

EXHIBIT 4

(PUBLIC)



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UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
ALEXANDRIA DIVISION

RAI STRATEGIC HOLDINGS, INC. and
R.J. REYNOLDS VAPOR COMPANY,

Plaintiffs and Counterclaim
Defendants,

v.

ALTRIA CLIENT SERVICES LLC; PHILIP
MORRIS USA, INC.; and PHILIP
MORRIS PRODUCTS S.A.,

Defendants and Counterclaim
Plaintiffs.

Case No. 1:20-cv-00393

**REPORT OF
RYAN SULLIVAN, Ph.D.**

A handwritten signature in black ink, appearing to read "R. Sullivan", written over a horizontal line.

Ryan Sullivan, Ph.D.

March 24, 2021

9. Hypothetical Negotiations

- (183) A reasonable royalty can be determined through an analysis of what a willing licensor and a willing licensee would have bargained for during an arm's-length, hypothetical negotiation occurring on the eve of infringement.⁴²⁵ I understand that the date of the hypothetical negotiation for the patents-in-suit would be the eve of first alleged infringement by Reynolds. In this case, the first infringement by Reynolds occurred on separate dates for each of the patents-in-suit. Therefore, the hypothetical negotiation for each of the asserted patents would occur at different points in time.
- (184) As discussed in Section 2.2, RJRV is the manufacturer for all of the VUSE accused products and their associated flavor packs. Thus, at the hypothetical negotiations for each of the patents-in-suit, RJRV would act as the licensee. To the extent that RAI is present at any of the hypothetical negotiations, my opinion remains unchanged.
- (185) Reynolds' first alleged infringement of the '545 patent occurred on or around March 2013, when the accused version of Reynolds' VUSE Solo product launched. See Section 5. Thus, the hypothetical negotiation for the '545 patent would occur on or around March 2013. As discussed in Section 4.1, PM USA is the assignee of the '545 patent. Thus, the hypothetical negotiation for the '545 patent would take place between PM USA as the licensor and RJRV as the licensee.
- (186) Reynolds' first alleged infringement of the '265 patent occurred on or around August 2018, when Reynolds' VUSE Alto product launched. See Section 5. Thus, the hypothetical negotiation for the '265 patent would occur on or around August 2018. As discussed in

⁴²⁵ *Applied Med. Resources Corp. v. U.S. Surgical Corp.*, 435 F.3d 1356, 1361 (Fed. Cir. 2006). ("When an established royalty does not exist, a court may determine a reasonable royalty based on 'hypothetical negotiations between willing licensor and willing licensee.' Fromson, 853 F.2d at 1574.")

Rite-Hite Corp. v. Kelley Co., Inc., 56 F.3d 1538, 1554 (Fed. Cir. 1995). ("A patentee is entitled to no less than a reasonable royalty on an infringer's sales for which the patentee has not established entitlement to lost profits. 35 U.S.C. § 284 (1988); *Hanson v. Alpine Valley Ski Area, Inc.*, 718 F.2d 1075, 1078, 219 USPQ 679, 681-82 (Fed.Cir.1983) ('If actual damages cannot be ascertained, then a reasonable royalty must be determined.'). The royalty may be based upon an established royalty, if there is one, or if not, upon the supposed result of hypothetical negotiations between the plaintiff and defendant. *Id.* at 1078, 219 USPQ at 682. The hypothetical negotiation requires the court to envision the terms of a licensing agreement reached as the result of a supposed meeting between the patentee and the infringer at the time infringement began. *Id.*")

State Indus., Inc. v. Mor-Flo Indus., Inc., 883 F.2d 1573, 1580 (Fed. Cir. 1989). ("The determination of a reasonable royalty, however, is based not on the infringer's profit margin, but on what a willing licensor and licensee would bargain for at hypothetical negotiations on the date infringement started. *Radio Steel & Mfg. Co. v. MTD Prod., Inc.*, 788 F.2d 1554, 1557, 229 USPQ 431, 433 (Fed.Cir.1986).")

Section 4.2, PMP is the assignee of the '265 patent. Thus, the hypothetical negotiation for the '265 patent would take place between PMP as the licensor and RJRV as the licensee.

- (187) Reynolds' first alleged infringement of the '911 patent occurred on or around October 23, 2018, the issuance date of the patent. See Section 4. Thus, the hypothetical negotiation for the '911 patent would occur on or around October 23, 2018. As discussed in Section 4.3, PMP is the assignee of the '911 patent. Thus, the hypothetical negotiation for the '911 patent would take place between PMP as the licensor and RJRV as the licensee.
- (188) Reynolds' first alleged infringement of the '374 patent occurred on or around September 24, 2019, the issuance date of the patent. See Section 4. Thus, the hypothetical negotiation for the '374 patent would occur on or around September 24, 2019. As discussed in Section 4.4, ACS is the assignee of the '374 patent. Thus, the hypothetical negotiation for the '374 patent would take place between ACS as the licensor and RJRV as the licensee.
- (189) Reynolds' first alleged infringement of the '556 patent occurred on or around February 11, 2020, the issuance date of the patent. See Section 4. Thus, the hypothetical negotiation for the '556 patent would occur on or around February 11, 2020. As discussed in Section 4.5, PMP is the assignee of the '556 patent. Thus, the hypothetical negotiation for the '556 patent would take place between PMP as the licensor and RJRV as the licensee.
- (190) The Meyer Report contends that there would be a single hypothetical negotiation for the '265, '911, and '556 patents occurring in August 2018 between PMP as licensor and RJRV as licensee.⁴²⁶ While I disagree with the Meyer Report's claim that the parties would negotiate licenses for patents that did not yet exist (and, thus, the negotiation not occurring on the eve of infringement), the conclusions of my analysis would not change if, for some reason, it were determined that the appropriate date for the hypothetical negotiations for the '265, '911, and '556 patents would occur in August 2018 as the Meyer Report contends.

⁴²⁶ Meyer Report, 2/24/2021, ¶¶ 121–124.

13. Market Approach

13.1. Overview

- (258) I utilize a market approach to evaluate royalties for the '545, '265, '374, and '911 patents.
- (259) The market approach is a method of ascertaining value by comparing historical transactions involving assets similar to the asset being evaluated.⁵⁷⁹ The market approach is based on the premise that the value of an asset may be determined by reference to how others in the marketplace have valued the same or similar assets.⁵⁸⁰ The market approach is a generally accepted and widely used methodology for valuation of both tangible and intangible assets, including patents.⁵⁸¹

⁵⁷⁹ Smith, Gordon and Russell Parr (2000), *Valuation of Intellectual Property and Intangible Assets, (Third Edition)*, New York, NY: John Wiley & Sons, Inc., at 175. ("The market approach provides indications of value by studying transactions of property similar to the property for which a value conclusion is desired.")

Anson, Weston (2005), *Fundamentals of Intellectual Property Valuation: A Primer for Identifying and Determining Value*, Chicago, IL: American Bar Association, at 34. ("[Under the market approach], intangible assets are valued by comparing recent sales or other transactions involving similar assets in similar markets. . .The market approach utilizes actual transaction values derived from the sale or license of similar assets.")

Corbett, Michaelyn, Mohan Rao, and David Teece (2006), "A Primer on Trademarks and Trademark Valuation," in Daniel Slottje, ed., *Economic Damages in Intellectual Property: A Hands-On Guide to Litigation*, New Jersey: John Wiley & Sons, Inc., at 291. ("The market approach references a market with comparable transactions to determine the fair market value of an asset.")

Financial Accounting Standards Board, Original Pronouncements as Amended, Statement of Financial Accounting Standards No. 157: Fair Value Measurements, 11/15/2007, at FAS157-10. ("The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities[.]")

⁵⁸⁰ Murphy, William, John Orcutt, and Paul Remus (2012), *Patent Valuation: Improving Decision Making through Analysis*, Hoboken, NJ: John Wiley & Sons, Inc., at 16. ("Market methods seek to determine the value of an asset by reference to how other buyers and sellers have valued the same or similar assets.")

Smith, Gordon and Russell Parr (2000), *Valuation of Intellectual Property and Intangible Assets, (Third Edition)*, New York, NY: John Wiley & Sons, Inc., at 170. ("The market approach is the most direct and the most easily understood appraisal technique. It measures the present value of future benefits by obtaining a consensus of what others in the marketplace have judged it to be.")

Razgaitis, Richard (2003), *Valuation and Pricing of Technology-Based Intellectual Property*, Hoboken, NJ: John Wiley & Sons, Inc., at 59. ("One of the traditional approaches to the valuation for anything is commonly known as the *market* (or, sometimes, the *comparables*) method. The simple underlying idea is that there exists a historical transaction that was valued by other parties that can be used as a direct prediction of the value of the present opportunity.")

⁵⁸¹ Anson, Weston (2005), *Fundamentals of Intellectual Property Valuation: A Primer for Identifying and Determining Value*, Chicago, IL: American Bar Association, at 30. ("[T]here are some basic, traditional methods of valuation: the three most popular are the market approach, the income approach, and the cost approach . . . [These are] three accepted and traditional methodologies[.]")

Smith, Gordon and Russell Parr (2000), *Valuation of Intellectual Property and Intangible Assets, (Third Edition)*, New York, NY: John Wiley & Sons, Inc., at 173 ("The cost, income, and market approaches are the tools for valuation. Virtually any type of

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