UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AFTON CHEMICAL CORPORATION

Petitioner

v.

INFINEUM INTERNATIONAL LIMITED

Patent Owner

Case IPR2017-01321 Patent 8,076,274

SUPPLEMENTAL DECLARATION OF JACK EMERT, Ph.D



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I, Jack Emert, Ph.D declare as follows:

I. BACKGROUND AND QUALIFICATIONS, MATERIALS CONSIDERED, CLAIM INTERPRETATION, LEGAL STANDARDS, AND LEVEL OF SKILL IN THE ART

- 1. I have prepared another declaration in connection with this matter. I understand that that declaration has been filed as Exhibit 2025.
- 2. Paragraphs 1-9 of my previous declaration set forth my educational, work, and other technical background and qualifications. Moreover, a copy of my CV was attached to that declaration as Attachment A.
- 3. Paragraphs 10-15 of my previous declaration summarize the assignment at issue in that declaration, along with the materials that I have reviewed in forming the opinions I have offered in connection with this proceeding.
- 4. Paragraphs 16-18 of my previous declaration discuss my understanding of the proper construction of the terms of U.S. Patent No. 8,076,274 ("the '274 patent").
- 5. Paragraphs 19-28 of my previous declaration set forth the legal standards I applied in arriving at my opinions.
- 6. And, paragraphs 29-32 of my previous declaration set forth my understanding and definition of the level of ordinary skill in the art that applies to the '274 patent.



7. Rather than reproducing the actual text, I incorporate all of this discussion into this supplemental declaration by reference.

II. SUPPLEMENTAL ASSIGNMENT

- 8. In supplement to my previous declaration, I have been asked consider, analyze, and explain two additional grounds of purported unpatentability relating to the claims of the '274 patent. This includes the alleged obviousness of claims 1-12 in view of the combination of E.P. Publication No. 0 311 318 A1 ("Fetterman") and U.S. Pub. No. 2004/0127371 ("Arrowsmith '371"), and the alleged obviousness of claim 13 in view of the combination of E.P. Publication No. 0 280 579 A2 ("Colclough") and Arrowsmith '371.
- 9. The opinions expressed in this declaration are not exhaustive of my opinions regarding the patentability of the claims of the '274 patent. Therefore, the fact that I do not address a particular point should not be understood to indicate an agreement on my part that any claim does not comply with the requirements of any applicable patent or other rules.
- 10. I reserve the right to amend and supplement this declaration in light of additional evidence, arguments, or testimony presented during this IPR.
- 11. In forming the opinions set forth in this declaration, I have considered and relied upon my education, knowledge of the relevant field, knowledge of scientific and engineering principles, and my experience. I have also reviewed and



considered the materials I listed in my previous declaration. However, I note that this declaration focuses on the '274 patent, Fetterman, Colclough, and Arrowsmith '371.

III. PURPORTED OBVIOUSNESS OF CLAIMS 1-12 OVER FETTERMAN AND ARROWSMITH '371 (GROUND 3)

12. In my opinion, as of the '274 patent's filing date, one of ordinary skill in the art would not consider the subject matter of claims 1-12 to be obvious over the combination of Fetterman and Arrowsmith '371.

A. Overview of Fetterman

- 13. Fetterman relates to "ashless lubricating oil compositions." (Fetterman at 2:2-5.)
- 14. To make its compositions "ashless," Fetterman omits (or at least attempts to mimimize) its use of ash forming components. This includes, for instance, metal containing detergents and the zinc dialkyl dithiophosphate antiwear agent. This is reflected in Fetterman's examples. Example 1 employs 0.51% of a magnesium detergent that is 9.2 wt. % magnesium. (Fetterman at Table 1.) This results in 0.046% magnesium in the lubricant. Example 2 employs no detergent and thus includes no magnesium.
- 15. I also note that Fetterman purposefully employs a specific sulfurized phenolic antioxidant. (Fetterman at Abstract, 4:49-5:3.)



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