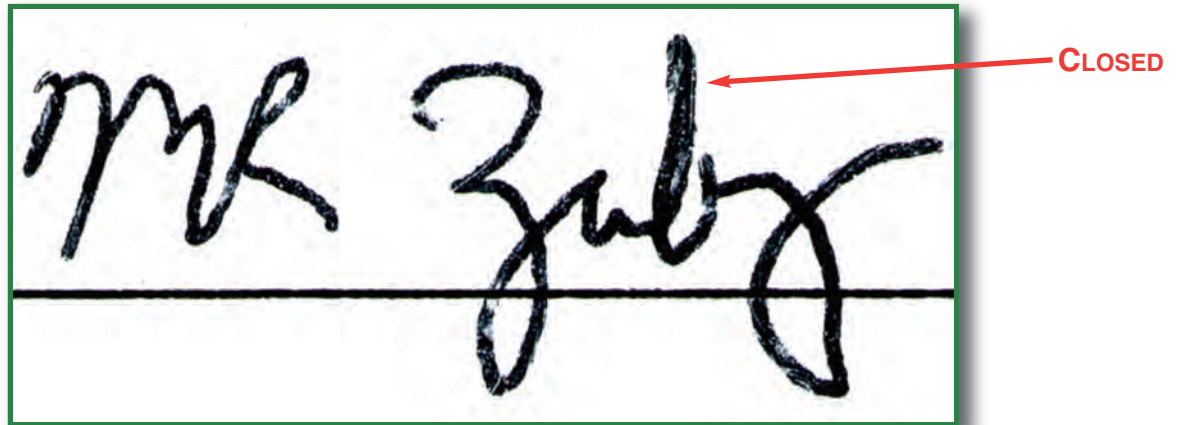
## 2. Letter Formation or Design of Letters

I observed several dissimilarities in letter formation or design of letters between the questioned Zuckerberg signature and date on Exhibit Q-3 and the known signatures of Mark Zuckerberg on Exhibits K-3, K-4, K-5, and K-6 and handwritten dates of signature of Mark Zuckerberg and numbers appearing on Exhibits K-3 and K-4.

- a) I examined the questioned Zuckerberg signature on Exhibit Q-3 and found that the elongated staff of the letter “b” in “Zuckerberg” is closed. However, on Exhibits K-3, K-4, K-5, and K-6, the elongated staff of the letter “b” in “Zuckerberg” is open, creating a loop. *See Figs. 46–48.*
- b) I examined the number “04” on the questioned Zuckerberg date on Exhibit Q-3 and found that the beginning stroke of the first numeral “0” points down. However, on Exhibits K-3 and K-4, the beginning stroke of the first numeral “0” is either overwritten or points up. *See Fig. 49.*



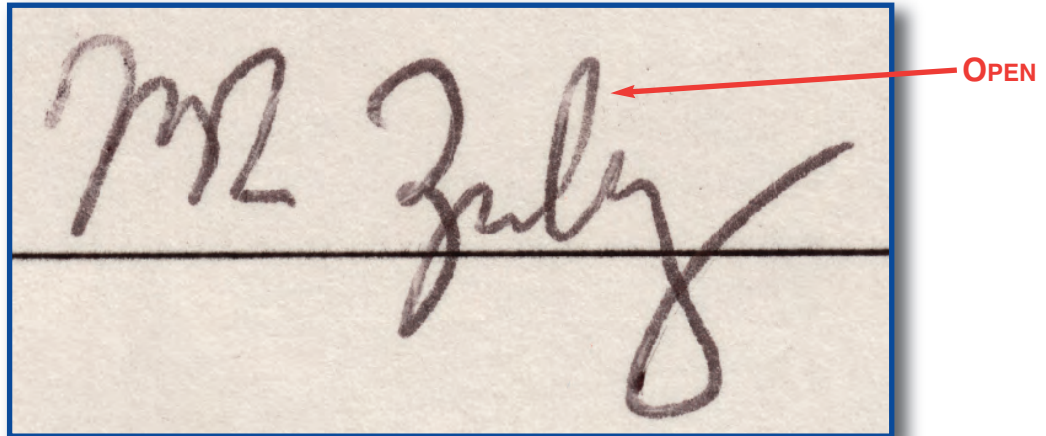
EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT  
QUESTIONED "MARK ZUCKERBERG" SIGNATURE  
(PURPORTEDLY DATED APRIL 28, 2003)



KNOWN SIGNATURES OF MARK ZUCKERBERG

K-3

APRIL 28, 2003



K-4(A)

JULY 29, 2004

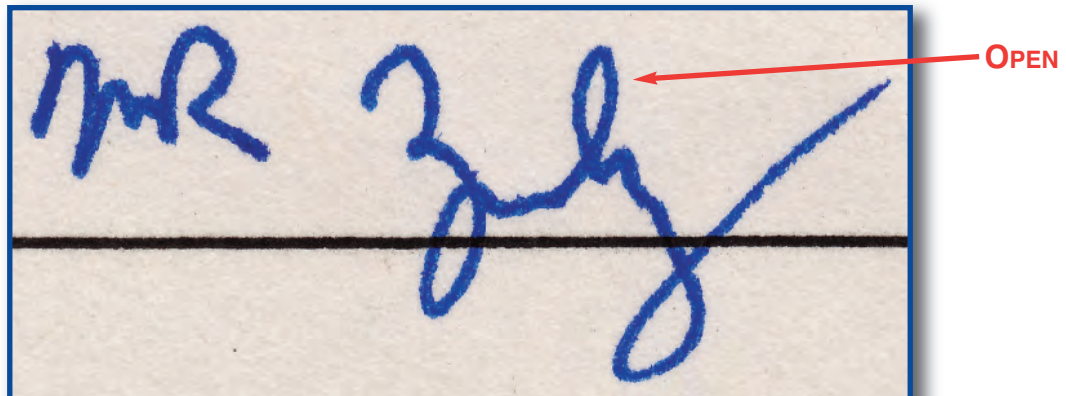
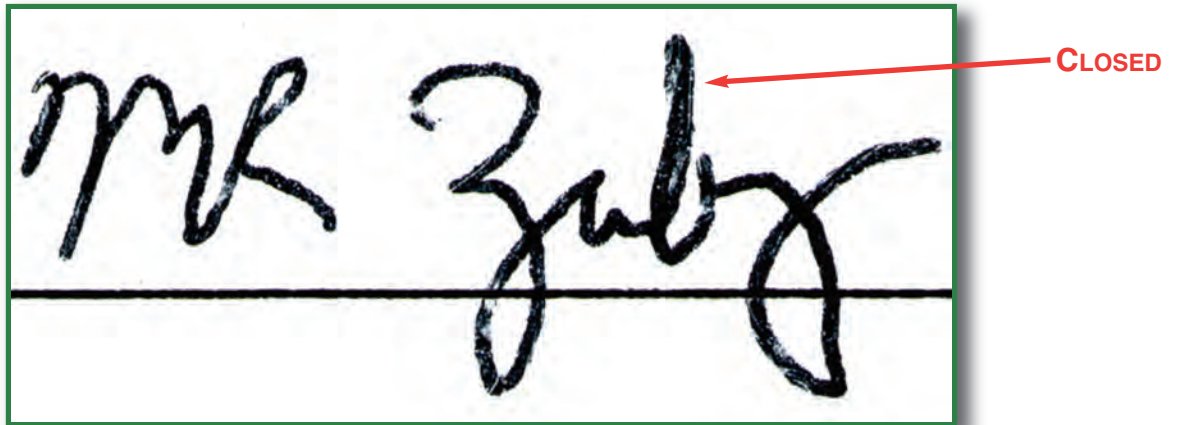


FIG. 46.

(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)



EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT  
QUESTIONED "MARK ZUCKERBERG" SIGNATURE  
(PURPORTEDLY DATED APRIL 28, 2003)



---

KNOWN SIGNATURES OF MARK ZUCKERBERG

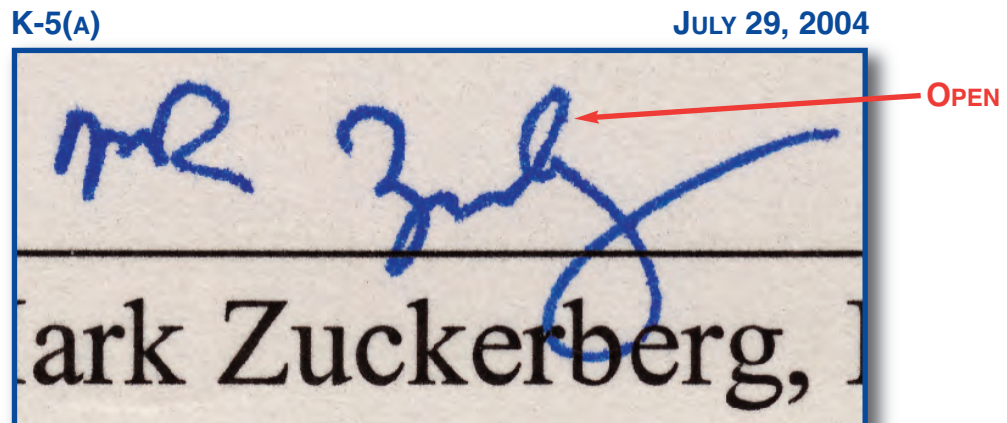
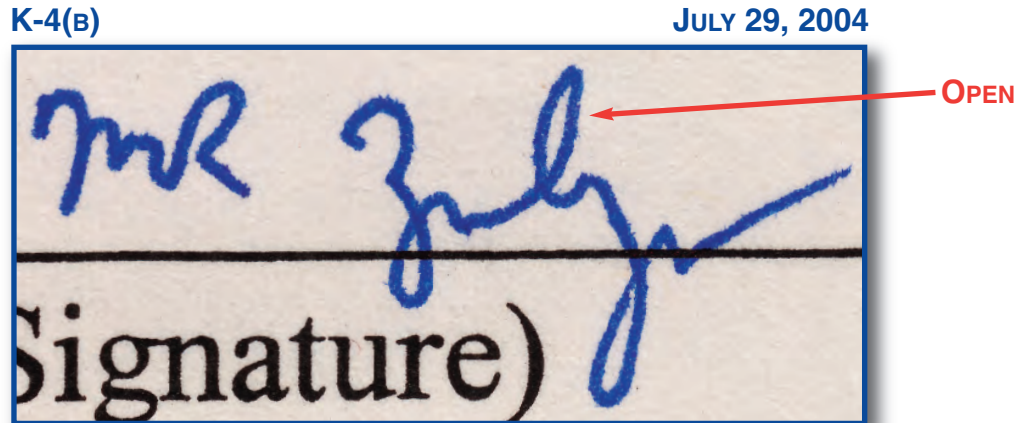
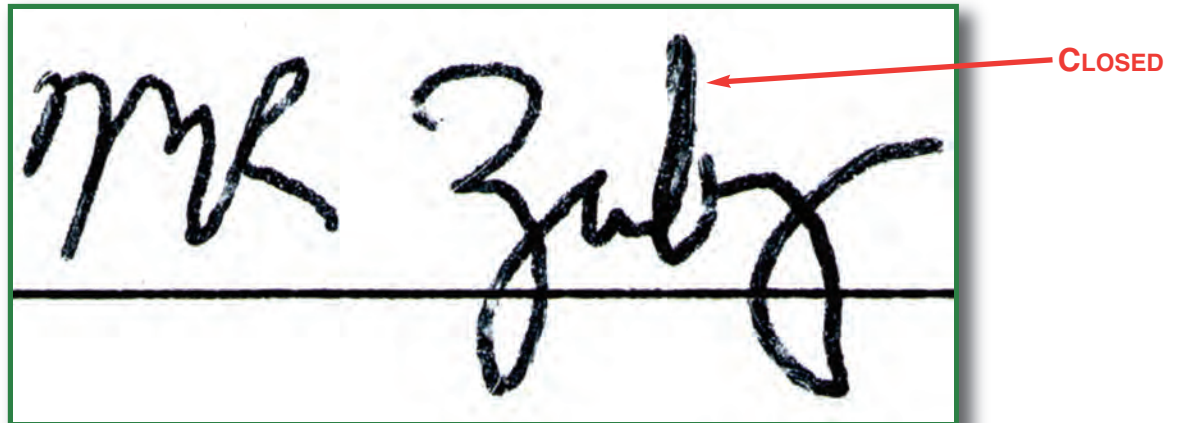


FIG. 47.

(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)

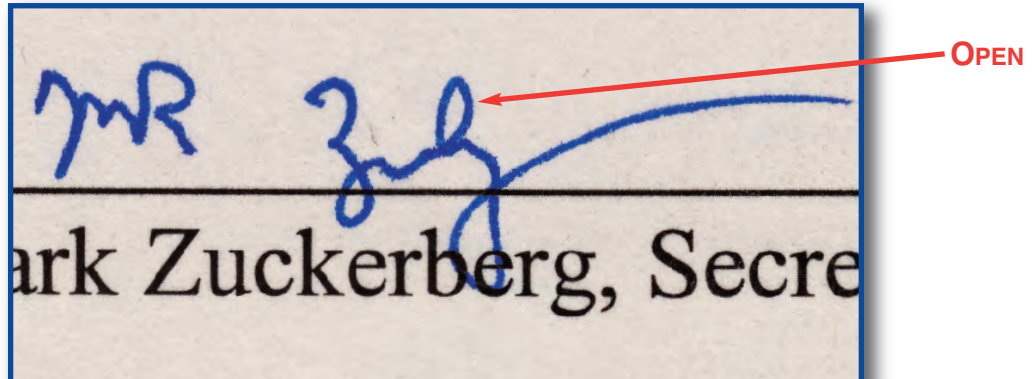
EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT  
QUESTIONED "MARK ZUCKERBERG" SIGNATURE  
(PURPORTEDLY DATED APRIL 28, 2003)



KNOWN SIGNATURES OF MARK ZUCKERBERG

K-5(B)

JULY 29, 2004



K-6

JULY 29, 2004

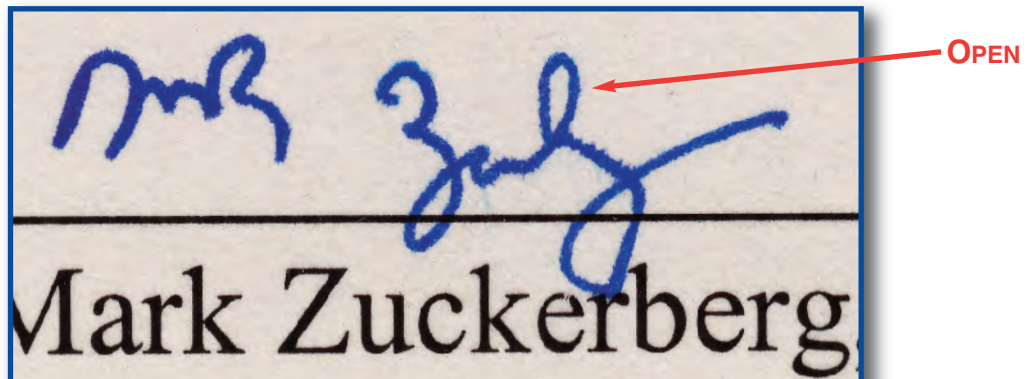
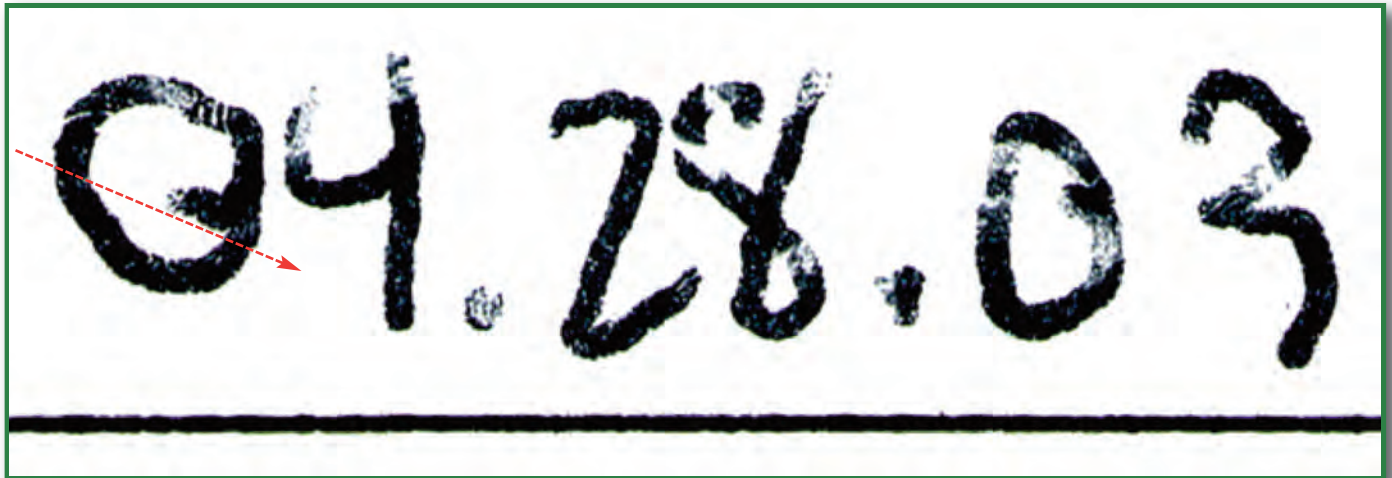


FIG. 48.

(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)

EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT  
QUESTIONED "MARK ZUCKERBERG" DATE "04.28.03"



INITIAL STROKE POINTS DOWN

---

KNOWN WRITINGS OF MARK ZUCKERBERG

K-3 (APRIL 28, 2003)



K-3 (APRIL 28, 2003)



K-4 (JULY 29, 2004)



K-4 (JULY 29, 2004)



INITIAL STROKE IS OVERWRITTEN OR POINTS UP

FIG. 49.

(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)

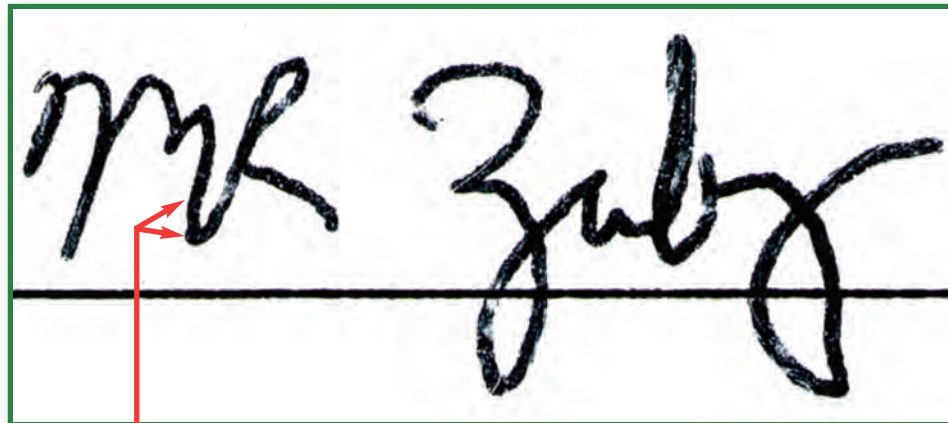
### 3. Hesitation

I observed several instances of hesitation between the questioned Zuckerberg signature and date on Exhibit Q-3 and the known Zuckerberg signatures on Exhibits K-3, K-4, K-5, and K-6 and handwritten dates of signature of Mark Zuckerberg and numbers appearing on Exhibits K-3 and K-4.

- a) I examined the questioned Zuckerberg signature on Exhibit Q-3 and found that the writer, before creating the first stroke for the letter “r” in “Mark,” stopped at the base of the letter “M,” hesitated, and then continued on with the connecting stroke on the letter “r,” indicating traced writing. However, on Exhibits K-3, K-4, K-5, and K-6, Mr. Zuckerberg created the connecting stroke between the “M” and “r” in “Mark” with a continuous and fluid writing movement, indicating natural writing. *See Figs. 50–52.*
- b) I examined the number “28” on the questioned Zuckerberg date of signature on Exhibit Q-3 and found that the writer, before creating the upstroke for the numeral “8,” hesitated, and then continued on with the upstroke, creating an angular bottom, indicative of traced writing. However, on Exhibits K-3 and K-4, Mr. Zuckerberg created the entire numeral “8” with a smooth, fluid writing movement, creating a curved bottom, indicative of natural writing. *See Fig. 53.*



EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT  
QUESTIONED "MARK ZUCKERBERG" SIGNATURE  
(PURPORTEDLY DATED APRIL 28, 2003)

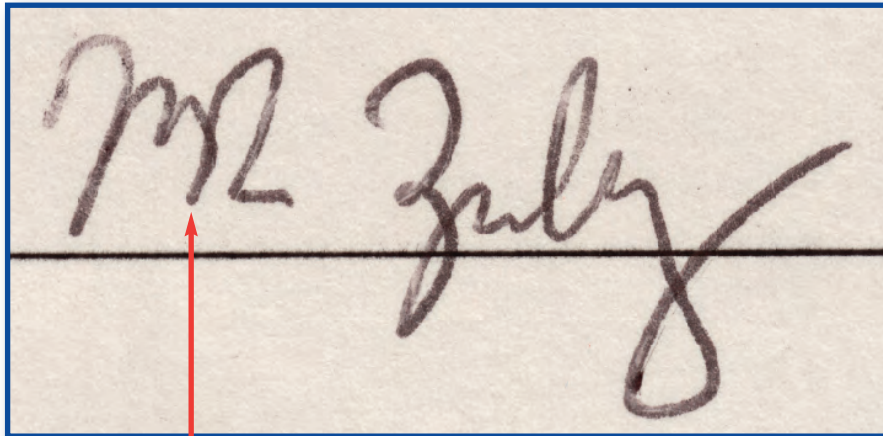


HESITATION  
(INDICATIVE OF TRACED WRITING)

KNOWN SIGNATURES OF MARK ZUCKERBERG

K-3

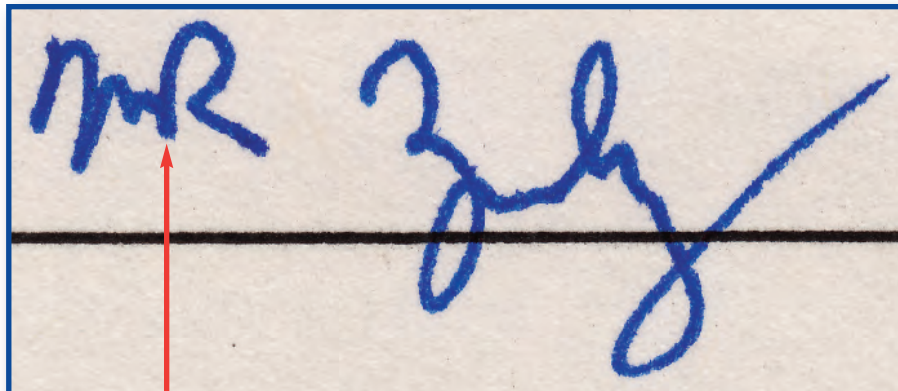
APRIL 28, 2003



NO HESITATION

K-4(A)

JULY 29, 2004



NO HESITATION

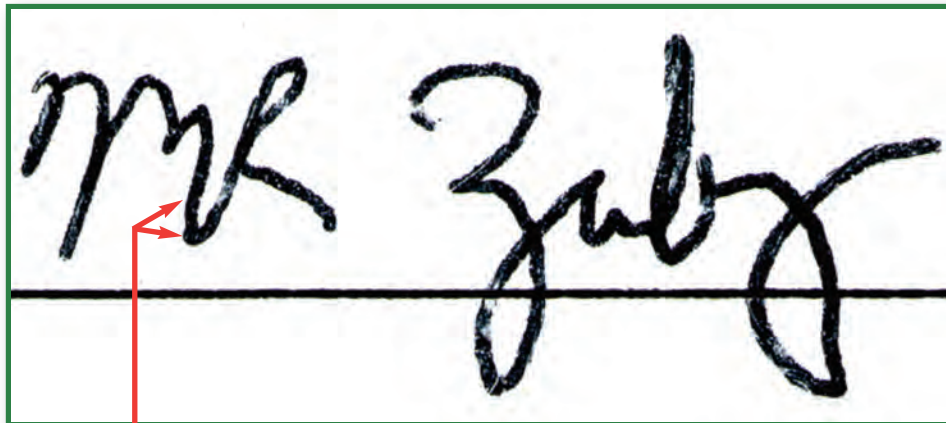
FIG. 50.

(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)

EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT

QUESTIONED "MARK ZUCKERBERG" SIGNATURE

(PURPORTEDLY DATED APRIL 28, 2003)

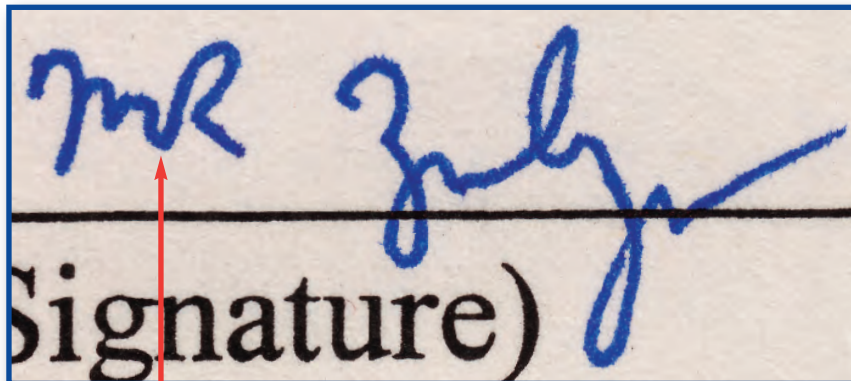


HESITATION  
(INDICATIVE OF TRACED WRITING)

KNOWN SIGNATURES OF MARK ZUCKERBERG

K-4(B)

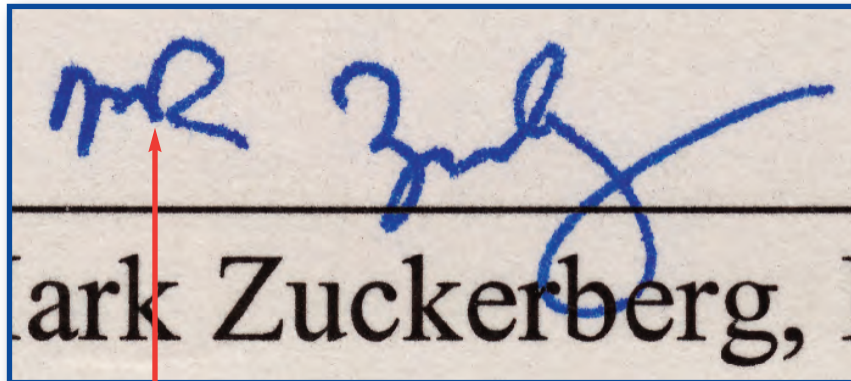
JULY 29, 2004



NO HESITATION

K-5(A)

JULY 29, 2004

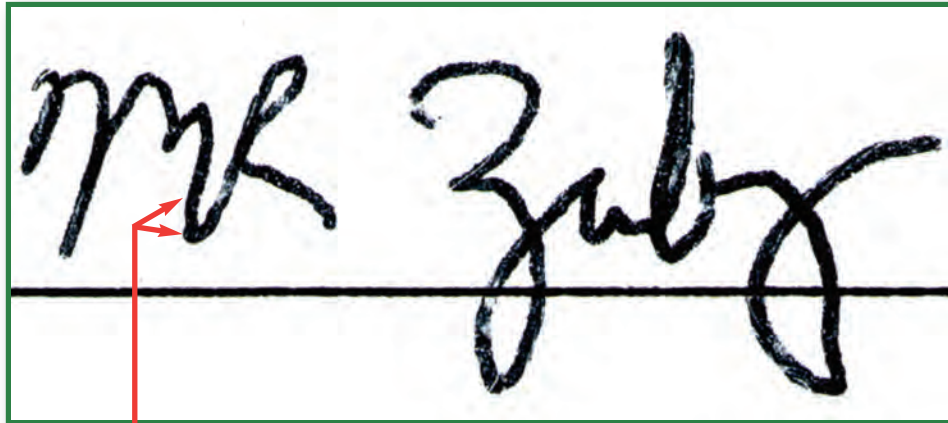


NO HESITATION

FIG. 51.

(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)

EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT  
QUESTIONED "MARK ZUCKERBERG" SIGNATURE  
(PURPORTEDLY DATED APRIL 28, 2003)

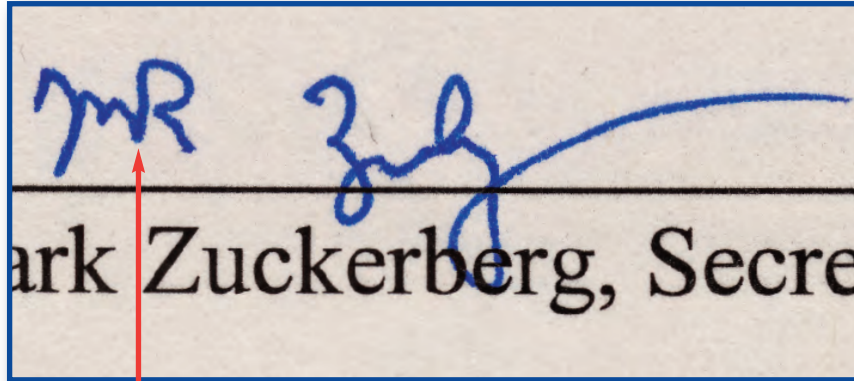


HESITATION  
(INDICATIVE OF TRACED WRITING)

KNOWN SIGNATURES OF MARK ZUCKERBERG

K-5(B)

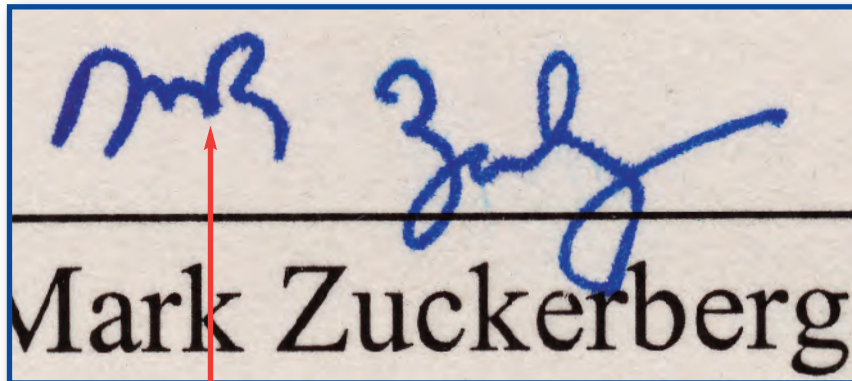
JULY 29, 2004



NO HESITATION

K-7

JULY 29, 2004



NO HESITATION

FIG. 52.

(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)

EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT  
QUESTIONED "MARK ZUCKERBERG" DATE "04.28.03"



HESITATION  
(INDICATIVE OF TRACED WRITING)

---

KNOWN WRITINGS OF MARK ZUCKERBERG

K-3 (APRIL 28, 2003)



← NO HESITATION

K-4 (JULY 29, 2004)



← NO HESITATION

SUPERIOR LINE QUALITY  
(INDICATIVE OF NATURAL WRITING)

FIG. 53.

(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)

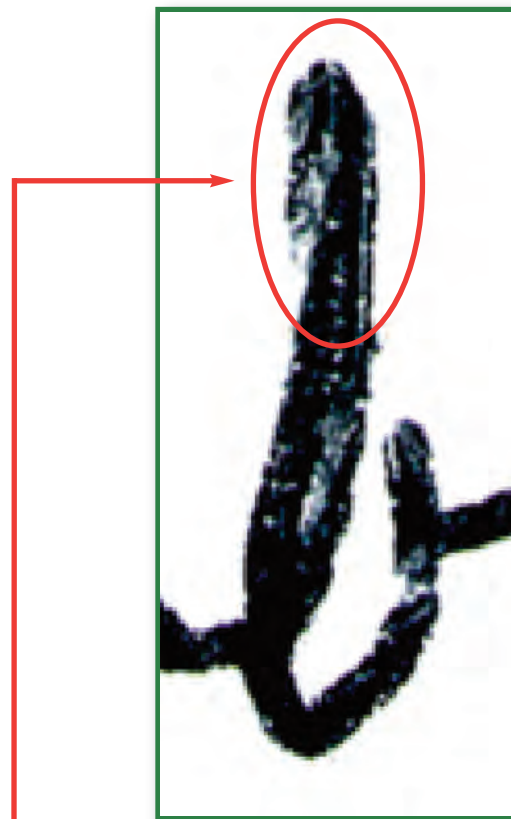
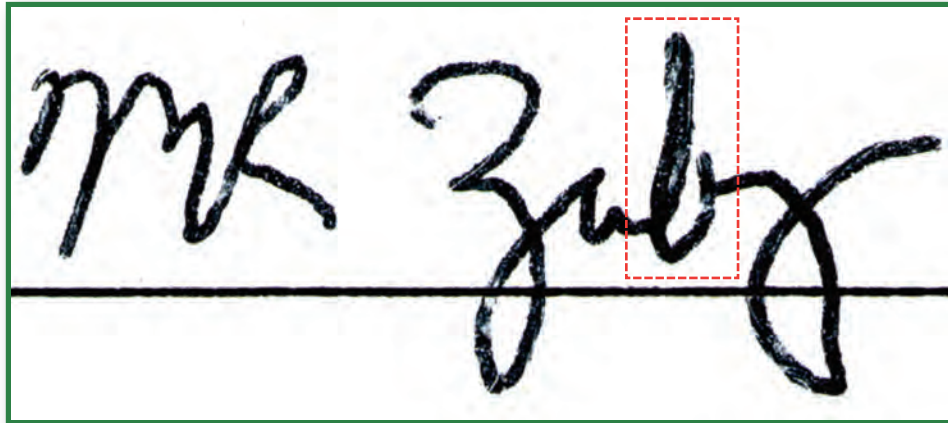


#### **4. Retouching Dissimilarities**

I observed one instance of re-touching or correction in the questioned Zuckerberg signature on page 2 of Exhibit Q-3.

- a) I examined the questioned Zuckerberg signature on Exhibit Q-3 and found that the writer, while creating the elongated staff of the letter “b” on the upstroke, retouched the writing movement by either changing direction at the height of the staff and retracing a portion of the staff while creating the downstroke, creating a “figure 8,” or stopping at the height of the staff, lifting the pen, and retracing the upstroke while creating the downstroke. This type of retouching or correction is indicative of traced writing. *See Fig. 54.*

**EXHIBIT Q-3 “WORK FOR HIRE” DOCUMENT  
QUESTIONED “MARK ZUCKERBERG” SIGNATURE  
(PURPORTEDLY DATED APRIL 28, 2003)**



**LETTER “b” WAS RETOUCHE  
OR CORRECTED  
(INDICATIVE OF TRACED WRITING)**

**FIG. 54.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**

**C. Comparison of Questioned Writings to Known Zuckerberg Handwriting Exemplars Confirms That Mark Zuckerberg Did Not Write The Questioned Zuckerberg Initials on Page 1 of the Work for Hire Document**

To determine the genuineness of the questioned Zuckerberg initials on the Work for Hire document presented for inspection in January 2011 (Exhibit Q-3), I compared that writing with the several known initials appearing on Exhibits K-1 and K-3. I observed significant evidence of unnaturally blunt ending strokes, slant/slope dissimilarities, and vertical-alignment dissimilarities in the questioned Zuckerberg initials on Exhibit Q-3. Based upon my professional judgment and expertise, the evidence—captured in the images of the Questioned and Known Documents included in this supplemental Expert Report—reflects that the questioned Zuckerberg initials on Exhibit Q-3 were slowly drawn and not naturally written.

**1. Tapered and Blunt Ending Strokes**

I observed multiple dissimilarities in ending strokes between the questioned “MZ” initials on Exhibit Q-3 and the known “MZ” initials on Exhibit K-3.

- a) I examined the questioned “MZ” initials on Exhibit Q-3 and found that the ending strokes of the “M” and “Z” in “MZ” ended abruptly, creating blunt ending strokes, which are indicative of traced writing. However, on page 4 of Exhibit K-3, the ending strokes of the “M” and “Z” in “MZ” end rapidly, creating tapered ending strokes, which are indicative of natural writing. *See Fig. 55.*

**EXHIBIT Q-3 “WORK FOR HIRE” DOCUMENT**

**QUESTIONED “MZ” INITIALS  
(PURPORTEDLY DATED APRIL 28, 2003)**



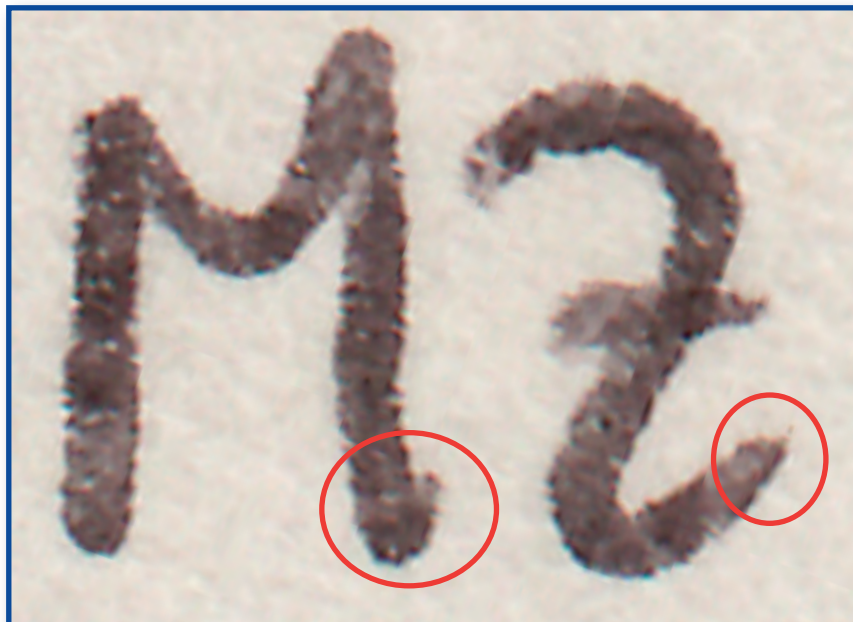
**BLUNT ENDINGS  
(INDICATIVE OF TRACED WRITING)**

---

**KNOWN INITIALS OF MARK ZUCKERBERG**

**K-3**

**APRIL 28, 2003**



**TAPERED ENDINGS  
(INDICATIVE OF NATURAL WRITING)**

**FIG. 55.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**

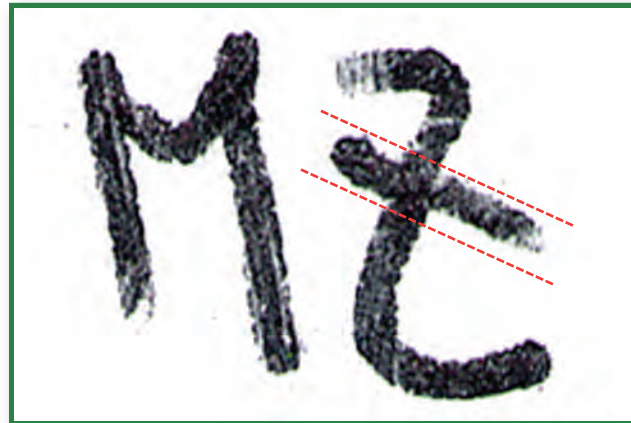
## 2. Slant/Slope Dissimilarities

I observed one slant/slope dissimilarity between the questioned “MZ” initials on Exhibit Q-3 and the known “MZ” initials on Exhibits K-1 and K-3.

- a) I examined the questioned “MZ” initials on page 1 of Exhibit Q-3 and found that the crossbar of the letter “Z” slants sharply downward from left to right. However, on page 4 of Exhibit K-3 and on each set of known “MZ” initials contained in Exhibit K-1, the crossbar of the letter “Z” either slants upward from left to right or is approximately horizontal. *See* Figs. 56–58.

**EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT**

**QUESTIONED "MZ" INITIALS  
(PURPORTEDLY DATED APRIL 28, 2003)**



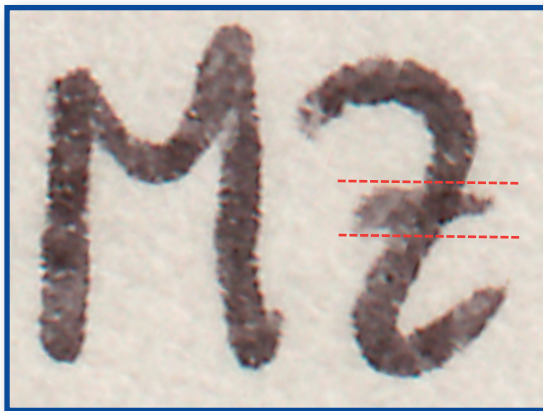
**DISSIMILAR CROSSBAR SLANT**

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**KNOWN INITIALS OF MARK ZUCKERBERG**

**K-3**

**APRIL 28, 2003**



**K-1(1)**

**AUGUST 6, 2004**



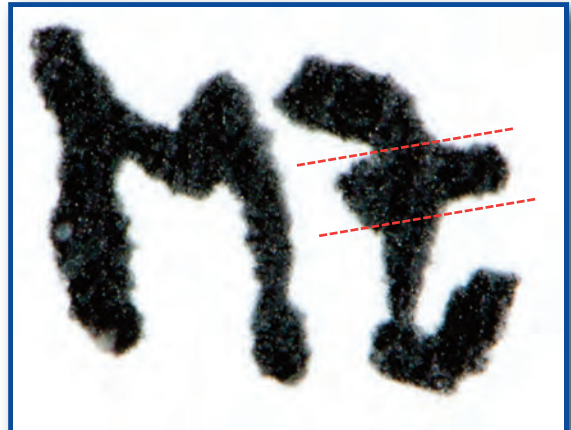
**K-1(2)**

**AUGUST 6, 2004**



**K-1(3)**

**AUGUST 6, 2004**



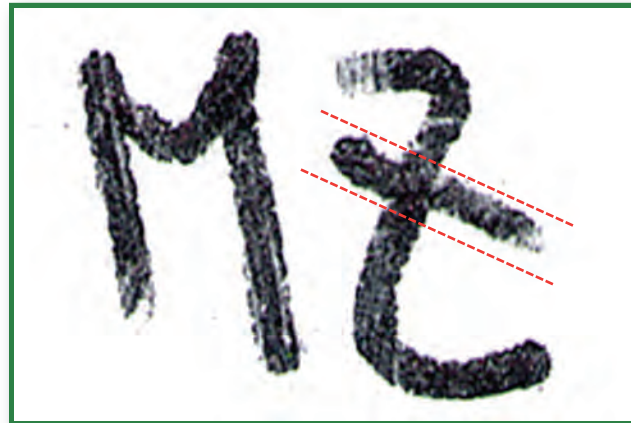
**FIG. 56.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**



**EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT**

**QUESTIONED "MZ" INITIALS  
(PURPORTEDLY DATED APRIL 28, 2003)**



**DISSIMILAR CROSSBAR SLANT**

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**KNOWN INITIALS OF MARK ZUCKERBERG**

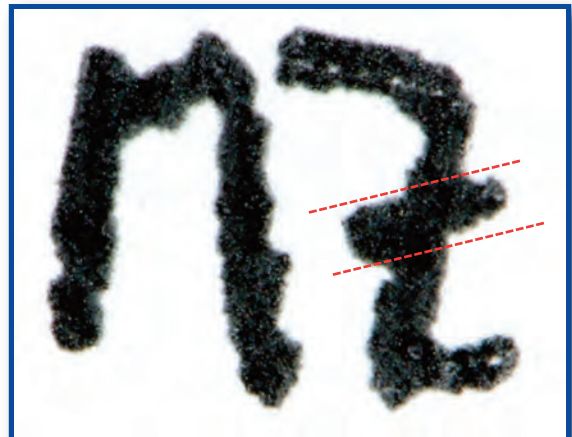
**K-1(4)**

**AUGUST 6, 2004**



**K-1(5)**

**AUGUST 6, 2004**



**K-1(6)**

**AUGUST 6, 2004**



**K-1(7)**

**AUGUST 6, 2004**

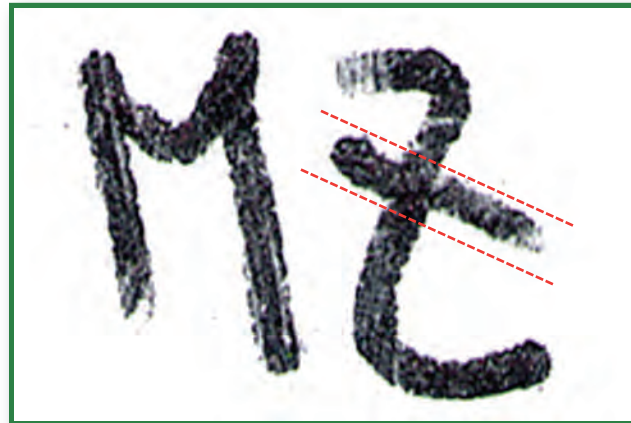


**FIG. 57.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**

**EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT**

**QUESTIONED "MZ" INITIALS  
(PURPORTEDLY DATED APRIL 28, 2003)**



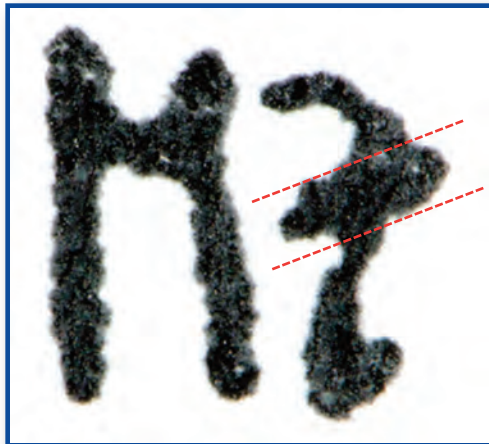
**DISSIMILAR CROSSBAR SLANT**

---

**KNOWN INITIALS OF MARK ZUCKERBERG**

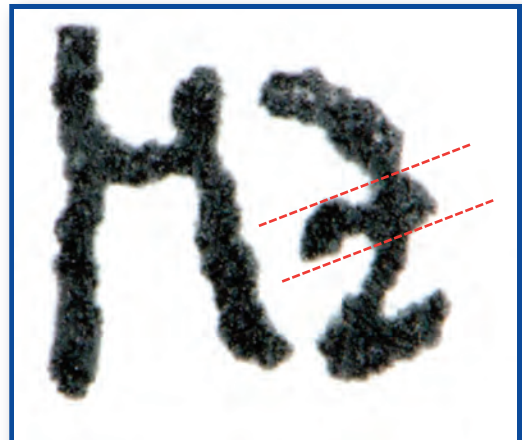
**K-1(8)**

**AUGUST 6, 2004**



**K-1(9)**

**AUGUST 6, 2004**



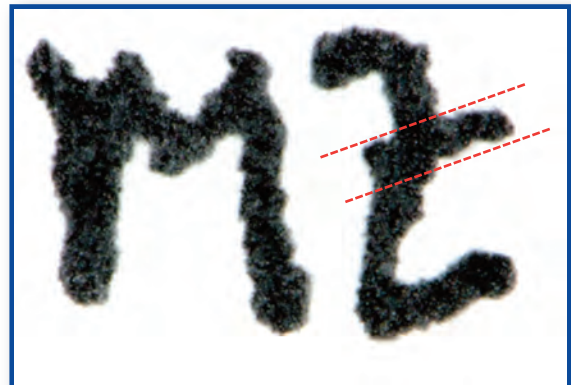
**K-1(10)**

**AUGUST 6, 2004**



**K-1(11)**

**AUGUST 6, 2004**



**FIG. 58.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**



### **3. Vertical-Alignment Dissimilarities**

I observed one vertical-alignment dissimilarity between the questioned “MZ” initials on Exhibit Q-3 and the known “MZ” initials on Exhibits K-1 and K-3.

- a) I examined the questioned “MZ” initials on page 1 of Exhibit Q-3 and found that the beginning point of the initial stroke of the “Z” and the left-end of the crossbar of the “Z” are vertically aligned. However, on page 4 of Exhibit K-3 and on each set of known “MZ” initials contained in Exhibit K-1, the left-end of the crossbar of the “Z” is set further to the right than the beginning point of the initial stroke of the “Z.” *See* Figs. 59–61.

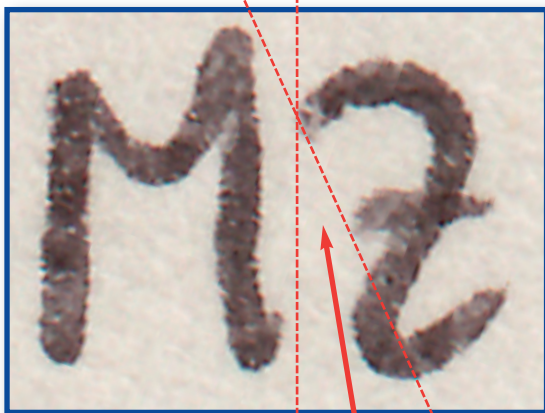
**EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT**

**QUESTIONED "MZ" INITIALS  
(PURPORTEDLY DATED APRIL 28, 2003)**

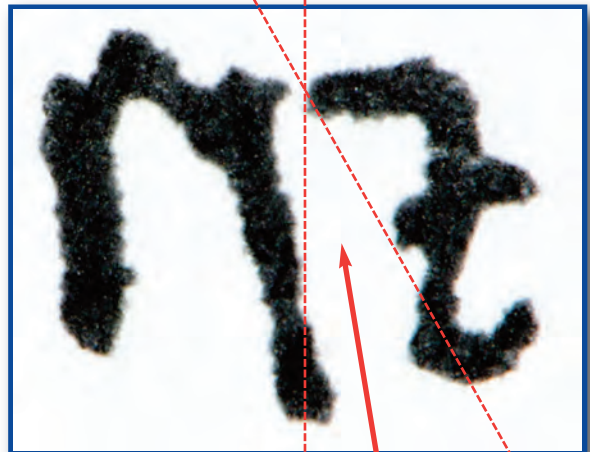


**KNOWN INITIALS OF MARK ZUCKERBERG**

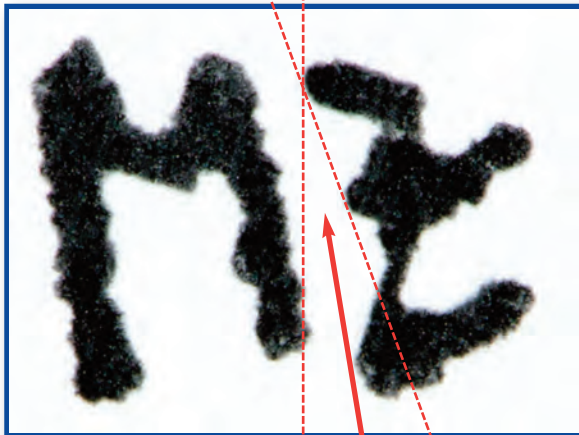
**K-3 APRIL 28, 2003**



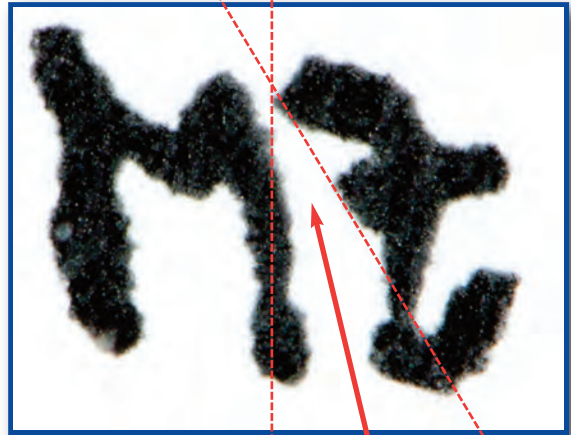
**K-1(1) AUGUST 6, 2004**



**K-1(2) AUGUST 6, 2004**



**K-1(3) AUGUST 6, 2004**



**FIG. 59.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**

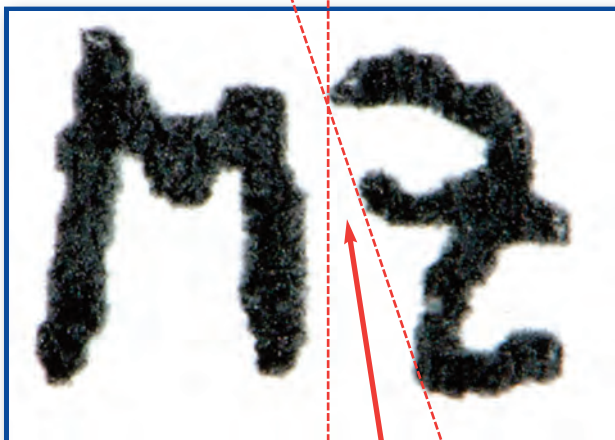
**EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT**

**QUESTIONED "MZ" INITIALS  
(PURPORTEDLY DATED APRIL 28, 2003)**

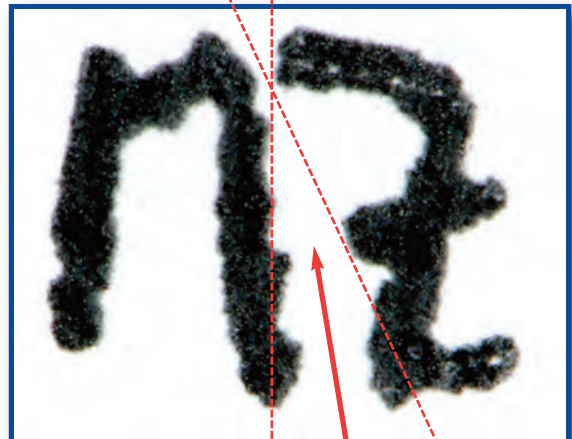


**KNOWN INITIALS OF MARK ZUCKERBERG**

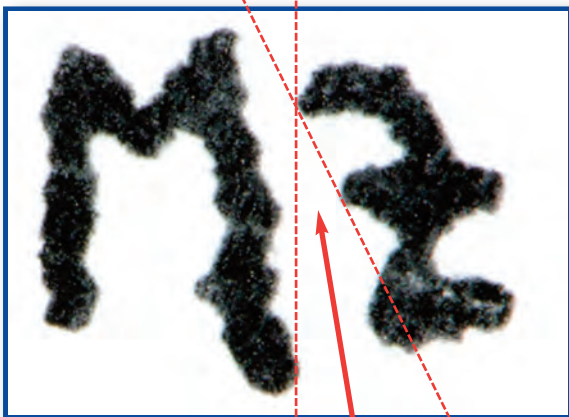
**K-1(4) AUGUST 6, 2004**



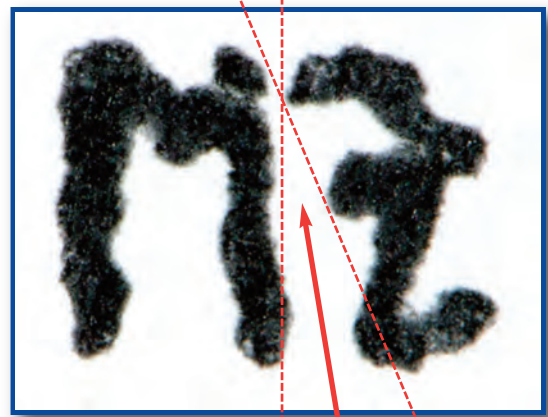
**K-1(5) AUGUST 6, 2004**



**K-1(6) AUGUST 6, 2004**



**K-1(7) AUGUST 6, 2004**



**FIG. 60.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**

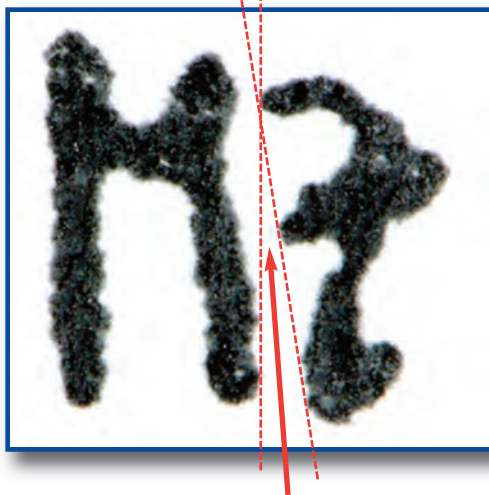
**EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT**

**QUESTIONED "MZ" INITIALS  
(PURPORTEDLY DATED APRIL 28, 2003)**

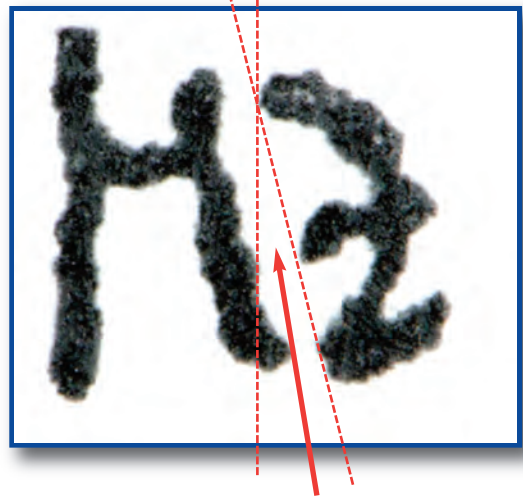


**KNOWN INITIALS OF MARK ZUCKERBERG**

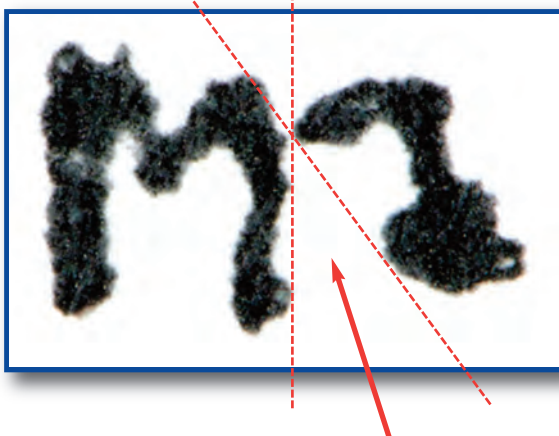
**K-1(8) AUGUST 6, 2004**



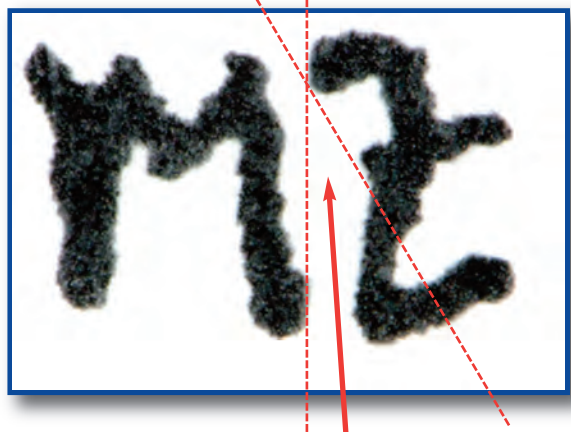
**K-1(9) AUGUST 6, 2004**



**K-1(10) AUGUST 6, 2004**



**K-1(11) AUGUST 6, 2004**



**FIG. 61.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**

**D. Comparison of Questioned Writings to Known Ceglia Handwriting Exemplars Confirms That The Ceglia Signature and Date of Signature on the Work for Hire Document Are Tracings That Were Not Naturally Written**

To determine the genuineness of the questioned Ceglia signature and date of signature on the Work for Hire document presented for inspection in January 2011 (Exhibit Q-3), I compared those handwritings with the known signature and date of signature appearing on Exhibit K-3. I observed that the Ceglia signature and date contained in Exhibit Q-3 were written with unnaturally deliberate and even pen pressure throughout the entire course of writing. In addition, I observed evidence of unnaturally blunt ending strokes at the end of questioned writing movements, as well as evidence of re-touching (*i.e.*, stop and re-start) in the writing of the name “Paul” in the questioned Ceglia signature.

Based upon my professional judgment and expertise, the evidence—captured in the images of the Questioned and Known Documents included in this supplemental Expert Report—reflect that the questioned Ceglia signature and date of signature on Exhibit Q-3 were slowly drawn and not naturally written.

**1. Pen Pressure and Line Quality**

I observed several differences in pen pressure and line quality between the questioned Ceglia signature and date on Exhibit Q-3 and the known Ceglia signature and date on Exhibit K-3.

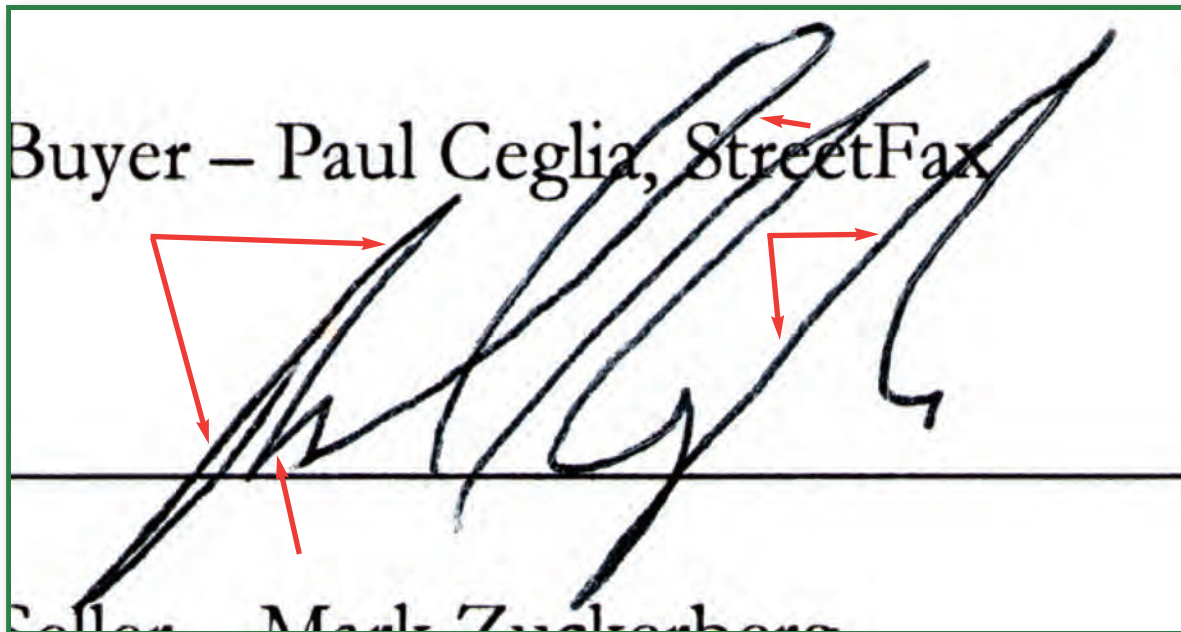
- a) I examined the questioned Ceglia signature on Exhibit Q-3 and found that there is consistent pen pressure on both the upstrokes and the downstrokes, which are indicative of a traced writing. However on Exhibit K-3, the letters “P,” “a,” and “l” in “Paul” and the letter “l” in “Ceglia” are written with light upstrokes and heavier downstrokes, evidencing the use of different pen pressures, which are indicative of natural writing. *See* Fig. 62.
- b) I examined the questioned Ceglia signature on Exhibit Q-3 and found that the upstrokes and downstrokes contained in the writing were drawn in a shaky, slow manner, evidencing poor line quality and traced writing, as illustrated by the “l” in both “Paul” and “Ceglia.” However, on page 6 of Exhibit K-3, the upstrokes of the “l” in both “Paul” and “Ceglia” were written in a smooth, rapid, and steady fashion, creating straight lines and evidencing superior line quality and natural writing. *See* Fig. 63.
- c) I examined the handwritten number “4” in the questioned Ceglia date of signature on Exhibit Q-3 and found that the staff of the numeral “4” was drawn in a shaky, slow manner, evidencing poor line quality and traced writing. However, on Exhibit K-3, the staff of the numeral “4” was written quickly, in a smooth, rapid, and steady fashion, evidencing superior line quality and natural writing. *See* Fig. 64.

- d) I examined the slash marks in the questioned Ceglia date of signature on Exhibit Q-3 and found that they were both drawn in a shaky, slow manner, evidencing poor line quality and traced writing. However, on Exhibit K-3, both slash marks were written quickly, in a smooth, rapid, and steady fashion, evidencing superior line quality and natural writing. *See Fig. 65.*
  
- e) I examined the number “03” in the questioned Ceglia date of signature on Exhibit Q-3 and found that the numeral “3” was drawn in a shaky, slow manner, creating angular writing movements and evidencing poor line quality and traced writing. However, on Exhibit K-3, the numeral “3” was written quickly, in a smooth, rapid, and steady fashion, forming rounded and curved writing movements and evidencing superior line quality and natural writing. *See Fig. 66.*



**EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT**

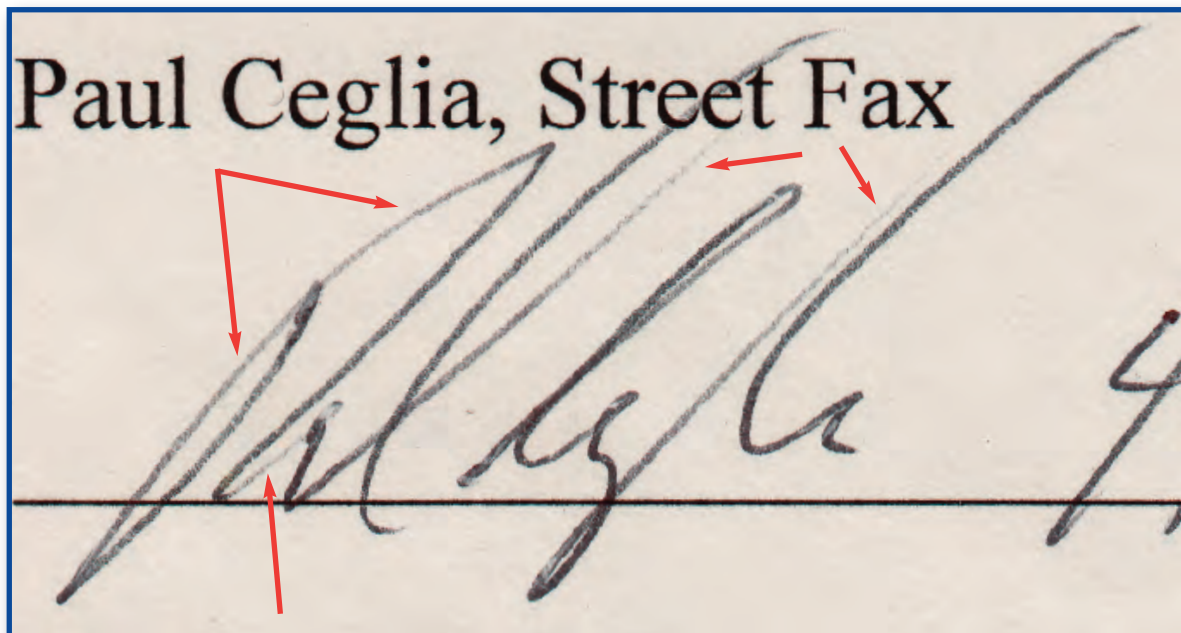
**QUESTIONED "PAUL CEGLIA" SIGNATURE  
(PURPORTEDLY DATED APRIL 28, 2003)**



**CONSISTENT PEN PRESSURE  
(INDICATIVE OF TRACED WRITING)**

**KNOWN "PAUL CEGLIA" SIGNATURE  
(DATED APRIL 28, 2003)**

**K-3**



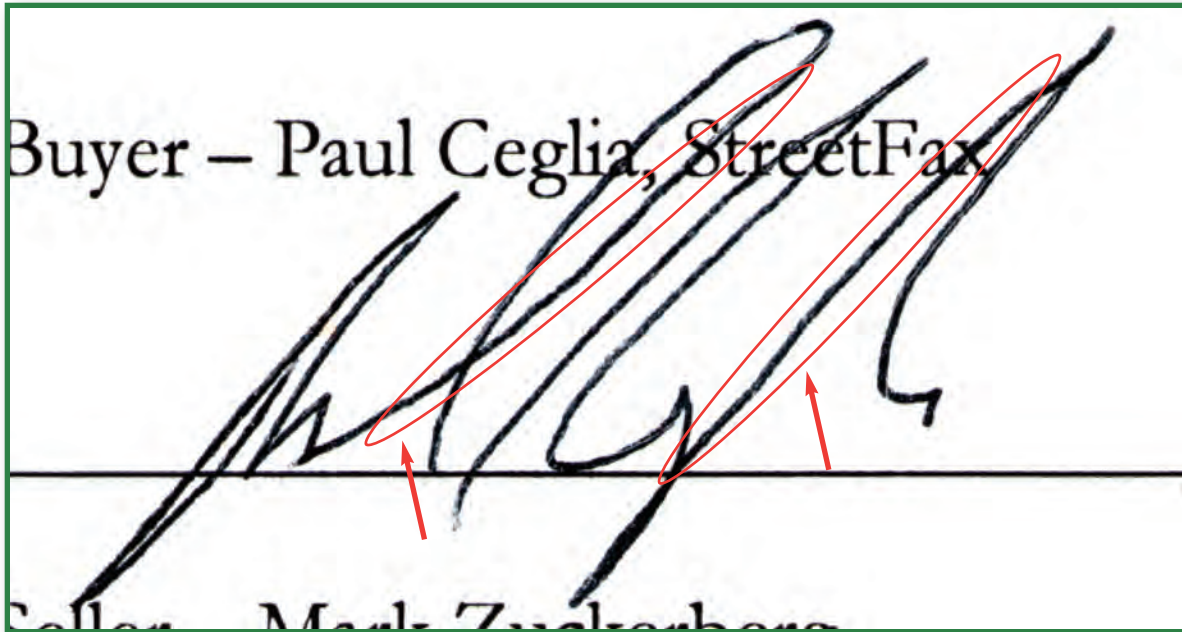
**DIFFERING PEN PRESSURE  
(INDICATIVE OF NATURAL WRITING)**

**FIG. 62.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**

**EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT**

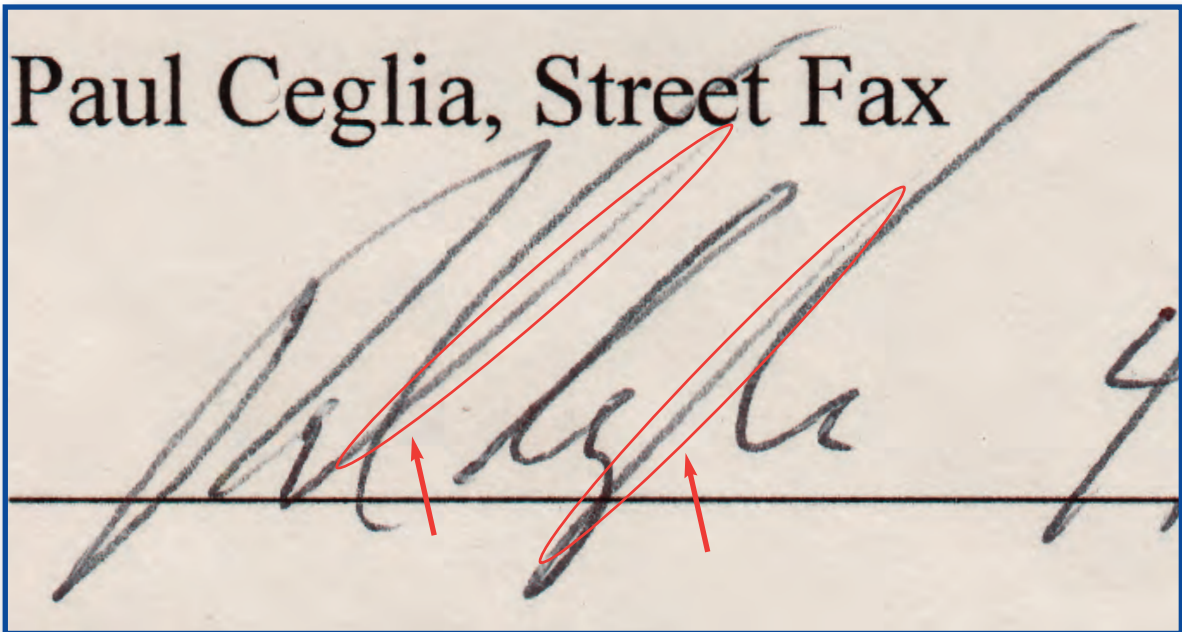
**QUESTIONED "PAUL CEGLIA" SIGNATURE  
(PURPORTEDLY DATED APRIL 28, 2003)**



**POOR LINE QUALITY  
(INDICATIVE OF TRACED WRITING)**

**KNOWN "PAUL CEGLIA" SIGNATURE  
(DATED APRIL 28, 2003)**

**K-3**



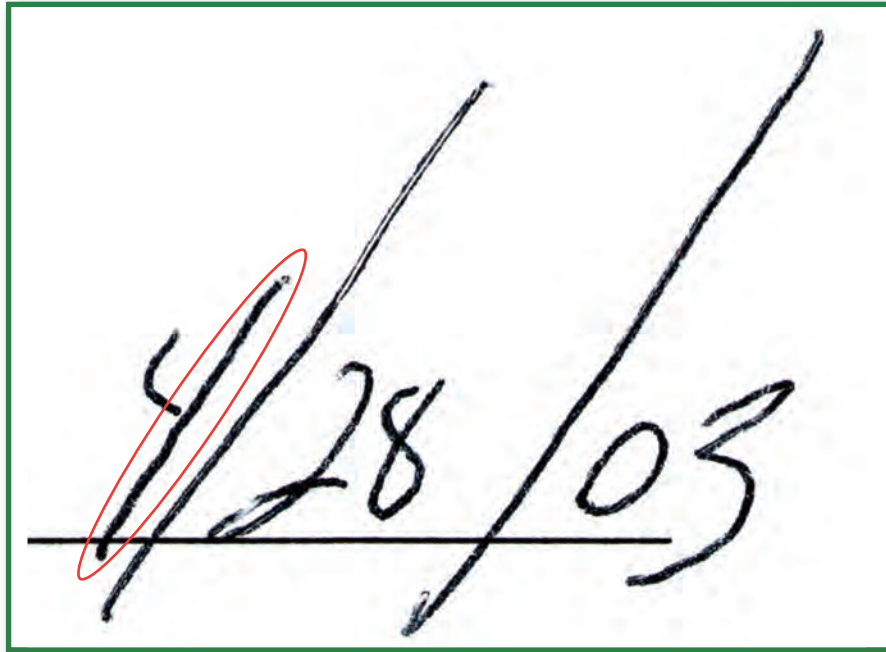
**SUPERIOR LINE QUALITY  
(INDICATIVE OF NATURAL WRITING)**

**FIG. 63.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**



**EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT  
QUESTIONED "PAUL CEGLIA" DATE**

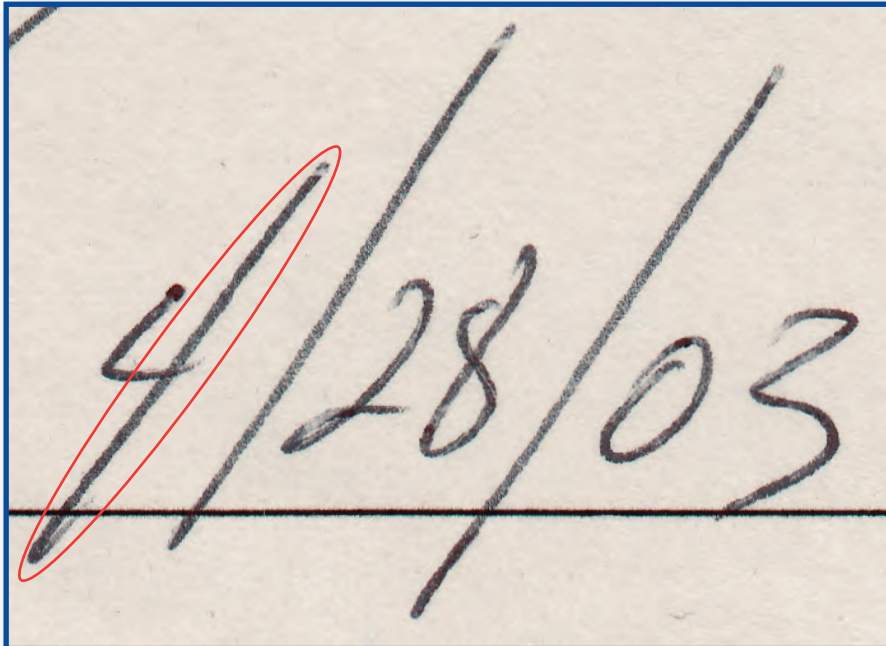


**POOR LINE QUALITY  
(INDICATIVE OF TRACED WRITING)**

---

**KNOWN "PAUL CEGLIA" DATE**

**K-3**

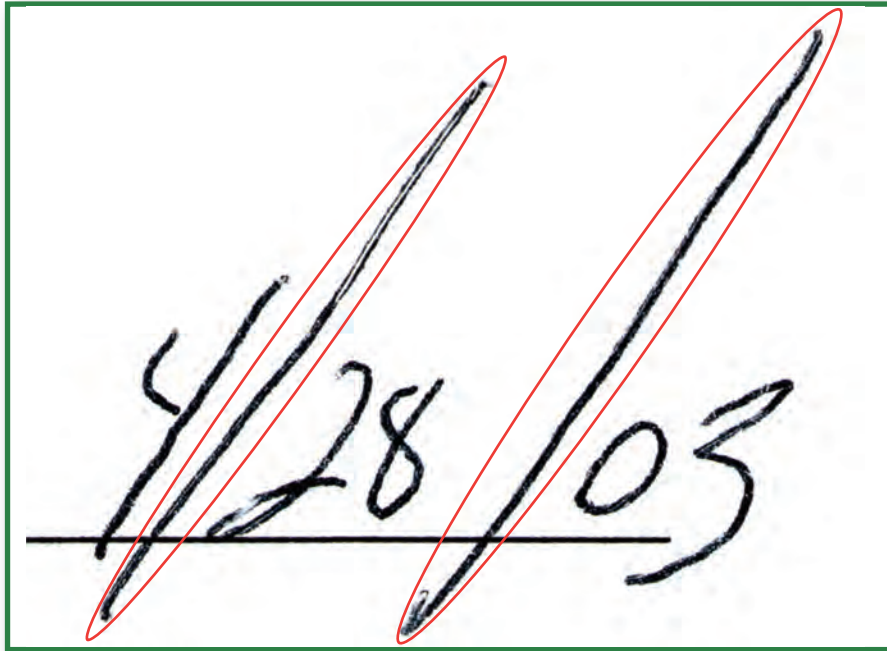


**SUPERIOR LINE QUALITY  
(INDICATIVE OF NATURAL WRITING)**

**FIG. 64.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**

**EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT  
QUESTIONED "PAUL CEGLIA" DATE**

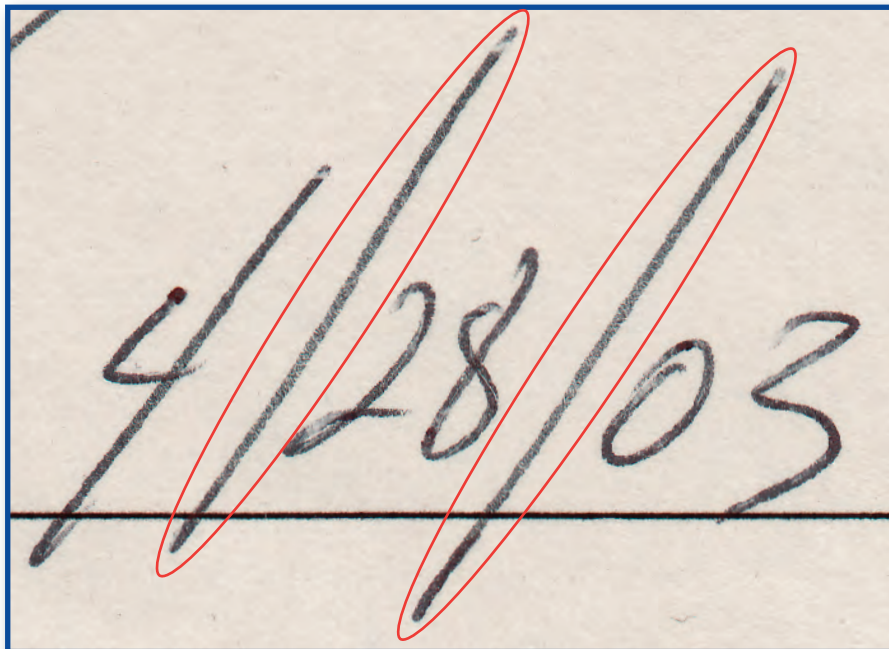


**POOR LINE QUALITY  
(INDICATIVE OF TRACED WRITING)**

---

**KNOWN "PAUL CEGLIA" DATE**

**K-3**

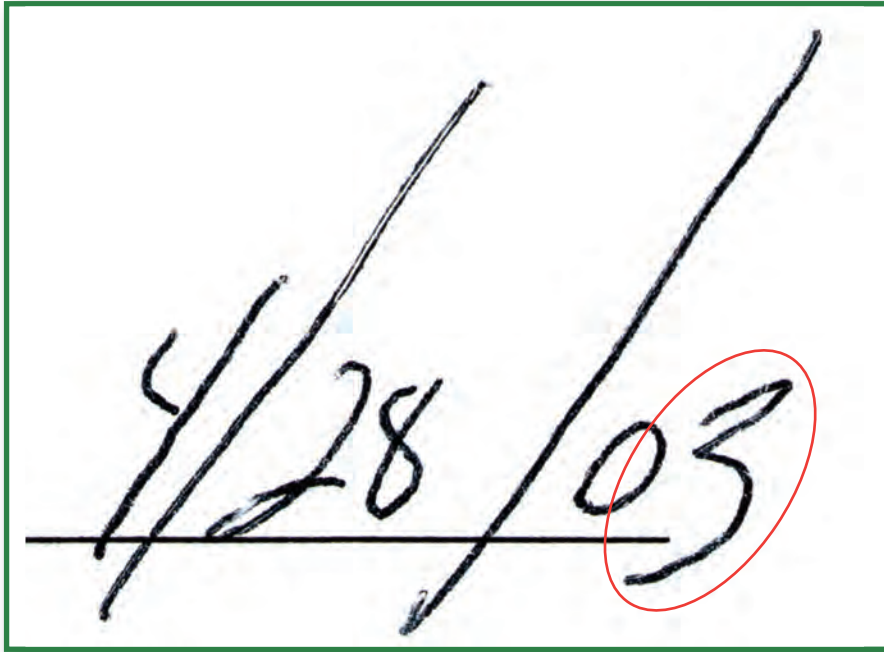


**SUPERIOR LINE QUALITY  
(INDICATIVE OF NATURAL WRITING)**

**FIG. 65.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**

EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT  
QUESTIONED "PAUL CEGLIA" DATE

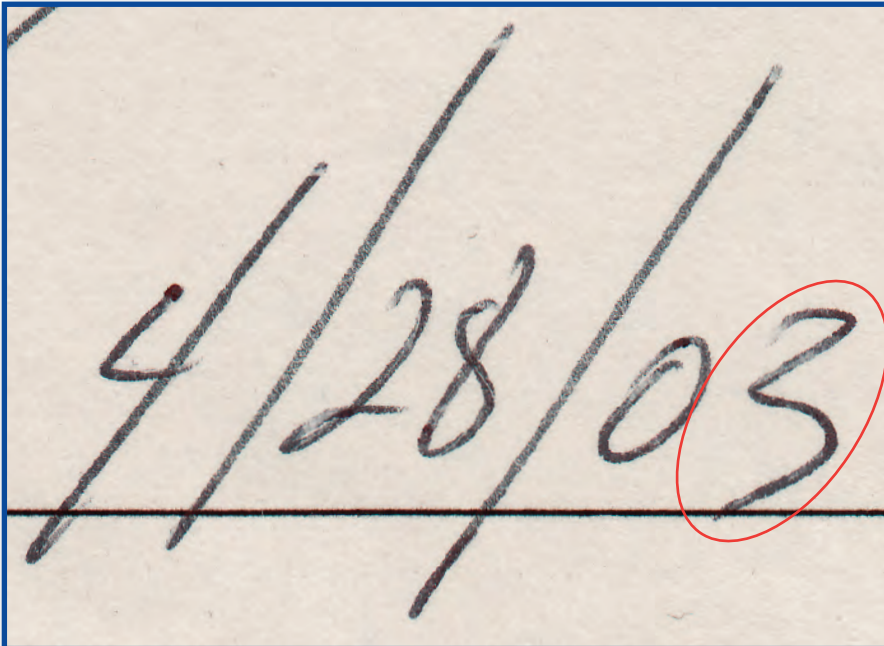


POOR LINE QUALITY  
(INDICATIVE OF TRACED WRITING)

---

KNOWN "PAUL CEGLIA" DATE

K-3



SUPERIOR LINE QUALITY  
(INDICATIVE OF NATURAL WRITING)

FIG. 66.

(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)

## 2. Tapered and Blunt Ending Strokes

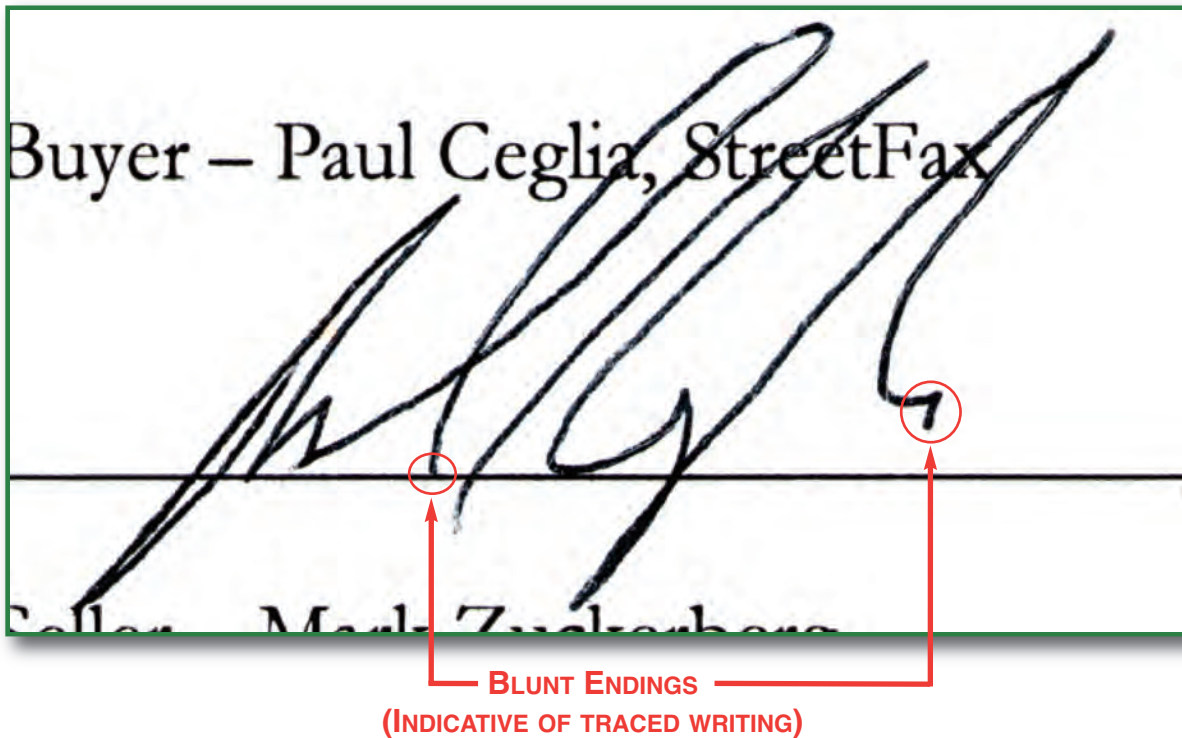
I observed several differences in the ending strokes between the questioned Ceglia signature and date of signature on Exhibit Q-3 and the known Ceglia signature and date of signature on Exhibit K-3.

- a) I examined the questioned Ceglia signature on Exhibit Q-3 and found that the ending strokes of the “l” in “Paul” and the “a” in “Ceglia” ended abruptly, creating blunt ending strokes, which are indicative of traced writing. However, on Exhibit K-3, the ending strokes of the “l” in “Paul” and the “a” in “Ceglia” ended rapidly, creating tapered ending strokes, which are indicative of natural writing. *See Fig. 67.*
  
- b) I examined the numbers “4,” “28,” and “03” in the questioned Ceglia date of signature on Exhibit Q-3 and found that the ending of the first stroke of the numeral “4,” the ending of the staff of the numeral “4,” the ending of the stroke of the numeral “2,” the ending of the stroke of the numeral “8,” and the ending of the numeral “3” ended abruptly, creating blunt ending strokes, indicative of traced writing. However, on Exhibit K-3, the ending of the first stroke of the numeral “4,” the ending of the staff of the numeral “4,” the ending of the stroke of the numeral “2,” the ending of the stroke of the numeral “8,” and the ending of the numeral “3” ended rapidly, creating tapered ending strokes, indicative of natural writing. *See Fig. 68.*

**EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT**

**QUESTIONED "PAUL CEGLIA" SIGNATURE**

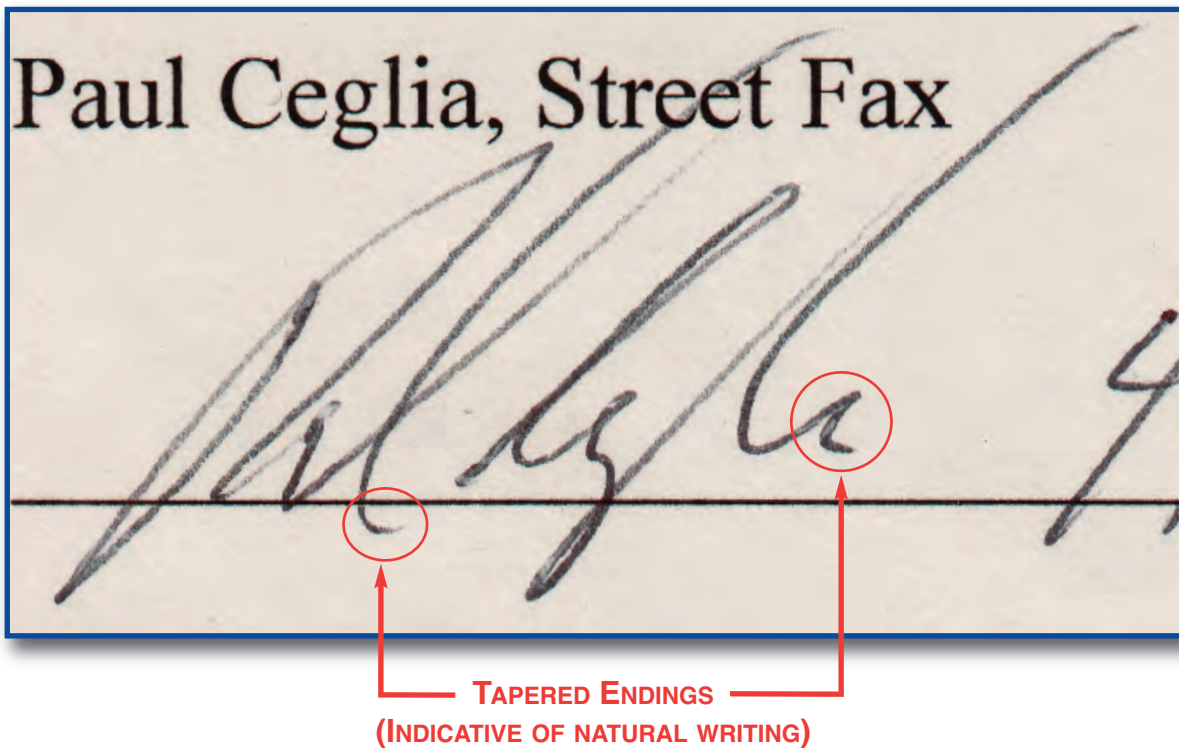
**(PURPORTEDLY DATED APRIL 28, 2003)**



**KNOWN "PAUL CEGLIA" SIGNATURE**

**(DATED APRIL 28, 2003)**

K-3

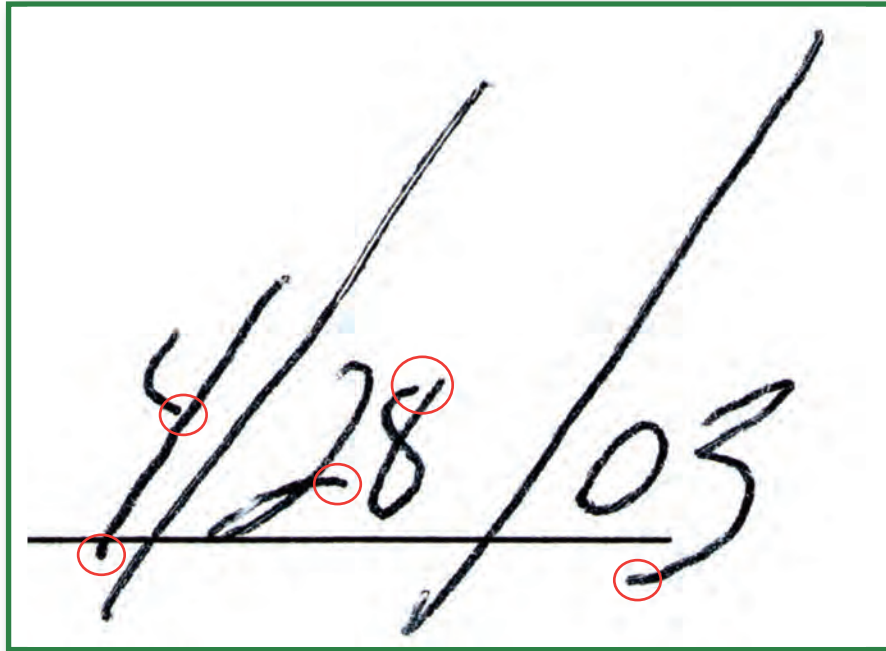


**FIG. 67.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**



EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT  
QUESTIONED "PAUL CEGLIA" DATE

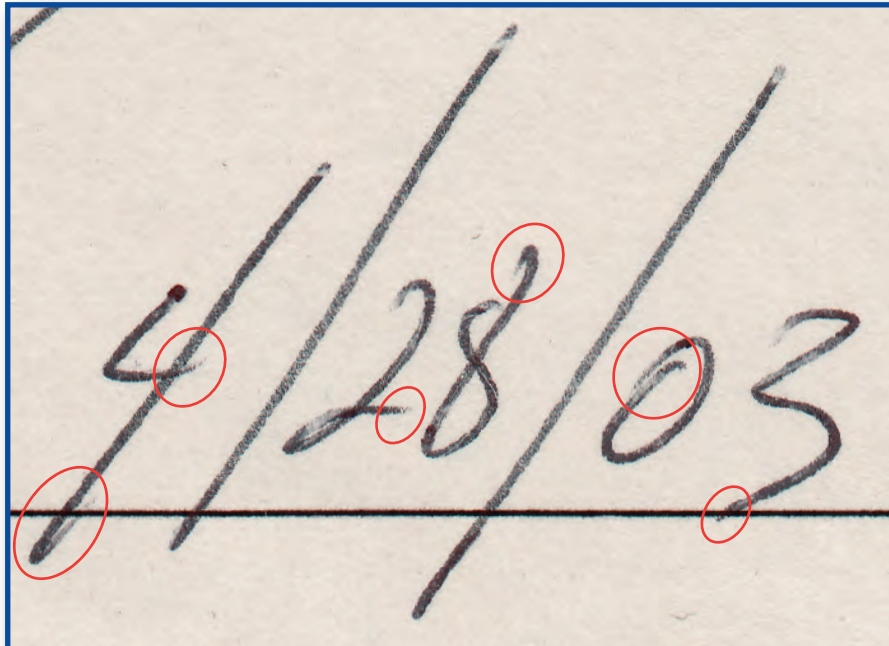


BLUNT ENDINGS  
(INDICATIVE OF TRACED WRITING)

---

KNOWN "PAUL CEGLIA" DATE

K-3



TAPERED ENDINGS  
(INDICATIVE OF NATURAL WRITING)

FIG. 68.

(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)

### **3. Re-touching**

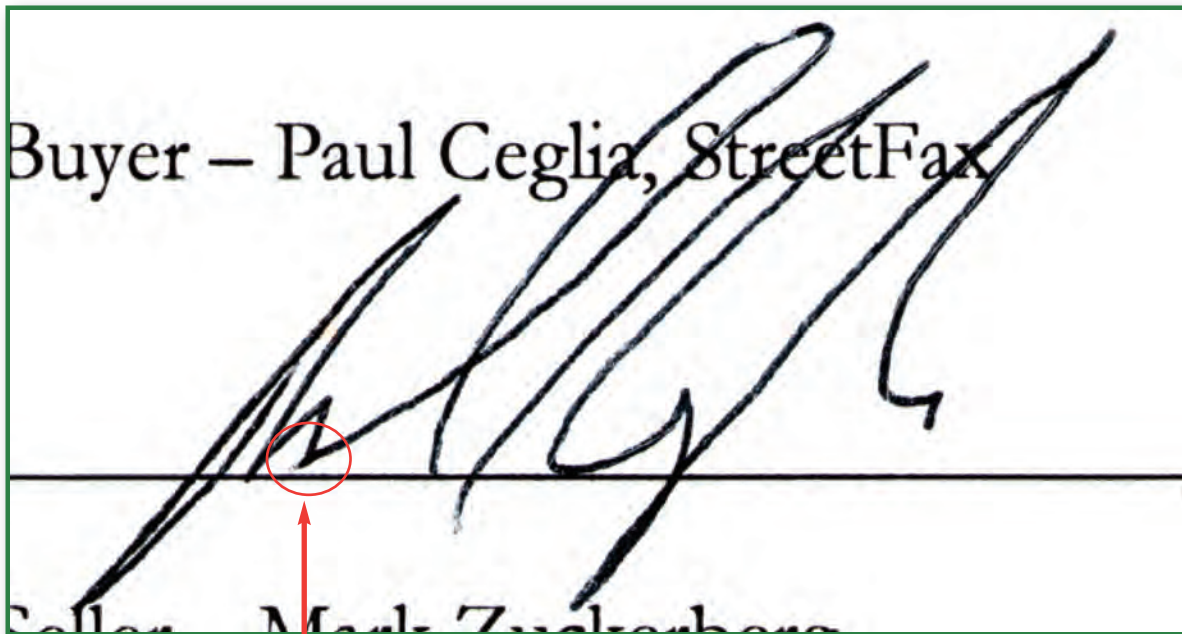
I observed at least one instance of re-touching between the questioned Ceglia signature on Exhibit Q-3 and the known Ceglia signature on Exhibit K-3.

- a) I examined the questioned Ceglia signature on Exhibit Q-3 and found that the writer, before creating the connection to the letter “l” in “Paul,” stopped and re-started the upward stroke to the “l,” indicative of traced writing. However, on Exhibit K-3, there is a continuous writing movement resulting in a free-flowing connecting upward stroke to the letter “l,” which is indicative of natural writing. *See Fig. 69.*

**EXHIBIT Q-3 "WORK FOR HIRE" DOCUMENT**

**QUESTIONED "PAUL CEGLIA" SIGNATURE**

**(PURPORTEDLY DATED APRIL 28, 2003)**

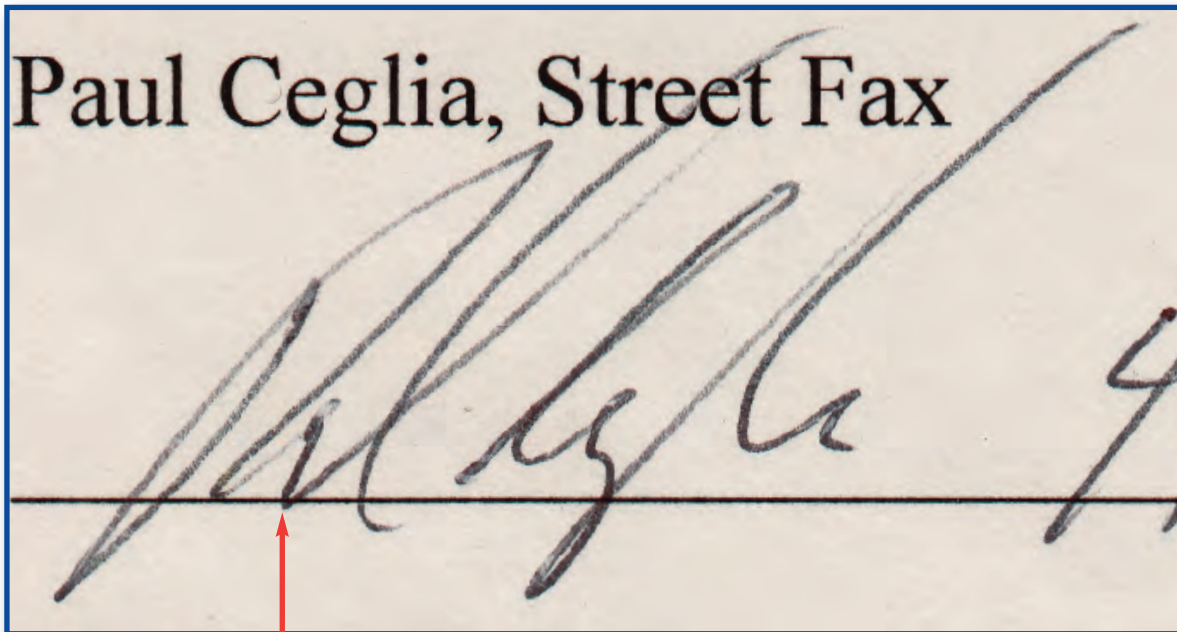


**STOP AND RE-START  
(INDICATIVE OF TRACED WRITING)**

**KNOWN "PAUL CEGLIA" SIGNATURE**

**(DATED APRIL 28, 2003)**

**K-3**



**CONTINUOUS WRITING MOVEMENT  
(INDICATIVE OF NATURAL WRITING)**

**FIG. 69.**

**(ISOLATED IMAGES HAVE BEEN ENLARGED FOR ILLUSTRATION PURPOSES)**



## **VI. CONCLUSIONS**

### **1. Ceglia has proffered at least two different physical documents as the Work for Hire document.**

- A. In my initial Expert Report, I concluded that Ceglia has proffered at least two different physical documents as the Work for Hire document. That initial phase of analysis considered the handwritten features that appear on page 1 of the Questioned Documents, four images that Ceglia has presented as images of the same Work for Hire document.
- B. In response to the reports of Ceglia's experts, filed June 4, 2012 (Doc. Nos. 414-22), and in light of my specialized expertise and training, I performed the same type of analysis on the handwritten features (signatures and dates) that appear on page 2 of the Questioned Documents.
- C. There are at least 12 significant dissimilarities among and between the questioned handwritten features that appear on page 2 of the Questioned Documents.
- D. The presence of these dissimilarities confirms and further supports my conclusion, to the highest degree of certainty possible, beyond any reasonable doubt, that the Questioned Documents are images of at least two different physical documents (both pages 1 and 2).

### **2. The questioned "Mark Zuckerberg" signature and date of signature on the Work for Hire document were not written by Mark Zuckerberg.**

- A. There are numerous instances of hesitation and re-touching in the questioned Zuckerberg signature and date on the Work for Hire document presented for inspection in January 2011 (Exhibit Q-3) as well as significant differences in line quality and letter formation and design between Exhibit Q-3 and several original known handwritten exemplars of Mark Zuckerberg. Those original known handwritten exemplars are Exhibits K-3, K-4, K-5, and K-6.
- B. The presence of these characteristics and dissimilarities demonstrate that the questioned Zuckerberg signature and date on Exhibit Q-3 are not naturally written.
- C. Moreover, I examined several handwritings, including Exhibits Q-1 and Q-2, that are nearly identical to the questioned Zuckerberg signature and date on Exhibit Q-3. The questioned Zuckerberg signature and date on Exhibit Q-3 could have been modeled off of those handwritings, or all of those handwritings could have been modeled off of another source.

D. I therefore conclude to the highest degree of certainty possible, beyond any reasonable doubt, that the questioned Zuckerberg signature and date found on the Work for Hire document were modeled after a near-identical source-signature and date—that is, the questioned Zuckerberg initials are unnaturally written tracings that were not written by Mark Zuckerberg.

**3. The questioned “MZ” initials on the Work for Hire document were not written by Mark Zuckerberg.**

A. There are numerous differences in ending strokes, slant/slope qualities, and vertical-alignment between the questioned “MZ” initials on the Work for Hire document presented for inspection in January 2011 (Exhibit Q-3) and several known handwritten exemplars of Mark Zuckerberg. Those known handwritten exemplars are Exhibits K-1 and K-3.

B. The presence of these dissimilarities in ending strokes demonstrates that the questioned Zuckerberg initials on Exhibit Q-3 are not naturally written.

C. Moreover, I examined several handwritings, including Exhibits Q-1 and Q-2, that are nearly identical to the questioned Zuckerberg initials on Exhibit Q-3. The questioned Zuckerberg initials on Exhibit Q-3 could have been modeled off of those handwritings, or all of those handwritings could have been modeled off of another source.

D. I therefore conclude to the highest degree of certainty possible, beyond any reasonable doubt, that the questioned Zuckerberg initials found on the Work for Hire document were modeled after a near-identical source signature and date—that is, the questioned Zuckerberg initials are unnaturally written tracings that were not written by Mark Zuckerberg.


**4. The questioned “Paul Ceglia” signature and date of signature on the Work for Hire document are tracings.**

A. There are instances of re-touching in the questioned Ceglia signature and date on the Work for Hire document presented for inspection in January 2011 (Exhibit Q-3), as well as numerous differences in pen pressure, line quality, and ending strokes between Exhibit Q-3 and the known Ceglia signature and date on Exhibit K-3.

B. The presence of these instances of re-touching and dissimilarities in pen pressure, line quality, and ending strokes demonstrate that the questioned Ceglia signature and date on Exhibit Q-3 are not naturally written.

- C. Moreover, I examined several handwritings, including Exhibits Q-1 and Q-2, that are nearly identical to the questioned Ceglia signature and date on Exhibit Q-3. The questioned Ceglia signature and date on Exhibit Q-3 could have been modeled off of those handwritings, or all of those handwritings could have been modeled off of another source.
- D. I therefore conclude to the highest degree of certainty possible, beyond any reasonable doubt, that the questioned Ceglia signature and date found on the Work for Hire document were modeled after a near-identical source signature and date—that is, the questioned Ceglia signature and date are unnaturally written tracings.

I declare under penalty of perjury that the foregoing is true and correct.



**Gus R. Lesnevich**  
**Forensic Document Examiner**