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BY HAND & E-MAIL

The Honorable Vincent J. Poppiti
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PUBLIC VERSION

Re: ***Advanced Micro Devices, Inc. v. Intel Corp.*, C.A. No. 05-441-JJF;**
***In re Intel Corp.*, C.A. No. 05-1717-JJF; and**
***Phil Paul v. Intel Corp.*, C.A. No. 05-485 (JJF) (DM 4D)**

Dear Judge Poppiti:

Pursuant to the November 25 scheduling order, and in advance of the December 12 status conference, Intel submits this report regarding the status of its histogram analysis.

For the past three months, the parties have engaged in an "informal disclosure" process that will soon transition into a formal discovery period. Intel has not yet taken any depositions related to AMD's preservation program, and has received only recently a small production of emails (about 1,800) related to these issues. On a separate track, following the September 11 hearing on these matters, Intel started to uncover widespread anomalies in AMD's produced data. Intel immediately and informally disclosed its preliminary analysis to AMD to provide it with a fair opportunity to evaluate these anomalies prior to Intel's formal submission to the Court. The following section briefly sets forth the relevant background facts regarding Intel's ongoing histogram analysis.

Background. For well over a year, and at every turn, AMD has praised its "exemplary" preservation program. During this time, AMD steadfastly blocked Intel from fully or formally testing AMD's preservation program, culminating in an unsuccessful motion to quash discovery into preservation issues. On July 2, in support of its cross-motion to compel, Intel submitted a histogram related to AMD's production of data from [redacted] *See* [redacted] This histogram compared (1) the total number of sent emails produced from [redacted] email production with (2) the total number of emails sent by [redacted] that were produced from the broader custodial population. The analysis revealed troubling patterns of non-retention and/or non-production of relevant sent emails from [redacted] electronic files. In particular, the histogram strongly suggested that [redacted]

[redacted] regularly deleted relevant emails during the pre-journaling (or "self-select") period.

Prior to that time, AMD had not disclosed any problems with the production of [redacted] During the September 11 hearing on the motion, AMD could not explain the apparent anomalies exposed in the [redacted] histogram – particularly the disparity between the pre- and post-journaling period – and stated its intention to restore backup tapes:

> **MR. FRIEDBERG: [D]oes AMD have a current, you know, working theory about what is accounting for the difference between the self-select period and the journaling?**
>
> * * *
>
> **MR. HERRON: The fact is that resolution lies in our going to resorting to backup tapes which we have obligated ourselves to do and are in the process of doing....**

9/11/08 Hearing Tr. 37:11-16; 38:11-16 (C. A. No. 05-1717, D.I. 1187).

After the hearing, largely due to AMD's acknowledgement that [redacted] data lapses required (at a *minimum*) restoration of backup tapes,[1] Intel applied the same histogram analysis to other AMD production custodians. In relatively short order, after analyzing only an initial subset of AMD's custodians, Intel identified at least 35 other AMD custodians – approximately 20% of AMD's production custodian population – that exhibited significant and widespread data anomalies. On October 7, Intel notified AMD about the new preliminary analysis and, on October 10, informally produced it to AMD and Mr. Friedberg. Intel advised AMD that the analysis was only a sample and that Intel would continue to look at other custodians.

On October 23, AMD interviewed Intel's consultants regarding the methodology used to create the 35 histograms. After the interview, Intel's consultants continued to refine the histogram analysis, added additional elements to it, and incorporated a large set of data that had been produced by AMD on or about September 30. On November 14, Intel produced revised histograms relating to 79 AMD production custodians. At AMD's request, Intel also provided specific file counts and document control numbers (DCNs) for all unique emails produced from the broader custodian population but *not* produced from the custodian at issue.[2] The November 14 histograms revealed even more problems for an even greater number of custodians. Intel again advised AMD that its analysis was ongoing.

AMD's Initial Review of 21 Sample Custodians. In advance of the December 5 teleconference with Mr. Friedberg and Ms. Martin, the parties agreed that AMD should initially

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[1] On November 14, AMD produced over 3,000 supplemental documents related to [redacted] Intel does not yet have, but will soon pursue, information about the scope of AMD's remediation for [redacted] data, including, for example, the nature, process, and date range of backup tapes restored, and/or AMD's investigation into the cause of the data loss.

[2] Under the parties' document production protocol, data may only be deduplicated within a custodian's own production. As such, a relevant document sent from one production custodian to another production custodian is produced from both sources.

focus on a subset of the 79 sample custodians. With input from Intel, Ms. Martin selected 11 custodians from the 79, and AMD selected an additional 10 custodians, for a total subset of 21 custodians. Attached here as Exhibit A (Tabs 1-21) are the histograms related to these 21 custodians, and an accompanying index for the Court's reference. AMD produced a total of 202,663 emails from the files of these 21 custodians, but it should have produced, at a minimum, another 106,969 emails. Stated differently, the histograms show that at least 106,969 emails are missing from the custodian's organic production and were only located within the productions of other custodians. It should be noted that this number – 106,969 – represents missing emails Intel has been able to identify based *solely* upon other AMD custodian productions; the actual number of missing emails is much larger when taking into account relevant correspondence between a custodian and other non-custodians.

The chart below relates to the 11 custodians selected by Intel and Stroz Friedberg LLC. These custodians exhibit serious retention lapses. On average, more than 50% of the sent and received emails that should have been produced by each of these 11 custodians' are missing.[3]

Custodians Selected by Intel and Stroz Friedberg LLC (Subset of Exhibit A)

March 2005 - May 2006

Ex. A Tab #	AMD Custodian (alpha order)	Journaled Before June 2006?	Total Known Emails Sent From or Received By Custodian	Total Known Missing From Custodian's Production	% Known Missing From Custodian Production
1.	[redacted]	N	6,103	5,979	98%
3.	[redacted]	N	11,775	5,232	44%
5.	[redacted]	Y	19,884	6,858	34%
6.	[redacted]	Y	5,577	3,198	57%
7.	[redacted]	N	29,284	16,924	58%
8.	[redacted]	N	6,948	3,128	58%
11.	[redacted]	N	9,402	5,440	58%
14.	[redacted]	N	9,221	8,759	95%

[3] Not surprisingly, the retention by the ten custodians selected by AMD have fewer, but nonetheless significant, problems. [redacted] has 1,406 total emails missing from his sent email production, which is 33% of his total sent emails included in AMD's production. [redacted] has 874 total emails missing from his sent email production, which is 43% of his total sent emails included in AMD's production.

16.	[redacted]	Y	34,299	10,738	31%
18.	[redacted]	Y	20,700	5,554	27%
19.	[redacted]	N	5,092	2,352	46%

These 11 Custodians can be divided into two basic categories: those who were placed on journaling before the AMD production cut-off date of June 2006, and those who were not. For those who *were* placed on journaling before June 2006, almost all exhibit a dramatic increase in the average number of emails produced per-month post-journaling [redacted] for example, [redacted] retained an average of 10 received emails pre-journaling, and 803 post-journaling. [redacted] retained an average of 44 received emails pre-journaling, and 256 post-journaling. [redacted] retained an average of 236 received emails pre-journaling, and 1671 post-journaling. The only explanation is that, before journaling, custodians did not properly retain relevant email.

The second category, those who were not put on journaling until after June 2006 show a consistent failure to retain email across-the-board. For example, [redacted] show substantial email loss for the entire time period that is the subject of the histograms.

December 5 Conference With Mr. Friedberg. On December 5, AMD presented to Mr. Friedberg, Ms. Martin and Intel a preliminary statement with respect to the 21 sample custodians. AMD suggested several reasons for the discrepancies in its data, but did not present any specific analysis or findings to rebut Intel's histograms.[4] AMD generically points to the following potential explanations for the anomalies in its data:

1. Custodian deletion of email after receiving litigation hold notice;

2. Attorney reviewer error or deviation during the relevance and privilege reviews;

3. Near-deduplication protocols; and

4. Intel's mistaken identification of a missing document or "OCF" (*i.e.*, "the exact document has been produced from the files of the subject custodian").

Intel briefly addresses each of AMD's purported explanations below.

1. ***AMD's Non-Compliant Custodian Defense.*** AMD largely blames individual custodian retention decisions for the missing data – as if that excuses the problem – and stated "with certainty" that the anomalies "are in no sense 'systemic.'" *See* Samuels Letter at 5-6. As a starting point, Intel does not agree with AMD's implicit suggestion that AMD custodians' widespread failure to preserve relevant email is unimportant. If AMD is right, and its custodians practiced widespread noncompliance with litigation hold notices, the result is still widespread data loss. AMD's position is particularly flawed given its repeated insistence that its production was "exemplary," should not be subject to any discovery or investigation, and should be the standard by which Intel's production should be measured. AMD should have (but never) disclosed these facts to Intel or the Court.

[4] A significant portion of AMD's initial analysis seems to have been devoted to an irrelevant issue – tracking down documents from a period between June 2006 and November 2006, which were not the subject of the histograms.

Moreover, AMD's unequivocal statement that no "systemic" issues exist (whatever the import of that undefined term is) is inherently flawed. First, AMD's "blame the custodian" defense only underscores its inordinate delay in implementing an automated retention system. AMD failed to implement an automated means for retaining relevant custodian emails for *eight months* after the date AMD contends it reasonably anticipated litigation against Intel. In fact, many custodians were placed on journaling only *after* the June 1, 2006 discovery cut-off. That delay led to massive data loss during the self-select period. Focusing on whether or not to define such a problem as "systemic" misses the point: AMD failed to act to preserve documents, data loss resulted and must be remediated.

Second, Intel has uncovered evidence that suggests some AMD employees may have been subject to mailbox size quotas that (at best) discouraged or (at worst) prevented them from complying with AMD's litigation hold notices. During a critical time period in March 2005 – when AMD claims it knew it was obliged to preserve data for this lawsuit[5] – AMD's "Help Desk" affirmatively recommended to an unknown number of employees that they should clear or delete email to avert mailbox size quotas. AMD's "Help Desk" issued the following [redacted] notice to at least some employees, including custodians, all throughout March 2005, a critical time period of retention:

[redacted]

See, e.g., [redacted]

The existence of mailbox size limitations is consistent with the practice of "clearing" Sent, Inbox and deleted-items folders by manually deleting emails, [redacted] and may account for the pattern of low volumes of emails during the self-select period (*see* subsection 3 below and Exhibit C). Intel has not yet had the opportunity to explore the nature, scope or import of this mailbox size quota issue during either informal or formal discovery. Intel is nonetheless providing this information to the Special Master to

[5] Intel is skeptical of AMD's assertion that it did not reasonably anticipate litigation before March 2005.

provide context to the apparent widespread deletion of emails pre-journaling.

2. *Reviewer Deviation or Error.* AMD states that different reviewing attorneys may have reached different judgments about whether a document is relevant or privileged, thus accounting for missing emails. It is highly unlikely, however, that reviewer deviation could account for such substantial amounts of missing data. Moreover, reviewer discrepancy cannot explain the major, but inconsistent, disparities between the pre- and post-journaling productions of AMD custodians.

3. *AMD's Near-DeDuplication Defense.* AMD also relies heavily on a vague assertion that the data anomalies stem from its unilateral decision to apply a vertical custodial near-deduplication protocol not contemplated by the agreements between the Parties. This argument is a red herring for a straightforward reason. If AMD applied the same near-deduplication protocols throughout its data processing, then *why does the data loss exist most frequently in the pre-journaling period*? During several discussions on this topic, including during the September 11 hearing when Mr. Friedberg raised this very point about [redacted] AMD has been unable to propose any explanation.

AMD placed a portion of its custodians on an automated journaling system on or about November 2005, approximately eight months after it purports to have reasonably anticipated litigation against Intel.[6] A high number of AMD's custodian productions analyzed to date exhibit a noticeable pattern of non-retention and/or non-production of data during the pre-journaling (*i.e.*, pre-November 2005) period. Consider the following examples of the average number of emails produced per month *before* and *after* journaling for certain AMD custodians:[7]

- [redacted] retained 10 received emails pre-journaling, and 803 post-journaling;
- [redacted] retained 236 received emails pre-journaling, and 1671 post-journaling;
- [redacted] retained 44 received emails pre-journaling, and 256 post-journaling;
- [redacted] retained 67 received emails pre-journaling, and 891 post-journaling;
- [redacted] retained 31 received emails pre-journaling, and 472 post-journaling;
- [redacted] retained 15 sent emails pre-journaling, and 394 post-journaling;

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[6] Numerous AMD custodians were not placed on any form of journaling for many months after November 2005. Intel intends to explore this issue during informal and formal discovery.

[7] Each of the listed custodians went on journaling as of November 2005. The pre-journaling monthly average is calculated between March 2005 and October 2005; the post-journaling average is calculated between November 2005 and May 2006.

- [redacted] retained 23 sent emails pre-journaling, and 141 post-journaling; and
- [redacted] retained 18 sent emails pre-journaling, and 141 post-journaling.

AMD's near-deduplication defense simply cannot account for the substantial difference between the number of emails retained pre- and post-journaling. The same disparities exist when comparing the number of *missing* emails pre- and post-journaling. Attached here as Exhibit C is a sample set of histograms (taken from among the 79 analyzed to date) that demonstrate an unmistakable discrepancy between the pre- and post-journaling productions of several AMD custodians. The following chart summarizes the data reflected in the sample histograms attached as Exhibit C, and includes: (1) the custodian's name; (2) whether the problem affects received mail, sent mail or both; and (3) a comparison of the percentage of missing emails during the pre- and post-journaling period.

Pre- vs. Post- Journaling Analysis (Exhibit C)

March 2005 - May 2006

Ex. C Tab #	AMD Custodian	Sent, Received or Both?	Pre-Journaling % of Emails Known Missing From Custodian Production	Post- Journaling % of Emails Known Missing From Custodian Production
1.	[redacted]	Received	31%	11%
2.	[redacted]	Received	42%	19%
3.	[redacted]	Received	22%	5%
4.	[redacted]	Both	42%	13%
5.	[redacted]	Received	75%	17%
6.	[redacted]	Both	60%	12%
7.	[redacted]	Both	48%	4%
8.	[redacted]	Received	86%	26%
9.	[redacted]	Received	35%	19%
10.	[redacted]	Received	69%	7%
11.	[redacted]	Both	45%	15%
12.	[redacted]	Both	86%	9%

13.	[redacted]	Both	59%	6%
14.	[redacted]	Received	33%	12%
15.	[redacted]	Received	42%	7%
16.	[redacted]	Received	41%	11%
17.	[redacted]	Received	63%	21%
18.	[redacted]	Received	37%	11%
19.	[redacted]	Received	26%	10%
20.	[redacted]	Both	37%	13%
21.	[redacted]	Received	22%	7%
22.	[redacted]	Received	21%	4%
23.	[redacted]	Received	51%	13%
24.	[redacted]	Received	77%	13%
25.	[redacted]	Both	38%	9%
26.	[redacted]	Received	17%	7%
27.	[redacted]	Received	31%	17%
28.	[redacted]	Received	23%	17%
29.	[redacted]	Both	34%	7%
30.	[redacted]	Received	49%	18%
31.	[redacted]	Both	57%	4%
32.	[redacted]	Received	36%	19%
33.	[redacted]	Received	64%	12%
34.	[redacted]	Sent	81%	8%

This data strongly suggests that many AMD custodians deleted emails during the "self-select" period and seriously undermines AMD's suggestion that near-deduplication explains the missing data.[8]

[8] Intel is still investigating the design and implementation of AMD's journaling system and does not presently have sufficient information to evaluate the post-journaling data loss exhibited

4. ***AMD's Assertion That Intel Incorrectly Identified Missing DCNs/OCFs.*** To date, AMD has not revealed any document control number (or "OCF") that Intel incorrectly identifies as a "missing" document. Intel has identified at least 106,969 documents that were not produced from the 21 custodians between March 2005 and May 2006, as shown in their histograms. During the December 5 conference with Mr. Friedberg, AMD advised that it has been able to "knock off" 50% of the DCNs/OCFs. Intel expected that some specific analysis would be forthcoming on December 5. It looks forward to receiving the DCNs for these documents from AMD and analyzing the issues that AMD has purportedly been able to resolve. Until that time, Intel has no ability to assess AMD's claim. Should AMD's claims hold up, however, there will still remain a very significant number of unexplained gaps in its production.

Next Steps. In light of the consistent and widespread patterns of non-preservation and/or non-production detected to date, and AMD's inability to provide any reasonable explanation for them, Intel is continuing with its analysis. Moreover, during the informal and formal discovery process, Intel will continue to investigate the potential reasons for the apparent non-retention of relevant email by AMD custodians. Once the analysis is complete, Intel intends to seek an order requiring AMD to review the retention practices of AMD custodians, and disclose the lapses that should have been discovered and affirmatively disclosed by AMD months ago. As Intel continues its analysis and evaluates AMD's responses, Intel anticipates that preservation failures will exist across the remaining custodians, and will only serve to bolster Intel's request for a full review, report and remediation of AMD's data lapses.

Finally, Intel requests that AMD take the following steps: (1) provide Intel with a list of the DCNs that it claims Intel incorrectly identified as missing from the custodians' productions during the time frame specified on the histograms; (2) provide Intel with the deduplication and near-deduplication logs that are automatically created by AMD's data processing software at the time a deduplication protocol is employed; and (3) disclose to Intel its explanation of the alleged "errors" by Intel in the analysis of AMD custodians [redacted], about which AMD has represented to the Court and Mr. Friedberg but not provided any specific information to Intel.

Respectfully submitted,

/s/ W. Harding Drane, Jr.

W. Harding Drane, Jr. (#1023)

WHD:cet
895317/29282
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Counsel of Record (via CM/ECF & Electronic Mail)

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by many AMD custodians. Moreover, for reasons Intel needs to explore, AMD's journaling appears to have failed to capture large numbers of post-journaling emails as reflected in many of the histograms.

EXHIBIT A

THIS EXHIBIT HAS BEEN REDACTED IN ITS ENTIRETY

EXHIBIT B

THIS EXHIBIT HAS BEEN REDACTED IN ITS ENTIRETY

EXHIBIT C

THIS EXHIBIT HAS BEEN REDACTED IN ITS ENTIRETY