

**UNITED STATES OF AMERICA
BEFORE THE FEDERAL TRADE COMMISSION
OFFICE OF ADMINISTRATIVE LAW JUDGES**

In the Matter of

**Altria Group, Inc.,
a corporation,**

and

**JUUL Labs, Inc.,
a corporation,**

Respondents.

Docket No. 9393

**CORRECTED POST-TRIAL PROPOSED FINDINGS OF FACT AND
CONCLUSIONS OF LAW OF RESPONDENTS ALTRIA GROUP, INC. AND
JUUL LABS, INC.**

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RESPONDENTS' PROPOSED FINDINGS OF FACT

I. BACKGROUND ON E-VAPOR INDUSTRY

1. Electronic cigarettes, also known as “e-cigarette” or “e-vapor” products, are “electronic device[s] that heat[] a liquid that contains flavoring and nicotine (called an e-liquid), resulting in a vapor that is inhaled by the user.” (PX8011 Eldridge (ITG Brands) Decl. at 004 ¶ 18; *see also* PX9027 (FDA) at 009 (defining “e-cigarette” as “an electronic device that delivers e-liquid in aerosol form into the mouth and lungs when inhaled”); Huckabee (Reynolds) Tr. 382 (explaining that an e-vapor product consists of “tobacco fluid and . . . a battery device that with various technology vaporizes the nicotine solution and produces an aerosol that consumers inhale”)).

A. Early History Of E-Vapor

2. E-cigarettes generally work as follows: When a consumer puffs on the device, the air flow passes over a puff sensor, “which tells the sensor to communicate with the battery to release a charge. Upon releasing that charge, that charge goes through the coil, heats the coil, the coil is saturated in e-liquid, and it vaporizes, atomizes the e-liquid, and the adult consumer proceeds to inhale.” (Schwartz (Altria) Tr. 1852-53).
3. Following the introduction of e-vapor products in the United States in the late 2000s, (Schwartz (Altria) Tr. 1859; PX2531 (JLI) at 034), “[t]he category grew rapidly starting in 2011 as more convenience stores and tobacco shops began carrying the products,” (PX8003 Wexler (Turning Point Brands) Decl. at 002 ¶ 6).
4. In 2013, before JUUL was on the market, large tobacco companies, such as R.J. Reynolds Tobacco Company (“Reynolds”) and Altria Group, Inc. (“Altria”), began acquiring and scaling up e-cigarette brands, fueling further growth. (PX2531 (JLI) at 013, 034; *see also* Jupe (Altria) Tr. 2226; PX7010 Gifford (Altria) IHT at 145).

5. In the years since, the evolution of e-vapor product development has, according to market researchers, “been dominated by two interwoven themes, 1) the shortcomings of [early] vape products as a replacement for smoking, as evidenced by low retention among triers and high rate of dual use among vap[e]rs, and 2) the evolution of the category in response.” (RX1990 (JLI) at 003).

B. Different Types Of E-Vapor Products

6. There are different types of e-cigarettes, including cig-a-likes, open-systems, and pods (sometimes referred to as hybrids), that reflect the evolution of e-cigarettes towards a design that balanced nicotine satisfaction, convenience, and mitigation of social friction for adult smokers. (RX1990 (JLI) at 003; PX8003 Wexler (Turning Point Brands) Decl. at 002-03 ¶¶ 6-11; Begley (Altria) Tr. 1079).

1. Cig-A-Likes

7. The early e-cigarettes were the size and shape of a cigarette and thus dubbed “cig-a-likes.” (Jupe (Altria) Tr. 2136 (“[Cig-a-likes are] supposed to emulate the look of the cigarette.”); *see also* Willard (Altria) Tr. 1352 (discussing MarkTen cig-a-like specifically); PX7004 Willard (Altria) IHT at 104 (discussing cig-a-likes more broadly)).
8. These “first generation” vapor products “once made up the majority of the U.S. vaping market.” (RX1990 (JLI) at 003).
9. Cig-a-likes are “closed-system” e-vapor devices, meaning that they have “an e-liquid reservoir that is not refillable.” (PX9027 (FDA) at 009; *see also* Huckabee (Reynolds) Tr. 384 (“The closed-system terminology refers specifically to the cartridge or pod or tank which is not meant to be refillable.”); Begley (Altria) Tr. 1091 (explaining that cig-a-like is a type of “closed-system product”)).

10. Cig-a-likes often have two elements: (1) a disposable “cartridge” that contains the e-liquid and also serves as the mouthpiece; and (2) a “device” or “battery” that consists of a battery and a heating element. (PX7002 Schwartz (Altria) IHT at 24-25 (discussing cig-a-like components); Farrell (NJOY) Tr. 212-13 (same); Willard (Altria) Tr. 1353 (explaining that the cartridge serves as the mouthpiece)). The cartridge is designed to “work[] as one” with the device. (PX7002 Schwartz (Altria) IHT at 24-25).
11. “[F]or many smokers and vapers, [cig-a-likes] were underpowered and did not provide enough satisfaction.” (RX1990 (JLI) at 003; *see also* PX7030 Wexler (Turning Point Brands) Dep. at 35-36 (explaining that cig-a-likes are ineffective at “deliver[ing] the nicotine to the consumer”); *see also* [REDACTED]
[REDACTED])
12. “The devices had low battery power, which resulted in an insufficient amount of vapor and flavor delivered in each puff.” (PX8003 Wexler (Turning Point Brands) Decl. at 002 ¶ 7; *see also* [REDACTED]
[REDACTED])
13. Beyond the limitations of the device, “the e-liquid found in cig-a-likes was relatively low in nicotine concentration and did not offer varied flavors; most of these devices ranged from about 1.8% to 2.4% nicotine strength.” (PX8003 Wexler (Turning Point Brands) Decl. at 002 ¶ 7; *see also* [REDACTED]
[REDACTED])
14. This nicotine concentration, “combined with the battery and the amount of vape[,] produced . . . a lower level of satisfaction than the options you get from open systems and the options you get from some pod systems and disposable systems.” (PX7030 Wexler (Turning Point

Brands) Dep. at 35-36). In other words, cig-a-likes were not very effective at “deliver[ing] the nicotine to the consumer.” They “didn’t have as much impact.” (PX7030 Wexler (Turning Point Brands) Dep. at 35-36).

15. And, because cig-a-likes “look[] like a cigarette,” that product format “unfortunately still carried some of the stigmas of smoking.” (Begley (Altria) Tr. 1099-100).

16. Along with the lack of nicotine satisfaction, this stigma arising from cig-a-like’s design impaired the ability of cig-a-likes to convert adult smokers to e-cigarettes: “[S]mokers who wanted to convert to non-combustible tobacco products did not want to appear to be smoking a cigarette, and so the form of the product was just wrong for conversion.” (PX7036 Garnick (Altria) Dep. at 135; *see also* Willard (Altria) Tr. 1347 (“It turned out, people that are quitting cigarettes to pick up vapor don’t want a vapor product that looks like a cigarette.”); Jupe (Altria) Tr. 2228 (explaining that “gimmicky” looking cig-a-likes were the “wrong” format); Gardner (Altria) Tr. 2604 (“[A]dult smokers no longer wanted . . . to look like they were smoking a cigarette and the stigma associated with that.”)).

17. As a result of these limitations in satisfaction and form, studies show that “retention rates for cig-a-likes [were] low.” (RX1990 (JLI) at 003; *see also* [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]

2. Open-System E-Cigarettes

18. Beginning in 2013, larger, more powerful vapor devices known as “open systems” emerged on the market, offering customizable components and liquid nicotine solutions. (PX8003 Wexler (Turning Point Brands) Decl. at 002 ¶¶ 8-9; Farrell (NJOY) Tr. 207-08).

19. Open system devices include “a reservoir that a user can refill with an e-liquid of their choosing.” (PX9027 (FDA) at 009).
20. These refillable devices “consist of a battery, [e-liquid] tank, [heating] coil, and atomizer.” (PX8003 Wexler (Turning Point Brands) Decl. at 002 ¶ 8; *see also* Farrell (NJOY) Tr. 207-09 (discussing components)).
21. Open system e-cigarettes have the largest batteries of the various e-vapor product types, allowing them to generate more power, which produces larger “plumes of vapor.” (PX8003 Wexler (Turning Point Brands) Decl. at 002 ¶ 8).
22. In addition, many open-system devices allow users to adjust the energy from the device, and with it, the volume of the vapor plume. (PX7030 Wexler (Turning Point Brands) Dep. at 33; PX7002 Schwartz (Altria) IHT at 25; *see also* [REDACTED]).
23. “As their industry name implies, open systems allow users to customize their experience by choosing variations of the liquid nicotine solutions for use in the tank. E-liquids typically consist of liquid nicotine, flavoring, and solvents. As a result, open system users can experiment with a wide variety of potential flavor combinations and nicotine strengths.” (PX8003 Wexler (Turning Point Brands) Decl. at 002 ¶ 9; *see also* Begley (Altria) Tr. 969-70 (explaining that open systems allow users to adjust the device settings and e-liquids)).
24. These combinations can be created with e-liquids made by any manufacturer. (Farrell (NJOY) Tr. 208 (explaining that open-system devices “can be refilled by a variety of different e-liquids that customers have access to and are manufactured by a variety of entities”); King (PMI) Tr. 2342 (“It’s called open because generally consumers source the liquid separately from the device”)).

25. In addition, “users can customize the individual components of an open system, such as the battery, coil, and atomizer.” (PX8003 Wexler (Turning Point Brands) Decl. at 002 ¶ 9). As a result, “there’s almost infinite variety in open systems.” (PX7030 Wexler (Turning Point Brands) Dep. at 100; *see also* Farrell (NJOY) Tr. 208 (explaining that users can swap out the various parts)).
26. “Many open system users view customizing these products as a hobby.” (PX8003 Wexler (Turning Point Brands) Decl. at 002 ¶ 9; *see also* Huckabee (Reynolds) Tr. 387 (similar)). That is because the products are more “complex” and generally require maintenance and cleaning. (Farrell (NJOY) Tr. 207-09).

3. Pod-Based Devices

27. “[I]nadequate nicotine delivery and deficient product design/form-factor ultimately limited broad-based acceptance” of cig-a-likes and open systems. (PX2531 (JLI) at 034). By the summer of 2015, nearly two-thirds of the 44 million adult smokers and vapers in the United States had tried e-vapor products, but less than five percent were using e-vapor devices exclusively. (PX1135 (Altria) at 035). And the “first-generation products . . . plateau[ed] at ~3% of the total cigarette market despite heavy marketing and promotional spend.” (PX2531 (JLI) at 034).
28. Beginning in 2015, a new product format hybridized “the ease of a cigalike with the experience of an enthusiast [i.e., open-system] device,” filling “a gap between low performance easy to use cigalikes and high performance complex open system devices.” (PX2289 (JLI) at 121; *see also* PX8003 Wexler (Turning Point Brands) Decl. at 002-03 ¶¶ 10-11 (similar)). The result was a “small,” “discrete” device capable of “provid[ing] a relatively high nicotine hit without producing as much vapor” as an open system. (PX8003 Wexler

(Turning Point Brands) Decl. at 002 ¶ 10; *see also* Begley (Altria) Tr. 1055, 1108 (highlighting the importance of form and satisfaction)).

29. These “hybrid[s]” became known primarily as “pod-based” systems or “pods.” (Gifford (Altria) Tr. 2722, 2739).
30. Pod-based devices are shaped and sized differently than cig-a-likes. While cig-a-likes are consistently cylindrical, pod-based devices are larger and more varied in shape. Some are oval, while others are longer and rectangular. (Farrell (NJOY) Tr. 210-11; *see also* Willard (Altria) Tr. 1347-48 (explaining the distinction in the context of MarkTen products and comparing MarkTen Elite’s shape to JUUL’s)).
31. By virtue of not looking like a cigarette, pods offer “an emotional benefit to an adult smoker, because they aren’t viewed as a smoker. It really solves a problem for them. So it is far more than just an aesthetic issue.” (Begley (Altria) Tr. 1079).
32. Pods also have “larger,” “more effective batteries” compared to cig-a-likes. This makes them “more effective at taking the liquid and turning it into vapor and giving consumers an experience that they desire.” (PX7030 Wexler (Turning Point Brands) Dep. at 42; *see also* Huckabee (Reynolds) Tr. 379, 385 (noting that pods, such as Vuse Alto, are “larger” than cig-a-likes); Willard (Altria) Tr. 1348 (“[M]y view of a definition of a pod product is that it tended to be larger”); King (PMI) Tr. 2354 (explaining that the larger the device, the higher capacity of the battery)).
33. Most pod-based products are closed systems, “meaning they’re only meant to be used with pre-filled cartridges.” (PX2289 (JLI) at 121-22; *see also* PX2289 (JLI) at 125 (stating that by January 2017, “most of the pods on the market were closed systems and provided only prefilled replacement pods”)).

34. Pods also have a different cartridge design. Unlike cig-a-like cartridges, which contain gauze that absorbs the e-liquid, pod products contain no gauze, leaving the e-liquid “freely suspended.” (Schwartz (Altria) Tr. 1856).
35. There is also what some consider to be a variant of pods, sometimes called “closed-tank” devices. The key feature of closed tank devices is that they are “larger” devices and have “a larger liquid-containing pod or cartridge.” (Begley (Altria) Tr. 1092; *see also* [REDACTED]; [REDACTED]; PX4080 (Altria) at 005, 007). The larger and more voluminous tanks were viewed as having potentially greater appeal for open-system users who were more interested in performance than convenience. (Begley (Altria) Tr. 1092-93).
36. The “satisfaction and form or design” of pod-based devices “really mattered” to adult smokers. (Begley (Altria) Tr. 1108). In 2017, following several years of stagnant growth rates, adult smokers “started to re-engage with e-vapor and find more satisfying products, . . . primarily pod-based products.” (Begley (Altria) Tr. 1085; *see also* PX7010 Gifford (Altria) IHT at 146 (similar)).

C. Harm Reduction Potential

37. E-cigarettes were developed to provide cigarette smokers with a potentially less harmful alternative to cigarettes. (Begley (Altria) Tr. 1054; *see also* Schwartz (Altria) Tr. 1858-59; Willard (Altria) Tr. 1154; [REDACTED]).
38. Although nicotine is addictive, “nicotine itself has not been proven to directly cause disease or health problems in adults under normal consumption patterns.” (PX2531 (JLI) at 009). Instead, “[t]he majority of harm from cigarettes is derived from carcinogenic combustion byproducts and carbon monoxide from incomplete burning.” (PX2531 (JLI) at 009; *see also* Garnick (Altria) Tr. 1697; [REDACTED]).

39. Burning tobacco “create[s] thousands of chemical compounds, such that today . . . there are close to 7000 elements identified in cigarette smoke, of which we know about 70 are actually carcinogenic.” (Jupe (Altria) Tr. 2207). The production of these compounds is “inherent to burning tobacco leaves.” (Jupe (Altria) Tr. 2208).
40. As a result of the carcinogens produced by combustion, cigarettes cause a number of serious diseases, including lung cancer. (Garnick (Altria) Tr. 1696 (discussing findings by the Royal College of Physicians and U.S. Surgeon General)).
41. E-cigarettes “attempt to provide satisfying inhaled nicotine delivery while minimizing carcinogenic byproducts and eliminating the carbon monoxide created by cigarette combustion.” (PX2531 (JLI) at 009). The inhalation method offers an advantage over the nicotine delivery of typical cessation products, such as patches, sprays, and lozenges, which cannot match the speed or the dose of nicotine delivery offered by a cigarette. (PX2531 (JLI) at 009; *see also* PX7009 Burns (JLI) IHT at 114-15 (explaining that with nicotine gum, “it takes 30 minutes to absorb into your bloodstream,” whereas when you inhale from a cigarette, it “takes less than three minutes to get to peak nicotine satisfaction”; some e-vapor products, such as JUUL, have “almost the same rate of absorption in your bloodstream as a cigarette”)).
42. Recognizing these advantages, the public health community has increasingly acknowledged the harm-reduction potential of e-cigarettes:
- a. **Royal College of Physicians (April 2016):** “Large-scale substitution of e-cigarettes, or other non-tobacco nicotine products, for tobacco smoking has the potential to prevent almost all the harm from smoking in society.” (PX2158 (JLI) at 019; *see also* Garnick (Altria) Tr. 1695-96 (discussing the Royal College’s finding that e-vapor may be 95 percent safer than combustible cigarettes)).

- b. **Mitch Zeller, Director, U.S. Center for Tobacco Products, FDA (May 2016):**
“A hypothetical pack-a-day smoker who was otherwise unable or unwilling to quit cigarettes, if that person were to completely switch to e-cigarettes, there’s no question that person would be significantly reducing his or her risk.” (PX2158 (JLI) at 019).
 - c. **American Cancer Society (February 2018):** “Based on currently available evidence, using current generation e-cigarettes is less harmful than smoking cigarettes” (PX2158 (JLI) at 019). “[S]witching to the exclusive use of e-cigarettes is preferable to continuing to smoke combustible products.” (PX2158 (JLI) at 019).
 - d. **Public Health England (February 2018):** “Our new review reinforces the finding that vaping is a fraction of the risk of smoking, at least 95% less harmful and of negligible risk to bystanders.” (PX2158 (JLI) at 019).
43. Over time, the reduced-risk potential of e-cigarettes has shaped tobacco prevention and control policies. For example, “[i]nternationally, agencies including Public Health U.K. have recognized [e-cigarettes] as potential smoking cessation tools.” (PX2531 (JLI) at 014).

D. Regulation Of E-Vapor Products

44. In the United States, the Food and Drug Administration (“FDA”) has endorsed the harm reduction potential of reduced-risk products, such as e-cigarettes, while simultaneously increasing regulatory oversight over e-cigarettes, particularly with an aim toward preventing youth usage. (Murillo (Altria/JLI) Tr. 2900-12, 2961-63).

1. FDA’s Authority Under The Tobacco Control Act

45. FDA has authority to regulate tobacco products pursuant to the Family Smoking Prevention and Tobacco Control Act (hereinafter the “Tobacco Control Act”), passed in 2009, which

amended the Food, Drug, and Cosmetic Act to bring tobacco products under FDA’s purview. (Pub. L. No. 111-31; 123 Stat. 1776 (2009); Murillo (Altria/JLI) Tr. 2901-02; PX8005 Graham (NJOY) Decl. at 001-02 ¶ 7).

46. When the Tobacco Control Act was enacted, only certain tobacco products fell within FDA’s regulatory authority: “all cigarettes, cigarette tobacco, roll-your-own tobacco, and smokeless tobacco.” (21 U.S.C. § 387a(b)).

47. E-cigarettes were not included in this original list of tobacco products subject to FDA regulation. Congress, however, authorized FDA to issue regulations deeming additional categories of tobacco products subject to the Act. (21 U.S.C. § 387a(b) (stating that FDA has authority over “any other tobacco products that the Secretary by regulation deems to be subject” to the Act); *see also* Murillo (Altria/JLI) Tr. 2904-05; PX8009 Garner (Reynolds) Decl. at 002 ¶ 6).

48. The Tobacco Control Act is a “comprehensive regulatory statute” that gives FDA authority over “everything from the more traditional areas of FDA regulation, like manufacturing, recalls, but also things that are more unique to tobacco, such as marketing, product requirements, regulatory pathways—in other words, how to get to or stay on market.” (Murillo (Altria/JLI) Tr. 2901-02).

49. In passing the Tobacco Control Act, Congress expressly found that “[n]either the Federal Trade Commission nor any other Federal agency except the Food and Drug Administration possesses the scientific expertise needed to implement effectively all provisions of the Family Smoking Prevention and Tobacco Control Act.” (Pub. L. No. 111-31, § 2(45), 123 Stat. 1776, 1781 (2009)).

50. Under the Tobacco Control Act, regulated tobacco products sold in the United States as of February 15, 2007, are “grandfathered products” and may be marketed without FDA premarket review. (Garnick (Altria) Tr. 1685-86, 1688; PX8009 Garner (Reynolds) Decl. at 002 ¶ 7; *see also* 21 U.S.C. § 387j(a)).
51. By contrast, “new tobacco products”—meaning those that were not marketed in the United States as of February 15, 2007, or any significant *modification* of a grandfathered product—are subject to the Food, Drug, and Cosmetic Act’s requirement of premarket review. (21 U.S.C. § 387j(a); *see also* Garnick (Altria) Tr. 1685-86; PX8009 Garner (Reynolds) Decl. at 002 ¶ 8).
52. For products that were subject to FDA’s original regulatory authority and were introduced or modified after February 2007, there are three regulatory pathways for manufacturers to obtain marketing authorization. (21 U.S.C. § 387j(a)(2)).
53. *First*, a manufacturer can file a *substantial equivalence report* for a new product that is “substantially equivalent” to a tobacco product that was marketed on the grandfather date or to a product that was previously found substantially equivalent. (Garnick (Altria) Tr. 1685-86; PX8005 Graham (NJOY) Decl. at 002 ¶ 11; PX8009 Garner (Reynolds) Decl. at 002-03 ¶ 10). This requires showing that the product has the same characteristics—meaning the same materials, design, and other features—as the predicate product or that the different characteristics do not raise different questions of public health. (PX8005 Graham (NJOY) Decl. at 002 ¶ 11; PX8009 Garner (Reynolds) Decl. at 002-03 ¶ 10). That is the pathway used by most cigarettes and smokeless tobacco products. (Garnick (Altria) Tr. 1686).
54. *Second*, a manufacturer can file an *exemption request* if “the change to the tobacco product is minor and that change only involves a change to an additive in a tobacco product that can be

sold under the [Food, Drug, and Cosmetic Act].” (PX8005 Graham (NJOY) Decl. at 002 ¶ 12; *see also* PX8009 Garner (Reynolds) Decl. at 002 ¶ 10). Such exemptions are “rare.” (PX8005 Graham (NJOY) Decl. at 002 ¶ 12; *see also* Murillo (Altria/JLI) Tr. 2916 (describing this as a “small pathway”). And this is generally only available to products that were on the market in 2007. (Murillo (Altria/JLI) Tr. 2916).

55. *Third*, if a product does not satisfy the requirements of the two other pathways, a manufacturer must file a *premarket tobacco product application* (“PMTA”) under 21 U.S.C. § 387j, which requires showing that the new tobacco product would be “appropriate for the protection of the public health.” (PX8005 Graham (NJOY) Decl. at 002-3 ¶¶ 10, 14; PX8009 Garner (Reynolds) Decl. at 003 ¶ 10; Garnick (Altria) Tr. 1686). This involves a “rigorous analysis” and requires extensive scientific studies, ranging from toxicological assessments to clinical studies, which “take[] a lot of money and a lot of time.” (Garnick (Altria) Tr. 1686).

2. The Deeming Rule Extended FDA’s Regulatory Authority To E-Vapor Products

56. Around 2009, FDA attempted to regulate e-vapor products under the drug/devices provisions of the Food, Drug, and Cosmetics Act. In 2010, the D.C. Circuit rejected this attempt, ruling that e-cigarettes could not be regulated as drug devices. Instead, to regulate e-vapor products, FDA would have to deem those products subject to regulation as tobacco products under the Tobacco Control Act of 2009. (*Sottera v. FDA*, 627 F.3d 891, 893, 898 (D.C. Cir. 2010); Murillo (Altria/JLI) Tr. 2903-04).

57. In April 2014, FDA announced its intention to regulate additional products such as e-cigarettes through rulemaking that would deem such products subject to its regulatory authority under the Tobacco Control Act. (79 Fed. Reg. 23,142, 23,143 (Apr. 25, 2014); Murillo (Altria/JLI) Tr. 2904).

58. In May 2016, following extensive public comments, FDA issued a final rule. (81 Fed. Reg. 28,973 (May 10, 2016); Murillo (Altria/JLI) Tr. 2904-05). That regulation, which has become known as the “Deeming Rule,” deemed all products (other than accessories) that met the Tobacco Control Act’s definition of a “tobacco product” subject to FDA’s authority under the Act, effective August 2016. (81 Fed. Reg. at 29,102; PX8005 Graham (NJOY) Decl. at 002 ¶ 8, 003 ¶ 17; PX8009 Garner (Reynolds) Decl. at 003-04 ¶¶ 13-14). Today, essentially all tobacco products that can be regulated by FDA are regulated, including e-cigarettes. (PX8005 Graham (NJOY) Decl. at 002 ¶ 8; PX8009 Garner (Reynolds) Decl. at 004 ¶ 15; Garnick (Altria) Tr. 1687-88).
59. As a result of the Deeming Rule, any deemed product that was not marketed legally as of February 15, 2007, is considered a “new tobacco product” subject to the requirement of FDA premarket review. This means that manufacturers of these products must secure authorization under one of the three regulatory pathways outlined above. (PX8005 Graham (NJOY) Decl. at 002 ¶ 9; PX8009 Garner (Reynolds) Decl. at 004 ¶ 16; *see also* Garnick (Altria) Tr. 1685-86).
60. In practical effect, the Deeming Rule subjects all e-cigarette products to the third pathway—the PMTA requirement. This is because “no [e-vapor] product has yet to be identified as a . . . product that was on the market[] as of February 15, 2007.” (PX8009 Garner (Reynolds) Decl. at 004-05 ¶ 18; Garnick (Altria) Tr. 1685-86 (similar)). Thus, “[t]here are no clearly identified grandfathered vapor products that [can] serve as the predicate for a substantial equivalence application. Further, the FDA has stated that manufacturers of [e-vapor products] will face difficulty demonstrating a product is substantially equivalent to a combustible cigarette or smokeless tobacco product.” (PX8005 Graham (NJOY) Decl. at 002-03 ¶ 13).

61. But, “to prevent [e-vapor] manufacturers from immediately having to remove all newly deemed products from the market upon the effective date of the . . . Deeming Rule,” FDA announced that it would delay enforcement of the Deeming Rule for several years for those products that were on the market as of August 8, 2016, to give manufacturers adequate time to prepare PMTAs. (PX8009 Garner (Reynolds) Decl. at 005 ¶ 19). In other words, FDA established a grace period permitting then-existing e-cigarette products to “stay on the market provided [the e-vapor manufacturers] filed a PMTA for [those] product[s] by a certain date.” (Garnick (Altria) Tr. 1687).
62. The Deeming Rule originally required manufacturers to submit PMTAs for on-market e-vapor products by August 8, 2018, 24 months after the effective date of the Deeming Rule. (Murillo (Altria/JLI) Tr. 2943-44; PX8009 Garner (Reynolds) Decl. at 005 ¶ 19).
63. The Deeming Rule has “really changed the game” in the e-vapor industry. (PX7018 Schwartz (Altria) Dep. at 31). It has at least two important practical implications.
64. *First*, it means that all existing e-cigarette manufacturers ultimately will need to secure PMTA approval from FDA to keep their product on the market. (Garnick (Altria) Tr. 1688-90; PX7009 Burns (JLI) IHT at 74 (“Getting PMTA approval is critical to stay in the marketplace.”)).
65. *Second*, the Deeming Rule effectively “froze[]” e-cigarette product offerings as they existed on August 8, 2016. (Garnick (Altria) Tr. 1699; *see also* Jupe (Altria) Tr. 2218 (describing the market for e-vapor products as “locked down”). By limiting its exercise of enforcement discretion to those products that were on the market as of August 8, 2016, FDA has “prevent[ed] new products from readily entering.” (PX8005 Graham (NJOY) Decl. at 003 ¶ 19). Thus, while manufacturers could acquire (or sell) product lines that existed as of

August 8, 2016, they could not introduce new products into the market without going “through this very expensive and time-consuming PMTA process.” (Garnick (Altria) Tr. 1690, 1699).

66. Relatedly, the Deeming Rule also largely prohibits any significant *modifications* to the products that were on the market as of August 8, 2016 without first receiving regulatory approval through the PMTA process. (Garnick (Altria) Tr. 1691-92 (“[A]ny significant change resulted in a new tobacco product for which you needed preapproval”).
67. The Deeming Rule refers to “new tobacco products,” (81 Fed. Reg. 28,973), and the statutory definition of that term includes “any *modification* (including a change in design, any component, any part, or any constituent, . . . or in the content, delivery or form of nicotine, or any other additive or ingredient) of a tobacco product,” (21 U.S.C. § 387j(a)(1) (emphasis added)).
68. In January 2017, FDA issued guidance for vape shops indicating that “[m]odifying a product would generally result in a new tobacco product for which a vape shop is required to seek premarket authorization.” (PX1593 (Altria) at 008). The guidance qualified that FDA would not enforce this requirement for changes that were “consistent with the specifications provided by the original manufacturer,” on the assumption that these modifications would not “alter the performance of the tobacco product as described or intended by the original manufacturer.” (PX1593 (Altria) at 008).
69. In the absence of specific guidance for other e-vapor products, manufacturers, including Altria, attempted to apply this vape shop guidance to cig-a-likes and pod-based products. (Garnick (Altria) Tr. 1691-93).

70. For example, Altria believed that “if the modification changed the aerosol delivery, changed the composition or changed consumer exposure or usage behavior, it was a new product.” (PX7026 Gardner (Altria) Dep. at 42; *see also* Murillo (Altria/JLI) Tr. 2927-28, 3069 (adding nicotine salts to a product would be a significant change that would require a PMTA)).
71. Any new tobacco product that is required to have premarket authorization by FDA and does not have such authorization is considered an adulterated product. (21 U.S.C. § 387b(6); *see also* PX8009 Garner (Reynolds) Decl. at 003 ¶ 12). Introducing adulterated products into the market is prohibited by statute and violations of this prohibition can result in both civil and criminal penalties. (21 U.S.C. §§ 331, 333; *see also* PX8009 Garner (Reynolds) Decl. at 003 ¶ 12).

3. The PMTA Process Is Onerous

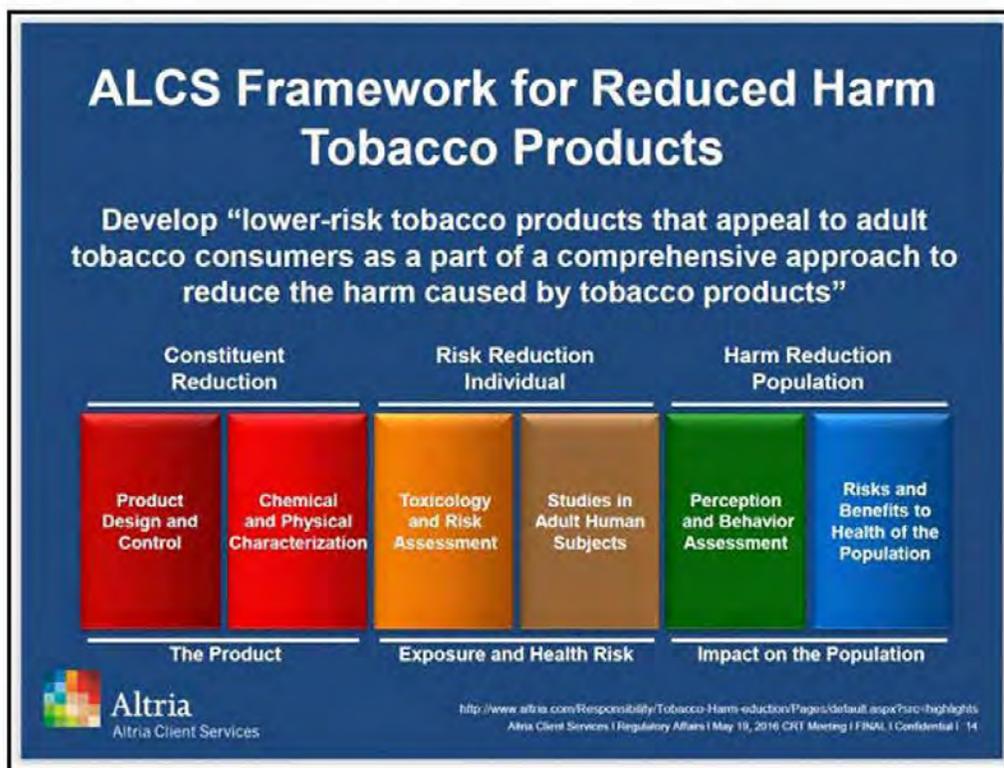
72. The PMTA process is an “expensive, time-consuming process.” (Quigley (Altria) Tr. 2009; *see also* Farrell (NJOY) Tr. 358 (agreeing that PMTAs cost millions of dollars); [REDACTED]
[REDACTED]
[REDACTED]; Willard (Altria) Tr. 1382 (“[I]t was a very expensive process.”); Garnick (Altria) Tr. 1699 (describing PMTA process as “very expensive and time-consuming”); Schwartz (Altria) Tr. 1866 (PMTA process is “a very costly, protracted process”); Jupe (Altria) Tr. 2218 (explaining that PMTA process is “not dissimilar to kind of the pharmaceutical process of getting a new drug or a medical device on the market”); Murillo (Altria/JLI) Tr. 2921 (describing a PMTA as a “ton of work”); [REDACTED]
[REDACTED]; Gardner (Altria) Tr. 2583 (explaining that PMTA studies take “roughly two years to execute”); PX8005 Graham (NJOY) Decl. at 004 ¶ 20 (“A PMTA is a very substantial undertaking.”);

PX7046 Rothman Dep. at 204 (“[O]btaining PMTA approval is costly and takes multiple years.”)).

a. Manufacturer Must Demonstrate That The Product Is Appropriate For The Public Health, Which Requires A Substantial Submission

73. To obtain FDA authorization, a manufacturer must demonstrate that the product “is appropriate for the protection of the public health.” (21 U.S.C. § 387j(c)(2)(A)).
74. The “protection of the public health” standard is unique to tobacco products. For pharmaceuticals, the standard is “safe and effective.” But “tobacco products are not inherently and cannot be safe and effective, so a different standard had to be devised.” Instead, Congress adopted the “appropriate for the protection of the public health” standard. (Murillo (Altria/JLI) Tr. 2919).
75. In determining whether a manufacturer has met that standard, the Tobacco Control Act instructs FDA to weigh: (1) “the risks and benefits to the *population as a whole*, including users and nonusers of tobacco products”; (2) the “likelihood that *existing users* of tobacco products will *stop* using such products”; and (3) the “likelihood that those who *do not use* tobacco products will *start* using such products.” (21 U.S.C. § 387g(a)(3)(B)(i) (emphases added); *see also* Murillo (Altria/JLI) Tr. 2919, 3032).
76. As Murillo, who served as Altria’s Senior Vice President of Regulatory Affairs, synthesized the framework, a manufacturer must demonstrate that the product (i) “reduce[s] the constituents of harm that smokers are taking in when they’re smoking” (“Constituent Reduction”); (ii) “reduce[s] the risk” relative to other tobacco products (“Risk Reduction Individual”); and (iii) will actually “convert” smokers without having undue unintended effects on the non-tobacco-using population (“Harm Reduction Population”). (Murillo

(Altria/JLI) Tr. 2917-20; *see also* PX9027 (FDA) at 027). This framework is shown in the chart below:



(RX2019 (Altria) at 014).

77. The specific application elements, which are outlined in the Food, Drug, and Cosmetic Act, are “expansive.” (PX8005 Graham (NJOY) Decl. at 004 ¶ 21; *see also* RX2019 (Altria) at 017 (summarizing application requirements); Murillo (Altria/JLI) Tr. 2915-20 (discussing application elements)).

78. A manufacturer must submit “full reports of *all information*”—including that which is “known” or “reasonably should be known” to the applicant—“concerning investigations which have been made to show the *health risks* of such tobacco product and whether such tobacco product presents *less risk than other tobacco products*.” (21 U.S.C. § 387j(b)(1)(A) (emphases added)).

79. The statute also requires manufacturers to produce, among other things, “a full statement of the components, ingredients, . . . and . . . principles of operation”; “a full description of the methods used in, and the facilities . . . used for, the manufacture” of the product; “samples of such tobacco product”; and “specimens of the labeling proposed to be used.” (21 U.S.C. § 387j(b)(1)(B), (C), (E), (F)). It also contains a catchall for “such other information relevant to the subject matter of the application as the [FDA] may require.” (21 U.S.C. § 387j(b)(1)(G); *see also* PX8009 Garner (Reynolds) Decl. at 009 ¶ 30).
80. As part of the showing that the product is appropriate for the protection of public health, the manufacturer must address the “relative health risks” compared to “other tobacco products on the market,” including both cigarettes and “other [e-cigarettes].” (PX9027 (FDA) at 027; *see also* Garnick (Altria) Tr. 1604 (explaining that manufacturers must show that the product is less risky than cigarettes and address the risk relative to “other products of the same category”)).
81. The manufacturer must also show that the product can convert users of higher risk products, namely smokers. (Jupe (Altria) Tr. 2220; *see also infra* Part V.C.1, V.C.6 (discussing the need to show conversion)).
82. In June 2019, three years after the Deeming Rule was issued, FDA released a final guidance document offering detailed instructions for e-cigarette PMTAs. (Murillo (Altria/JLI) Tr. 2908-09; *see also* PX9027 (FDA)). This guidance “add[ed] complexity to the PMTA applications.” (PX8009 Garner (Reynolds) Decl. at 010 ¶ 31). The 55-page document instructs applicants to submit a bevy of information ranging from scientific literature to non-clinical (not on human subjects) and clinical (on human subjects) studies. (PX9027 (FDA) at 026-27).

83. For example, the June 2019 guidance calls for:

- (a) “Stability information,” including the “established shelf life of the product and changes in pH and constituents (including [harmful or potentially harmful constituents] and other toxic chemicals) over the lifespan of the product,” and “how stability is affected by [different] storage conditions,” (PX9027 (FDA) at 030; Murillo (Altria/JLI) Tr. 3072);
- (b) “A complete list of uniquely identified constituents or chemicals . . . contained within the product or delivered by the product,” including analysis of 33 constituents identified by FDA, such as formaldehyde and nickel, (PX9027 (FDA) at 031-32);
- (c) A “full assessment of the toxicological and pharmacological profile” of the product including “[t]oxicology data from the literature,” “[a]nalysis of constituents . . . under both intense and non-intense use conditions,” and “[c]omputational modeling of the toxicants,” (PX9027 (FDA) at 037-38);
- (d) A “literature review” of relevant published studies, including a summary describing each study’s “design” and “statistical analysis,” (PX9027 (FDA) at 036); and
- (e) Evaluations of “how consumers perceive product harms” and the “topography of how individual users consume the product (e.g., the number of puffs, puff duration, puff intensity, duration of use),” (PX9027 (FDA) at 041).

84. As is evident from this sampling of the guidance document, a PMTA requires “a large number of studies.” (PX8009 Garner (Reynolds) Decl. at 011 ¶ 34). As a result, the final application is “voluminous.” (Garnick (Altria) Tr. 1608).

85. For example, the PMTA for IQOS, a heat-not-burn device manufactured by Philip Morris International (“PMI”), and one of just a handful of PMTAs approved to date, was “close to two million pages.” (PX7017 Magness (Altria) Dep. at 88; *see also* Garnick (Altria) Tr. 1608 (similar)).

b. Preparing A PMTA Is A Lengthy Process

86. The level of “product testing [required for a PMTA] takes a significant amount of time and is a process that cannot be sped-up.” (PX8005 Graham (NJOY) Decl. at 005 ¶ 28; *see also* Garnick (Altria) Tr. 1699 (describing the process as “time-consuming”); Quigley (Altria) Tr. 2009 (same); Schwartz (Altria) Tr. 1866 (similar); Gardner (Altria) Tr. 2583 (similar); [REDACTED]).

87. The studies required for a PMTA generally cannot begin until a manufacturer has “design lock,” meaning it has “achieved a design for the new product that [is] not going to change.” (Murillo (Altria/JLI) Tr. 2924). “[I]f you change things later, it’s going to cause a lot of delay and [may] even be fatal,” particularly if the change “create[s] some other problem” or causes a manufacturer to “be out of time.” (Murillo (Altria/JLI) Tr. 2930). And, even where a change is not fatal, generally a manufacturer has “to go back and start over at least some things.” (Murillo (Altria/JLI) Tr. 2925; *see also* PX7000 Garnick (Altria) IHT at 25-26 (explaining that before starting PMTA studies, “you need to really lock down the design of the product”; “if you don’t do that and you start engaging in studies and the designers change the product, you are going to have to do the studies all over again”)).

88. After design lock, it takes “approximately two years” of scientific research to prepare a PMTA. (Murillo (Altria/JLI) Tr. 2924).

89. “Many studies can take 6-12 months or longer” (PX8005 Graham (NJOY) Decl. at 005 ¶ 28; *see also* Garnick (Altria) Tr. 1661 (explaining that some of the studies can “take months and months”); Murillo (Altria/JLI) Tr. 2925 (explaining that testing whether a product is stable for 12 months takes 12 months)).
90. Reynolds’s experience with a PMTA is illustrative of the length of time that it takes to prepare the application: According to Dr. Charles Garner, Reynolds’s Vice President of Scientific and Regulatory Affairs, [REDACTED]
[REDACTED]
[REDACTED]. Reynolds estimated that studies took “from one (1) year to three (3) years to complete, which includes planning, protocol development, securing a contract laboratory to perform work, sample generation, testing conducted by the laboratory, data evaluation, and generation of the final reports.” (PX8009 Garner (Reynolds) Decl. at 015 ¶ 45).
91. In limited instances, a manufacturer that discovers design flaws in the midst of the testing for a PMTA may be able to save some time using a process known as “bridging,” meaning “building a bridge from the prior data to a new product.” (Gardner (Altria) Tr. 2572; *see also* Murillo (Altria/JLI) Tr. 3004 (“[T]he concept of bridging is that you don’t have to redo all of the work required for a PMTA for each change or each SKU [(stock keeping unit)], that you say, well, these things are sufficiently similar to each other and here’s how we prove that, and you should rely on this underlying test.”)). For example, a manufacturer may be able to use study results for research on an e-liquid with one nicotine concentration for an e-liquid with a different nicotine concentration. (PX8005 Graham (NJOY) Decl. at 005-06 ¶ 32).

92. Bridging requires a substantial degree of similarity in the performance of the products, as well as “enforceability testing” to demonstrate that data associated with one product is applicable to another. (PX7027 Murillo (Altria/JLI) Dep. at 74-75, 161-62; *see also* Gardner (Altria) Tr. 2573 (explaining that to get the benefit of bridging the “two products [need to] behave[] the same in delivering an aerosol”); Murillo (Altria/JLI) Tr. 3004 (explaining that bridging requires “prov[ing]” that two products “are sufficiently similar to each other”)).
93. Bridging generally is not possible for certain types of evidence, such as stability studies. (Murillo (Altria/JLI) Tr. 2925).

c. PMTAs Are Expensive

94. Conducting years of scientific studies for a PMTA is a significant expense. (Farrell (NJOY) Tr. 358; Willard (Altria) Tr. 1382; Garnick (Altria) Tr. 1699; Schwartz (Altria) Tr. 1866; Quigley (Altria) Tr. 2009; PX7046 Rothman Dep. at 204).
95. Manufacturers must submit a PMTA for each product or “SKU,” and the application can cost approximately \$5 to \$8 million per SKU. Because product lines with different flavors and nicotine strengths easily can have ten or more SKUs, a PMTA for a single product line easily can cost up \$50 to \$100 million. (Murillo (Altria/JLI) Tr. 2950-51).
96. Small companies can make the process more affordable by partnering with other small companies—for example, a company that manufactures open-tank devices might join forces with an e-liquid company and “pool[] their resources to try to put lots of applications bundled together.” They also can “try to rely on existing literature,” particularly “if their ingredients are common enough,” but the success of this approach “remains to be seen.” (Murillo (Altria/JLI) Tr. 3019).

97. [REDACTED]
[REDACTED]

[REDACTED];
PX8005 Graham (NJOY) Decl. at 004 ¶ 20; Farrell (NJOY) Tr. 358; Murillo (Altria/JLI) Tr. 3074; PX7009 Burns (JLI) IHT at 71; PX1400 (Altria) at 005, 007, 010-11).

(a) Reynolds: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

(b) **NJOY:** “A PMTA is . . . likely to cost at least tens of millions of dollars.”
(PX8005 Graham (NJOY) Decl. at 004 ¶ 20; *see also* Farrell (NJOY) Tr. 358
(acknowledging that PMTAs cost millions of dollars)).

(c) ITG Brands: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

(d) **JLI:** The PMTA for the JUUL products cost over \$100 million. (Murillo
(Altria/JLI) Tr. 3074 (agreeing that “the total cost of the [JUUL] PMTA to JLI”
was “over \$100 million”); *see also* PX7009 Burns (JLI) IHT at 71 (similar)).

(e) **Altria:** According to Altria’s cost estimates, PMTAs would cost \$80 to \$90
million for MarkTen cig-a-like, (PX1400 (Altria) at 010); \$9 to \$14 million for
MarkTen Bold cartridges, (PX1400 (Altria) at 011), and \$42 to \$50 million for
Elite and Elite 2.0 combined, (PX1400 (Altria) at 005, 007).

d. Preparing PMTAs Requires Specific Expertise

98. An additional challenge in the PMTA process is the “very specific expertise[]” required to
compile an application and generate the underlying studies. (Murillo (Altria/JLI) Tr. 2975).

99. The relevant tests, “must be performed by accredited labs. These labs are limited in number and capacity.” (PX8005 Graham (NJOY) Decl. at 004 ¶ 26; *see also* Gardner (Altria) Tr. 2557; PX7027 Murillo (Altria/JLI) Dep. at 80 (“[T]here’s a very small number of laboratories that are capable of doing validated methods with respect to vapor products.”)). “[E]ven with . . . pre-existing relationships [with certain labs], NJOY has faced challenges finding available [p]roviders with the capacity to conduct timely research on its products.” (PX8005 Graham (NJOY) Decl. at 005 ¶ 27).

100. Beyond accreditations, the research requires specialized expertise. For example, “[s]tudies such as in vitro toxicology studies are also extremely difficult to perform with few labs available to test [e-vapor] products.” (PX8005 Graham (NJOY) Decl. at 005 ¶ 29).

101. Altria was able to locate only two external companies with the capability and capacity for e-vapor PMTA work. (PX7017 Magness (Altria) Dep. at 80). But for some studies, such as gas chromatography/mass spectrometry fingerprinting of e-vapor aerosols, “[t]here were no contract labs available to do this work” in 2018. (Gardner (Altria) Tr. 2616).

102. The relevant components of the application require “[d]ozens and dozens of scientists at [every] stage[,]” ranging from chemists and physicists to toxicologists and clinicians. (Murillo (Altria/JLI) Tr. 2918-19). Altria’s core team for a given PMTA would have “25 [people], includ[ing] chemists, toxicologists, [a] battery engineer, [a] quality professional who could speak to the manufacturing system, . . . a clinical scientist or two, and then . . . some behavioral scientists.” (PX7017 Magness (Altria) Dep. at 57).

103. These scientists must possess specific expertise. (Murillo (Altria/JLI) Tr. 2975). “Conducting human subject studies . . . requires specialist expertise from Clinical Research Organizations . . . and organizations with relevant experience in behavioral research and

surveys.” (PX8005 Graham (NJOY) Decl. at 004 ¶ 26). Likewise, “to project the impact of the product on the population, an [e-vapor] manufacturer needs to develop or have access to a population model.” (PX8005 Graham (NJOY) Decl. at 005 ¶ 31). “These tools are not publicly available” and they are “difficult to procure or develop.” (PX8005 Graham (NJOY) Decl. at 005 ¶ 31).

104. Many manufacturers of e-vapor products lack “the regulatory experience to oversee the production of a PMTA that is ultimately likely to be favorably acted upon by FDA.” (PX8005 Graham (NJOY) Decl. at 004 ¶ 20; Gardner (Altria) Tr. 2624 (discussing gaps in JLI’s expertise)). And because the PMTA requirements are different from the premarket approval regime applicable to drugs and medical devices, “there are few individuals and counsel familiar with the PMTA process.” (PX8005 Graham (NJOY) Decl. at 004 ¶ 21).

4. FDA’s Recognition Of A Continuum Of Risk That Supports Converting Cigarette Smokers To E-Vapor Products

105. In July 2017, approximately a year after issuing the Deeming Rule, FDA took another major step in unfurling a regulatory regime for tobacco products, announcing “a new comprehensive plan for tobacco and nicotine regulation that [would] serve as a multi-year roadmap to better protect kids and significantly reduce tobacco-related disease and death.” (PX9058 (FDA) at 001; *see also* Murillo (Altria/JLI) Tr. 2905-06).

106. The centerpiece of the new approach was a recognition that nicotine “is delivered through products that represent a continuum of risk and is most harmful when delivered through smoke particles in combustible cigarettes.” (PX9058 (FDA) at 001; *see also* Garnick (Altria) Tr. 1694-97). Nicotine replacement therapy was on the other end of the risk continuum. (Murillo (Altria/JLI) Tr. 2905-06; Jupe (Altria) Tr. 2222-23).

107. FDA’s new policy objective was to “try to move people down that continuum of risk,” (Murillo (Altria/JLI) Tr. 2905-06), by helping smokers “migrate” from combustible products “to noncombustible tobacco products,” (Garnick (Altria) Tr. 1695).
108. This concept, known as the “continuum of risk,” is something that members of the tobacco industry, including Altria, had long advocated for FDA to embrace. (Murillo (Altria/JLI) Tr. 2905-06).
109. As Murillo recalled, then-FDA Commissioner Dr. Scott Gottlieb “said very specifically, for those who can’t or won’t quit, we want to have a pool of products that they can switch to, on top of which we’re going to try to nudge them toward that pool or toward quitting by considering rules that will lower the content of nicotine in cigarettes to render them less addictive or minimally addictive.” (Murillo (Altria/JLI) Tr. 2906).
110. In effect, Commissioner Gottlieb “indicat[ed] that it was the new policy of the FDA to foster a market of noncombustible tobacco products, such as e-vapor.” (Garnick (Altria) Tr. 1694-95).
111. To further that policy, FDA signaled that it would tighten restrictions on cigarettes, while working to facilitate the success of innovative reduced-risk products, such as e-vapor, that could convert adult smokers away from combustible cigarettes and thereby promote overall public health. (PX9058 (FDA) at 001-02).
112. At the same time, FDA signaled that policies to “help smokers quit cigarettes” must also “protect kids”; accordingly, FDA would be assessing the two goals in tandem, including by seeking input on the role that flavors in e-cigarettes “play in attracting youth and may play in helping some smokers switch to potentially less harmful forms of nicotine delivery.” (PX9058 (FDA) at 001-02).

5. Evolving PMTA Deadline For E-Vapor Products On The Market As Of August 2016

113. In the years since the final Deeming Rule was issued, FDA has repeatedly modified the deadline for manufacturers to submit PMTAs for e-vapor products already on the market as of August 2016. (Murillo (Altria/JLI) Tr. 2943-46).
114. As noted above, the original PMTA deadline for on-market e-vapor products was August 8, 2018. (*See supra* ¶ 62).
115. A year later, in May 2017, FDA announced that it was extending the original application deadline by three months, to November 2018. (PX8009 Garner (Reynolds) Decl. at 005-06 ¶ 20).
116. A few months after the first extension, in July 2017, as part of the announcement recognizing the continuum of risk, FDA stated that, “to encourage the development of innovative tobacco products that may be less dangerous than cigarettes,” it was extending the PMTA deadline for e-vapor products by almost four years, to August 8, 2022. (PX8009 Garner (Reynolds) Decl. at 006 ¶ 21).
117. In March 2019, FDA announced its intent to modify the PMTA deadline for certain flavored e-vapor products (all flavors other than tobacco, menthol, and mint) by moving it forward one year, to August 8, 2021. (Murillo (Altria/JLI) Tr. 2945; PX8005 Graham (NJOY) Decl. at 003 ¶ 18; RX2012 (FDA) at 003).
118. In March 2018, certain public health organizations filed a lawsuit challenging FDA’s prior extension of the PMTA deadline to August 2022. (Murillo (Altria/JLI) Tr. 2944). The lawsuit was successful, and in the summer of 2019, the U.S. District Court for the District of Maryland ordered FDA to require all PMTAs for newly deemed products to be submitted by May 12, 2020—accelerating the deadline by more than two years. (Murillo (Altria/JLI) Tr.

2945; PX8009 Garner (Reynolds) Decl. at 006 ¶ 23; *see also Am. Acad. of Pediatrics v. FDA*, 379 F. Supp. 3d 461, 498 (D. Md. 2019) (vacating 2017 Guidance); *Am. Acad. of Pediatrics v. FDA*, 399 F. Supp. 3d 479, 481 (D. Md. 2019) (imposing new deadline)).

119. The following year, in the spring of 2020, the deadline was extended once more when the disruption caused by COVID-19 forced manufacturers and FDA to work remotely. The ultimate PMTA deadline for on-market e-vapor products was September 8, 2020. (Murillo (Altria/JLI) Tr. 2945; *Am. Acad. of Pediatrics v. FDA*, No. 18-cv-883, Dkt. No. 182 (D. Md. April 22, 2020) (Order)).
120. A manufacturer that filed a PMTA for a product by the deadline can continue to market that product pending FDA's review of its submission. (Murillo (Altria/JLI) Tr. 3028-29).
121. If a manufacturer did not submit a PMTA for an on-market product by the September 2020 deadline, the manufacturer was required to remove that product from the market. (Murillo (Altria/JLI) Tr. 2946).

6. FDA's PMTA Review Takes Years

122. Even after a manufacturer submits a PMTA, it takes years for FDA to review the application and determine whether to approve the product. (Jupe (Altria) Tr. 2301 (explaining that FDA's review of PMTA applications takes "a long time," most likely at least 18 months to two years if not longer); Garnick (Altria) Tr. 1661 ("[I]t takes the FDA a long time to review a PMTA for an e-vapor product."); Gardner (Altria) Tr. 2583 (observing that a year for FDA review would be "optimistic[]"); PX7048 Rothman Trial Dep. at 156 (conceding that "FDA approval of PMTA applications takes time"))).
123. It "takes a lot of work to get through" the "complicated, voluminous" applications. (Garnick (Altria) Tr. 1608).

124. FDA also can require manufacturers to submit supplemental information, which can take time. (Jupe (Altria) Tr. 2222; PX7027 Murillo (Altria/JLI) Dep. at 39).
125. For the handful of tobacco products in other product categories that have previously received PMTA approval, FDA review took two to four years. PMI submitted a PMTA for its IQOS heat-not-burn product in May 2017 and FDA did not approve the product until nearly two years later, in April 2019. (Garnick (Altria) Tr. 1661; PX8009 Garner (Reynolds) Decl. at 014 ¶ 41; *see also* Murillo (Altria/JLI) Tr. 2908 (similar); PX7017 Magness (Altria) Dep. at 282 (similar)). And the application for Swedish Match, an oral tobacco product, took over four years for FDA to approve. (PX7017 Magness (Altria) Dep. at 86, 282).
126. Before the September 2020 deadline, FDA received at least a half million PMTAs for e-vapor products. (Murillo (Altria/JLI) Tr. 2932). Some of these applications were filed well before the deadline and have already been pending for over two years, (Jupe (Altria) Tr. 2301), but no e-vapor product has been approved to date, (Jupe (Altria) Tr. 2301; Garnick (Altria) Tr. 1608).

II. INDUSTRY PARTICIPANTS

A. Parties To The Transaction

1. Altria

a. Background

127. Altria Group, Inc. (“Altria”) is a holding company headquartered in Richmond, Virginia. (PX9017 (Altria) at 004).
128. Altria’s operating subsidiaries are engaged primarily in the manufacture and sale of tobacco products in the United States, including traditional cigarettes (sometimes called combustible cigarettes), cigars, and smokeless tobacco products. (PX9017 (Altria) at 004; *see also* Begley (Altria) Tr. 1048-49 (listing Altria’s operating companies)).

129. Altria's operating companies include Philip Morris USA, the largest cigarette company in the United States and the owner of numerous leading cigarette brands, including Marlboro, the largest-selling cigarette brand in the United States for over forty years. (PX9017 (Altria) at 004-05; Begley (Altria) Tr. 1048-49; Quigley (Altria) Tr. 1995).
130. Altria owns U.S. Smokeless Tobacco Company, which makes Copenhagen and Skoal, among other smokeless tobacco brands. (PX9017 (Altria) at 004-05; Begley (Altria) Tr. 1049; Quigley (Altria) Tr. 1995).
131. Altria also owns John Middleton Co, which sells machine-made cigars and pipe tobacco, as well as Nat Sherman, which previously sold premium cigars and super premium cigarettes. (PX9017 (Altria) at 004; Jupe (Altria) Tr. 2202; Begley (Altria) Tr. 1049).
132. From 2012 to 2018, Altria also had an active operating company called Nu Mark LLC ("Nu Mark"), which sold innovative tobacco products in the United States, including e-cigarettes. (PX9017 (Altria) at 004-05; Schwartz (Altria) Tr. 1850; Quigley (Altria) Tr. 1995; Murillo (Altria/JLI) Tr. 2898).
133. Altria's operating companies are tasked with two functions—marketing and manufacturing. (Schwartz (Altria) Tr. 1849).
134. There also are two service companies within the Altria family of companies: Altria Group Distribution Company ("AGDC") and Altria Client Services LLC ("ALCS"). (PX9017 (Altria) at 004; Begley (Altria) Tr. 1069; Schwartz (Altria) Tr. 1849; Myers (Altria) Tr. 3298).
135. As its name implies, AGDC provides sales and distribution services to the Altria operating subsidiaries, taking finished goods "all the way through to [the] wholesalers and retailers, as well as . . . going into retail stores and selling [Altria's] trade programs and representing [Altria's] brands to [its] retail trade partners." (Myers (Altria) Tr. 3298; PX9017 (Altria) at

004). AGDC also “bring[s] the feedback from the trade and [Altria’s] distributors—retail, wholesale—to the operating companies, once [it] learn[s] what [the companies’] plans are, and then help[s] construct these trade programs; provide[s] [the operating companies] feedback about how things are going and then, in general, just report[s] and measure[s] the success [the sales teams are] having for them.” (Myers (Altria) Tr. 3299).

136. AGDC works with large distributors, including McLane and Core-Mark, which take and fulfill retailers’ orders. (Myers (Altria) Tr. 3299-300).

137. In addition, AGDC works directly with convenience stores, such as 7-Eleven, which is the largest convenience store chain in the United States and Altria’s largest source of business. (Begley (Altria) Tr. 1101; Myers (Altria) Tr. 3307).

138. ALCS provides various support services to the operating companies in areas such as legal, regulatory, finance, human resources, and government affairs. (Jupe (Altria) Tr. 2202; *see also* PX9017 (Altria) at 004).

139. The costs of the service companies are allocated to the operating companies in proportion to each operating company’s revenue, such that the operating companies with the highest revenue bear the greatest cost of the services. (Begley (Altria) Tr. 1062).

b. Altria Invested Billions In Attempting To Internally Develop Potentially Reduced-Risk Products, Each Of Which Failed

140. Altria recognizes that “over 50 percent of conventional cigarette consumers . . . desire something that will meet their satisfaction and needs and have the potential of reduced risk associated with nicotine over time.” (Gifford (Altria) Tr. 2709).

141. Over the last thirty years, Altria’s companies (including its predecessor parent company, Philip Morris Companies) and their scientists have worked hard to develop innovative

products that are potentially less harmful than conventional combustible cigarettes. (Willard (Altria) Tr. 1203, 1320, 1325; Jupe (Altria) Tr. 2212).

142. Altria was prepared to make the necessary investments to increase revenue from noncombustible tobacco products and, over the years, it spent “in excess of \$2 billion” on internal development of reduced-risk products, all before entering the e-vapor industry. (Willard (Altria) Tr. 1154-55, 1327; *see also* Jupe (Altria) Tr. 2213 (agreeing that Altria spent “substantial resources” on reduced-risk products)).

143. Altria believed that “if [it] could come up with products that would satisfy the product needs of adult cigarette smokers but do it with a product that had less harm associated with it, or less risk associated with it, that [it] could over time switch those cigarette smokers from combustible cigarettes to those reduced-harm products.” (Willard (Altria) Tr. 1325).

144. Despite its considerable investments, Altria “really didn’t have success with [its] internally developed products.” (Willard (Altria) Tr. 1332-33; *see also* Jupe (Altria) Tr. 2213 (“[W]e make very good cigarettes, make very good smokeless tobacco, but to significantly reduce the risk, I would say we have not had that innovation success.”)).

145. As the *Wall Street Journal* assessed in a 2008 article surveying a series of failed product launches by Altria, Altria “has put effort into engineering reduced-risk products—so far without much success.” (RX1916 (WSJ) at 001). Those past failures are summarized below:

i. De-Nic

146. De-Nic “was a combustible cigarette that went through a process that reduced the level of nicotine in the cigarette.” (Willard (Altria) Tr. 1326; *see also* PX1075 (Altria) at 062 (showing De-Nic products with different nicotine levels)).

147. Philip Morris engineers drew on a process called “super critical fluid extraction,” which is how coffee beans are decaffeinated. (Jupe (Altria) Tr. 2206). They modified the fluid extraction process to work with a tobacco leaf. (Jupe (Altria) Tr. 2206).

148. Richard Jupe, the current head of Altria’s product development division, testified that “over a period from about ’86 to ’92,” Philip Morris “built a whole new factory” and spent “a third of a billion dollars in order to make this process work.” (Jupe (Altria) Tr. 2112, 2206).

149. Philip Morris “tested [De-Nic] across the country in different areas, different brands, different variants, made improvements to the process, but all in all, it was a consumer failure.” (Jupe (Altria) Tr. 2206).

ii. Accord

150. Accord was the Altria companies’ first attempt at a heat-not-burn product. It was essentially “a cigarette that was heated but not heated so much that it burned.” (Willard (Altria) Tr. 1326).

151. As Jupe explained, burning tobacco leaves produces thousands of chemicals, including 70 carcinogens. (Jupe (Altria) Tr. 2207). By heating tobacco in a “controlled environment”—effectively “in an oven”—one can “reduce the temperature by almost a third,” (Jupe (Altria) Tr. 2207), and, in doing so, “produce significantly lower levels of carcinogens than if you had actually burned the tobacco.” (Willard (Altria) Tr. 1326).

152. The Accord experiment cost Philip Morris “around \$250 million,” which included R&D as well as the cost of “building a factory to make a very unique cigarette.” (Jupe (Altria) Tr. 2209).

153. The Accord project started in earnest in the early 1990s and shut down in 2006. (Jupe (Altria) Tr. 2207).

154. Consumers “rejected [Accord] based on taste, flavor,” and because of its bulky size.

“[T]hey were smoking a cigarette out of a pager.” (Jupe (Altria) Tr. 2207; *see also* RX1916 (WSJ) at 002 (describing Accord as “too strange for U.S. smokers to embrace”)).

iii. SCOR

155. Altria companies also developed SCOR, which stood for “Smoke Constituent Reduction,” a project to design a cigarette with an activated carbon filter that could remove some of the carcinogens and smoke. (Jupe (Altria) Tr. 2209; Willard (Altria) Tr. 1326-27; RX1916 (WSJ) at 001).

156. Altria built yet another factory to manufacture the product. (Jupe (Altria) Tr. 2210). As Jupe explained, “[t]his was a unique filter” requiring Altria to “buil[d] equipment to make the filter.” (Jupe (Altria) Tr. 2210).

157. Jupe estimated that Altria spent “about \$200 million over that eight-year period” when SCOR was being developed and manufactured. (Jupe (Altria) Tr. 2210).

158. The product was launched as Marlboro Ultra Smooth, and Altria later added Marlboro Ultra Lights and Basic Ultra Lights. But, despite the products’ sale in test markets around the country for more than three years, the carbon-based products “drew little attention from consumers” and Altria “pull[ed] the plug” in 2008. (RX1916 (WSJ) at 001-02; *see also* Jupe (Altria) Tr. 2210-11).

iv. Taboka Tobaccopaks And Marlboro Snus

159. Altria companies internally developed a tobacco pouch product called Taboka Tobaccopaks. (Willard (Altria) Tr. 1328-29).

160. “The ‘spit-free’ product is tobacco in small pouches known as snus (rhymes with ‘goose’) placed between cheek and gum.” (RX1916 (WSJ) at 002). The pouches would then deliver tobacco flavor as well as nicotine that “would be delivered through absorption in the gum,”

which was “dramatically less harmful” than combustible cigarettes. (Willard (Altria) Tr. 1328).

161. Altria had hoped that this product format would achieve greater success with women, who by and large rejected moist smokeless tobacco. But once the product was launched, Altria discovered that women did not like putting it in their mouth, much less removing the wet pouch. (Willard (Altria) Tr. 1329-30).

162. When Altria launched Taboka, it “did a lot of trial efforts and those type of things, and there just was no consumer stickiness with the product. So [the company] ended that [product]” in 2008. (PX7038 Myers (Altria) Dep. at 202-03; RX1916 (WSJ) at 002).

163. Altria then developed and marketed Marlboro Snus, which was an “evolution of Taboka” that “put the Marlboro name on it.” (Willard (Altria) Tr. 1330). That was also unsuccessful and withdrawn from the market. (Willard (Altria) Tr. 1330-31).

v. Marlboro Moist Smokeless Tobacco

164. In 2007, Altria launched its own smokeless tobacco, Marlboro Moist Smokeless Tobacco, also known as Marlboro MST. (Schwartz (Altria) Tr. 1913; RX1916 (WSJ) at 002).

165. Altria “tried for a little over a year to get traction with [Marlboro MST], did a lot of great things at retail . . . to give it visibility and create awareness for it.” (Myers (Altria) Tr. 3313). It even slashed the price from \$3 per tin to \$1 per tin. (RX1916 (WSJ) at 002). But Altria never had “much to show for it.” (Schwartz (Altria) Tr. 1913). “[T]he product just wasn’t good, and the consumer didn’t adopt it.” (Myers (Altria) Tr. 3313).

166. Unable to succeed with internal development of smokeless tobacco products, in 2009, Altria bought U.S. Smokeless Tobacco, owner of Copenhagen and Skoal, for about \$11 billion. (Willard (Altria) Tr. 1331; Schwartz (Altria) Tr. 1913).

167. Altria now holds the leading position in the United States smokeless tobacco category through its ownership of U.S. Smokeless Tobacco. (Willard (Altria) Tr. 1151).

168. Altria’s initial failures in smokeless tobacco followed by its success with an acquisition of U.S. Smokeless Tobacco is emblematic of a larger theme in the company’s history: “[W]here Altria has done a great job is buying companies, bolting them to [its] infrastructure, [its] phenomenal sales infrastructure, marketing infrastructure, and [it] tend[s] to make them better once . . . [it] acquire[s] them.” (Schwartz (Altria) Tr. 1913).

169. “But from an organic point of view,” Altria does not “have a good track record” in developing innovative alternatives to cigarettes. (Schwartz (Altria) Tr. 1913).

c. Altria Built The Center For Research & Technology As Part Of Its Innovation Efforts

170. In the 2000s, recognizing that reduced-harm products involved “a much greater need for scientists and R&D people and access to lab space,” Altria spent \$350 million to create the Center for Research and Technology “to really focus on internal development of [] reduced-risk products.” (Willard (Altria) Tr. 1332; *see also* PX9000 (Altria) at 011).

171. The Center for Research and Technology, which opened in 2007, is a “state-of-the-art” facility with 150,000 square feet of lab space, leading equipment, and “hundreds” of scientists. (Jupe (Altria) Tr. 2211-13; PX9000 (Altria) at 011).

172. As Jupé testified, “[f]rom buildings, from the equipment, from salaries, from research budgets” Altria has invested “billions of dollars” in the Center. (Jupe (Altria) Tr. 2211-13).

173. Even so, nearly fourteen years later, Altria has still not successfully commercialized an internally developed project. (Jupe (Altria) Tr. 2212-13).

d. Altria Created Nu Mark As An Innovative Tobacco Product Company

174. In 2012, Altria redoubled its efforts to introduce reduced-risk products by establishing a new operating company—Nu Mark—devoted to developing and marketing innovative tobacco products for adult tobacco consumers. (Murillo (Altria/JLI) Tr. 2898).
175. The goal of Nu Mark was to “have a range of products that [Altria] could use to convert smokers away from smoking and to innovative products, like electronic cigarettes.” (Murillo (Altria/JLI) Tr. 2898-99).
176. Over the next six years, Nu Mark came to have about 145 employees. (Quigley (Altria) Tr. 1938).
177. Nu Mark also was supported by ALCS, including about 50 people from the product development group and 20 people from the regulatory group. (Quigley (Altria) Tr. 1940-41).
178. Nu Mark was a strategic priority for Altria, as evidenced by the “resources that were given to [it], both people and dollars.” (PX7014 Baculis (Altria) Dep. at 38).
179. Altria “put many of [its] best people from Altria into the Nu Mark business, some of [its] best performers, and [it] had been quite generous in providing them with financial resources and other resources.” (PX7031 Willard (Altria) Dep. at 261).
180. As Altria’s former CEO, Howard Willard, testified at trial, Altria put substantial resources into Nu Mark and “spent well over half a billion dollars, maybe up to a billion dollars, investing in the e-vapor category.” (Willard (Altria) Tr. 1341). That investment included internal development as well as product acquisitions. (Willard (Altria) Tr. 1343).

e. Nu Mark’s Early E-Vapor Efforts Failed

181. For all of Altria’s resources and investment, Nu Mark never launched a commercially successful product. Instead, Nu Mark lost money every single year after its creation. (Willard (Altria) Tr. 1369).

182. As Brian Quigley, the former general manager of Nu Mark explained, “the overall operating structure and bureaucracy of the company was not designed to do what [it] needed to do to compete in [e-vapor].” (PX7041 Quigley (Altria) Dep. at 148).

183. Development for electronic products like e-cigarettes required “an entirely different construct” than what was required for conventional tobacco products such as cigarettes. (PX7024 Crosthwaite (Altria/JLI) Dep. at 267). It required “engineering skills, software skills.” (PX7006 Crosthwaite (Altria/JLI) IHT at 106). And it is “much harder” to develop innovative electronic products “than it is to maintain and line extend products that are in the combustible cigarette business.” (PX7031 Willard (Altria) Dep. at 262).

i. Nu Mark’s Failed Internal Development

184. Beginning in 2013, Nu Mark launched a series of internal development efforts, all of which were “named after bodies of water,” (Murillo (Altria/JLI) Tr. 2940-41), and all of which were worked on by scientists and engineers at Altria’s Center for Research and Technology. (Willard (Altria) Tr. 1149).

185. By 2015, Nu Mark had five projects to develop new e-vapor devices underway. Of those, two were designed to compete against cig-a-likes and two were closed-system products designed to appeal to open tank users, while one was still evolving. (PX1135 (Altria) at 020, 046).

186. As discussed in greater detail below, three years later, in 2018, none of those projects had yielded a viable product. (*See infra* Part XVI.C.3). Some, such as Project Bayou, a cig-a-like concept intended to offer a longer-lasting battery and better e-liquid formulation, had long since been abandoned. (RX1292 (Altria) at 043-50 (excluding Bayou from list of ongoing projects)).

187. Other projects could not get past the concept planning phase. For example, Project Lake began as an idea for a cig-a-like device with single-use cartridges, (PX1135 (Altria) at 054), was later reconceived as a pod concept, (PX1930 (Altria) at 035), and was ultimately shelved when it became clear that consumers perceived value in larger, multi-use pods, (PX1930 (Altria) at 035 (explaining need to expand cartridge volume); PX1139 (Altria) at 001 (stating that the project had “been put on hold”); *see also infra* Part XVI.C.3.a).
188. Still other projects, such as Laguna and Hudson, were languishing in the prototype phase, where they ran into design problem after design problem. Project Laguna—a closed-tank system designed to appeal to open-system users—had spent nearly a year and a half in the concept development phase and was ultimately put on hold because of resource shortages. (RX0496 (Altria) at 040; *see also infra* Part XVI.C.3.b). And Project Hudson, a pod-based device that likewise aspired to provide the “sensory experience” of an open system, had some prototypes but “didn’t get very far.” (Murillo (Altria/JLI) Tr. 2939, 2941; *see also* PX7015 Gogova (Altria) Dep. at 32 (“It was really only [a] concept coming from product development There were early prototypes which product development was playing with, but there was no concrete product . . . ready for PMTA filing.”); *see infra* Part XVI.C.3.d).
189. Part of Altria’s problem was that it “tende[d] to kind of chase” the e-vapor marketplace rather than anticipate where it was going. (PX7016 Jupe (Altria) Dep. at 176). In 2015 and 2016, Altria’s development “portfolio included a lot of cigalike products,” a “format that ultimately didn’t turn out to be successful.” (Willard (Altria) Tr. 1334-35; *see also* PX1135 (Altria) at 020 (listing development projects designed to compete with cig-a-likes)).
190. It was not until June 2017, two years after JUUL was launched, (PX2158 (JLI) at 031), that Altria began working on an internal pod-based product concept designed to appeal to

cigarette smokers, (RX0496 (Altria) at 038). That project, named Panama, was in the works for less than a year before it was paused to free up resources to fix the many problems plaguing Altria's on-market products. (PX1130 (Altria) at 009-10, 014; PX1139 (Altria) at 001; *see also infra* Part XVI.C.3.c).

191. All told, although Nu Mark ultimately pursued at least a half dozen internal device projects, many of which were the subject of "years" of effort, none ever "yielded fruit." (Murillo (Altria/JLI) Tr. 2940-41; *see also* PX7041 Quigley (Altria) Dep. at 148-49; PX7018 Schwartz (Altria) Dep. at 164).

ii. Altria's Failed Acquisitions Of E-Vapor Products

192. Unable to develop an e-vapor product internally, Altria did what it always did when its innovation efforts failed: It turned to acquiring existing products. (Willard (Altria) Tr. 1343-44).

193. In fact, every product that Nu Mark launched into the marketplace was a result of an external acquisition, licensing arrangement, or partnership with another e-vapor company. MarkTen King Size was a Kimree product, MarkTen XL was a rebranded version of Green Smoke's device, MarkTen Elite was from, Apex was made by PMI, and Cync and VIM—which Altria never commercialized—were developed by Joyetech and KangerTech, respectively. (PX7018 Schwartz (Altria) Dep. at 164; *see also* Garnick (Altria) Tr. 1742-43; PX7017 Magness (Altria) Dep. at 288).

194. Most of these products were acquired by Nu Mark in 2017 or later and are discussed in greater depth below. (*See infra* Parts III, V, VII, IX). But Nu Mark's first two products, MarkTen King Size and MarkTen XL, have older roots and are discussed here:

(a) MarkTen King Size

195. In 2013, Nu Mark introduced its first e-vapor product, a cig-a-like called MarkTen King Size. (PX7007 Murillo (Altria/JLI) IHT at 126; Gifford (Altria) Tr. 2734). That product came from a Chinese contract manufacturer named Kimree. (PX7018 Schwartz (Altria) Dep. at 164).
196. MarkTen King Size was essentially a shorter version of the later iteration, MarkTen XL. (PX7002 Schwartz (Altria) IHT at 37). It came in two nicotine strengths: 1.5 percent nicotine and 2.5 percent nicotine. (RX0175 (Altria) at 003).
197. At the time, the e-vapor category was led by cig-a-likes and Nu Mark’s goal was to compete “[a]gainst Vuse and [NJOY] and the other products” in the cig-a-like category “to achieve market leadership.” (PX7018 Schwartz (Altria) Dep. at 144).
198. But by mid-2015, Nu Mark found that neither the 1.5 percent nor the 2.5 percent nicotine products were “competitive with Vuse or satisfying enough to drive conversion from a traditional cigarette or most other e-vapor products.” (RX0175 (Altria) at 003). After concluding that King Size would not “drive conversion and sustainable volume[,] and risk[ed] damaging the credibility of the brand,” Altria abandoned the product in favor of MarkTen XL. (RX0175 (Altria) at 003; *see also* PX7002 Schwartz (Altria) IHT at 82 (explaining that MarkTen King Size “proved to be less than successful”)).

(b) Green Smoke And MarkTen XL

199. In April 2014, Nu Mark acquired the e-vapor business of an Israeli company named Green Smoke, Inc. (Willard (Altria) Tr. 1460; Schwartz (Altria) Tr. 1864).
200. Nu Mark incorporated Green Smoke’s technology into a new iteration of the MarkTen brand, the “MarkTen XL,” which also was a cig-a-like. (Willard (Altria) Tr. 1345; Gifford (Altria) Tr. 2734; *see also* PX7002 Schwartz (Altria) IHT at 35 (explaining that MarkTen XL

“was a former Green Smoke product that [Altria] reskinned into a Mark Ten presentation”);
RX0746 (Altria) at 028 (“Green Smoke product portfolio overlaps with MarkTen portfolio”).

201. After the launch of MarkTen XL, Nu Mark kept the Green Smoke brand in the market and used it to target an “[o]lder [adult vaper] consumer demographic” and explore “alternative distribution channels,” such as tobacco stores and e-commerce. (PX4040 (Altria) at 038).

202. Green Smoke ultimately would fall victim to the same problems as MarkTen XL, including undesirable form factor, a faulty battery design, and inadequate nicotine satisfaction. (*See infra* Parts III.B, III.F, V.C).

2. Juul Labs, Inc.

a. Background

203. Juul Labs, Inc. (“JLI”) is an electronic cigarette company founded in the San Francisco area. (PX2534 (JLI) at 002).

204. JLI traces its roots to 2007, when its two cofounders, James Monsees and Adam Bowen—both graduate students in Stanford’s product design program—set out to develop a reduced-risk alternative to cigarettes. (PX2158 (JLI) at 031; O’Hara (JLI) Tr. 563).

i. Structure

205. In 2007, Monsees and Bowen founded Ploom, Inc., a company focused on heat-not-burn, and launched an eponymous product two years later. (PX2534 (JLI) at 002; PX2158 (JLI) at 031; Pritzker (JLI) Tr. 766). “Ploom achieved limited commercial success, drawing investment from Japan Tobacco to scale the product globally.” (PX2158 (JLI) at 031).

206. The company then developed “PAX,” a loose-leaf vaporizer device that debuted in 2012. (PX2158 (JLI) at 031; O’Hara (JLI) Tr. 563; Pritzker (JLI) Tr. 766).

207. The company was renamed Pax Labs, Inc., in June 2015. (PX2158 (JLI) at 031; PX2534 (JLI) at 002; O’Hara (JLI) Tr. 563).

208. In the summer of 2015, the company launched an e-cigarette called “JUUL,” which it had been developing since 2013. (PX2158 (JLI) at 031; Pritzker (JLI) Tr. 771).

209. In June 2017, Pax Labs renamed itself JUUL Labs, Inc. and spun out Pax Labs, Inc. as a separate stand-alone corporation with ownership of the loose-leaf vaporizer device. JLI retained the e-cigarette assets. (PX2534 (JLI) at 002; PX2158 (JLI) at 031; Pritzker (JLI) Tr. 766).

210. Since that time, “all of JLI’s activities have been in support of just one product: the JUUL system.” (PX2534 (JLI) at 003).

211. By 2018, JLI employed approximately 600 people, (PX2534 (JLI) at 004), and generated over \$1 billion in sales, (PX2142 (JLI) at 006).

ii. JLI’s Mission Is To Convert Adult Smokers

212. JLI’s mission is to “transition the world’s one billion smokers off of combustible cigarettes and eliminate their use.” (Robbins (JLI) Tr. 3243; *see also* Pritzker (JLI) Tr. 769 (“[JLI’s goal is] to convert smokers to vaporization.”)). Stated more succinctly, “[JLI’s] Mission Is to End Cigarettes.” (PX2158 (JLI) at 007).

213. JLI “views converting users of traditional cigarettes and other tobacco products as the engine for its future growth.” (PX2158 (JLI) at 052). As such, it considers the “entire global cigarette category” as its “long-term addressable market.” (PX2158 (JLI) at 039).

b. JUUL Is An Innovative Breakthrough

214. Although most of the major players in the e-vapor industry acquired their products, JLI “is one of the few companies that is responsible for the design and manufacturing of its own products.” (Valani (JLI) Tr. 907; *see also* O’Hara (JLI) Tr. 576-77). JUUL was “researched, designed, and developed[] at [JLI’s] headquarters.” (PX2534 (JLI) at 002).

215. This internal development was made possible by JLI’s “deep bench, with senior talent from Apple, Google, Nest, [and] Boston Scientific, . . . among others.” (PX2153 (JLI) at 002). JLI “employs over 50 engineers with experience at Apple, Microsoft, IDEO, Maxim Integrated, GoPro, and Fitbit.” (PX2158 (JLI) at 055). And it “has an advantage in recruiting based upon its location in Silicon Valley, the heart of technology innovation.” (PX2158 (JLI) at 055; *see also* PX7024 Crosthwaite (Altria/JLI) Dep. at 269-70 (observing that JLI is in an “entirely different talent system” from tobacco companies)).

216. By the end of 2016, JUUL’s “revolutionary design” and “superior functionality” had begun to attract a significant consumer following and JUUL was tied for the number six share position nationally among e-vapor products. (PX2158 (JLI) at 048; RX0746 (Altria) at 014).

i. JUUL Has A Discrete, Intuitive Design

217. JUUL was “really the first pod product in the marketplace.” (Gifford (Altria) Tr. 2750; *see also* Crozier (Sheetz) Tr. 1488; PX8000 Crozier (Sheetz) Decl. at 003 ¶ 13).

218. Like most closed-system devices, JUUL “has three components: (1) an electronic device that couples with (2) a liquid-filled pod at one end,” which doubles as the mouthpiece, “and (3) a charger at the other end.” (PX2534 (JLI) at 004-05).

219. But, within the context of the classic three-part structure, JUUL offered a number of signature features that resonated with adult consumers, including “the unique form-factor body, the liquid-level viewing window, the reversible pod with locking gaps, the fresh air flow design, and the simple user operation.” (PX2534 (JLI) at 006; *see also* Begley (Altria) Tr. 1079; Crozier (Sheetz) Tr. 1555-56; PX7015 Gogova (Altria) Dep. at 120; PX7030 Wexler (Turning Point Brands) Dep. at 46)).

220. “Prior to the emergence of Juul, most e-cigarettes were cigalikes,” (PX8011 Eldridge (ITG Brands) Decl. at 006 ¶ 25), which have a cylindrical, cigarette-like shape, (Gifford (Altria) Tr. 2722; *see also* Jupe (Altria) Tr. 2177-78).

221. JUUL, by contrast is “more rectangular.” (Willard (Altria) Tr. 1348):



(RX0279 (Altria) at 011, 052).

222. JUUL also has a “simple, intuitive, [and] easy-to-use” product design, (Begley (Altria) Tr. 1095), including “a pod that clicks into a battery.” (Crozier (Sheetz) Tr. 1488). These are all features that contributed to JUUL’s success. (Begley (Altria) Tr. 1094-95; Crozier (Sheetz) Tr. 1555-56; *see also* PX2158 (JLI) at 047 (“[P]roduct design also has a material impact on consumer acceptance. Convenience, form factor, and ease-of-use were all hurdles that limited first generation [e-vapor] adoption.”)).

223. In addition, by not resembling a cigarette, JUUL “resolved for at least many adult smokers . . . the social friction of being viewed as a smoker, and . . . it allowed them to leave some of that baggage on the sidelines.” (Begley (Altria) Tr. 1095).

ii. JUUL Was Designed To Mimic The Nicotine Experience Of A Cigarette

224. JUUL also has two key features that allow it to deliver superior nicotine satisfaction: a powerful battery and a proprietary e-liquid formula with nicotine salts. (PX2158 (JLI) at 048 (touting JUUL’s “[r]obust battery” and “high nicotine satisfaction”); PX7030 Wexler (Turning Point Brands) Dep. at 37 (explaining that these two features contribute to nicotine satisfaction)).
225. *First*, JUUL has a superior battery compared to its cig-a-like predecessors, which provides more power and more vapor, thereby allowing JUUL to overcome one of the central drawbacks of the cig-a-like form. (PX2158 (JLI) at 047-48 (contrasting the “weak batteries” of predecessor products with JUUL’s “superior functionality”); PX8003 Wexler (Turning Point Brands) Decl. at 002 ¶ 7 (discussing the limited power of cig-a-likes)).
226. *Second*, “JUUL use[s] nicotine salts which [leads] to greater nicotine satisfaction than products that [do] not do that.” (Crozier (Sheetz) Tr. 1556).
227. “[N]icotine salts are the end result of combining nicotine with an acid.” (Quigley (Altria) Tr. 1978). Generally, “the more acid you added” to an e-liquid formulation, “the lower the pH of the liquid, and . . . the more nicotine salt would be created.” (Quigley (Altria) Tr. 2006; *see also* Gardner (Altria) Tr. 3086-87 (explaining that JUUL’s inclusion of “nicotine salts” and a “lower pH” was key to providing “the experience the smoker was looking for”); Jupe (Altria) Tr. 2138 (similar)).
228. JUUL developed an e-liquid that combined “a nicotine and benzoic acid formulation.” (PX2534 (JLI) at 005; Gardner (Altria) Tr. 2659). That benzoic acid creates the nicotine salts in JUUL’s products. (Gardner (Altria) Tr. 2659).

229. Nicotine salts deliver nicotine “deeper into the lungs,” (Gardner (Altria) Tr. 3086-87), and offer a “smoking experience very similar to conventional cigarettes,” (PX7015 Gogova (Altria) Dep. at 120). (*See also* PX2158 (JLI) at 036 (explaining that nicotine salts “allow[] for a nicotine absorption rate that closely matches that of a comparative traditional cigarette”); PX2168 (JLI) at 011 (similar)).
230. As one of JLI’s cofounders, Adam Bowen, explained: “Salt chemistry basically ‘fixes’ e-cigs so they perform as expected (like a cigarette).” (PX2274 (JLI) at 001; *see also* Jupe (Altria) Tr. 2284 (explaining that nicotine salts are essential to the delivery of nicotine satisfaction); Crozier (Sheetz) Tr. 1556 (similar); Quigley (Altria) Tr. 2007-08 (similar); Gardner (Altria) Tr. 3086-87 (similar)).
231. This insight enabled JUUL to be “the first [product] on the market to get as close to a cigarette as they did” in terms of the “rapid” uptake of nicotine. (PX7030 Wexler (Turning Point Brands) Dep. at 43-44; *see also* Gifford (Altria) Tr. 2748-49 (explaining that nicotine salts allowed JUUL to provide a nicotine experience “very similar” to a cigarette); Quigley (Altria) Tr. 2007-08 (similar); PX7014 Baculis (Altria) Dep. at 101-02 (“JUUL was one of the first products that actually delivered on the nicotine satisfaction that many adult smokers were looking for.”)).
232. Unlike JLI, as of 2015, the cig-a-likes by Vuse and MarkTen, “did not use nicotine salts.” (PX7005 Danaher (JLI) IHT at 116).
233. With what it described as “best-in class nicotine satisfaction,” JLI determined that it had “converted ~2% of the tobacco market [in 2017] with distribution in roughly a quarter of the market.” (PX2153 (JLI) at 003).

234. Other sources bear this out. Jack Stout, the Senior Vice President for Merchandising and Demand Chain for 7-Eleven, observed that, although cigarette unit sales had historically declined steadily at a rate of about 3-4 percent per year, “with the introduction and rapid growth of JUUL, the decline in cigarette unit sales accelerated to 5-6% at 7-Eleven in 2018.” (PX8001 Stout (7-Eleven) Decl. at 001 ¶¶ 2, 6).
235. Sheetz reached a similar conclusion based on a customer survey it conducted showing that “at least 30% of smokers who tried JUUL did not return to smoking traditional cigarettes.” Sheetz concluded, “This suggests that the growth in the rate of decline of traditional cigarette sales was caused at least in part by the growth in vapor products.” (PX8000 Crozier (Sheetz) Decl. at 002 ¶ 8).
236. Tobacco industry analysts interpreted the market evidence the same way, concluding by 2018 that JUUL was converting cigarette smokers and stealing share from cigarette brands. (Willard (Altria) Tr. 1359; RX0858 (Altria) at 003-04; *see also* Gifford (Altria) Tr. 2825-28 (describing RX0858 as showing “the outside world was clearly seeing . . . that JUUL was very successful in converting adult smokers”); Robbins (JLI) Tr. 3243, 3247-48 (discussing JUUL’s competition with the cigarette category according to market data); PX7036 Garnick (Altria) Dep. at 163-64 (describing JUUL as “having more success at converting smokers than virtually any other non-combustible tobacco product out there”); PX7039 Robbins (JLI) Dep. at 189-91 (recalling analysis “that showed, as JUUL [sales] go[] up, as JUUL grows, cigarettes [sales] go down, and showing a direct relationship that [JUUL] w[as] recruiting from combustible smoker[s]”)).

B. There Are Numerous Other E-Vapor Competitors

237. The e-vapor marketplace is highly competitive, with category leadership “chang[ing] hands numerous times over the past seven years.” (Willard (Altria) Tr. 1155; *see also*

PX7014 Baculis (Altria) Dep. at 101 (“[T]he category changed leadership fairly frequently over time.”); RX0176 (Altria) at 134 (discussing the “rise and fall of multiple leading brands”).

238. Over time, the market has seen “an influx of new competitors” and “new products.” (RX0176 (Altria) at 134; *see also* PX7030 Wexler (Turning Point Brands) Dep. at 57 (“[T]here’s new alternatives every month across open systems and closed systems and Cigalikes.”); RX1456 (JLI) at 001 (discussing new product entries)).

239. At the same time, products that failed to develop a consumer following were continuously “being removed from the market because they . . . failed to succeed.” (Willard (Altria) Tr. 1244; *see also* Murphy Tr. 3129-30 (“[P]roducts leaving the marketplace is a normal part of the competitive process, and, indeed, it’s part of the process by which products that are relatively unsuccessful are replaced by more successful products.”)).

1. Reynolds (Brand: Vuse)

240. Reynolds American Inc. (“Reynolds”) is the parent company of multiple tobacco companies, including R.J. Reynolds Tobacco Company, Santa Fe Natural Tobacco Company, Inc., and American Snuff Company. (PX8008 Huckabee (Reynolds) Decl. at 002 ¶ 5). Reynolds describes itself as the second largest tobacco company in the United States. (Huckabee (Reynolds) Tr. 372).

241. Reynolds owns RAI Innovations Company, which in turn owns RJR Vapor Company, Reynolds’s e-cigarette business. (Huckabee (Reynolds) Tr. 372; PX8008 Huckabee (Reynolds) Decl. at 002 ¶ 5).

242. British American Tobacco indirectly owns all Reynolds’s shares. (PX8008 Huckabee (Reynolds) Decl. at 002 ¶ 5).

243. Reynolds currently sells four different vapor products in the United States, all under the brand name “Vuse”:

(a) **Vuse Solo** is a cig-a-like product with “a bold taste” that was launched in 2013. Its nicotine content is 4.8 percent, and it has an electronic control that limits usage to 540 puffs. (PX8008 Huckabee (Reynolds) Decl. at 007-08 ¶ 18(a)).

(b) **Vuse Ciro** is a cig-a-like product with “a particularly refined flavor.” After acquiring the product, Reynolds introduced it in July 2016. The nicotine content is 1.5 percent. (PX8008 Huckabee (Reynolds) Decl. at 008-09 ¶ 18(b)).

(c) **Vuse Vibe** is a “closed system e-cigarette” with Reynolds’s “largest capacity cartridge.” Reynolds acquired the product shortly before the Deeming Rule went into effect and began selling it in July 2016. (PX8008 Huckabee (Reynolds) Decl. at 009 ¶ 18(c)).

(d) **Vuse Alto** is a pod-based device. Reynolds acquired it from Smoore after August 2016 and reintroduced the product in August 2018. (PX8008 Huckabee (Reynolds) Decl. at 010 ¶ 18(d)). [REDACTED]

[REDACTED]

[REDACTED] The cartridge is held in place by a magnetic tip. (PX8008 Huckabee (Reynolds) Decl. at 010 ¶ 18(d)).

244. Although Reynolds has continued to market its cig-a-like products, they are not the focal point of its marketing and price promotions. (Gifford (Altria) Tr. 2863; *see also* [REDACTED] [REDACTED]).

245. [REDACTED]

246. In January 2020, following the August 2018 introduction of Vuse Alto, Reynolds became, and has remained, the market leader in device share. (See *infra* Part XII.A.4; see also [REDACTED]).

2. NJOY (Brand: NJOY)

247. NJOY, LLC (“NJOY”) is an electronic nicotine delivery system company. It is not affiliated with a traditional tobacco company. (PX8004 Farrell (NJOY) Decl. at 001 ¶¶ 3, 6).

248. Founded in 2007, NJOY, Inc. (which subsequently went bankrupt but whose assets were purchased by NJOY, LLC) was one of the first U.S. companies to sell e-vapor products. (PX8004 Farrell (NJOY) Decl. at 001 ¶¶ 5, 6).

249. NJOY currently sells two e-vapor products:

(a) **NJOY Ace** is a pod-based product. (PX8004 Farrell (NJOY) at Decl. at 001 ¶ 4).

The pod and device, which are sold separately, connect magnetically. (Farrell (NJOY) Tr. 214-15). The nicotine contents are 2.4 percent and 5 percent. (Farrell (NJOY) Tr. 230). [REDACTED]

[REDACTED]

(b) **NJOY Daily** is a disposable cig-a-like product, launched in approximately 2015. (PX8004 Farrell (NJOY) Decl. at 001 ¶ 4; Farrell (NJOY) Tr. 215). It is sold as a single piece that includes both the battery and cartridge. (Farrell (NJOY) Tr. 212). It comes in two flavors, menthol and rich tobacco, and two nicotine strengths,

4.5 percent and 6 percent. (Farrell (NJOY) Tr. 213). The product lifespan varies by usage but NJOY has equated one Daily to a pack of cigarettes. (Farrell (NJOY) Tr. 217). [REDACTED]

250. [REDACTED]

251. NJOY previously sold three additional products that have since been discontinued:

(a) **NJOY Loop** was a cig-a-like product that consisted of two cig-a-likes inside a charging case. (Farrell (NJOY) Tr. 352; *see also* PX2449 (JLI) at 067 (depicting product)). It came in five flavors at 4.5 percent nicotine by weight. (RX1766 (PMI) at 006). [REDACTED]

[REDACTED]

[REDACTED] NJOY decided that, from a business perspective, it did not make sense to continue to manufacture and sell that product. (Farrell (NJOY) Tr. 353).

(b) **NJOY King** was a disposable cig-a-like product launched in approximately 2013.

(Gardner (Altria) Tr. 2598; *see also* RX2025 (depicting product); [REDACTED]

[REDACTED]. King contained high nicotine levels and no salts,

which made the product experience “intensely harsh.” (Gardner (Altria) Tr. 2598).

It was so harsh that “[a]dult smokers could not use th[e] product on a routine

basis” and it thus could not “deliver nicotine satisfaction.” (Gardner (Altria) Tr.

2598, 2600). NJOY has since pulled the product from the market for business reasons. (Farrell (NJOY) Tr. 357-58; Gardner (Altria) Tr. 2600).

(c) **NJOY PFT** was a pre-filled tank (hence, “PFT”) that NJOY had on the market in 2018. (Farrell (NJOY) Tr. 206, 357). At some point, NJOY decided that, from a business perspective, it did not make sense to continue to manufacture and sell that product. (Farrell (NJOY) Tr. 357).

252. NJOY did not file a PMTA for any of its discontinued products. In the opinion of NJOY’s Chief Revenue Officer, Andrew Farrell, it would not be worth “investing millions of dollars to keep a product on shelf if I really didn’t think that it could sell in amounts that I needed it to to satisfy my plan for the business in the future.” (Farrell (NJOY) Tr. 358-59).

253. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]; *see also infra* Parts XII.A.4, XIII.C).

3. ITG Brands (Brand: blu)

254. ITG Brands, LLC, is a U.S. subsidiary of British-based tobacco company Imperial Brands PLC. (PX8011 Eldridge (ITG Brands) Decl. at 001 ¶ 3). It is the third-largest tobacco company in the United States, after Altria and Reynolds. (PX8011 Eldridge (ITG Brands) Decl. at 001-02 ¶¶ 2, 6).

255. ITG Brands was created in 2015, after Imperial Brands acquired several U.S. brands and assets in a divestiture stemming from the merger of Reynolds American and Lorillard Tobacco, then the second- and third-largest tobacco companies in the United States, respectively. (PX8011 Eldridge (ITG Brands) Decl. at 001 ¶ 3). That acquisition included

certain cigarette brands from both companies, as well as Lorillard's e-cigarette brand blu.

(PX8011 Eldridge (ITG Brands) Decl. at 001 ¶ 3).

256. ITG Brands shares responsibility for e-vapor in the United States with its sister company, Fontem U.S. LLC, whose ultimate parent entity also is Imperial Brands. (PX8011 Eldridge (ITG Brands) Decl. at 001 ¶ 4). Fontem handles new product development, including R&D and acquisitions, while ITG Brands is "the sales agent." (PX7012 Eldridge (ITG Brands) Dep. at 32-33).

257. ITG Brands currently sells cigarettes, cigars, and e-vapor products. (PX8011 Eldridge (ITG Brands) Decl. at 001 ¶ 2).

258. ITG Brands's e-vapor products are sold under the brand name blu. (PX8011 Eldridge (ITG Brands) Decl. at 001 ¶ 2, 004 ¶ 19). The current blu line consists of the following products:

- (a) **myblu** is a pod device that ITG Brands introduced in 2017. (PX8011 Eldridge (ITG Brands) Decl. at 004-05 ¶ 19). ITG acquired this pod system from a company called Von Erl. (PX7012 Eldridge (ITG Brands) Dep. at 88-89). The pods are available in four flavors—Tobacco Chill Intense, Tobacco Intense, Gold Leaf, and Menthol. Both Tobacco Chill Intense and Tobacco Intense have nicotine salts. (PX8011 Eldridge (ITG Brands) Decl. at 005 ¶ 23; PX7012 Eldridge (ITG Brands) Dep. at 77-78). All four flavors are available at varying nicotine strengths. (PX8011 Eldridge (ITG Brands) Decl. at 005 ¶ 23). The *myblu* pod product line accounts for the largest share of ITG Brands's e-vapor revenue. (PX7012 Eldridge (ITG Brands) Dep. at 49-50).

(b) **blu Plus** is a cig-a-like device with pre-filled cartridges that screw into the device. (PX8011 Eldridge (ITG Brands) Decl. at 005 ¶ 19). It is available in two flavors, Classic Tobacco and Magnificent Menthol, both at 2.4 percent nicotine strength. (PX8011 Eldridge (ITG Brands) Decl. at 005 ¶ 23). These products do not contain nicotine salts. (PX7012 Eldridge (ITG Brands) Dep. at 168).

(c) **blu Disposables** are single-use prefilled cig-a-likes that are designed to be discarded. (PX8011 Eldridge (ITG Brands) Decl. at 005 ¶ 19; PX7012 Eldridge (ITG Brands) Dep. at 49). “The blu Disposables, to which the [FDA] flavor ban does not apply, come in Vivid Vanilla, Cherry Crush, Classic Tobacco, Magnificent Menthol, and Polar Mint favors, all at a 2.4 [percent] nicotine strength.” (PX8011 Eldridge (ITG Brands) Decl. at 005 ¶ 23). These products do not contain nicotine salts. (PX7012 Eldridge (ITG Brands) Dep. at 168).

259. ITG Brands previously marketed a vapor product called Salt of the Earth, which was pulled from the market after “a quick introduction.” (PX7012 Eldridge (ITG Brands) Dep. at 181).

260. Fontem filed PMTAs for the blu and *myblu* products. (PX7012 Eldridge (ITG Brands) Dep. at 90-92; PX8010 Folmar (ITG Brands) Decl. at 001 ¶ 3). The company believes that its products meet the standard that FDA applies to PMTAs. (PX7012 Eldridge (ITG Brands) Dep. at 92-93).

261. Most of blu’s marketing focuses on *myblu* Intense, the pod product with nicotine salts. (Gifford (Altria) Tr. 2863).

4. Japan Tobacco International (Brand: Logic)

262.

[REDACTED]
[REDACTED]
[REDACTED] There are two products in the Logic line:

- (a) **Logic Pro** is a hybrid product. (Crozier (Sheetz) Tr. 1489). It is a long, cylindrical device that is “too big” to be considered “a true cig-a-like.” (Crozier (Sheetz) Tr. 1489). The cartridge screws in. (Crozier (Sheetz) Tr. 1489). The e-liquid contains 2.0 percent nicotine, (RX1429 (JLI) at 004), and no salts, (RX1739 (ITG Brands) at 019).
- (b) **Logic Power** is a cig-a-like product available in disposable and refillable formats. (RX1616 (JLI) at 057). It has 2.7 percent nicotine, (PX2344 (JLI) at 004), and no salts, (RX1739 (ITG Brands) at 019).

263. JTI also manufactures Vapeleaf, a hybrid of an e-cigarette and a heat-not-burn product. (RX0555 (Altria) at 036; *see also* PX2542 (JLI) at 004; [REDACTED]). “The device heats a non-nicotine liquid. Then the vapor passes through a capsule and heats granulated tobacco.” (RX0555 (Altria) at 036).

264. As of September 2020, JTI through its Logic Pro had just 0.3 percent device share in the pod-based products market. (Murphy Tr. 3152-53).

5. Turning Point Brands (Brand: RipTide)

265. Turning Point Brands is a company that specializes in tobacco products other than combustible cigarettes, such as smokeless tobacco. (PX8003 Wexler (Turning Point Brands) Decl. at 001 ¶ 2). [REDACTED]
[REDACTED]; *see also* PX8003 Wexler (Turning Point Brands) Decl. at 001 ¶ 4).

266. In 2018, Turning Point introduced a pod-based system called RipTide RipStick, which is sold in 4,000 to 6,000 convenience stores as well as online. (PX8003 Wexler (Turning Point Brands) Decl. at 003 ¶ 12).

267. RipTide is available in 2.4 percent and 5 percent strengths, uses synthetic nicotine rather than tobacco-derived nicotine, and does not contain nicotine salts. (RX1790 (Turning Point Brands) at 007, 018, 039).

6. E-Alternative Solutions (Brand: Leap)

268. E-Alternative Solutions (“EAS”) is part of Swisher Tobacco Company. (Crozier (Sheetz) Tr. 1482; RX1616 (JLI) at 021).

269. EAS sells e-cigarettes under the brand name Leap. (Crozier (Sheetz) Tr. 1482).

(a) Leap is a pod-based system. (Crozier (Sheetz) Tr. 1490).

(b) Leap Go is a [REDACTED]

270. Leap products are carried in Sheetz. (PX8000 Crozier (Sheetz) Decl. at 003 ¶ 14).

271. EAS also marketed a product called Cue Vapor, a closed-system device that was larger than classic pods such as JUUL. (RX1616 (JLI) at 021; PX2289 (JLI) at 122-23).

7. Many Other E-Vapor Products On Market

272. There are also many thousands of other e-vapor products on the U.S. market, as measured by SKUs (stock keeping units). (Murillo (Altria/JLI) Tr. 2932, 2950-51; O’Hara (JLI) Tr. 519-20).

273. In addition to those discussed above, other prominent brands include Bidi Vapor, MNGO, and Glas. (Farrell (NJOY) Tr. 225 (listing brands NJOY is “keeping an eye on”); [REDACTED]).

274. As of 2019, products that were introduced in limited distribution before the August 8, 2016 Deeming Date continued to be reintroduced and commercialized on a broader scale. Stout, from 7-Eleven, observed that six months after Altria invested in JLI, new products were still entering the market. (PX7044 Stout (Altria) Dep. at 23, 87).

275. An October 2018 market analyst report made a similar observation, reporting, “Along with Big Tobacco, there is a tidal wave of independent competitors entering the nicotine salt landscape today. Three of the more popular products that we have come across are Phix (whose product looks very similar to Altria’s MarkTen Elite), Myle (who have a very similar product to Juul) and Suorin, who sell a range of vape pens including the ‘Vagon’” (RX1425 (JLI) at 008).

III. ALTRIA BEGAN REASSESSING THE VIABILITY OF ITS E-VAPOR PORTFOLIO WELL BEFORE DISCUSSING SPECIFIC TERMS WITH JLI

A. In 2017, Altria Was Caught Flat-Footed By Rising Consumer Demand For Pods

1. Pods, Led By JUUL, Revived A Stagnant E-Vapor Industry

276. By the beginning of 2017, Altria had been involved in the e-vapor business for four years, since Nu Mark launched the first MarkTen cig-a-like product in 2013. (Jupe (Altria) Tr. 2226).

277. At this point, Nu Mark’s entire product line was cig-a-likes. (PX7014 Baculis (Altria) Dep. at 145 (explaining that, as of 2017, Nu Mark’s “portfolio [was] only cigalikes”).

278. [REDACTED]
[REDACTED], by 2015, growth had stalled, (Begley (Altria) Tr. 1055).

279. In February 2017, Jody Begley, then president and general manager of Nu Mark, took stock of the e-vapor business during a presentation for the Altria Board of Directors regarding Nu Mark’s three-year plan. (RX0746 (Altria) at 001, 003).

280. Altria operating companies share these three-year plans, including analysis of past and projected financial performance, with the Altria Board every February. (Begley (Altria) Tr. 1055-56).
281. According to Begley, at the start of 2017, “the market was still primarily cigalikes” and “still a flat market” without “a lot of incremental interest among adult smokers.” (Begley (Altria) Tr. 1066; *see also* PX7010 Gifford (Altria) IHT at 146 (explaining that, from 2014 to 2017, there was “interplay, open systems going to close[d], within closed system branch changing places, but there was really no growth that was occurring”).
282. Summarizing the e-vapor industry’s performance over the previous several years, the deck that Begley presented to the Board stated that “e-vapor category growth ha[d] slowed.” (RX0746 (Altria) at 008). In fact, between 2015 and 2016, industry volume had shrunk by 9 percent. (RX0746 (Altria) at 008).
283. In 2016, shipment volume for Nu Mark’s e-vapor products had grown by six percent. (RX0746 (Altria) at 006; *see also* Gifford (Altria) Tr. 2734 (noting that MarkTen saw sales “increasing slightly through time” but never taking off); RX0562 (Altria) at 007 (showing MarkTen sales volume, starting at a low baseline, actually declined throughout most of 2015)).
284. But this modest increase in shipment volume was insufficient to cover Nu Mark’s operating costs. As a result, the company reported a \$118 million loss for 2016. (RX0746 (Altria) at 007; Gifford (Altria) Tr. 2726; *see also infra* Part IX.F.1).
285. In addition, Nu Mark’s three-year plan at the time projected that the company would continue incurring substantial losses for two more years—\$75 million in 2017 and \$33 million

in 2018—before hopefully breaking even in 2019. (RX0746 (Altria) at 007; Gifford (Altria) Tr. 2726; Begley (Altria) Tr. 1067; *see also infra* Part IX.F.1).

286. These 2017 projections were more pessimistic than the projections prepared the previous year, which had projected that Nu Mark would become profitable in 2018. (Gifford (Altria) Tr. 2725-26; Begley (Altria) Tr. 1061-62; PX4040 (Altria) at 012 (financial projections from February 2016); *see also* Gifford (Altria) Tr. 2724-25 (discussing 2016 projections)). Indeed, it was the third year in a row that Nu Mark had pushed out the timeline for projected profitability by yet another year. (Gifford (Altria) Tr. 2726-27; *see also infra* Part IX.F.1).

287. The revised assessment was driven by Altria’s failure to “get[] the volume [growth] that was predicted.” (Gifford (Altria) Tr. 2728). At the time, neither Nu Mark nor the e-vapor industry generally were seeing meaningful growth. (Gifford (Altria) Tr. 2729, 2734 (observing that MarkTen’s growth “basically levels out in the trends”); RX0746 (Altria) at 008).

288. At the same time, the “number of adult vapers ha[d] declined,” falling by 21 percent in the twelve months from December 2015 to December 2016, with over 2 million users leaving the category. (RX0746 (Altria) at 010).

289. [REDACTED]
[REDACTED]
[REDACTED]; *see also* PX7007 Murillo (Altria/JLI) IHT at 117 (explaining that by “early 2015,” it was clear that “cig-a-like products were not going to be of sufficiently deep and broad appeal . . . to convert large numbers of [smokers]”).

290. This assessment was confirmed by a study Altria conducted in early 2017 of consumers who had left the vapor category. The primary reason for their departure was that e-vapor products “did not provide a ‘satisfying experience,’” meaning that they “could not/did not replace a cigarette experience/occasion.” (RX1290 (Altria) at 025).
291. Despite “stagnant” growth and consumer attrition, (Begley (Altria) Tr. 1055; RX0746 (Altria) at 010), Altria continued to believe that the “adult vaper[.]” consumer category, which dwarfed both “dippers” and “cigar smokers,” “represent[ed] a significant longer-term opportunity.” (RX0746 (Altria) at 011).
292. The presentation that Begley made to the Board stated that in the year ahead, Nu Mark’s focus would be on a “disciplined” expansion of its MarkTen cig-a-likes. (RX0746 (Altria) at 013).
293. Since its launch in 2015, MarkTen had expanded to 51,000 stores and Nu Mark planned to add an additional 21,000 stores in 2017. (RX0746 (Altria) at 013-14, 017).
294. At the same time, Nu Mark would expand MarkTen Bold, its higher nicotine cig-a-like cartridge with some nicotine salts, which had “[l]aunched on e-commerce and in 5,000 lead market retail stores in November 2016.” (RX0746 (Altria) at 018).
295. At the time of Begley’s Board presentation, Bold was showing only a minor impact on MarkTen’s bottom line, largely stealing share from the original MarkTen cig-a-like and boosting the MarkTen brand’s total share by less than two percent in stores where it was sold. (RX0746 (Altria) at 019).
296. While Nu Mark’s portfolio remained focused on cig-a-likes, there were early signs by the time of Begley’s February 2017 Board presentation that the e-vapor industry was shifting toward pods. (RX0746 (Altria) at 038; *see also* Begley (Altria) Tr. 1066).

297. Begley’s presentation to the Board included the statistic that over the past year “competitive hybrid products”—a reference to pod-based e-vapor products—had more than doubled in market share, growing to nearly nine percent of the e-vapor category in the multi-outlet convenience channel as of January 2017. (RX0746 (Altria) at 038; *see also* Gifford (Altria) Tr. 2722 (describing how Altria called pod-based products “hybrid in the beginning”)).
298. During that time, JUUL was surging and had grown to the number six position nationally, with three percent of the e-vapor category. (RX0746 (Altria) at 014, 038).
299. Four months later, at the end of April 2017, pods had jumped to 21 percent of the dollar share of the e-vapor category in convenience stores, largely by stealing share from cig-a-like devices. (RX1103 (Altria) at 005; Begley (Altria) Tr. 1070).
300. As of April 2017, JUUL continued to be far and away the leader of the emerging pod-based devices segment, with over 400,000 weekly unit sales. (RX1290 (Altria) at 010).

2. In The Spring Of 2017, Altria Began Searching For A JUUL-Fighter To Compete In The Pod Market

301. With cig-a-likes stagnating and pods on the rise, Altria began searching in the spring of 2017 for opportunities to branch out from MarkTen cig-a-like and to participate in the pod market. (Begley (Altria) Tr. 1069-70; Gifford (Altria) Tr. 2730; RX1103 (Altria) at 006).
302. As Begley explained, because this was after August 8, 2016 (the predicate date under the Deeming Rule), Altria “didn’t have the ability . . . to develop anything internally to compete without waiting multiple years to compete, and . . . thought it was important to go scan the environment to see if there were any pod products that were available.” (Begley (Altria) Tr. 1072; *see also* RX0865 (Altria) at 005 (“In the near term, Nu Mark does not have the ability to market an internally developed [pod-based] product for [adult smokers].”)).

303. In the spring of 2017, Altria launched what it called “Project Mule”—a project for pursuing “potential acquisitions of pod-based products.” (Begley (Altria) Tr. 1069; *see also* RX1103 (Altria) at 006 (“Adding a closed-tank product to Nu Mark’s portfolio is a priority[.]”)).
304. As Altria’s leadership explained to the Board in May 2017, the pods segment was a highly attractive opportunity that was not addressed in Nu Mark’s portfolio, and thus the company’s strategic priority was to quickly acquire a product. (PX1286 (Altria) at 015). (The Board deck refers to the relevant segment as “[c]losed tank for adult smoker,” but Altria later updated this nomenclature to “small pod-based system.” (RX0865 (Altria) at 008 (explaining that “[c]losed [t]ank” means “[p]od [b]ased”))).
305. Altria’s Strategy & Business Development (S&BD) group surveyed the market and drilled down on six potential pod products and associated companies that might merit an investment. (*See* RX1103 (Altria) at 007). Based on “conversations with a number of different companies” and consumer research, S&BD recommended in late-May 2017 that the company pursue an acquisition of JLI or, alternatively as a second choice, a partial acquisition of a company called Von Erl. (Begley (Altria) Tr. 1073; RX1103 (Altria) at 007, 023). The four products that S&BD did not recommend pursuing were k-stick, bo, Cync, and NEX Elite. (RX1103 (Altria) at 007). S&BD’s recommendations are shown in the following chart:

S&BD and Nu Mark have identified potentially attractive options

Examples of Products Considered	➔	Potentially Attractive Options
	➔	

Preliminary Investment Thesis
Secure access to a closed-tank product: (1) that appeals to AS&V, (2) was available for sale in the US prior to the FDA deeming date, and (3) has a high probability of success in a PMTA filing

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(RX1103 (Altria) at 007).

306. As a Project Mule update prepared in May 2017 explained, “Juul is an attractive closed-system product based on: (1) early market success in the MOC channel with limited distribution; (2) ALCS qualitative [adult smoker and vaper] research; and (3) ALCS preliminary product integrity testing.” (RX1103 (Altria) at 009). The update continued, “S&BD recommends accelerated evaluation of the opportunity, though a transaction could be expensive and complex.” (RX1103 (Altria) at 009).

307. S&BD added that JUUL was the “[t]op performer” among adult smokers and vapers “seeking [a] ‘smoking experience’” and the device form “alleviate[d] social friction” for those who did not “want to look like they’re smoking.” (RX1103 (Altria) at 012). In addition, “Juul offers key benefits of a hybrid e-vapor system,” providing cig-a-like users “better . . . performance without sacrificing convenience” and open-system users “convenience in a non ‘cigarette’ form.” (RX1103 (Altria) at 012).

308. By this point, JLI and Altria representatives, including Begley, had met to discuss a potential investment. (Begley (Altria) Tr. 1008). That initial conversation, which took place in April 2017, “led nowhere.” (Begley (Altria) Tr. 1008, 1074).
309. But Altria remained in contact with JLI, discussing a possible meeting of more senior leaders later in the summer. (PX1342 (Altria) at 001).
310. The fallback acquisition opportunity recommended by S&BD, Von Erl, was an Austrian-based company whose U.S. e-vapor portfolio included open-system, cig-a-like, and pod products, marketed under the brand name My. (RX1103 (Altria) at 019).
311. Von Erl already had received multiple investment proposals from third parties. (RX1103 (Altria) at 018). Although S&BD submitted an investment proposal, (RX1103 (Altria) at 023), Imperial’s ITG Brands already had the inside track and by July 2017, Von Erl had made a distribution deal with Imperial, (RX0865 (Altria) at 012; *see also* Begley (Altria) Tr. 1074).
312. A few months later, Imperial announced that it was acquiring Von Erl and would relaunch the products under a new brand name, *myBlu*. (RX1912 at 001-02).
313. With Von Erl off the table and a future partnership with JLI still aspirational, S&BD began exploring an investment in one of the four products that it had initially recommending not pursuing: Cync. (RX0865 (Altria) at 023-24; RX1103 (Altria) at 007).
314. Meanwhile, in late June, the e-vapor product team at Nu Mark began to explore a possible investment in NEX Elite, a product developed and manufactured by a Chinese company called Smoore. (PX4126 (Altria) at 001). NEX Elite was another product that S&BD had considered as part of its original Project Mule assessment but declined to pursue. (RX1103 (Altria) at 007; RX0865 (Altria) at 012).

3. FDA’s Endorsement Of The Continuum Of Risk Raised The Stakes

315. In July 2017, as Altria was searching for an entry into the growing pod market, FDA embraced the continuum of risk as part of its comprehensive plan for nicotine regulation. (PX9058 (FDA) at 001; *see also supra* Part I.D.4).

316. From Altria’s perspective, this “was a major policy statement by the agency at the time” and it “embraced the concept that . . . [people at Altria] had been working on” for a long time and that they “hoped was reflected in the Tobacco Control Act”—“the idea that there should be these alternative products.” (Murillo (Altria/JLI) Tr. 2906; *see also* Murillo (Altria/JLI) Tr. 2905-06 (explaining that announcement was “very significant” to the industry—it was the first time FDA “embraced a policy where you try to move people down th[e] continuum of risk” of tobacco products “rather than just banking on quitting”); Willard (Altria) Tr. 1337 (similar); Garnick (Altria) Tr. 1694-95 (similar)).

317. As Willard explained, “this was a big step forward in the FDA signing on to help in an area where Altria had had a long-term strategy and . . . had mixed success, but it gave [Altria] hope for the future.” (Willard (Altria) Tr. 1337; *see also* Garnick (Altria) Tr. 1694-95). “[F]or the FDA to say it is now our primary strategy, or an important strategy, that these products get on the market and are used to switch adult cigarette smokers, that was very encouraging to [Altria] that [its] strategy may have greater potential in the future than it otherwise might [have],” (Willard (Altria) Tr. 1340), as a result of FDA “do[ing] what it could to foster this new market of noncombustible tobacco products,” (Garnick (Altria) Tr. 1695).

4. Altria And JLI Had Initial, Exploratory Discussions In Mid- To Late-2017

318. As 2017 progressed, Altria continued to view JLI as the most promising acquisition in the burgeoning market for pod-based devices. (RX0865 (Altria) at 013).

319. In late July, senior leaders from both companies met to discuss possibilities for collaboration. The meeting was attended by Riaz Valani and Zach Frankel, both members of JLI's Board, and Isaac Pritzker, the son and business partner of JLI Board member and investor Nicholas Pritzker. Howard Willard, then COO, and Billy Gifford, then CFO, attended on behalf of Altria. (Valani (JLI) Tr. 902; RX1459 (JLI) at 001-02; *see also* PX1284 (Altria) at 018 (describing JLI meeting attendees)).
320. According to Frankel's notes from the meeting, Altria suggested that "there may be an opportunity where the two [companies] working together is highly complementary." In particular, Altria could help with an assortment of services, including distribution, brand development, and "FDA + regulatory engagement as well as whole gov't affairs org." (RX1459 (JLI) at 003).
321. Altria also emphasized the importance of "combat[ing]" youth usage and detailed Altria's youth prevention efforts across the tobacco industry, including its point-of-sales programs and how youth issues informed its approach to flavor development. (RX1459 (JLI) at 002).
322. Isaac Pritzker's takeaway was that Altria was not "sufficiently aware of growth and product advantage of Juul to create the conditions for a particularly favorable deal." (RX1459 (JLI) at 001). But he added that he wanted to "switch every adult smoker in the world to Juul and then off nicotine entirely and [he was] reasonably open to how [JLI] accomplish[ed] that," such as through a potential partnership with Altria. (RX1459 (JLI) at 001).
323. In August 2017, Altria leadership informed the Board that the company was pursuing an investment in JLI, explaining that senior leaders had met with "key . . . investors" in JLI (then called Pax) but the discussions had remained high level, with JLI likely "favor[ing] a minority investment." (PX1284 (Altria) at 018, 020).

5. In Late 2017, Nu Mark Took What It Could Get, Acquiring Elite And Cync, Its Third And Fourth Choices

324. By mid-2017, Nu Mark was “in a very difficult situation.” (Schwartz (Altria) Tr. 1866). As Craig Schwartz, then the Senior Vice President of Operations at Nu Mark, summarized, Altria “only had a cigalike product in MarkTen XL. As uplifting as Commissioner Gottlieb’s comments were in July of 2017 with regards to the continuum of health risk, the rules by which you had to play by and compete in the United States were incredibly difficult,” as a result of the Deeming Rule. Altria found itself with “virtually nothing in [Nu Mark’s] pipeline, in-house pipeline, for [it] to sell. Cigalike was declining very quickly. The pod business was growing exponentially, driven by JUUL. And . . . [Altria was] getting [its] butt[] kicked week in and week out.” (Schwartz (Altria) Tr. 1866; *see also* PX7018 Schwartz (Altria) Dep. at 153 (characterizing Nu Mark as “far behind” its competition); PX7014 Baculis (Altria) Dep. at 145 (explaining that lack of pod product was a “significant gap in [Nu Mark’s] portfolio”); Begley (Altria) Tr. 1070 (similar)).

325. [REDACTED]

326. As a result, Altria acquired rights to its fallback choices, NEX Elite and Cync. (Begley (Altria) Tr. 1074-75; RX1103 (Altria) at 007; RX0865 (Altria) at 012; *see also* [REDACTED])

327. Nu Mark viewed Elite as “the best of what was available at the time.” (Begley (Altria) Tr. 1075).

328. Nu Mark licensed the exclusive right to commercialize NEX Elite from Smoore in late October 2017, for a sum of \$500,000. (Schwartz (Altria) Tr. 1862-63, 1868-69; PX7018 Schwartz (Altria) Dep. at 86; PX0032 (Altria) at 017).

329. Schwartz, who negotiated the acquisition of Elite with Smoore, was not aware of any other e-vapor companies that were interested in NEX Elite at the time. (Schwartz (Altria) Tr. 1867, 1869-70).

330. As Richard Jupe, the current head of Altria's Product Development division, explained, Elite "was kind of the best of the worst type of thing. In other words, it's what you could acquire. But the mind-set was to take that as a foundation, test it, learn from it, put it in the market, and then ultimately improve it over the medium term." (Jupe (Altria) Tr. 2246).

331. Similarly, the Cync acquisition was a "strategic hedge." (RX0865 (Altria) at 023). Altria acquired Cync from a U.S.-based entrepreneur, (Schwartz (Altria) Tr. 1915), [REDACTED]
[REDACTED]
[REDACTED]. And Altria did so knowing that adult smoker "adoption" was one of the key strategic risks of the investment. (RX0865 (Altria) at 026).

6. In November 2017, Altria Highlighted To Its Investors Both FDA's Endorsement Of Reduced-Risk Products And The Shift Towards Pods

332. In November 2017, shortly after acquiring both Elite and Cync, Altria held its Investor Day, a long-form event Altria generally hosts once "every two years" to "communicate with investors." (Willard (Altria) Tr. 1147; *see also* RX0176 (Altria)).

333. Willard, who kicked off the harm-reduction section of the event, called attention to FDA's endorsement of the continuum of risk. (RX0176 (Altria) at 089, 94). Altria, he said, was "encouraged" by the distinction FDA drew between combustible and noncombustible

products and FDA’s stated goal of “encourag[ing] innovative, less harmful and satisfying non-combustible products for adults who need or want nicotine.” (RX0176 (Altria) at 094 (internal quotation marks omitted)). In fact, as was discussed elsewhere in the presentation, the U.K.’s Royal College of Physicians estimated that e-vapor products are 95 percent less harmful than combustible cigarettes. (RX0176 (Altria) at 008, 076; *see also* Garnick (Altria) Tr. 1695).

334. “Successfully converting . . . adult smokers to [Altria’s] companies[’] non-combustible products,” Willard said, “represents a significant opportunity for both harm reduction and our business.” (RX0176 (Altria) at 011).

335. As Willard explained to Altria’s investors, FDA’s new policy aligned with Altria’s strategic objective regarding reduced-risk products: “We aspire to be the U.S. leader in authorized, non-combustible, reduced-risk products.” (RX0176 (Altria) at 095). But, while this was “a strongly held future goal,” Altria had not yet achieved that aspiration. (Willard (Altria) Tr. 1340-41).

336. Later in the session, Begley – then General Manager of Nu Mark – offered investors an overview of Nu Mark’s position in the e-vapor category. (RX0176 (Altria) at 132).

337. Begley began by explaining that the market had evolved substantially since Nu Mark’s entry in 2013, thanks to “an influx of new competitors” and “new products,” as well as the “rise and fall of multiple leading brands.” (RX0176 (Altria) at 134). Five years in, he explained, the e-vapor category “consist[ed] of three primary product formats: cig-a[-]likes; closed tank products [Altria’s reference at the time to pod-based products, *see supra* ¶ 304]; and open tank systems.” (RX0176 (Altria) at 134, 137).

338. Begley indicated Nu Mark had made “substantial progress in the cig-a-like segment” through new product offerings, including MarkTen Bold, and expanding distribution. (RX0176 (Altria) at 141, 143, 149).
339. Begley then addressed the emerging pod-based segment and noted that Nu Mark was seeking to “expand [its] access to additional products” through “strategic partnerships” and “evaluating various acquisition opportunities.” (RX0176 (Altria) at 152-53). Elite, which he described as a “small pod-based product that offers a variety of flavorful liquids in a modern, discrete device format,” was one example of that approach. (RX0176 (Altria) at 152). Cync, he added, was “an additional pod-based product” with “a variety of flavorful liquids.” (RX0176 (Altria) at 153).
340. Recognizing that “innovation can be achieved in multiple ways—through organic product development” and “through strategic partnerships and acquisitions”—Begley assessed that he “fully expect[ed] Nu Mark to achieve [its] long-term goal” of “lead[ing] the U.S. e-vapor category.” (RX0176 (Altria) at 136, 156). At the time, when Nu Mark’s pod acquisitions were in “early days” and not yet been launched on the market, he was “optimistic” that those products “would get some traction” and the company would have “some continued success with [its] cigalike formats.” (Begley (Altria) Tr. 979).

7. Meanwhile, Altria And JLI Continued To Explore A Possible Investment As JUUL Surged Toward Category Leadership

341. By mid-November 2017, Altria’s budget projections for 2018 predicted that the pod/hybrid segment would grow by 55 million units compared to the latest estimate for 2017, while sales of cig-a-like products and open-system products would collectively decline by 25 million units “due to Hybrid growth.” (RX0188 (Altria) at 001, 026).

342. “Around this time, JUUL . . . was growing quite rapidly in both volume and market share” and “was the fastest growing product in the e-vapor category.” (Willard (Altria) Tr. 1341-42; *see also* Crozier (Sheetz) Tr. 1487 (explaining that JUUL “really took off” in the fall of 2017)).

343. According to Begley, “the market dynamics clearly changed, and there appeared to be one format that was winning in the marketplace, which was pod-based product with nicotine salts, which primarily was JUUL.” (Begley (Altria) Tr. 1055).

344. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]; *see also supra* Part II.B.1).

345. Altria and JLI leadership met again in December 2017, this time at Altria’s offices in Richmond. Nicholas Pritzker joined Valani on behalf of JLI. Willard and Gifford represented Altria. (Pritzker (JLI) Tr. 772; PX1250 (Altria)).

346. Within Altria, the negotiations for a potential investment in JLI were known by the code-name “Project Tree.” (Begley (Altria) Tr. 1007-08).

347. During the December 2017 meeting, Altria again emphasized the capabilities that it could deploy to promote JLI’s success, including “Regulatory Capabilities” and “Underage Tobacco Prevention.” (PX1250 (Altria) at 005). On the regulatory side, Altria emphasized the “complexity” of a PMTA, sharing its views on the necessary components and studies, and

highlighting its experience with product submissions and interfacing with FDA. (PX1250 (Altria) at 026-27).

348. Pritzker recalls Altria “indicat[ing] that [it] could be helpful to JLI” in these early meetings, including in the PMTA process, “which was an intriguing idea.” (Pritzker (JLI) Tr. 775-76).

349. At the time, Altria was proposing to buy 100 percent of the domestic side of JLI for \$4-5 billion. (Pritzker (JLI) Tr. 773-75).

350. Although Pritzker had reservations about splitting the company, the JLI Board “was interested in hearing more” and formed a Strategic Committee, composed of Valani and Pritzker, “to continue conversations.” (Pritzker (JLI) Tr. 775-76).

B. In Late 2017, Altria’s Scientists Identified Technical Problems With Nu Mark’s Products

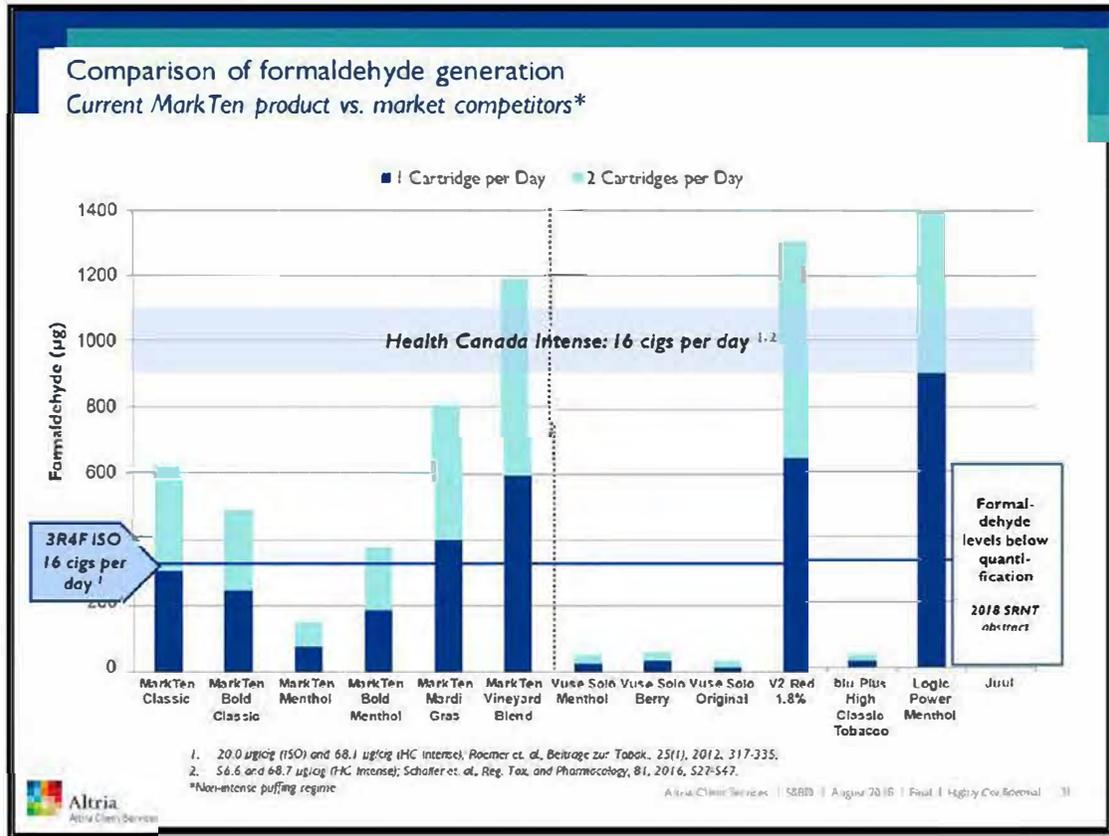
1. MarkTen Cig-A-Like Dry Puffing

351. As these conversations with JLI were taking place, Altria was working on the PMTAs for its e-vapor products and to its dismay finding new issues that jeopardized the products’ PMTAs. One of these problems identified by Altria scientists was called “dry puffing.” (Jupe (Altria) Tr. 2303-04, 2237; PX7015 Gogova (Altria) Dep. at 96-97). Dry puffing is a phenomenon that occurs when a closed system’s cartridge begins to run out of e-liquid at the end of its life. The remaining e-liquid overheats, which results in the generation of aldehydes, particularly formaldehyde. (Jupe (Altria) Tr. 2303-04, 2237; PX7015 Gogova (Altria) Dep. at 90-91; PX4149 (Altria) at 033; King (PMI) Tr. 2351).

352. “Aldehydes” are a class of compounds, with formaldehyde being the most common and the simplest. (Gardner (Altria) Tr. 2574-75). Altria sometimes used the terms “aldehyde” and “formaldehyde” interchangeably. (Gardner (Altria) Tr. 2575).

353. “Formaldehyde” is the particular compound “most likely to increase with thermal decomposition.” (Gardner (Altria) Tr. 2575).
354. Formaldehyde is a carcinogen. (Gardner (Altria) Tr. 2562; Willard (Altria) Tr. 1423).
355. Altria’s scientists discovered that the MarkTen cig-a-like had a dry puffing problem in late 2017, when it “learned how the adult smokers used the MarkTen cigalike product.” (Gardner (Altria) Tr. 2569-70; *see also* RX0817 (Altria) at 003, 012).
356. Previously, Altria had tested the MarkTen cig-a-like using an “intense” puffing regime, which it believed to be the “conservative” testing approach. Under “intense” puffing conditions, the MarkTen cig-a-like generated “very low formaldehyde levels.” (PX7000 Garnick (Altria) Dep. at 122-23; *see also* RX0817 (Altria) at 010-11).
357. But once MarkTen cig-a-like was on the market, Altria “started to run tests to study how people actually used the product, and [it] discovered that people actually engaged in moderate puffing. Not intense puffing.” (PX7000 Garnick (Altria) Dep. at 123).
358. Altria accordingly began to re-run “the same kind of tests” using a “moderate puffing” regime rather than intense. (PX7000 Garnick (Altria) Dep. at 123; *see also* RX0817 (Altria) at 004 (noting intense puffing studies were performed “throughout development and stability studies” while non-intense puffing studies were not performed until “PMTA stability studies at 6 months of product age”)).
359. These new studies revealed that under non-intense puffing conditions, MarkTen cig-a-like’s formaldehyde yields through the life of the cartridge “were higher than expected and higher than other products in the market,” and “were similar to a cigarette.” (Gardner (Altria) Tr. 2569-70; *see also* RX0817 (Altria) at 012-13).

360. Dry puffing was not an acute health risk, but it was a serious regulatory problem that threatened Altria’s ability to obtain FDA approval. (Jupe (Altria) Tr. 2237-38; *see also* PX7027 Murillo (Altria/JLI) Dep. at 115 (dry puffing represented a “tremendous risk” for the MarkTen cig-a-like PMTA)).
361. “[T]he only products that seemed to be having issues with aldehyde generation, other than MarkTen, were V2 and Logic.” (PX7007 Murillo (Altria/JLI) IHT at 163-64). Other e-vapor products “including JUUL and [Reynolds’s] products,” (Garnick (Altria) Tr. 1633-64), had “dry puff prevention or temperature control, so their formaldehyde levels stayed low throughout the life of the product,” (Gardner (Altria) Tr. 2567; *see also* PX7026 Gardner (Altria) Dep. at 37-38; PX4149 (Altria) at 034; PX1247 (Altria) at 009; RX0642 (Altria) at 006; RX0631 (Altria) at 006).
362. This chart from an internal Altria presentation demonstrates MarkTen cig-a-like’s elevated formaldehyde levels compared to other e-vapor products as well as cigarettes:



(PX4149 (Altria) at 034; see also PX1247 (Altria) at 009 (same chart)).

363. As this chart makes clear, MarkTen cig-a-like fared poorly in a comparison of its formaldehyde levels through the end of the cartridge to those of other e-vapor products (as would be required as part of FDA’s PMTA review, see supra ¶¶ 66-70). (Garnick (Altria) Tr. 1604-05 (discussing PX1247 (Altria) and explaining that in evaluating risk reduction, FDA would compare an e-vapor product both to cigarettes and to “other products of the same category”)).

364. As of the end of 2017, Altria’s senior management did not understand the full scope of the dry puff problem. (Garnick (Altria) Tr. 1728).

2. Elite Dry Puffing

365. In December 2017, Altria discovered that Elite also had a dry puff problem, similar to that of the MarkTen cig-a-like. (RX0825 (Altria) at 001).

366. When Altria acquired rights to commercialize Elite in the fall of 2017, Elite “didn’t have dry puff [prevention]. So the potential for formaldehyde was the same as it was for [other] e-vapor products” without such technology. (Jupe (Altria) Tr. 2305-06; *see also* PX7017 Magness (Altria) Dep. at 104 (“Elite . . . was missing the temperature control feature that [Altria] had come to deeply appreciate was critical to reducing formation of certain constituents that are of concern, including formaldehyde[.]”); Gardner (Altria) Tr. 2562-63 (similar)).

367. Initial scientific testing of Elite’s formulations conducted soon after the product’s acquisition indicated that some “devices delivered low aerosol mass and high formaldehyde results.” (RX0825 (Altria) at 001).

C. Despite Elite’s Limitations, Nu Mark Rushed The Product To Market Because It Was Desperate For A Pod-Based Offering

1. Unable To Modify Elite, Nu Mark Aimed To Launch It Within Four Months

368. Despite a dawning awareness of Elite’s design flaws, “[m]arketplace and consumer dynamics demonstrate[d] [an] urgent need to compete beyond the cig-a-like category.” (RX1292 (Altria) at 055). As Schwartz explained at trial, “[t]here was a lot of urgency for [Altria] to be able to play in that [pod-based] space.” (Schwartz (Altria) Tr. 1871).

369. Elite still was seen as a better product than Nu Mark’s only other pod-based possibility, Cync, which “had some product issues that [Altria] needed to address before [it] rolled that out.” (Begley (Altria) Tr. 1097). In addition to “many of the same temperature control problems as the other products,” Cync also had nickel components, which created “a risk of acute chronic nickel poisoning.” (Garnick (Altria) Tr. 1743). As a result, Nu Mark “never

put it on the market.” (Garnick (Altria) Tr. 1743; *see also* PX4149 (Altria) at 093 (indicating Cync launch was “on [h]old” due to problems like “[a]cute battery hazard,” “[a]cute toxicological risk due to nickel components,” and “[f]ailed child resistance testing”).

370. With no other hand to play, and no ability to make changes to any predicate product, Nu Mark worked to launch Elite as quickly as possible. (Begley (Altria) Tr. 990; PX7014 Baculis (Altria) Dep. at 133; PX1113 (Altria) at 027 (indicating that Altria had rushed Elite to market with “[e]xceptional speed”).

371. Normally, commercializing a product can take a year or more. (Schwartz (Altria) Tr. 1870).

372. But in light of the urgent need for a pod-based product, Nu Mark resolved to go faster, initially targeting a May/June 2018 launch. (PX1647 (Altria) at 004). Altria’s management was not satisfied with even that accelerated schedule and asked the Nu Mark team if it could “do better.” (PX1647 (Altria) at 004). As a result, the operations team developed plans to accelerate the launch from May to February 2018—fewer than four months after the acquisition. (Schwartz (Altria) Tr. 1870-71; PX1647 (Altria) at 005).

2. In Early 2018, Consumer Research Confirmed That Elite Was Ill-Suited To Delivering The Nicotine Satisfaction Necessary To Convert Cigarette Smokers

373. While Nu Mark’s operations team was scaling up manufacturing and preparing its distribution network to receive Elite, the consumer research team undertook to learn more about the pod-based products Altria had just bought. (PX4075 (Altria) at 001; RX2015 (Altria) at 001).

374. Nu Mark’s “general practice for many of [its] new products” was to conduct an “extended home use study,” in which participants were paid to take the product home, use it for several weeks, and provide feedback. (Begley (Altria) Tr. 1097-98). Nu Mark viewed the results of

this study as a potential indication of how a product might perform in the marketplace.

(Begley (Altria) Tr. 1098; *see also* PX7014 Baculis (Altria) Dep. at 300-01 (“A home use test could give you an indication that a product might be successful in the market, but it is not really very predictive.”)).

375. Home use tests (also called “HUTs”) have limitations, particularly for predicting purchase intent. (Begley (Altria) Tr. 1098; Jupe (Altria) Tr. 2235, 2247-48; PX7014 Baculis (Altria) Dep. at 297-98). If the HUT is “a disaster,” it is “unlikely to be necessary to even roll [the product] out, because you know what you’re going to get.” (Begley (Altria) Tr. 1098; *see also* PX7014 Baculis (Altria) Dep. at 301-02 (“[I]f the home use test was not positive, we would not recommend something be put in the marketplace.”)). Conversely “positive results in a home use test . . . [do not] necessarily translate to marketplace results that [are] similar to the home use test.” (Begley (Altria) Tr. 1098). But positive results could at least provide “enough confidence that maybe . . . [it is] worth giving it a shot.” (Begley (Altria) Tr. 1098; *see also* PX7014 Baculis (Altria) Dep. at 302 (“If the home use test was positive . . . it would be worth pursuing and doing an in-market sort of test to understand viability in the marketplace.”)).

376. Because participants are paid and “getting the product for free for an extended period of time,” rather than “go[ing] to a retail store and tak[ing] money out of their pocket,” the HUT is “a bit of an artificial environment.” (Begley (Altria) Tr. 1098; *see also* Jupe (Altria) Tr. 2235, 2247-48 (similar); PX7014 Baculis (Altria) Dep. at 298 (similar); PX7023 Fernandez (Altria) Dep. at 92 (similar)).

377. “[T]he test at the end of the day is what people are buying at retail.” (Jupe (Altria) Tr. 2247-48; *see also* Begley (Altria) Tr. 1098 (observing that the retail environment is where

manufacturers “get the best learnings in terms of how appealing [a] product [is] to consumers”); PX7023 Fernandez (Altria) Dep. at 156 (explaining that while HUT results are “indicators,” manufacturers “get the real answer in the marketplace”).

378. Beginning in late 2017, Nu Mark ran HUTs on three different products: Elite, Cync, and JUUL. (RX2015 (Altria) at 004). The preliminary results showed that, over a three-week period, the purchase intent for MarkTen Elite remained steady, at 43 percent, and was higher than that of JUUL. (PX4075 (Altria) at 001). Nu Mark viewed this result as an encouraging initial sign. (Begley (Altria) Tr. 986-89; PX4075 (Altria) at 001).

379. But the full results, released in January 2018, showed a more complicated story. (RX2015 (Altria) at 010). Although Nu Mark ran the Elite test for six weeks, it ran JUUL for just three weeks. The reason: It “couldn’t find enough JUUL on the market to conduct the test. They were sold out.” (Jupe (Altria) Tr. 2249). As Jupe observed, “[t]hat’s kind of a good indicator unto itself.” (Jupe (Altria) Tr. 2249; *see also* Begley (Altria) Tr. 1098-99).

380. In addition, analysis showed that, for those participants who had not used a vapor product within the last seven days, meaning those who were “predominantly cigarette smokers,” (Jupe (Altria) Tr. 2251), the purchase intent for Elite was *lower* than that for JUUL, (RX2015 (Altria) at 010).

381. On a metric where HUT results are more useful—helping understand the “consumer set” that likes a product, (PX7014 Baculis (Altria) Dep. at 300)—the results were no more confidence inspiring. As the January 2018 report prepared by Altria’s Consumer & Marketplace Insights team summarized, “Cync & Elite provide different product experiences than that provided by JUUL[], and therefore the products show strong performance among different [adult smoker and vaper] audiences. JUUL provides a more ‘familiar cigarette-like

experience’ and demonstrates immediacy in replacing cigarette usage occasions among . . . those who are still predominantly smoking cigarettes[]. Cync & Elite provide more ‘non-traditional vaping experiences’ and demonstrate higher usage among . . . those who are more familiar with e-vapor product usage.” (RX2015 (Altria) at 007).

382. The HUT results also raised independent questions about Elite’s ability to convert smokers. During the course of the test, researchers periodically asked participants about what percentage of the time they were smoking versus using the test product. (PX7023 Fernandez (Altria) Dep. at 93; RX0496 (Altria) at 019; RX2015 (Altria) at 015).

383. The data showed a marked difference in the products’ performance. (Jupe (Altria) Tr. 2252). For those participants who had not used a vapor product in the last seven days—meaning those who were “predominantly cigarette smokers”—JUUL immediately began replacing cigarette smoking occasions in numbers that were statistically significant. (Jupe (Altria) Tr. 2251-52).

384. By contrast, Elite did not start to show any impact until weeks five or six into the study, and even then, it was not statistically meaningful. (Jupe (Altria) Tr. 2252). As Jupe explained, that time lag is important. A pack-a-day smoker “would have to buy 35 pods and continue using them for five weeks to figure out that you could put your cigarettes down,” which is “really unlikely” to happen in the marketplace. (Jupe (Altria) Tr. 2253). Consumers “don’t go and buy 35 new products. The first one is going to tell you what you are going to need to know.” (Jupe (Altria) Tr. 2253).

385. Pascal Fernandez, the head of Altria’s consumer research division, confirmed that the HUT “was [an] indication that [Elite] didn’t perform as well towards th[o]se consumers who

were looking for [the] smoking sensation”; that demographic was “not converting” to the extent that it needed to. (PX7023 Fernandez (Altria) Dep. at 25-26, 154-55).

386. The other pod-based product in Nu Mark’s portfolio, Cync, showed the lowest propensity to replace cigarettes, with cigarette usage occasions remaining at roughly the same level throughout the study. (RX0496 (Altria) at 019).

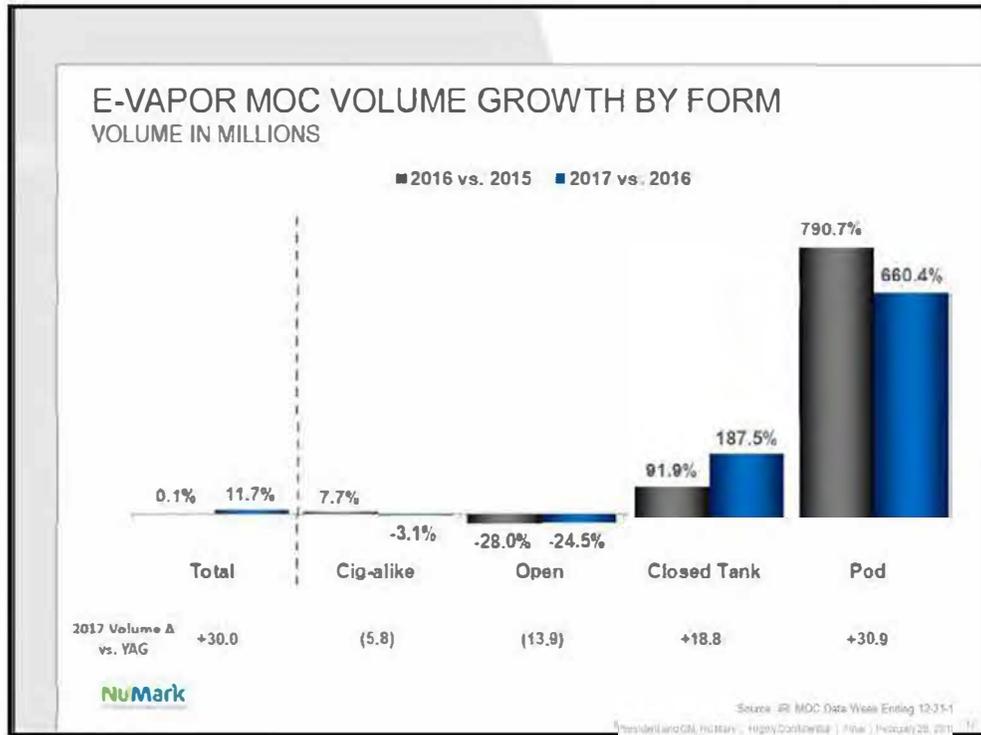
387. These were troubling signs for Nu Mark’s newly acquired pod products because, from the perspective of the PMTA standard, “if adult smokers don’t convert to the product, you’re not reducing harm to the population and to the adult smokers, so . . . the product [would have] no reason for being in the market.” (Gardner (Altria) Tr. 2586; *see also* Murillo (Altria/JLI) Tr. 2907).

3. In February 2018, Nu Mark Informed The Altria Board That Pods Were Driving The E-Vapor Industry And Offered A Measured Assessment Of Elite

388. In February 2018, when Begley presented the Board with Nu Mark’s annual three-year plan, the e-vapor category had started growing again, both in terms of consumers and unit volume. (Begley (Altria) Tr. 1084-85; PX4012 (Altria) at 004-05).

389. That growth was driven primarily by “the success of pod-based products,” which included “more satisfying products” that had prompted adult smokers to “re-engage with e-vapor.” (Begley (Altria) Tr. 1084-85).

390. The data Begley presented to the Board through the chart below showed that in 2017, pod sales volume had grown by 660 percent. What Altria then called closed tanks (a variant of pod-based products, (RX0865 (Altria) at 008)) had grown by 187 percent. Meanwhile, cig-a-like volume had declined by 3 percent, a contraction of some 5.8 million units:



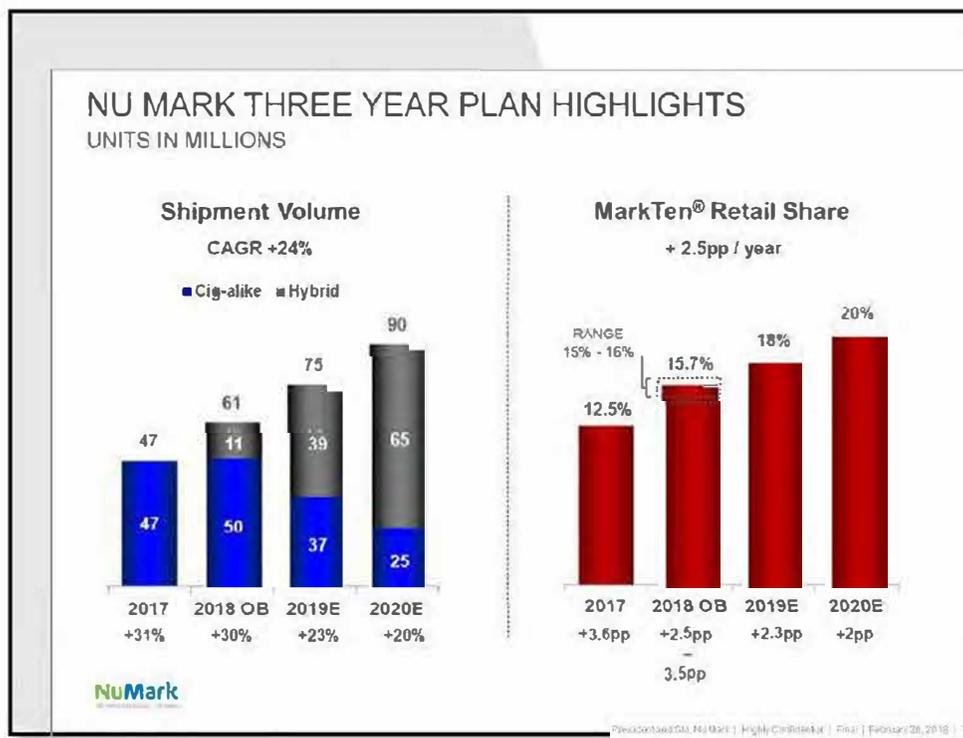
(PX4012 (Altria) at 014).

391. Nu Mark had been able to grow its volume somewhat by expanding distribution. (PX4012 (Altria) at 013; RX0746 (Altria) at 017). But it was continuing to incur substantial financial losses: It lost \$71 million in 2017. (PX4012 (Altria) at 010; Gifford (Altria) Tr. 2737; *see also infra* Part IX.F.1).

392. Nu Mark also revised its forward-looking projections. In the prior year’s strategic plan, Nu Mark had predicted that it would likely lose \$33 million in 2018 and then break even in 2019. (RX0746 at 007; Gifford (Altria) Tr. 2728; *see also infra* Part IX.F.1). By February of 2018, Nu Mark was estimating that it would lose \$70 million in 2018, followed by a \$24 million loss in 2019, before hopefully turning a profit in 2020. (PX4012 (Altria) at 010; Gifford (Altria) Tr. 2737; *see also infra* Part IX.F.1). But those numbers assumed “substantial volume growth in the cigalike form”; “without [that] growth,” Altria was “going to continue to lose \$70 million a year on the cigalike platform.” (PX7022 Begley (Altria) Dep. at 225).

393. By this point, the sustained losses and continued delays in projected profitability had become “troubl[ing]” to senior management, including Gifford, then the CFO. (Gifford (Altria) Tr. 2738).

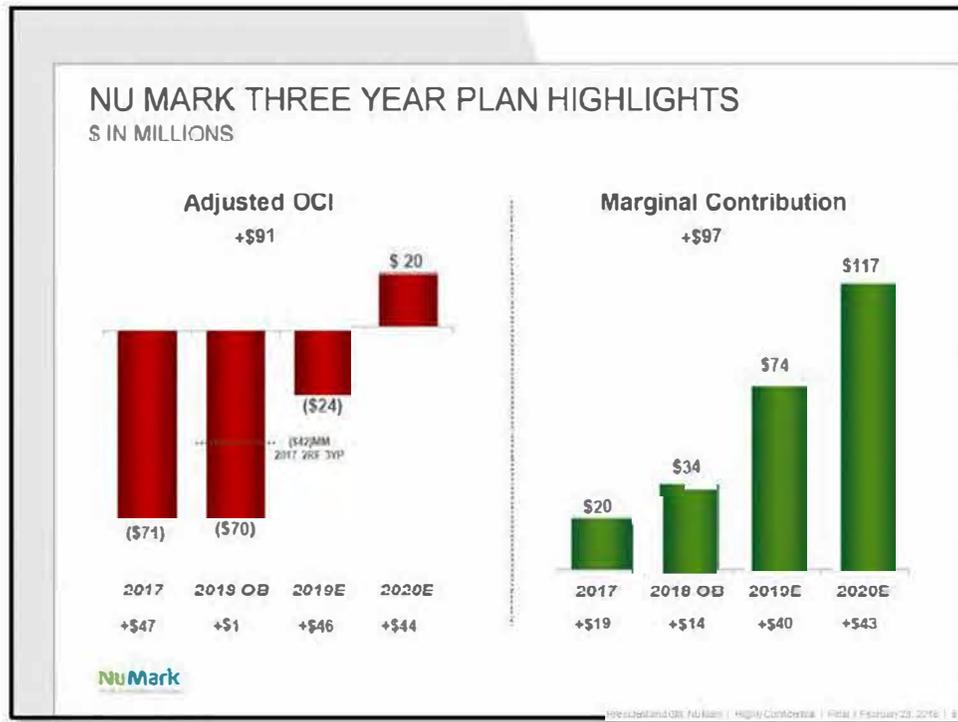
394. Although “the plans thus far hadn’t worked,” Nu Mark came forward with a “new plan[.]” (Gifford (Altria) Tr. 2738). The 2018 plan centered on pod-based products. Begley told the Board that Nu Mark hoped to sell 11 million units of pod products in 2018 and that, by 2019, pod products would account for the majority of its volume, while cig-a-like volume rapidly declined. The plan further assumed that, driven by strong pod sales, Nu Mark’s overall sales volume would grow by between 20 to 30 percent year over year. (PX4012 (Altria) at 009; *see also* Gifford (Altria) Tr. 2739 (explaining that the 2018 projections included Nu Mark’s hopes that the launch of Elite would bolster the company’s financial viability)). Begley presented the following chart to the Board to demonstrate this plan:



(PX4012 (Altria) at 009).

395. In short, for Nu Mark to meet its sales and share projections, it would “need to be successful with pod-based products.” (Begley (Altria) Tr. 1085-86).

396. This was also true of Nu Mark’s revenue targets, shown in the chart below, which were contingent on hitting sales projections:



(PX4012 (Altria) at 010).

397. As Begley explained, “[g]iven the reliance on the [volume] numbers you see [in the three-year plan], if we weren’t successful with a pod-based product, we were not going to achieve those numbers.” (Begley (Altria) Tr. 1086).

398. Begley informed the Board that “the winning product proposition in the market that was really driving the growth of the category were pod-based products, and specifically pod-based products with nicotine salts, and even more specifically, JUUL.” (Begley (Altria) Tr. 1091).

399. By the end of 2017, JUUL accounted for roughly one in three e-vapor sales nationally and held a roughly 68 percent share in stores in which it was sold. (RX0979 (Altria) at 014).

400. According to the consumer research results that Begley shared in his February 2018 presentation to the Board, JUUL was successful because it “had a nicotine satisfaction that, in essence, mirrored that of a cigarette, that adult smokers found satisfying. It was a simple, intuitive, easy-to-use product in design,” and “it resolved for at least many adult smokers . . . the social friction of being viewed as a smoker” because it did not look like a cigarette. (Begley (Altria) Tr. 1094-95; *see also* PX4012 (Altria) at 016 (concluding JUUL is successful due to its “[f]amiliar nicotine satisfaction,” “[d]iscreet size and appearance,” and “[s]imple, modern aesthetic design”)).

401. Begley also informed the Board of what Nu Mark was doing to respond to JUUL, highlighting the two “closed pod-based products” the company had acquired—Elite and Cync. (PX4012 (Altria) at 021).

402. In discussing the consumer research results for those products, Begley was measured. For Cync, Begley’s slide presentation conveyed that its “primary benefits were ease of inhale and good vapor volume.” (PX4012 (Altria) at 023). But the presentation also referenced some of Cync’s design problems that had prompted Nu Mark to hold off on commercializing it, explaining that the drawbacks included “latency of draw” and “popping.” (PX4012 (Altria) at 023; *see also* Begley (Altria) Tr. 1097 (explaining that Nu Mark did not launch Cync because of “product issues”)).

403. Similarly, Begley’s slides shared that “Elite’s primary benefit [was a] feeling of vapor fullness on the inhale/exhale combined with good tasting flavors.” (PX4012 (Altria) at 023). But although he was “hopeful” that Elite would prove popular, (Begley (Altria) Tr. 1124), he also cautioned that the “[p]rimary drawbacks for some include lack of nicotine satisfaction,” (PX4012 (Altria) at 023).

404. As Begley explained at trial, he “thought it was important to note [to the Board] that although [Elite] was a pod-based product that [the company] had access to, it still didn’t deliver the nicotine satisfaction that adult smokers were looking for to lead to conversion.” (Begley (Altria) Tr. 1096-97).

405. Nu Mark launched Elite notwithstanding that satisfaction deficit because Elite was “the only thing [Nu Mark] had to compete with, or at least hopefully compete with at the time” and the company was “hopeful that [the satisfaction deficit] wasn’t going to be [an] impediment.” (Begley (Altria) Tr. 1097).

406. Summarizing the thinking at the time, Gifford explained, “cigalike’s fallen off [a] cliff, pods [are] growing greatly, you know the consumer has shifted to that. Now [Nu Mark has] a pod product in [its] portfolio. So your hopes are that [Nu Mark is] going to grow and compete in that space.” (Gifford (Altria) Tr. 2739).

D. Altria Heavily Marketed And Promoted Elite In 2018

407. Altria invested heavily in Elite’s launch. As Willard testified, Elite’s launch was “well-funded” because the company “wanted to get [the product] out there as quickly as possible and . . . effectively.” (Willard (Altria) Tr. 1356-57; *see also* Begley (Altria) Tr. 990 (Elite’s “rapid launch” was a “significant achievement” requiring “a lot of hard work” by “a lot of people”)). Among other things discussed in more depth in the sections that follow, Altria “put in place marketing offers to get lots of people to try the product” and built a supply chain to get the product into thousands of stores. (Willard (Altria) Tr. 1357).

1. Altria Invested In A Strong Rollout With Wide Initial Distribution And Placement In Leading Retailers

408. The Elite launch was “the number one priority for [Altria’s] sales force.” (Willard (Altria) Tr. 1356-57). AGDC never took its “foot off the gas,” getting Elite to “all the targeted stores” and ensuring consumers “knew MarkTen Elite was in the store.” (Myers (Altria) Tr. 3323).

409. [REDACTED]
[REDACTED]
[REDACTED]

410. The sales force was able to get Elite into over 90 percent of the stores that it targeted. (Myers (Altria) Tr. 3323).

411. “Nu Mark expanded MarkTen Elite from over 6,000 stores in the first quarter [of 2018] to more than 23,000 stores by the end of the second quarter.” (PX9047 (Altria) at 003). [REDACTED]
[REDACTED]

412. In attempting to expand distribution, Altria faced retailer pushback about the quality of Nu Mark’s products. For example, Nu Mark wanted to launch Elite in 7-Eleven, because 7-Eleven is Altria’s largest retailer “both from a business contribution and from a total retail store standpoint,” it has a national footprint, and it does well “creating awareness in trial” using its loyalty program and digital capabilities. (Myers (Altria) Tr. 3307, 3315). But 7-Eleven did not “feel great about MarkTen as a brand,” and only agreed to be one of the first retailers to roll out Elite once Altria agreed to cover restocking fees in case Elite did not sell and to be aggressive with promotions. (Myers (Altria) Tr. 3315-16).

2. Altria Secured Prime Shelf Space For Nu Mark’s Innovative Tobacco Products, Including MarkTen Elite

413. Shortly after Elite’s launch, Altria also launched its Innovative Tobacco Products (“ITP”) program, which consolidated e-vapor products in a designated location at retail stores and

provided Altria with shelf space at the top of retail fixtures. (Begley (Altria) Tr. 1005-07; RX1240 (Altria) at 001; *see also* [REDACTED]).

414. Many “important retailers” participated in the program, including Speedway, 7-Eleven, and Circle K. (Huckabee (Reynolds) Tr. 485; PX8008 Huckabee (Reynolds) Decl. at 025 ¶ 50).

415. Products do not necessarily require premium shelf space to succeed; for example, “JUUL was able to grow their brand, particularly regionally, early on without national shelf space,” (Huckabee (Reynolds) Tr. 474), as was JTI’s Logic product, (PX7037 Huckabee (Reynolds) Dep. at 115). (*See also* PX7022 Begley (Altria) Dep. at 215-16 (“Think about JUUL. JUUL’s visibility was mixed in different stores. And even though JUUL didn’t have, you know, the visibility that [Altria] enjoyed in these stores, they somehow found a way, because of the quality of their product, to do very well.”); PX7009 Burns (JLI) IHT at 191-92 (noting JUUL went from “less than 1 percent of the combined cigarette/e-cig market to 7 to 8 percent, and [it was] doing that with less than optimal space”); PX7038 Myers (Altria) Dep. at 146-47 (noting that ZYN is another example of a product that “generally doesn’t have a home” at retail—i.e., is “not merchandised in a category”—but is the “largest [tobacco derived nicotine] product in the marketplace”)).

416. But shelf space at the top of retail fixtures is considered desirable because it improves product visibility in retail stores. (Begley (Altria) Tr. 1007 (“It is certainly beneficial to have the best space you can at retail stores to communicate your brand messaging.”); Farrell (NJOY) Tr. 254-56 (explaining that higher shelving is preferable because it provides better visibility, which allows for better communication with the customer)).

417. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

418. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

419. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]; PX1232 (Altria) at 008-10 (projecting in May 2018 that total investment would be between \$82.2-99.8 million)). This was a significant investment for Nu Mark. (Quigley (Altria) Tr. 1951).

420. But visibility alone, while helpful, is not sufficient to make a product competitive.

(Begley (Altria) Tr. 1114). As Begley explained, “if you don’t have a product that consumers like, it doesn’t really matter how visible it is.” (Begley (Altria) Tr. 1114; *see also* [REDACTED]
[REDACTED]
[REDACTED]; Myers (Altria) Tr. 3312-13 (describing failed rollout of Marlboro MST, which was unsuccessful despite visibility because “the product just wasn’t good, and the consumer didn’t adopt it”)).

421. Ultimately, as will be described in greater depth below, the ITP program’s top shelf space was not enough to make the MarkTen cig-a-like or MarkTen Elite successful. (*See infra* Part III.E).

3. Altria Heavily And Aggressively Discounted Elite

422. Altria also invested heavily in significant promotions for Elite. (Gifford (Altria) Tr. 2753; Myers (Altria) Tr. 3331 (“[W]e wanted to give it every chance to be successful”); Myers (Altria) Tr. 3336-37 (describing how the sales team “went all out” to promote Elite); PX7023 Fernandez (Altria) Dep. at 78-79 (“[Altria had] very attractive promotional offers to give really good value to the -- low price to the consumer.”)).

423. As Gifford explained, Altria provided “pretty much whatever [promotional support] we were asked for. . . . [A]ctually sometimes the prodding went the other way, like [we asked] can’t you do more?” (Gifford (Altria) Tr. 2753; *see also* [REDACTED]
[REDACTED]). Altria has “the best sales force in the space,” (King (PMI) Tr. 2360), and Altria’s sales force “put[] any resource [it] could” into the rollout of Elite, (Myers (Altria) Tr. 3316).

424. Among the many promotions that Nu Mark ran for Elite was a “Buy a Device, Get a Pod for Free” promotion. (Myers (Altria) Tr. 3319; RX2052 (Altria) at 003). Because the Elite

device's Manufacturer Suggested Retail Price ("MSRP") was \$19.99 and a pod pack's MSRP was \$8.99, the consumer got roughly \$30 of value for just \$19.99. (Myers (Altria) Tr. 3319-20). This was "a pretty aggressive offer -- to get the initial trial for the product." (Myers (Altria) Tr. 3320).

425. But the "\$19.99 [promotion] wasn't seeming to get people to purchase," (Myers (Altria) Tr. 3324), so Nu Mark "decided to try to expand that and take it down to \$8.99," (Myers (Altria) Tr. 3331; *see also* Gifford (Altria) Tr. 2753-56 (describing promotions, including \$8.99 trial offer, clerk incentive program, signage, direct mailings, retail intercepts, and events in Las Vegas)). The \$8.99 bundle included a battery kit plus any pod pack and so was "in essence a battery for free." (Begley (Altria) Tr. 1115; *see also* Myers (Altria) Tr. 3333 ("[W]e were basically giving the device away for free"); PX1229 (Altria) at 021)).

426. The \$8.99 trial offer was "an aggressive offer." (Quigley (Altria) Tr. 2055; *see also* [REDACTED]; Myers (Altria) Tr. 3332 (characterizing the \$8.99 offer as "even more aggressive" than the \$19.99 promotion)). It was more aggressive than the 99-cent promotions offered by other competitors, (*see infra* Parts XII.A.1-2, XII.A.4): Free is "as aggressive as you can get." (Myers (Altria) Tr. 3333).

427. Nu Mark also offered \$10-off coupons, (Myers (Altria) Tr. 3333-34; PX1229 (Altria) at 021), and instituted a store intercept program where Altria employees physically went to stores and handed out coupons to consumers, (Myers (Altria) Tr. 3336). Because the coupons could be used together with the device bundle promotion, a consumer using both could get both the pod and the device for free. (Myers (Altria) Tr. 3334; PX1229 (Altria) at 021). The

fact that Nu Mark allowed consumers to “stack the deals” showed “that [it was] willing to try anything to get a trial.” (Myers (Altria) Tr. 3334-35).

428. Nu Mark also instituted a clerk incentive program. (Myers (Altria) Tr. 3335; PX1229 (Altria) at 021). If a clerk sold 25 devices, they could get \$500 for the employees at the store, which was “a big deal.” (Myers (Altria) Tr. 3335-36). Unfortunately, given Elite’s poor performance, Nu Mark did not pay out the reward very often. (Myers (Altria) Tr. 3336).

429. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]; *see also* Myers (Altria) Tr. 3335 (confirming the operating company bears the cost of the promotions)).

430. As a result, the promotions did not come cheap: On top of the approximately \$100 million that it spent on the ITP program, Nu Mark spent \$76 million in marketing and sales expenditures in 2018. (PX1072 (Altria) at 010; Quigley (Altria) Tr. 1982 (explaining that this expenditure was separate from the ITP program)).

E. Elite Nonetheless Stumbled Out Of The Gates

1. Despite Aggressive Promotions And Wide Distribution, Sales Were Dismal

431. Even with significant investments in shelf space, promotions, and expanded distribution, Elite was not a success. (Gifford (Altria) Tr. 2715 (“[E]ven with the investment behind it -- [we just weren’t able to] get the consumer to uptake it to any great extent.”)).

432. Expanded distribution could grow volume, but it was not sustainable. (Quigley (Altria) Tr. 1945; PX7013 Brace (Altria) Dep. at 84). Over the course of 2018, Elite’s sales “plateaued,” (Willard (Altria) Tr. 1388), and despite the growth of the pod market, Elite’s volume never took off, (Willard (Altria) Tr. 1368). Though Elite was able to “get[] initial traction with consumers[,] largely because of expanded distribution and promotional offers,” this “limited success . . . was substantially less than [JUUL,] the leading product in the marketplace.” (Willard (Altria) Tr. 1386-87). Similarly, Nu Mark’s promotions were “not financially sustainable.” (PX7013 Brace (Altria) Dep. at 84).

433. [REDACTED]
[REDACTED]
[REDACTED]; *see also* Myers (Altria) Tr. 3331).

But in many stores, the promotions failed to generate any sales at all. (PX7038 Myers (Altria) Dep. at 102 (“[In] 7-Eleven, the [\$]8.99 [promotion] was still only getting half the stores to get someone to even purchase the product.”)).

434. And even where promotions worked to incent some sales, those sales would cease as soon as the promotion ended. (Myers (Altria) Tr. 3352 (relaying comment from the senior category manager of Other Tobacco Products at 7-Eleven: “You should never turn this [\$8.99 bundle promotion] off[,] [y]ou killed the momentum”); RX2051 (Altria) 001 (“Killed the momentum...on batteries and thus PODs[.]”); PX7038 Myers (Altria) Dep. at 184 (“[T]here was never really a period that [the promotion] was off more than a couple of weeks because it was just . . . not performing well, even when it was on.”); PX7038 Myers (Altria) Dep. at 184 (noting that as soon as a promotion was “turned . . . off, the sales dropped and [Nu Mark was] quickly scrambling to try to get it turned back on”); *see also* [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]).

435. [REDACTED]

[REDACTED]

[REDACTED]; *see also* Quigley (Altria) Tr. 2056 (explaining that while using promotions to drive trial “made everybody feel good, . . . it was not solving the problem” because it was “not changing [Nu Mark’s] position or [its] ability to achieve leadership”); Willard (Altria) Tr. 1367; PX9047 (Altria) at 003, 009-10).

436. [REDACTED]

[REDACTED]; *see also* PX7019 Crozier (Sheetz) Dep. at 58

(“Cartridge sales are important because it shows there’s through-put with the consumer. So they buy the device and then keep coming back to, you know, buy the pods together with the device, as opposed to just buying the device once and whether it came with pods or not, the pods show that the person is still using the device.”)).

437. [REDACTED]

[REDACTED]; *see also* PX7038 Myers (Altria) Dep. at 176 (“[W]e see it getting some initial trial, but we’re not seeing it convert into pod sales. Maybe pods grew a pod a week or something like that, but that is not where they would set the bar at for a successful new product launch. They were looking for a really strong growth line on the pod side of it.”); PX7038 Myers (Altria) Dep. at 106-07 (explaining that though a 7-Eleven \$8.99 promotion and coupon “really drove device sales, . . . it didn’t drive what they were really

looking for, which was cartridge sales or pod sales after the initial trial”); PX7019 Crozier (Sheetz) Dep. at 77-78 (discussing the “pretty big drop-off” in sales when Elite promotion was stopped); PX4214 (Altria) at 001 (7-Eleven observing that the device promotion was not leading to new trial; people who already were buying the pods were just taking the device for free); PX4569 (Altria) at 001 (explaining that promotion extension came too late, after 7-Eleven turned off promotion and the momentum was killed)).

438. Altria found that due to its promotions and distribution pushes, Elite was generating some trial by consumers. (Willard (Altria) Tr. 1367, 1386; PX9047 (Altria) at 003, 009). But consumers buying a two-pack of pods on a trial offer does not generate the volume needed to develop a sustainable business. (Willard (Altria) Tr. 1367). Altria was “hoping [consumers would] try it and they say this is great, and [then] go out and buy a pack a couple of times a week. That drives volume. [But Altria] never convinced the consumer, after their initial trial, to become a repeat purchaser.” (Willard (Altria) Tr. 1367).

439. [REDACTED]
[REDACTED]
[REDACTED]; *infra* Part XII.A.1-2).

440. As numerous third parties testified, “[i]f people don’t like the product, they’re not going to buy the product,” no matter what you do. (PX7030 Wexler (Turning Point Brands) Dep. at 105).

441. As Jefferson Eldridge, Vice President of Area Central at ITG Brands agreed, “to be successful in the e-vapor marketplace, it’s not enough just to have the resources of a large tobacco company, you also have to have a product that’s attractive to consumers and that can clear the regulatory hurdles.” (PX7012 Eldridge (ITG Brands) Dep. at 161; *see also*

[REDACTED]

[REDACTED]; PX7014 Baculis (Altria) Dep. at 62-63 (explaining that Altria’s distribution network, marketing team, and sales network simply could not make an undesirable product succeed); PX7037 Huckabee (Reynolds) Dep. at 82 (agreeing that if a product is “suboptimal” that will “impact the repurchase of the product for consumers”).

442. Ultimately, despite Altria’s heavy promotional efforts, Elite never achieved more than a one percent share of e-vapor cartridge unit sales. (RX1217 Murphy Report ¶ 12). Elite’s performance was “nothing compared to what you would expect when you’re trying to disrupt the consumer and trying to get a consolidated group of consumers to engage with the brand.” (Gifford (Altria) Tr. 2755).

443. As a senior manager at JLI said bluntly: Elite’s “US sales [were] absolutely terrible, no traction whatsoever.” (RX1165 (JLI) at 004). [REDACTED]

[REDACTED]

444. This assessment was true measured by any metric, at any given point in time while Elite was on the market: After its first eight weeks, Elite was selling 7.2 pods per week per store and, with two pods to a pack, that translates to “roughly a pack sold every other day.” (Begley (Altria) Tr. 1113 (discussing PX1229 (Altria) at 019)). In May 2018, Nu Mark was selling just one Elite pack every other day in Sheetz. (PX1229 (Altria) at 019; *see also* Begley (Altria) Tr. 1113; PX7022 Begley (Altria) Dep. at 249).

445. Sales data showed that in roughly 6000 7-Eleven stores, initially “only a couple of hundred stores within the chain [were] actually selling one of the [Elite] SKUs.” (Myers (Altria) Tr. 3339-40).

446. “More troubling” was that “even the battery, which you have to have to buy the pods, you only have about a thousand stores out of the 6000 stores” with “initial distribution selling a battery on a given week.” (Myers (Altria) Tr. 3340). In the week of June 4, 2018, just 4600 battery units were sold across 6000 stores, an average of less than one battery per store. (Myers (Altria) Tr. 3343; PX4214 (Altria) at 004). The following week, 11,645 pods in approximately 5000 two-pod packs were sold in about “seven, eight thousand stores,” which is “less than one pack per store in a given week.” (Myers (Altria) Tr. 3344; PX4214 (Altria) at 004; *see also* [REDACTED]). As Myers testified at trial, that data shows “it’s not working. Consumers aren’t interested.” (Myers (Altria) Tr. 3344).

447. By the week of July 16, following the aggressive promotion offering a free device, just 8109 battery units were sold across the roughly 8000 7-Eleven stores then selling the product, an average of just one device per store per week—still well off the mark. (Myers (Altria) Tr. 3354-55).

448. In the first week of August, of those 7-Eleven stores that were selling Elite, the average sale was 0.2 units, generating \$2.91, all while tying up \$600–\$700 in inventory. (Myers (Altria) Tr. 3359).

449. Elite frequently was falling out of carried status at 7-Eleven, which happened if products had not sold in four to six weeks. The chain’s inventory management system automatically would stop reordering Elite for failure to reach the preset selling threshold. A product losing carried status is “a really early indicator that . . . it’s not selling.” (Myers (Altria) Tr. 3321-22, 3336, 3345-46).

450. Only about 20 percent of stores were reordering the product after the first four to six weeks, and the rest would not reorder until “sometime after that, . . . which was atypical for what [Altria] would see in a new product launch.” (PX7038 Myers (Altria) Dep. at 207).
451. Indeed, Elite’s sales volume was so low that Altria ended up with “55 weeks of inventory, . . . over a year of inventory” sitting in warehouses. (Myers (Altria) Tr. 3364; PX4239 (Altria) at 004). This was “very -- it’s sad. It’s a bad sign.” (Myers (Altria) Tr. 3365).
452. Such poor sales, despite extensive promotions and other efforts, left retailers feeling “frustrated that [Altria] couldn’t seem to get the innovative products right.” (PX7038 Myers (Altria) Dep. at 52).
453. Retailers can judge the success of a promotion within a few weeks, and for Elite, it became clear within that time that the \$8.99 promotion was not sufficiently generating trial and that those who did try were not coming back for repeat purchases. (Myers (Altria) Tr. 3345; *see also* Myers (Altria) Tr. 3313-14 (explaining that the Altria sales force often is at the forefront of detecting problems with products because retailers quickly know how a product is performing based on “the data they’re seeing” and “what they’re hearing from their store managers”)).
454. Altria was frustrated too. By the summer of 2018, the company found itself having “to do things that [it] never had to do before for new product launches.” It had to “guarantee the product so that if it went out of date or [stores] didn’t sell it,” Altria “would take it back.” It “had to cover things like restocking fees [for] their wholesaler if they did have to sell it back or return it back.” It had to have salespeople “stand in a store and intercept consumers to show [its] commitment to try to gain trial.” It had to keep promotions running in perpetuity, and to show retailers that it “would at least get them trials so they didn’t have any real risk

around the inventory investment they were going to make to carry [the] product.” (PX7038 Myers (Altria) Dep. at 130-31; *see also* Myers (Altria) Tr. 3316, 3330-31).

455. As Scott Myers, now the President and CEO of AGDC, testified at trial, Elite was the “worst” performing product rollout he worked on in his 24 years with Altria. (Myers (Altria) Tr. 3297, 3366; PX7038 Myers (Altria) Dep. at 12).

456. At the time of Elite’s roll-out, Myers was the senior executive responsible in AGDC for the western region of the United States and some of Altria’s largest trade partners. (Myers (Altria) Tr. 3314-15).

457. Myers explained that consumers face two moments of truth—when they see the product in the store and decide whether to make a purchase, and then “when they take it out of the package and use the product.” (Myers (Altria) Tr. 3329). Altria’s sales force could “roll it out and get it everywhere in position,” i.e., “create good conditions for the first moment, but [it did not] own the second.” (Myers (Altria) Tr. 3329-30). Though the sales force did everything it could, Elite “didn’t win in the second moment of truth, that part where the consumer took it home and used the product.” (Myers (Altria) Tr. 3366-67).

458. Thus, by the summer of 2018, AGDC had concluded based on the product’s sales that Elite “wasn’t working. We were not winning in this space.” (Myers (Altria) Tr. 3337).

459. Elite’s performance by that point was sufficient for Altria to assess Elite’s prospects. (Jupe (Altria) Tr. 2323 (“I think we learned everything we needed to know, that we knew everything that we needed to know early in the year, that this product was not going to do what we expected it to do.”)).

2. Excessive Leaking Damaged The Elite Brand With Retailers And Consumers

460. Elite also had a significant leaking problem at its launch, which impaired its commercialization. (Myers (Altria) Tr. 3323-24 (identifying the fact that Elite “had a lot of leaking” as a “real concern” affecting the roll out, in addition to the promotions’ lack of traction)).

461. Although many pod products leaked to some extent, [REDACTED]; [REDACTED]; Schwartz (Altria) Tr. 1881 (discussing PX4129 (Altria) and describing Elite’s level of leaking as “unacceptable”); Schwartz (Altria) Tr. 1909 (discussing PX1560 (Altria) at 002); PX7016 Jupe (Altria) Dep. at 248 (“[Elite] was leaking like a sieve.”)). At times over 40 percent of Elite’s pods leaked. (RX0547 (Altria) at 007).

462. Nu Mark viewed Elite’s leaking as “worse than any other pod product” and a “real impediment.” (Begley (Altria) Tr. 1103; *see also* Myers (Altria) Tr. 3324 (describing Elite’s leaking as “much more pervasive,” especially based on the perspective of trade partners)).

463. The company had not anticipated a leaking problem of such magnitude. (Begley (Altria) Tr. 1126; PX7022 Begley (Altria) Dep. at 231).

464. Witness testimony and contemporaneous documents from both Altria and JLI capture the gravity of the leaking problem at the launch: JLI’s Joseph O’Hara, director of regulatory strategy, recalled that, the same day Elite launched, he ordered “a large number of samples and when those samples arrived to [him], every single one of those samples was leaking in the packaging, as well as whenever [he] tried to use them, they would then leak . . . in [his] mouth.” (PX7033 O’Hara (JLI) Dep. at 192). “The overall product quality was also very poor. There was a lot of leaking of the pods in the packaging, in the device, out of the pods while you were consuming it.” (PX7033 O’Hara (JLI) Dep. at 78).

465. “Any time [O’Hara] saw somebody online talking about MarkTen Elite, it was only -- it was almost always talking about how leaky the product was.” (O’Hara (JLI) Tr. 639).

466. In JLI’s consumer studies, leaking was “a top feature of MarkTen Elite.” (O’Hara (JLI) Tr. 639).

467. A JLI regional vice president reported that he visited a 7-Eleven store and “bought a Mark Ten [Elite] device and 4 refill pods. When we opened them all to test and see the product, they were all leaking over our hands. You could actually take the pod fresh out of the package and run [it] against the palm of your hands and it would be full of juice. I don’t think we have much to worry about with this one.” (RX1611 (JLI) at 001).

468. Myers testified that “[w]hen you opened the package, you would see literally fluid inside the pod in the package. So when a consumer would purchase it and open it up, they would see it. And in some cases, the leaking was so bad you could see it on the outside of the carton that it shipped in into the retail store.” (Myers (Altria) Tr. 3324).

469. Gifford recalled that Elite’s pods would leak, “so as the consumer [was] opening the product -- the [product’s blister pack would leak] and they [would] see basically e-liquid all loose.” (Gifford (Altria) Tr. 2757).

470. And one contemporaneous Altria document reported that in March 2018, two employees purchased 11 packs of Elite products, seven of which leaked, and leaked more than a couple of drops. “Three of the people that purchased also reported liquid dripping into their mouths when using the product.” (PX4083 (Altria) at 003).

471. [REDACTED]
[REDACTED]

[REDACTED]

[REDACTED]; *see also infra* Part V.C.1.c).

472. But the excessive leaking out of the gate cost Elite the only opportunity it would get to make a good first impression. (PX7012 Eldridge (ITG Brands) Dep. at 147; PX7022 Begley (Altria) Dep. at 232 (“[Y]ou don’t get many bites at the apple. And so to have [leaking] as a prevalent issue in the marketplace is terribly unhelpful as you’re trying to get a new brand off the ground.”)). [REDACTED]
[REDACTED]; *see also* PX7037 Huckabee (Reynolds) Dep. at 83 (noting that if a consumer purchases a product that “leaks heavily . . . they aren’t likely to repurchase that product”).

473. Once consumers have a bad first experience, “it’s hard to undo their first perception of the brand.” (Begley (Altria) Tr. 1104; *see also* Myers (Altria) Tr. 3328-29 (“[I]t wasn’t that great of a brand to begin with, and then to launch a new product and then have this initially for those first moments of truth or second moment of truth when the consumer uses the product for the first time and find it had leakage in it, you know, [retailres] were really concerned that we were -- you know, big misstep here.”); PX7037 Huckabee (Reynolds) Dep. at 81 (“[P]od leakage [is] a very primary constraint. If the pods aren’t themselves functioning properly, you won’t have promotional effectiveness”)).

474. This was damning particularly for Elite because it was a relatively late entrant to the pod-based e-vapor category. As Schwartz explained, Elite needed not only to be a good product, but to be “that much better than the competition to dislodge them from their choice” product. (PX7018 Schwartz (Altria) Dep. at 153). And it simply was not possible for Altria to “dislodge” consumers who were “very content with JUUL” and “achiev[e] market leadership”

“with a product that ha[d] a leaking pod.” (Schwartz (Altria) Tr. 1889-90 (discussing PX1590 (Altria)); *see also* PX7018 Schwartz (Altria) Dep. at 153 (“[B]y having a leaking product, you weren’t helping yourself”)).

475. Indeed, by July 12, 2018, JLI concluded that Elite’s “[e]xcessive leakage ha[d] significantly (perhaps irreparably) damaged the brand.” (RX1165 (JLI) at 004; *see also* Myers (Altria) Tr. 3328-29 (agreeing he “certainly felt [the leaking] had” damaged the brand); Begley (Altria) Tr. 1104 (agreeing that there was merit to the observation that Elite’s brand was “significantly (perhaps irreparably) damaged” by the leaking)).

476. Complaints from retailers and consumers confirmed Altria’s fears were realized. [REDACTED]
[REDACTED]
[REDACTED]; *see also* PX7014 Baculis (Altria) Dep. at 179-80; Schwartz (Altria) Tr. 1881 (discussing PX4129 (Altria))).

477. Retailers also were upset, because “customers were taking their frustration out on them when it was really [Nu Mark’s] problem.” (Begley (Altria) Tr. 1104; *see also* Myers (Altria) Tr. 3324-25). Wholesalers and retailers like McLane and 7-Eleven, which had gone to great lengths to get the product into stores, were especially upset “to have [Elite] be defective out of the gate,” and were “really concerned that Altria would launch a product that was defective.” (Myers (Altria) Tr. 3324, 3327; *see also* PX4083 (Altria) at 001 (Myers promising to “keep McLane and 7-Eleven calm” regarding the leaking)).

3. Competitors Recognized That Without Salts, Elite Was A “Non-Starter” And “Inferior Product”

478. Elite’s poor performance was no surprise to Altria’s competitors, who predicted Elite’s failure as soon as it hit the market. Competitors repeatedly predicted that Elite would be a flop because, among other things, it did not have the nicotine salts required to provide a

satisfying nicotine experience and convert adult smokers. (PX2086 (JLI) at 001; RX1420 (JLI) at 001; PX2269 (JLI) at 001; *see also* RX1421 (JLI) at 001; *supra* Part II.A.2.b.ii).

a. JLI’s Reaction To Elite’s Inability To Provide Nicotine Satisfaction

479. The day Elite was launched, Joseph O’Hara, JLI’s director of regulatory strategy, wrote:

“Net takeaway is that we believe that the MarkTen Elite is a meaningful positive for us relative to expectations based on (1) low nicotine content pods, (2) no salts, and (3) lack of marketing roll-out.” (PX2086 (JLI) at 001). O’Hara explained at trial that based on these shortcomings, from Elite’s inception, he “did not expect that [it] would be a particularly strong competitor,” “especially [because of] the first two points”—it had “low nicotine content” and “no salts.” (O’Hara (JLI) Tr. 632).

480. When Bowen, one of JLI’s cofounders, realized Elite was not using salts, he too concluded that Elite could not “provide cig-like nicotine satisfaction” and thus was “not a threat.” (RX1420 (JLI) at 001; *see also* RX1421 (JLI) at 001). This defect made Elite “an absolute nonstarter” in his view. (PX2269 (JLI) at 001).

b. Reactions Of Other Competitors And Retailers

481. [REDACTED]
[REDACTED]; *see also*
PX7020 King (PMI) Dep. at 169, 226 (explaining PMI had concluded Elite was “not achieving success in the marketplace,” nor was it “successful at converting adult smokers”).
[REDACTED]
[REDACTED]
[REDACTED]

482. For this reason, PMI turned down an opportunity to sell the MarkTen products in foreign markets. PMI commercialized MarkTen cig-a-like in a test market under the brand name Solaris but discontinued it based on low market share. (King (PMI) Tr. 2532). [REDACTED]

483. Reynolds's e-vapor subsidiary also determined that "the quality of the MarkTen Elite product was . . . inferior to that of competing products at that time." (PX8008 Huckabee (Reynolds) Decl. at 025 ¶ 48). Reynolds conducted "consumer research that rated the products on a variety of metrics," and concluded that Nu Mark's small sales were a result of Altria's retail execution and marketing. (Huckabee (Reynolds) Tr. 475-76). [REDACTED]

484. Retailers also were "confused" by and "more than a little skeptical" of Altria's decision to promote Elite on the basis of its flavors. Nu Mark was very "focused on flavors," but retailers were seeing the growth in pods "being driven by nicotine satisfaction, not by flavors." (Myers (Altria) Tr. 3349-50). Retailers did not understand why Altria "didn't have something with a higher nicotine level and with the nicotine salts that certainly many of them are seeing success with in their stores." (Myers (Altria) Tr. 3349-50).

485. Once Elite launched, retailers shared with Altria "that they didn't feel like [Altria] had it right from a nicotine satisfaction standpoint," and that's why it "w[as]n't getting repeat pod purchases." (Myers (Altria) Tr. 3389).

F. By March 2018, Altria's Scientists Identified Significant Regulatory Hurdles For Both MarkTen And Elite

486. In the spring of 2018, Altria was “rushing” to market “products in the [e-vapor] category.” (Murillo (Altria/JLI) Tr. 2932). But “it felt like every day [it] had either a new product or a new product issue that [it was] contending with.” (Murillo (Altria/JLI) Tr. 2932).

487. These emerging product issues required Altria to overhaul nearly all of its PMTA plans for its e-vapor products. Joe Murillo, at the time Altria’s Senior Vice President of Regulatory Affairs, testified at trial that by the end of this process he “couldn’t think of one product and filing plan that still bore resemblance to the original plan.” (Murillo (Altria/JLI) Tr. 2949).

488. And Murray Garnick, Altria’s General Counsel and Head of Regulatory Affairs, was concerned at the time that this pattern would continue to repeat itself: “[U]nless we changed the way we were scheduling and prioritized products, we [were] going to continue to miss schedules over and over again as each product [went] forward, and [that] was no way to operate regulatory affairs[.] . . . [W]e needed to prioritize and we needed to have a realistic schedule that we could meet.” (Garnick (Altria) Tr. 1705; *see also* RX0716 (Altria) at 001 (“No way do I want to have a schedule that we miss each product deadline, one at a time, like a thousand cuts, or a schedule which does not reflect what could be our most important product.”)).

489. For example, by March 2018, the regulatory group sent word to senior management that the PMTA filing for the MarkTen cig-a-like was “delayed—date TBD.” (RX0630 (Altria) at 019).

490. And once the MarkTen cig-a-like PMTA was delayed, the regulatory team was unsure “when [it was] going to be able to catch up.” (Murillo (Altria/JLI) Tr. 2937-38).

491. This was in part because each new issue that arose not only took time to fix, but also required Altria to restart the one-year stability studies required for the MarkTen PMTA, which

only could be performed on the final product after resolution of the product issues. (Gardner (Altria) Tr. 2585; Murillo (Altria/JLI) Tr. 3072).

1. The MarkTen Cig-A-Like Required A Redesigned Battery, BVR 2.8, And A New PMTA

492. Altria had determined that fixing the MarkTen cig-a-like’s dry puff problem (discussed *supra* Part III.B.1) required “fairly significant . . . changes,” which delayed the PMTA.

(Murillo (Altria/JLI) Tr. 2937-38; *see* RX0630 (Altria) at 019).

493. Specifically, Altria’s scientists had developed an electronic component for dry puff prevention that shut off the battery once it reached a certain temperature. (Gardner (Altria) Tr. 2570-71, 2576-77; PX7000 Garnick (Altria) IHT at 122-23).

494. The revised MarkTen battery containing this technology was known as BVR 2.8.

(Gardner (Altria) Tr. 2571).

495. As Dr. Bill Gardner, Altria’s Senior Principal Scientist, explained, Altria’s fix was a crude one, especially as compared to JLI’s approach to dry puff prevention in its on-market product. Gardner analogized Altria’s approach to an old computer’s heat regulation system—when the computer processor overheated, it would just turn off. JUUL’s approach was like a modern computer—when the processor gets too hot, it slows down but continues to work. (Gardner (Altria) Tr. 2576-77).

496. The crudity of Altria’s fix reflected the gaps in its technological expertise. The problem was “an electronic thing,” and Altria is “a tobacco company,” so it was “having difficulty proving the solution and actually making the alternative product work.” (PX7000 Garnick (Altria) Dep. at 123).

497. Ultimately, early studies showed that BVR 2.8 successfully reduced formaldehyde levels. (Gardner (Altria) Tr. 2571-72).

498. But this potentially promising solution only engendered further problems. For one thing, “[e]veryone agreed” that Nu Mark would need to go through the PMTA process before it could sell MarkTen cig-a-like with the BVR 2.8 battery. (Garnick (Altria) Tr. 1726; *see also* Gardner (Altria) Tr. 2570; Garnick (Altria) Tr. 1719-20). “Changing the electronics would be a product change, [which] required premarket approval from the agency.” (Gardner (Altria) Tr. 2570; Garnick (Altria) Tr. 1726 (“There was no doubt that that would require preapproval by the FDA.”); *see also* Garnick (Altria) Tr. 1719-20).
499. Because the battery could not be changed pre-PMTA, “[n]one of the scientists thought [Altria] could get a PMTA on the MarkTen [cig-a-like] product on the market,” which did not have dry-puff prevention. (Garnick (Altria) Tr. 1726-27; *see also* Gardner (Altria) Tr. 2593-95; Jupe (Altria) Tr. 2236-38 (listing dry puff among the “problems with [the cig-a-like] that compromised [Altria’s] ability to get it through” FDA’s PMTA process); PX1890 (Altria) at 001-02; PX1028 (Altria) at 005-06).
500. Additionally, Altria “encountered technical problems throughout the entire process of BVR 2.8.” (Gardner (Altria) Tr. 2571).
501. For example, Altria discovered that “[w]ith the dry puff prevention electronics, . . . the cartridges needed to be heat-treated”—a process called “annealing”—“for the dry puff prevention technology to work appropriately.” (Gardner (Altria) Tr. 2573-74).
502. And later in the process, scientists learned that “the liquid wicking -- so the rate at which the liquid reached the heater -- had decreased.” (Gardner (Altria) Tr. 2574).
503. As a result of these technical issues, throughout the rest of 2018, Altria’s PMTA process for the MarkTen cig-a-like was “continuously delayed.” (Gardner (Altria) Tr. 2577; Jupe

(Altria) Tr. 2321; *see also* Gardner (Altria) Tr. 2585 (explaining that design issues required the company to restart the stability studies required for the PMTA)).

504. These technical issues also prevented Altria from starting new PMTA studies on the modified product with BVR 2.8. To save time on the new PMTA, Altria wanted to use the PMTA research already done on the old, pre-BVR 2.8 version of MarkTen by bridging—“building a bridge from the prior data to the new product.” (Gardner (Altria) Tr. 2572; *see also supra* Part I.D.3.b).

505. Essentially, if Altria could demonstrate that the old MarkTen cig-a-like and the new MarkTen cig-a-like with BVR 2.8 “behaved the same in delivering an aerosol,” then Altria could use the toxicology, clinical, and behavior studies already completed with the old product for the new BVR 2.8 PMTA. (Gardner (Altria) Tr. 2573).

506. All told this would add 12 to 18 months to the PMTA timeline, but would save considerable time and resources. (Gardner (Altria) Tr. 2570).

507. But Altria’s scientists were “not going to start PMTA studies until [they] definitively [knew] [they could] make the product as intended and bridge to the 2016 product.” (Gardner (Altria) Tr. 2579).

508. Ultimately, Altria never was able to demonstrate that the original MarkTen cig-a-like and the proposed new MarkTen cig-a-like with BVR 2.8 performed comparably enough to permit bridging. Altria had “challenges with [BVR 2.8] being reproducible” and “major challenges with BVR 2.8 delivering the same aerosol as the product in the market.” (Gardner (Altria) Tr. 2685). Specifically, the modified product with BVR 2.8 had lower aerosol mass yields than the initial product, which would make it more difficult to rely on studies conducted on the old product. (Gardner (Altria) Tr. 2571-74).

509. As a result, even by December 2018, Altria had not yet completed the one-year stability study required for the PMTA of the MarkTen cig-a-like. (Gardner (Altria) Tr. 2585). Altria “never [even] started the PMTA studies for BVR 2.8.” (Gardner (Altria) Tr. 2580).

2. Elite Had Significant Design Flaws, Which Compromised Its PMTA Prospects

a. Elite’s PMTA Perpetually Was In Flux

510. Before March 2018, Elite had no PMTA timeline. (RX0630 (Altria) at 012).

511. Nu Mark did not decide to pursue a PMTA for Elite until March 15, 2018. (PX4318 (Altria) at 007; Quigley (Altria) Tr. 1977).

512. But this PMTA was never more than a contingency plan: Altria knew that the PMTA for the in-market product faced “[i]ncreased application risk” and an “[u]ncertain authorization outcome.” (RX0496 (Altria) at 011). Accordingly, the PMTA for the in-market Elite was to be pursued as a contingency while the company redesigned the product to have the “must have” features necessary for PMTA approval. (RX0496 (Altria) at 010-015, 017; *see also* PX7017 Magness (Altria) Dep. at 102-03; PX7041 Quigley (Altria) Dep. at 150-54; PX7003 Quigley (Altria) IHT at 118-19). Without these features, and unable to add them without changing the predicate product, the company knew a PMTA for the in-market Elite would not be approved. (RX0496 (Altria) at 010-015, 017); Murillo (Altria/JLI) Tr. 2942 (“[F]rom the first day [Altria] got [Elite], [it] knew that there were a number of changes that were likely going to be necessary ultimately for both consumer and regulatory purposes”); PX7041 Quigley (Altria) Dep. at 150-54; PX7003 Quigley (Altria) IHT at 118-19; *see also infra* Part III.F.2.c).

b. A Half Dozen Of Elite’s Components Needed To Be Replaced

513. Elite lacked dry puff prevention technology, (*see supra* Part III.B.2), but the lack of dry puff prevention technology was not its only design flaw. To the contrary, many of the product's components were made of materials that Altria scientists "did not like to use in e-vapor products." (PX7026 Gardner (Altria) Dep. at 90).
514. For example, Elite contained nickel wire, which was "very concerning" and something about which Altria "needed long-term studies to definitively understand whether it was a risk or not." (Gardner (Altria) Tr. 2663-64).
515. Elite's "black parts" were "made out of ABS plastic." (PX7026 Gardner (Altria) Dep. at 90). "The A, the B and the S all represent [harmful or potentially harmful constituents] that are toxic, and if there's any impurities in the manufacturing process, they could be released into the liquid and aerosol and expose the smokers." (PX7026 Gardner (Altria) Dep. at 90; Gardner (Altria) Tr. 2614).
516. In addition, Elite's pod "was made of polycarbonate," which has "some toxicity in fish studies, not in humans" but nonetheless "has a lot of science stigma around it." (PX7026 Gardner (Altria) Dep. at 90).
517. "And [Elite's e-liquid] formulations were not developed by Altria" and thus "were not developed to use [Altria's] toolbox of ingredients for e-vapor formulations," meaning those "ingredients that [Altria] had sufficient data that [it] felt was necessary for a PMTA." (PX7026 Gardner (Altria) Dep. at 90-91). For those non-toolbox ingredients, Altria "would have to do significant study, years of studies to demonstrate they're appropriate for the protection of public health." (PX7026 Gardner (Altria) Dep. at 91).
518. All told, Altria determined in early 2018 that a half-dozen components of Elite would need to be replaced. (PX4025 (Altria) at 001).

c. Elite Needed To Be Changed So Significantly That A New Product, Elite 2.0, Needed To Be Designed, Which Would Require A New PMTA

519. The discovery of Elite’s many design flaws led Altria to “conceptualize[]” a redesigned version of the product called “Elite 2.0.” (Murillo (Altria/JLI) Tr. 2942).

520. But Elite 2.0 was never more than “a product in the pipeline that was subject to product development.” (Garnick (Altria) Tr. 1614). Altria never finalized the design of Elite 2.0, nor was it ever sold in the market. (Garnick (Altria) Tr. 1614).

521. “The kind of changes that were being contemplated for Elite 2.0 would clearly require a PMTA,” so the modified product could not be introduced on the market in advance of FDA approval. (Garnick (Altria) Tr. 1700; *see also* Jupe (Altria) Tr. 2256-58 (“[T]he answer is no. It first had to be obviously developed and designed and tested, the science approved by the FDA, get an authorization from the FDA, and then commercialize it, and . . . our best guess at that point was five to six years.”); PX7014 Baculis (Altria) Dep. at 151-52; PX7017 Magness (Altria) Dep. at 108-12; PX1673 (Altria) at 013). Complaint Counsel’s expert Dr. Rothman conceded “that the expectation was that if Altria introduced MarkTen Elite 2.0, that that product would require PMTA authorization.” (PX7046 Rothman Dep. at 207).

522. Thus, Altria knew in March 2018 that “Elite, both the current version and the future version, need to be modified and redesigned, resulting in a delay in PMTA work and filing.” (RX0270 (Altria) at 001).

523. To maximize the time for FDA to review the Elite 2.0 PMTA, the plan was to use the on-market Elite (known as “1.0”) as a placeholder filing: To “get the 1.0 [PMTA] in at the very last moment knowing that it was going to be an insufficient application and really just allow for that review time on the preferred version of the 2.0.” (PX7017 Magness (Altria) Dep. at 102-03; *see also supra* Part III.F.2.a).

524. Altria considered whether it could rely on some bridging, (*see supra* Part I.D.3.b), of Elite 1.0 to Elite 2.0 in any PMTA. But the plan for bridging from Elite 1.0 to Elite 2.0 was entirely “conceptual” because the base scientific data was not done, as Elite 2.0 was not yet even designed. (PX7027 Murillo (Altria/JLI) Dep. at 161-62).
525. Nu Mark would not know whether the bridging plan for Elite 2.0 would work “until [it] did years’ worth of work.” (PX7041 Quigley (Altria) Dep. at 152).
526. Murillo expected that by the time they were done with this testing and design, Elite 1.0 and 2.0 might “be tremendously different, so th[e] bridging [would] not be a -- necessarily a timesaver.” (PX7027 Murillo (Altria/JLI) Dep. at 161-62).
527. As of June 2018, Nu Mark estimated that it would take until the first quarter of 2022 to file a PMTA on Elite 2.0. (RX0450 (Altria) at 069).

G. FDA’s April And May 2018 Statements Emphasized The Potential Value Of E-Vapor To Convert Adult Smokers While Also Highlighting The Downside Risk Of Attracting Youth

528. These considerable PMTA problems for Altria’s e-vapor products were mounting against the backdrop of intensifying FDA scrutiny of the entire e-vapor industry. (RX0155 (FDA); RX0156 (FDA)).
529. In April 2018, FDA launched a “nationwide blitz” to crack down on retailers selling to minors. (RX0155 (FDA) at 002).
530. Accordingly, in April and May 2018, FDA sent letters to five e-vapor manufacturers of pod-based products, including JLI, requiring each company “to submit important documents to better understand the reportedly high rates of youth use” of their products. (RX0155 (FDA) at 003; *see also* RX0156 (FDA) at 001).
531. These letters targeted pod-based products with nicotine salts. (Willard (Altria) Tr. 1369 (discussing RX0156 (FDA) at 002)).

532. Altria did not receive a letter because its pod-based product, Elite, did not have nicotine salts. (Willard (Altria) Tr. 1369).
533. Consistent with its adoption of the “continuum of risk” concept, FDA’s April 23 statement acknowledged “the possibility for . . . products like e-cigarettes . . . to provide a potentially less harmful alternative for currently addicted individual adult smokers who still want to get access to satisfying levels of nicotine without many of the harmful effects that come with the combustion of tobacco.” (RX0155 (FDA) at 004). But, the agency added, “we’ve got to step in to protect our kids.” (RX0155 (FDA) at 004).
534. As Willard testified, the April announcement acknowledged that the “future promise” of e-vapor for public health had to be “counterbalance[d] . . . against the concern [FDA] had about increased levels of youth usage of e-cigarette or [e-vapor] products.” (Willard (Altria) Tr. 1362; RX0155 (FDA) at 004). FDA was trying to figure out “how to balance the two.” (Willard (Altria) Tr. 1363).
535. FDA’s April statement “convinced [Altria] that in pursuing JLI, [it] had to take into account the FDA’s concerns.” (Willard (Altria) Tr. 1363). Altria believed that FDA’s concern “was clearly a factor [it] needed to consider in structuring a deal.” (Willard (Altria) Tr. 1363).
536. In May 2018, FDA issued a press release emphasizing that the “agency plan[ned] to explore additional restrictions on the sale and promotion” of e-vapor products, including “measures on flavors/designs that appeal to youth.” (RX0156 (FDA) at 002)

IV. IN EARLY 2018, DISCUSSIONS BETWEEN JLI AND ALTRIA REMAINED PRELIMINARY AS THEY DEBATED MAJORITY VERSUS MINORITY INVESTMENTS

537. As Elite was struggling to get off the ground, negotiations between Altria and JLI continued to “heat and cool through time,” (Gifford (Altria) Tr. 2761), proceeding in “fits and starts,” (PX7000 Garnick (Altria) IHT at 83).

538. Early discussions were “general” and “unstructured,” with a focus on the potential synergies of a partnership between the two companies. (PX7031 Willard (Altria) Dep. at 138-39; *see also* Pritzker (JLI) Tr. 775-76). Discussions “heat[ed] up” as the companies “progressed into 2018.” (Gifford (Altria) Tr. 2761). But then the companies found “that there were material differences” and talks “cool[ed] off” again. (Gifford (Altria) Tr. 2761).

A. April 5, 2018 Meeting

539. In early spring, after sporadic conversations during the first quarter, (*see, e.g.*, PX2456 (JLI) at 001), the two companies began to explore more concrete investment structures, (PX2026 (JLI) at 001-04; Pritzker (JLI) Tr. 777).

540. As Gifford explained, Altria “typically like[s] control of the company,” so early on it was focused on negotiating for a majority of JLI. (Gifford (Altria) Tr. 2763).

541. On April 5, 2018, Pritzker, Valani, and Burns traveled to Richmond for a meeting with Willard and Gifford at Altria headquarters. (Pritzker (JLI) Tr. 777; PX2297 (JLI) at 001; PX2298 (JLI) at 001).

542. At the time, the companies remained far apart on valuation. The \$4.5 billion initially offered by Altria was “a nonstarter for [JLI].” (Pritzker (JLI) Tr. 782; *see also* Pritzker (JLI) Tr. 779-82).

543. Seeking to bridge the gap, and with JLI’s valuation rising, Altria abandoned its 100-percent-ownership demand and instead sought to buy a bare majority of JLI in two steps. (Pritzker (JLI) Tr. 780). At the April meeting, Altria outlined a concept in which it would buy 40 percent of the U.S. business initially and then, following FTC approval, purchase the

remaining 10.1 percent, for a total of 50.1 percent ownership. (Pritzker (JLI) Tr. 780-81; *see also* PX2026 (JLI) at 002-03).

B. April 20, 2018 Letter From JLI

544. On April 20, 2018, JLI sent Altria a letter putting into writing the general terms of the potential transaction structure that was discussed at the April 5 meeting. (Pritzker (JLI) Tr. 777-79; PX2026 (JLI) at 002).
545. The JLI Board believed that if JLI were going to continue talking with Altria, it “should . . . start to become specific about what deal terms might look like.” (Pritzker (JLI) Tr. 778). JLI wanted to align on key terms—namely “price, payment, and governance terms”—up front before proceeding with diligence. (PX2026 (JLI) at 002).
546. The April 20 letter, which was sent by Burns but prepared by JLI’s counsel, contemplated that, consistent with earlier discussions, Altria would acquire 50.1 percent of JLI’s U.S. business in two steps. (Pritzker (JLI) Tr. 778-81). Altria initially would purchase a 40 percent nonvoting ownership stake for \$6.4 billion, with an expectation that “no HSR filing would be required in connection with this portion of the transaction.” (PX2026 (JLI) at 003; *see also* Pritzker (JLI) Tr. 780-81). “Promptly following [Altria’s] initial \$6.4 billion investment, Altria would seek regulatory approval to obtain a 50.1% . . . ownership interest in [JLI] via an additional \$1.6 billion capital investment (for a total of \$8.0 billion).” (PX2026 (JLI) at 003; *see also* Pritzker (JLI) Tr. 780-81). Following “regulatory approvals,” the previously acquired nonvoting equity would convert to voting equity. (PX2026 (JLI) at 002; *see also* Pritzker (JLI) Tr. 780-81).
547. In addition to the payments for equity shares, JLI would receive \$1 billion upon receipt of regulatory approval of its PMTA for JUUL. (PX2026 (JLI) at 003 & n.1; *see also* Pritzker

(JLI) Tr. 781). Thus, all told, the letter contemplated an investment of \$9 billion for 50.1 percent of the domestic company. (Pritzker (JLI) Tr. 781).

548. JLI's letter also specifically contemplated that, given the complexity of the transaction, "[JLI's] and Altria's respective anti-trust counsel would discuss and develop a plan with respect to seeking and obtaining regulatory approval for the majority investment, including the treatment of any competitive products owned by Altria." (PX2026 (JLI) at 003; *see also* Pritzker (JLI) Tr. 784-85).

549. As Pritzker testified, JLI understood from the outset that "if we were going to pursue a transaction of this nature, that it would be closely scrutinized by regulatory agencies, and that antitrust counsel would have to be brought in at an early stage so that any conversations around control, board seats, existing products, all of that would be structured in a way so as to be above-board and to optimize the chance for a successful regulatory outcome." (Pritzker (JLI) Tr. 784).

550. At the time, Pritzker's "assumption [was that] the FTC would most likely require divestiture of products, meaning the sale of products to another entity, so those products would stay in the market and not be withdrawn and that Altria would be free to sell them to some other tobacco company or private equity company or somebody that would continue to market those products." (Pritzker (JLI) Tr. 785-86).

551. As for governance provisions, JLI proposed that it would continue operating "on a stand-alone basis," including "equal board representation" and "management selection by non-Altria directors," among other rights. (PX2026 (JLI) at 004). In addition, JLI wanted to remain "free to complete an IPO or otherwise raise equity" without any input or consent by Altria, notwithstanding Altria's majority stake. (PX2026 (JLI) at 004).

C. Altria's May 2018 Responses

552. In the weeks that followed, Altria and JLI had “several conversations” and Altria sent “two letters . . . to JLI to propose additional terms or to refine the terms” and address valuation. (Pritzker (JLI) Tr. 793). But, although there was continued “back-and-forth, . . . it was not really leading anywhere.” (Pritzker (JLI) Tr. 793).
553. Altria sent its first counterproposal on May 3, 2018, in a letter that tracked JLI’s April 20 proposal in some respects, but with critical differences that revealed major fault lines on valuation and control. (PX2184 (JLI) at 001-02; Pritzker (JLI) Tr. 793).
554. Consistent with JLI’s letter, Altria proposed a 50.1 percent acquisition of the U.S. business made in two phases, along with an additional payment contingent upon receipt of PMTA approval, for a total of up to \$9 billion. (PX2184 (JLI) at 002-03).
555. But unlike JLI’s proposal for \$6.4 billion up front, Altria proposed making a smaller initial payment of \$500 million for approximately three percent ownership interest. (PX2184 (JLI) at 002). Following antitrust approval, Altria would then top up to 50.1 percent and pay an additional \$5 billion. (PX2184 (JLI) at 003). And, while Altria was willing to offer “up to” an additional \$3.5 billion upon JLI’s receipt of PMTA approval, this was subject to additional terms not included in the letter. (PX2184 (JLI) at 003 (“We are open to discussing the exact terms of such payment but prefer to discuss it in person.”)).
556. Altria also outlined a markedly different view of the control and governance provisions. It refused to have its 50.1 percent interest included in any future IPO. (PX2184 (JLI) at 003). And it insisted on appointing a majority of the JLI Board. (PX2184 (JLI) at 004).
557. Several weeks later, after it became clear that the parties were still far apart, Altria improved its offer in a letter sent on May 30, 2018. (RX1402 (JLI) at 001).

558. In that second letter, Altria matched the financial terms from JLI's letter of the prior month. It offered \$6.4 billion payable up front for an initial 40 percent interest in JLI's U.S. business, followed by an additional \$1.6 billion upon increasing its investment to 50.1 percent voting equity after antitrust clearance. (RX1402 (JLI) at 002). It further proposed a top up payment of between \$1 to \$3 billion upon receipt of PMTA approval, depending on JLI's earning performance at the time. (RX1402 (JLI) at 002-03). This approach offered the potential for an additional \$2 billion beyond what JLI had proposed in April, or a total of up to \$11 billion for 50.1 percent of the company. (*Compare* PX2026 (JLI) at 003 (JLI's April 20 letter), *with* RX1402 (Altria) at 002 (Altria's May 30 letter)). The May 30 letter also emphasized Altria's "best-in-class infrastructure to maximize the growth of JUUL and address serious youth vaping issues [Altria] believe[d] that JUUL and Altria ha[d] an historic opportunity to work together, in a manner wholly consistent with stated FDA policy, to reduce consumption of cigarettes and provide adults who want nicotine with potentially less harmful noncombustible alternative products." (RX1402 (Altria) at 002).

559. JLI was unimpressed by Altria's letter. From its perspective, "Altria always seemed to be a little bit behind the curve" on valuation. (Pritzker (JLI) Tr. 783). Around this period, JLI's revenue was growing by approximately 30 percent per month. (Pritzker (JLI) Tr. 782). Thus, by the time Altria "came to a number" sought by JLI, "the value of JUUL had jumped ahead of that." (Pritzker (JLI) Tr. 783).

560. The other major problem was that, in the intervening weeks, JLI had become "more and more concerned about the nature of control," and decided that it was "going to be unable or unwilling to do a transaction where Altria either had control or had a path to control of JLI." (Pritzker (JLI) Tr. 793).

561. There also was “an increasing concern” on JLI’s part about “how cumbersome it would be to try to actually divide” JLI into domestic and international companies—as the current proposals contemplated—and the prospect that “the value of the international company [would] be diminished in a transaction where the two were split.” (Pritzker (JLI) Tr. 783; *see also* Gifford (Altria) Tr. 2763 (explaining that in the spring there were “heavy conversations going back and forth of how could [JLI] spin off international so that [Altria] could really invest in just the U.S. business”)).

V. IN THE LATE SPRING OF 2018, ALTRIA BEGAN TO REASSESS ITS E-VAPOR STRATEGY

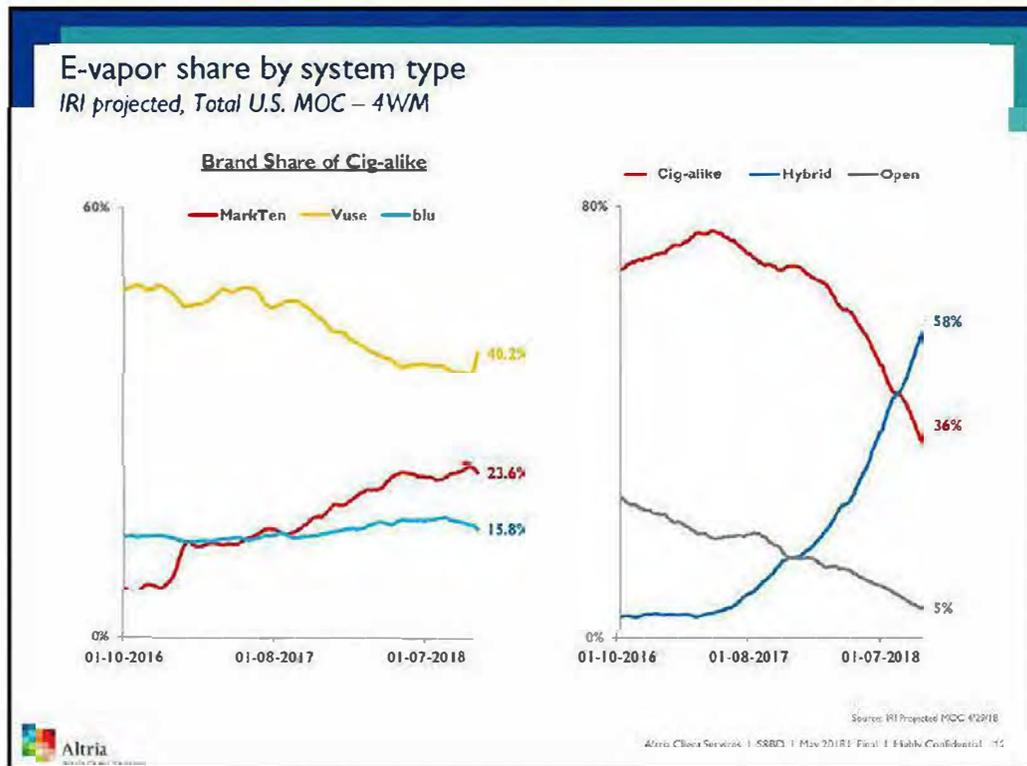
A. Presentations For Altria’s May Board Meeting Highlighted The Growing Dominance Of Pods

562. In May 2018, Altria’s management gave presentations to the Board of Directors on the state of the e-vapor category and Nu Mark’s ability to compete in that market. (*See, e.g.*, PX1229 (Altria) at 001-02, 004-06, 011-24).

563. By May 2018, the e-vapor category was “growing faster than . . . anticipated” and “specifically what was driving that was pod-based products.” (Begley (Altria) Tr. 1106; PX1229 (Altria) at 005). As Willard testified at trial, this growth was “the kind of growth [Altria] really hadn’t seen from really any other reduced-risk product before,” and “was almost completely driven by JUUL’s growth.” (Willard (Altria) Tr. 1364; *see also* Gifford (Altria) Tr. 2743-44; RX0272 (Altria) at 005).

564. The explosive growth of pod-based products in general and JUUL in particular confirmed for Altria that its cig-a-like portfolio was not going to provide a path to e-vapor category leadership. (Begley (Altria) Tr. 1108; *see also* Willard (Altria) Tr. 1366 (noting cig-a-like category was in “free-fall”)).

565. In May 2018, Gifford and Begley presented to the Board a slide that Willard recalls showed that “the cigalike share of total e-vapor [was] plummeting. . . . [I]t started at the beginning of this time frame in excess of 70 percent share and it’s down to 36 percent.” (Willard (Altria) Tr. 1365-66; RX0272 (Altria) at 013):



(RX0272 (Altria) at 013).

566. Altria’s cig-a-like products had never been profitable. (Willard (Altria) Tr. 1366; *see also* Parts III.A.1, III.C.3).

567. And there was no path for Altria’s cig-a-like products to become profitable, because cig-a-likes were “falling off a cliff” in terms of market share among e-vapor products. (Gifford (Altria) Tr. 2745; RX0272 (Altria) at 013). As Begley explained at trial, he “expected” pods would see “some growth,” but he did not at all expect that they would come to overwhelm cig-a-likes. (Begley (Altria) Tr. 1110).

568. Nu Mark was “encouraged enough by the [early] results of [MarkTen Bold] to expand it to an additional 15,000 stores by the end of the year.” (PX7022 Begley (Altria) Dep. at 126-27). Bold was “getting initial traction with consumers,” “largely because of expanded distribution and promotional offers.” (Willard (Altria) Tr. 1386; PX9047 (Altria) at 003, 009-10). But Bold was a cig-a-like, with insufficient nicotine satisfaction and a form evocative of a cigarette, and in a declining category. (Jupe (Altria) Tr. 2228-29, 2232-34; Quigley (Altria) Tr. 2037; Myers (Altria) Tr. 3390; PX7016 Jupe (Altria) Dep. at 107; *see also supra* Part I.B.1; *infra* Part V.C.1.b.iii).

569. As Begley testified at trial, when Altria first had started down the e-vapor path, it “didn’t know how the category was going to shape up and where consumer preferences were going to land, so [it] thought placing multiple bets was appropriate.” (Begley (Altria) Tr. 1108). But by May 2018, Altria had realized that “the bet [it] really needed to make was a satisfying product that didn’t look like a cigarette. So if you could think about the criteria we talked about before, satisfaction and form or design really mattered.” (Begley (Altria) Tr. 1108). And Altria’s cig-a-likes lacked both the satisfaction and form that smokers wanted. (*See infra* Part V.C.1.b).

570. In his May 2018 presentation to the Board, Begley also expressed concern about the competitiveness of Nu Mark’s pod-based product, Elite. As Begley informed the Board, Altria had realized by this point that “JUUL and MarkTen Elite appeal[ed] to different [adult tobacco consumer] audiences.” (PX1229 (Altria) at 017). “JUUL appeals to [those] that are seeking a familiar cigarette-like experience while Elite appeals to [those] that are seeking a vaping experience.” (PX1229 (Altria) at 017). This distinction was a critical problem for Elite: It was the smokers who were driving e-vapor growth, and the group interested in a

smoking experience was twice the size of the group interested in a vaping experience.

(Begley (Altria) Tr. 1112).

571. Accordingly, Begley informed the Board that “it was not the case” that “Elite could be a head-to-head JUUL fighter.” (Begley (Altria) Tr. 1111). “Maybe there was some potential for . . . Elite, but it was not a head-to-head competitor with JUUL, . . . primarily because it didn’t have a nicotine salts formulation that was satisfying.” (Begley (Altria) Tr. 1111; *see also* PX1229 (Altria) at 006 (advising the Board that JUUL provided satisfaction that Elite did not)).

572. At the time, Begley did not believe that Altria would “be successful with Elite in the context of being able to convert adult smokers and compete effectively in that important segment.” (PX7022 Begley (Altria) Dep. at 267). Essentially, “the market had shifted on [Altria],” and it found itself falling further and further behind JUUL, “a competitor that [it] had no answer for in [its] portfolio.” (PX7022 Begley (Altria) Dep. at 240-41).

573. And because of the constraints imposed by the regulatory regime, Altria could not simply launch a new product that was not on the market by August 2016. (*See supra* Part I.D.2). Altria “had a challenge in this market that most companies in other categories don’t face, which is that [it] couldn’t take everything [it] learned, put it into a product, and introduce it into the market.” (Willard (Altria) Tr. 1370).

574. This all “gave [Begley] great concern.” (PX7022 Begley (Altria) Dep. at 240-41).

575. To be clear, Elite’s lack of success was not for lack of effort. As Begley and Gifford informed the Board in May 2018, Elite already had been promoted heavily to no avail. (Gifford (Altria) Tr. 2755; RX0272 (Altria) at 021-22; *see also supra* Part III.D-E). And Nu Mark planned starting that month to introduce the \$8.99 trial bundle offer—essentially giving

the device away for free—to incent trial, and also was increasing its marketing efforts, including through direct mailing coupons and promotional events in Las Vegas. (Gifford (Altria) Tr. 2753-55; RX0272 (Altria) at 021-22; *see also* [REDACTED]).

576. Notwithstanding these efforts, Altria had determined by this point that Elite was not performing as Altria had hoped. As Gifford explained at trial and had informed the Board in May 2018, JUUL had been “really the first pod product in the marketplace, it was new to consumers, and so the consumer has to become acquainted with it.” (Gifford (Altria) Tr. 2750-51; RX0272 (Altria) at 018). You would expect a “fast follower”—a product with a similar look and operation—to “grow much faster,” but Elite never did. (Gifford (Altria) Tr. 2751; RX0272 (Altria) at 018).

577. Elite’s distribution was being expanded, but its sales had “largely plateaued,” which Willard thought was a “bad sign.” (Willard (Altria) Tr. 1388). “Nobody expected [Elite] to have the level of growth that JUUL had, that was relatively unusual, but . . . you would have liked to have seen an upward slope to that, and [Altria] didn’t see it.” (Willard (Altria) Tr. 1388).

578. In sum, as of May 2018, Altria found itself “at a bit of an inflection point, because [it] recognized . . . [that it] needed to be able to compete in the pod segment, because that was going to be the fastest-growing segment within e-vapor and MOC, and if [it] couldn’t compete there, [Altria] had some strategic decisions that [it was] going to have to make that were potentially tough decisions.” (Begley (Altria) Tr. 1116; *see also* Begley (Altria) Tr. 961).

B. In Mid-May, Altria Restructured Its Leadership To Address Innovation Failings

579. In May of 2018, Marty Barrington retired as Altria’s CEO. (PX9045 (Altria) at 001). He was replaced on May 17 by Howard Willard. (PX9045 (Altria) at 001; Begley (Altria) Tr. 962).
580. Willard wanted Altria “to change [its] approach on innovation to have a better chance to fulfill [its] aspiration of being the U.S. authorized leader in noncombustible reduced-risk products.” (Willard (Altria) Tr. 1372-73 (discussing RX0836 (Altria))).
581. To do so, less than one week after he took the helm, Willard restructured Altria into “two divisions—core tobacco and innovative products.” (RX0836 (Altria) at 001; *see also* Quigley (Altria) Tr. 2000 (describing restructuring as creating “three key jobs”: (1) the “tobacco operating unit, which consisted of Philip Morris USA and U.S. Smokeless Tobacco”; (2) “the chief growth officer function, which was designed to . . . really drive innovation and product development capability”; and (3) “Nu Mark, the innovative products business”)).
582. The goals of the overhaul were to “align” Altria’s business units to the regulatory approach the FDA recently had announced, namely the continuum of risk between “combustible and noncombustible products”; “to rapidly transform [Altria’s] product development capability”; “to turn around [its] e-vapor business,” (PX7003 Quigley (Altria) IHT at 25-26); and to overcome “the siloed nature of the way Altria did work,” (PX7034 Mountjoy (Altria) Dep. at 93).
583. On the innovation side, Willard tapped Brian Quigley, who previously had run U.S. Smokeless Tobacco, to become the new CEO of Nu Mark. (RX0836 (Altria) at 002; *see also* Gifford (Altria) Tr. 2758-59; PX7031 Willard (Altria) Dep. at 248).

584. As Gifford testified at trial, Quigley had racked up “some pretty big wins” in his tenure as CEO of U.S. Smokeless Tobacco, including a very successful launch of Copenhagen Wintergreen. (Gifford (Altria) Tr. 2758-59).

585. As Willard explained, he wanted “to have a fresh set of eyes go in and see whether we had missed anything that could make one of [Nu Mark’s] products successful.” (Willard (Altria) Tr. 1371-72; *see also* PX7031 Willard (Altria) Dep. at 248).

586. Willard asked Quigley to “go in and assess the strengths and, frankly, the weaknesses of the Nu Mark business and to make an assessment in his judgment on whether or not there were opportunities to make adjustments that would deliver greater success in the short run, and if success in the short run was a challenge, to identify what needed to happen over the longer term in order to have Nu Mark have more success.” (Willard (Altria) Tr. 1373-74).

587. Willard believed that “[i]f there were opportunities to turn that business around, [Quigley] would likely be well positioned to identify them and, frankly, also if the business was as challenged as it seemed, . . . if he drew that conclusion, that that would be important feedback.” (PX7031 Willard (Altria) Dep. at 252).

588. As Quigley testified at trial, he understood that he was taking over a business that was “struggling and underperforming,” and that his “directive was to figure out what was wrong and to fix the business.” (Quigley (Altria) Tr. 1941; *see also* Quigley (Altria) Tr. 2086 (agreeing that Willard had “charge[d] [him] with coming up with the best plan [he] could to turn around [Nu Mark]”)). His impression was that at the time, Altria did “not yet fully understand what was wrong with the [Nu Mark] business.” (Quigley (Altria) Tr. 2003-04).

589. Quigley viewed himself as “a fixer”—“someone that had the capability to . . . turn a business around.” (Quigley (Altria) Tr. 2002).

590. Willard also appointed K.C. Crosthwaite as Chief Growth Officer and tasked him with “building and acquiring the competencies, technologies and talent [Altria would] need to achieve [its] innovative products aspiration.” (RX0836 (Altria) at 002).
591. Finally, because commercializing new products was contingent on FDA approval, Willard moved the Regulatory Sciences division under the supervision of Murray Garnick, Altria’s General Counsel and head of Regulatory Affairs, to better align regulatory strategy with the scientific agenda. (RX0836 (Altria) at 003).
592. As Willard explained, Altria leadership “traditionally heard relatively positive things about [the company’s] chances of getting through FDA from the organization,” and worried that the “positive news” was “bubbl[ing] up faster than negative news.” (Willard (Altria) Tr. 1375). Garnick’s appointment reflected the concerns of the company’s leadership that they were not “on top of” all of the e-vapor products’ regulatory and scientific issues. (Garnick (Altria) Tr. 1709-10).
593. Accordingly, Garnick was tasked with learning “the belief . . . of the scientific experts about the potential for Nu Mark’s products to ultimately get approved by the FDA.” (Willard (Altria) Tr. 1375).
594. Garnick did not believe there was any connection between his reassignment and negotiations with JLI, and, while he was aware of the negotiations “on a general level,” he was not “involved in the day-to-day” work. (Garnick (Altria) Tr. 1711).
595. This restructuring was a “big event,” as Altria did not “create new positions at that senior level very often.” (Willard (Altria) Tr. 1372). But “given the business challenges [Altria was] facing, and the cultural challenge,” leadership “wanted to send a strong signal that [the company was] embracing a different path forward where [it] could be a different company and

really focus on [its] harm-reduction future.” (Quigley (Altria) Tr. 2000; *see also* PX9047 (Altria) at 002).

C. Over The Course Of June And July 2018, Altria Leadership Concluded That Nu Mark’s Products Were Flawed Fundamentally

1. By Summer 2018, Altria’s Scientists and Regulatory Experts Had Concluded That Nu Mark’s Products Could Not Obtain FDA Approval

596. By the summer of 2018, Altria’s scientists knew the factors key to e-vapor success were “conversion, satisfaction and ability to get through FDA.” (Gardner (Altria) Tr. 2588 (discussing RX0788 (Altria) at 001)).

597. As Gardner explained, these criteria were related. Smokers who were looking to switch to an e-vapor product would need nicotine satisfaction. (Gardner (Altria) Tr. 3089-90). And conversion, in turn, was “necessary to demonstrate ‘appropriate for the protection of public health,’ which was the standard for the PMTA.” (Gardner (Altria) Tr. 2586). “[I]f adult smokers don’t convert to the product, you’re not reducing harm to the population and to the adult smokers, so . . . the product had no reason for being in the market.” (Gardner (Altria) Tr. 2586; *see also* PX7017 Magness (Altria) Dep. at 279 (“If the products are unsuccessful at converting adult smokers, they will not succeed through the regulatory pathway.”)).

598. Therefore, demonstrating that a product is capable of converting smokers “is a critical part of the evidence [Altria] ha[s] to produce” to FDA to win PMTA approval. (Jupe (Altria) Tr. 2220).

599. A manufacturer must “show that [a] substantial amount of adult smokers will switch completely to the e-vapor product.” (PX7015 Gogova (Altria) Dep. at 126; *see also* Jupe (Altria) Tr. 2220 (agreeing that “switching” is synonymous with “conversion”); Gardner (Altria) Tr. 2586; PX7017 Magness (Altria) Dep. at 279).

600. And it has to be complete switching; dual use of e-vapor and cigarettes will not suffice. (Murillo (Altria/JLI) Tr. 2907; PX7015 Gogova (Altria) Dep. at 126-27; PX7023 Fernandez (Altria) Dep. at 79-80, 83). That is because, “unless consumers actually switch to the product, there is no reduction of risk.” (PX7026 Gardner (Altria) Dep. at 242). “They’re just maintaining their cigarette consumption but adding something to it.” (Murillo (Altria/JLI) Tr. 2907; *see also* PX7023 Fernandez (Altria) Dep. at 83 (explaining that if you are only an occasional use product “[y]ou can’t be successful in this market,” and “the regulator wouldn’t make you exist anyway”)).

a. Neither MarkTen Cig-A-Like Nor Elite Was Demonstrating That It Could Convert Smokers

601. By late spring 2018, the sluggish sales data for Nu Mark’s products was raising questions about their ability to convert adult smokers. (Gardner (Altria) Tr. 2648).

602. “[A] low sales rate or sales volume does not indicate conversion potential.” (Gardner (Altria) Tr. 2648; *see also* PX7023 Fernandez (Altria) Dep. at 155-56 (“[W]hen we got in the market, the indicator was, we were not performing to the extent that we needed to, despite the fact, as you pointed out earlier, that we had a better price.”)). Simply put, “[i]f consumers don’t like [a product], they’re not going to convert.” (Gardner (Altria) Tr. 2648).

603. Thus, sales data is an important part of the conversion assessment. Market share is not equivalent to conversion rate, but “market share tells you . . . what the adult smokers are actually doing in the market with their money.” (Gardner (Altria) Tr. 2644-45). “[T]hat piece of data, combined with other information, is used to assess the conversion potential of the product.” (Gardner (Altria) Tr. 2645).

604. For this reason, the regulatory affairs team “track[ed] the market performance [of Altria’s products] as part of thinking about the [PMTA] framework.” (Murillo (Altria/JLI) Tr. 3045).

605. Competitors also looked to market performance when assessing the conversion potential of different products. For example, PMI interpreted poor marketplace results as an indication that Altria's e-vapor products were not converting smokers. (PX7020 King (PMI) Dep. at 246-47).
606. Beyond the poor sales data, mounting consumer research cast further doubt on the conversion potential of Nu Mark's products. (Jupe (Altria) Tr. 2234, 2251-53; RX0496 (Altria) at 019; PX1225 (Altria) at 001, 037; *see also supra* Part III.C.2).
607. The regulatory affairs team worked very closely with the market insights team because "all of the results that [Altria] generate[d] with respect to a product need[ed] to be accessible to the FDA, and if [consumer research studies were] sufficiently related to the PMTA, they, in fact, ha[d] to be included with the PMTA." (Murillo (Altria/JLI) Tr. 3048).
608. Consumer research about the MarkTen cig-a-like "indicate[d] . . . that the satisfaction was not there." (Jupe (Altria) Tr. 2234).
609. The HUT results from January had been an early indication that Elite and Cync did not offer the necessary nicotine satisfaction for cigarette users, with Cync demonstrating no meaningful impact on cigarette occasions at all and Elite showing negligible effect until over a month into the study, long after the average consumer would have rejected the product. (Jupe (Altria) Tr. 2251-53; RX0496 (Altria) at 019; *see also supra* Part III.C.2).
610. In the spring of 2018, Nu Mark received further evidence of this conclusion when it reanalyzed the HUT data. (PX1225 (Altria) at 001). This time, instead of analyzing participants based on whether they had used an e-vapor product within the last week, Altria's consumer research team analyzed the results based on whether the participants had indicated they were seeking a cigarette experience or a vaping experience. Under that lens, neither

Cync nor Elite had any meaningful impact on cigarette occasions. JUUL was the only product among the three that was “taking cigarette occasions from those who [were] seeking a cigarette experience.” (PX1225 (Altria) at 037).

611. As Jennifer Schmidt, the market researcher responsible for analyzing the HUT data explained, “Elite [and] Cync . . . are more for those seeking the vaping experience than the smoking experience. JUUL tends to have the most behavioral impact among those seeking the smoking experience.” (PX1225 (Altria) at 001).
612. In July, Paige Magness, then Managing Director of Regulatory Affairs and responsible for PMTA submissions, wrote that the regulatory “team need[ed] to recommend which products should move forward and which should not, based on conversion potential and satisfaction.” (RX0788 (Altria) at 002). She concluded that “none of [Altria’s] products [were] anywhere near ready (still concepts, formulations not decided, no data to know if we can make a successful PMTA).” (RX0788 (Altria) at 001; *see also* PX1028 (Altria) at 006-07 (comparing MarkTen products with those of competing brands and demonstrating that each of the MarkTen products had a lower nicotine content and higher pH than JUUL and Vuse)).
613. Gardner agreed with Magness’s assessment: None of the products that Altria had on the market—not MarkTen cig-a-like, not Bold, not Elite—could provide the satisfaction necessary to convert smokers. (Gardner (Altria) Tr. 2590).

b. Scientists Realized That The Products Were Not Converting Adult Smokers Because They Lacked The Nicotine Salts Required For Nicotine Satisfaction

i. Scientists Discovered Salts Were Required for Satisfaction

614. By summer 2018, Altria’s scientists had realized that nicotine salts—a shorthand term for what results from the addition of organic acid to an e-liquid—were *necessary* for nicotine

satisfaction, and that they only could mimic the cigarette experience if they were used in the correct ratio. (Jupe (Altria) Tr. 2142, 2229; PX4504 (Altria) at 009, 024).

615. Altria's understanding of nicotine salts had evolved gradually over time. The company's scientists had long understood that salts were important for "abating some of the irritation in the throat" caused by nicotine. (Jupe (Altria) Tr. 2139, 2229-30; *see also* PX4504 (Altria) at 009 (explaining that salts "[m]odulat[e] . . . harshness")).

616. And while the same scientists previously had hypothesized that salts also were important to nicotine satisfaction, they "didn't have the data" to support that hypothesis. (PX7015 Gogova (Altria) Dep. at 312). Up until 2018, because of safety and other concerns, Altria's scientists were not permitted to run consumer tests with nicotine salts in sufficient concentrations, which limited their ability to develop effective nicotine salt formulations. (PX7034 Mountjoy (Altria) Dep. at 65; PX7015 Gogova (Altria) Dep. at 133-37, 310-13).

617. When Altria's scientists finally were able to conduct this testing in 2018, the results led to what its scientists have termed a "eureka moment." (Jupe (Altria) Tr. 2142).

618. The scientists discovered that in addition to mitigating the harshness of nicotine in the throat, nicotine salts created nicotine absorption most similar to how the nicotine in a cigarette is absorbed. (Jupe (Altria) Tr. 2137-39; PX4504 (Altria) at 009; RX0526 (Altria) at 006).

619. More specifically, Altria's scientists discovered that without nicotine salts, the nicotine in aerosolized e-vapor is largely in the gas phase, and such nicotine escapes into the mouth and throat before it can be absorbed in the lungs. (Jupe (Altria) Tr. 2271; RX0796 (Altria) at 039; PX7015 Gogova (Altria) Dep. at 40-42). The addition of organic acid creates nicotine salts, which keep more of the nicotine in the particulate phase (and thus enable it to reach the

lungs). (Jupe (Altria) Tr. 2138, 2271; Quigley (Altria) Tr. 2006; RX0796 (Altria) at 039; PX7015 Gogova (Altria) Dep. at 40-42).

620. As a result, nicotine salts are necessary to preventing nicotine from escaping the particles before the nicotine reaches the deep lung, where it is absorbed most effectively. (Jupe (Altria) Tr. 2137-39; PX4504 (Altria) at 009; PX7015 Gogova (Altria) Dep. at 40-42; RX0526 (Altria) at 006).

621. “[I]f you are really looking for immediate nicotine satisfaction and replacement of conventional cigarettes, the easiest way would be [to] provide the adult smokers with similar nicotine release profile as a conventional cigarette, and this cannot be achieved truly without the acids to create nicotine salts technology.” (PX7015 Gogova (Altria) Dep. at 42).

622. In the summer of 2018, Altria’s scientists reached a consensus that the “[u]se of nicotine salts or addition of acids to achieve a certain pH is required for a satisfying and relaxing E-vapor experience.” (Jupe (Altria) Tr. 2275; RX0796 (Altria) at 053 (same); PX4504 (Altria) at 024 (same); *see also* Gardner (Altria) Tr. 2585-86 (“[T]he consensus was that nicotine salts would be required for adult smoker conversion to e-vapor products.”); RX0419 (Altria) at 001-02; RX0526 (Altria) at 006)).

623. The addition of organic acid (or salts) is required because it brings down the pH of the nicotine in e-liquid. In layman’s terms, pH is “a measure of acidity.” (Gardner (Altria) Tr. 2601). pH serves as a proxy for how nicotine is delivered to the lungs because “the more acid you added, the lower the pH of the liquid, and . . . the more nicotine salt would be created.” (Quigley (Altria) Tr. 2006; *see also* Jupe (Altria) Tr. 2269 (“The salts influence the pH. The right level of salts take the pH down . . .”)).

624. The goal therefore was to add enough acid to “adjust the pH of an aerosol from an e-vapor product” so that it would match as closely as possible the pH of a cigarette and “replicate the nicotine satisfaction experience [of smoking] . . . in an e-cigarette.” (Quigley (Altria) Tr. 2006; *see also* Jupe (Altria) Tr. 2270; Murillo (Altria/JLI) Tr. 3051-52).
625. Ultimately, the scientists determined that a 4:3 ratio of nicotine to organic acids was the “most appropriate ratio.” (Jupe (Altria) Tr. 2137).
626. These realizations led Altria’s scientists to take the position that “[a]ll newly developed e-vapor products, regardless of nicotine content, should utilize nicotine salt technology.” (Jupe (Altria) Tr. 2275; RX0796 (Altria) at 053).
627. But none of the Nu Mark products contained nicotine salts in the correct ratio. (O’Hara (JLI) Tr. 547 (Elite); Begley (Altria) Tr. 1084 (Elite); Willard (Altria) Tr. 1357 (Elite), 1384 (Bold); Schwartz (Altria) Tr. 1921 (Elite); Quigley (Altria) Tr. 2031-32 (Elite), 2037-38 (Bold); Jupe (Altria) Tr. 2136-38 (Bold), 2153-54 (Elite), 2228-29 (MarkTen cig-a-like and Bold), 2324-25 (Elite and MarkTen cig-a-like); Gardner (Altria) Tr. 2595-96 (Elite and MarkTen cig-a-like), 2606 (Elite), 2644 (MarkTen cig-a-like and Bold); PX7016 Jupe (Altria) Dep. at 107 (Bold)).

ii. Elite Did Not Have Nicotine Salts

628. Elite did not contain salts and had a low nicotine content. (Willard (Altria) Tr. 1357).
629. Because Elite lacked salts, its e-liquid pH was too high to mimic that of a cigarette and caused a “significant amount of nicotine loss.” (RX0419 (Altria) at 001). Elite’s pH was approximately 9. (RX2036 (Altria) at 005; *see also* RX0429 (Altria) at 004 (same); PX1028 (Altria) at 006 (showing Elite’s pH was approximately 9)). The pH of a Marlboro cigarette, by contrast, is around 5.8. (RX2036 (Altria) at 005; RX0796 (Altria) at 037; RX0429 (Altria) at 004).

630. Altria's scientists agreed that Elite's high pH was "not ideal for conversion." (PX1028 (Altria) at 001).

631. In essence, Elite's lack of salts meant that virtually none of the nicotine in the vapor was being delivered to the lung in the way it would be delivered in a cigarette. (Jupe (Altria) Tr. 2272-75; RX0796 (Altria) at 050; *see also* Schwartz (Altria) Tr. 1921 ("[Elite's] vapor delivery system was inefficient in the sense that that vapor stream in the absence of salts was not getting to the lower lung and up into the bloodstream . . .")).

632. In the spring of 2018, Altria scientists ran a denuder tube study to test the role of nicotine salts. A "denuder tube" was "a very long tube" into which a "cigarette was puffed." (Jupe (Altria) Tr. 2272). E-vapor products were then puffed into the same tube, and the goal was to get the aerosol to "come out of the tube just like the cigarette [smoke] does." (Jupe (Altria) Tr. 2272-73). This was "a good proximate of how the lung is receiving nicotine." (Jupe (Altria) Tr. 2273).

633. Altria's scientists presented the results of the denuder tube study to the consumer research team in May 2018. (RX0796 (Altria) at 001; Jupe (Altria) Tr. 2145-46). A tested product with 4.5 percent nicotine by weight and no acid was "pretty close to where Elite was" and the study showed that it was delivering almost no nicotine to the lung. (RX0796 (Altria) at 050; Jupe (Altria) Tr. 2272-75).

634. As Jupe testified, Elite "was not a product that we found to be satisfying, and in our opinion -- my opinion, especially -- we didn't think this was going to be a product that was going to convert or switch smokers, because it lacked that nicotine satisfaction that really you can only ascertain through the introduction of salts. And, of course, Elite didn't have that." (Jupe (Altria) Tr. 2154).

635. Altria could not solve Elite’s lack of conversion by simply adding nicotine salts. (Jupe (Altria) Tr. 2256).

636. Nu Mark’s “best guess” for how long it would take to create the right nicotine salts formula, submit a PMTA on that formula and receive FDA approval to commercialize the new product “was five to six years.” (Jupe (Altria) Tr. 2256).

637. As a result of Elite’s lack of salts, Jupe came to believe by summer 2018 that “Elite, as it was, was not the product [Altria] needed in [its] portfolio.” (Jupe (Altria) Tr. 2156).

iii. Bold Had The Wrong Salts Formula

638. Unlike the other MarkTen cig-a-likes, MarkTen Bold *had* nicotine salts, but by the summer of 2018 Altria realized it did not have the right salts formula. (Quigley (Altria) Tr. 2037-38; Jupe (Altria) Tr. 2232-33; PX7016 Jupe (Altria) Dep. at 107).

639. As Jupe explained at trial, the “addition of nicotine salts” was just “part of” what was required for nicotine satisfaction. (Jupe (Altria) Tr. 2136-37). “The second part of it is having the right level of nicotine salts to the right level of nicotine.” (Jupe (Altria) Tr. 2137).

640. Bold had a pH of 8, while the pH of a Marlboro cigarette is around 5.8. (RX2036 (Altria) at 005; RX0796 (Altria) at 037; RX0429 (Altria) at 004). pH is measured on “a logarithmic scale, so a one-unit difference in pH -- for example, from 7 to 8 -- is a tenfold difference in the acidity level or the acid level.” (Gardner (Altria) Tr. 2601).

641. “So between 5.6 and 8, that’s 100 times less acidic with MarkTen Bold versus JUUL.” (Gardner (Altria) Tr. 2601; PX1028 (Altria) at 009; *see also* RX0440 (Altria) at 006 (comparing the four percent acid of Juul with the one percent acid of Bold); *supra* Part V.C.1.b.i).

642. Bold’s high pH meant that it was losing approximately half of its nicotine into the mouth and throat region. (Jupe (Altria) Tr. 2274 (discussing RX0796 (Altria) at 50); *see also*

RX0526 (Altria) at 016 (similar); Jupe (Altria) Tr. 2274 (explaining that a product “pretty close” to Bold’s nicotine by weight, with the same amount of acid, was “losing 60 percent of its nicotine into the mouth and throat region, not getting to the lung”).

643. Bold was proof that it was not enough just to have salts—a product needed salts “in the right quantities and the right configuration of other product elements to be successful.”

(Willard (Altria) Tr. 1384; *see also* Gardner (Altria) Tr. 2644 (explaining that Bold’s “nicotine salts [were] insufficient for conversion”).

644. Bold did not have this. The salts ratio in Bold was “the best [Altria] knew” in 2016 when the formulation was created “but it wasn’t enough salt. It just was not satisfying.” (Jupe (Altria) Tr. 2228-29).

645. Pharmacokinetic (or PK) studies confirmed that Bold was not delivering nicotine to the bloodstream as quickly as combustible cigarettes. (Jupe (Altria) Tr. 2231-33; RX0176 (Altria) at 142).

646. Pharmacokinetic models, referred to as “PK curves,” are used to measure how nicotine is delivered to the body. (Jupe (Altria) Tr. 2231-32, 2270).

647. To generate a PK curve, blood is drawn from a test subject, and nicotine levels are measured in the blood over time. (Jupe (Altria) Tr. 2231). The curve generated from the results of this testing depicts the way that nicotine is delivered to and maintained in the bloodstream. (Jupe (Altria) Tr. 2231-32).

648. A comparison of a cigarette’s PK curve to that of an e-vapor product “is a surrogate, is a marker for cigarette satisfaction or nicotine satisfaction.” (Jupe (Altria) Tr. 2231-32).

649. Bold “really wasn’t [like] a cigarette,” and thus its PK results were “not an indicator of conversion potential.” (Jupe (Altria) Tr. 2234 (discussing RX0176 (Altria) at 142)).

650. In practical terms, the problem was that a smoker in the real world trying MarkTen Bold would have to take anywhere from “25 to 30 puffs to really get closer to the conventional cigarette” which is “too much additional work for adult smokers to do to even get closer to where they wanted to be.” (PX7015 Gogova (Altria) Dep. at 144-46). In that situation, the smoker would just start “looking for potentially other alternatives” that do not require working as hard or using the product as much. (PX7015 Gogova (Altria) Dep. at 144-46).

651. Accordingly, when JLI’s O’Hara tried Bold, he found it so weak that he did “not think that it had nicotine salts” at all. (O’Hara (JLI) Tr. 503-04). “[I]f it did,” he testified at trial, then the salts it had were “a very poor quality” and “not effective.” (O’Hara (JLI) Tr. 503-04, 627).

c. A New Gasket Was Required To Further Fix Elite’s Serious Leaking Problem

652. [REDACTED]

653. As soon as Altria had discovered Elite’s excessive leaking, (*see supra* Part III.E.2), the company had started to work on solutions to the problem. (Schwartz (Altria) Tr. 1888-89; PX1590 (Altria) at 001).

654. Altria determined that in large part, the leaking was due to “a leaking gasket. When pressures changed, whether that was in shipping or in the distribution system, it would cause the liquid to come out of the pod.” (Begley (Altria) Tr. 1103).

655. [REDACTED]

656. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]; *see also* RX0547 (Altria) at 006). [REDACTED]
[REDACTED]

657. Nu Mark also experimented with [REDACTED]
[REDACTED], as well as shipping the
pods in blister packs and without caps over the cartridge, (RX0547 (Altria) at 007).

658. By March 2018, a series of these quick fixes had reduced Elite’s leaking. (PX4129
(Altria) (showing improvement in leaking)).

659. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

660. The replacement gasket was called the C1A gasket. (Garnick (Altria) Tr. 1622; Schwartz
(Altria) Tr. 1898; Gardner (Altria) Tr. 2664).

661. Testing on the C1A gasket demonstrated that it further improved—but did not entirely
resolve—Elite’s leaking. (PX1556 (Altria) at 002; PX1560 (Altria) at 002; Schwartz (Altria)
Tr. 1901-02; 1908-10; Gardner (Altria) Tr. 2664; PX7016 Jupe (Altria) Dep. at 122; PX7026
Gardner (Altria) Dep. at 187-88).

662. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]; *see also* Schwartz (Altria) Tr. 1892; Quigley (Altria) Tr. 1946).

663. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]; *see also* Schwartz (Altria) Tr.1891-92). Representatives from Altria’s legal, regulatory, and product integrity teams—the “three big areas as far as change is concerned”—all served on the CMT. (Schwartz (Altria) Tr. 1894).

664. The gasket went through this change review process “to make sure that [Nu Mark was] fixing the gasket, addressing the leak, but in that . . . effort, making sure that [it was] not doing anything to compromise what was described as the predicate . . . product for FDA purposes.” (Schwartz (Altria) Tr. 1891).

665. Some at Altria were concerned that the gasket change would change the aerosol mass of the device’s vapor output, which would be a performance change that would create a “new” product not permitted on the market without FDA approval. (PX7026 Gardner (Altria) Dep. at 255-57; PX4145 (Altria) at 005, 013).

666. The CMT met on June 19, 2018. (RX0722 (Altria) at 002). The “CMT approved proceeding with the modifications to the gasket to reduce leakage,” and Nu Mark approved the decision. (PX1841 (Altria) at 001; *see also* RX0722 (Altria) at 002).

667. As a June 20 email explains, the CMT’s initial approval was elevated to “to go through the appellate process before the decision [was] finalized,” because “[t]here were a number of dissenters, and the decision [was] sufficiently close that the issues should be aired so all concerned [were] fully informed of its premises.” (PX1206 (Altria); *see also* RX0722 (Altria) at 002).

668. The appellate meeting—attended by Willard, Garnick, Begley, Quigley, Murillo, Gardner, and others—was held on June 26, 2018. (RX0722 (Altria) at 002). No decision was made at the meeting. (RX0722 (Altria) at 002).

669. [REDACTED]
[REDACTED]; *see also* Quigley (Altria) Tr. 2058; PX4178 (Altria) at 001).

670. [REDACTED]
[REDACTED]
[REDACTED]; *see also* Garnick (Altria) Tr. 1636).

671. Several others at Altria recall Willard’s reversal, and accordingly testified at points in this proceeding that they did not believe the gasket change ever had been made. (Quigley (Altria) Tr. 1946-47; PX7027 Murillo (Altria/JLI) Dep. at 168; PX7036 Garnick (Altria) Dep. at 22; PX7003 Quigley (Altria) IHT at 81; PX7031 Willard (Altria) Dep at 59-60; PX7000 Garnick (Altria) IHT at 113-14).

672. In fact, Willard’s changed decision never was communicated to Nu Mark operations and the gasket change was implemented. (Schwartz (Altria) Tr. 1905 (“So we bobbed and weaved accordingly and we were in production in August and delivering product September/October.”); Garnick (Altria) Tr. 1636 (“[T]he gasket was implemented at some point.”)).

673. As soon as Altria realized that the gasket had in fact been implemented, it notified Complaint Counsel. (PX7036 Garnick (Altria) Dep. at 22 (“[A]fter I gave the deposition, I was informed that the gasket to the MarkTen Elite was implemented and product with the gasket was sold. When I was informed by that, I directed outside counsel to send a letter to the FTC to that effect and identifying some documents to base that on.”); RX2007 (Altria) (June 15, 2020 letter to Complaint Counsel)).

674. Ultimately though, the precise order of events related to the gasket matters little, as did the gasket change itself. The gasket change was an important step toward resolving Elite’s leaking problems, but it was not going to transform Elite into a successful product because it did not remedy Elite’s lack of nicotine satisfaction. (Quigley (Altria) Tr. 1947-48, 2057-59; *see also* PX7041 Quigley (Altria) Dep. at 153-54; PX7003 Quigley (Altria) IHT at 118-19). By the summer and fall of 2018, retailers were less concerned about Elite’s leaking and “more concerned about, you know, the product itself and the fact that it wasn’t moving very quickly, and because it didn’t have, in their mind, the right level of nicotine and nicotine salts.” (PX7038 Myers (Altria) Dep. at 87).

675. [REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]

2. The Scientists And Regulatory Experts Informed Leadership Of The Nu Mark Products’ Failings And Poor PMTA Prospects

676. Immediately after they were installed in their new roles, Brian Quigley, Murray Garnick, and K.C. Crosthwaite began to assess and reorient their respective organizations. They each embarked on a “deep dive” analysis—“what is the situation, and then what are the gaps, how do we think about this and then build strategic plans going forward of how you would expect to address that.” (Gifford (Altria) Tr. 2757-60; *see also* Quigley (Altria) Tr. 2018-19 (describing 100-day annual planning process “called game plan”). For Quigley and Garnick, conversations with Altria’s scientists revealed the full extent of the troubled state of Nu Mark’s products:

a. Quigley Learned That The Existing Nu Mark Products Could Not Succeed Without The Right Nicotine Salts Formula

677. Quigley quickly determined after an initial assessment that “drastic change” was required. (Quigley (Altria) Tr. 2050; RX0451 (Altria) at 001). He saw “things [were not] going well”

and that “significant change” was needed to “get things on the right path.” (Gifford (Altria) Tr. 2778-79; *see also* PX7003 Quigley (Altria) IHT at 40 (“[T]he business was worse off than I thought.”)).

678. Accordingly, Quigley revised Nu Mark’s vision and mission statements to focus on “switching” smokers. (Quigley (Altria) Tr. 2013-14; RX0371 (Altria) at 018). It was clear to him that if Nu Mark was going to succeed, it had to find a way to “ensure that the nicotine experience [was] going to be what it need[ed] to be to get a smoker to put down a pack of cigarettes and move to an e-cigarette product.” (Quigley (Altria) Tr. 2014).

679. Quigley also began meeting with Altria’s scientists like Dr. Gerd Kobal, to familiarize himself with what the scientists had learned about nicotine salts and to discuss the path forward. (Jupe (Altria) Tr. 2265-67).

680. Dr. Kobal was an Altria scientist who ran the company’s “Sensomics department,” which studied “the senses and interaction with our products,” (Quigley (Altria) Tr. 2005), and he worked on product development within Altria’s regulatory sciences group, (Jupe (Altria) Tr. 2217). Dr. Kobal’s work involved extensive research on nicotine salts, and he “interacted with members of [Nu Mark] once he . . . figured out not only what’s the right recipe, understanding the physics of that aerosol particle, and doing some modeling within . . . a simulated environment of how we take aerosol in and how it would go through the lung.” (Jupe (Altria) Tr. 2143; *see also supra* Part V.C.1.b.i).

681. Dr. Kobal’s research showed that “the products that were in the [Nu Mark] portfolio, the products that were being worked on, [and] the products that were on the shelf were inadequate to achieve this goal of converting smokers.” (Jupe (Altria) Tr. 2279). By contrast, Dr. Kobal’s analysis demonstrated that JUUL possessed an optimal formulation of nicotine salts,

allowing it to mimic the nicotine delivery of a cigarette. (Jupe (Altria) Tr. 2265-68, 2271-74; Gardner (Altria) Tr. 3086-87).

682. Accordingly, Altria’s scientists tried “as much as [they] could” to convey the message about nicotine satisfaction and salts to Altria leadership in the summer of 2018, (Jupe (Altria) Tr. 2283), and product development started “putting this through the communication chain to basically say, look, our recommendation is to stop working on this Elite as it is, let’s stop working on products that have no satisfaction, and let’s refocus our efforts,” (Jupe (Altria) Tr. 2280-81).

683. In particular, Dr. Kobal and other Altria scientists informed Quigley in June 2018 of their view on the necessity of nicotine salts. (Quigley (Altria) Tr. 2006-07; RX0419 (Altria) at 002; *see also* PX4504 (Altria) at 024; *supra* Part V.C.1.b.i).

684. When Quigley learned of this view, he too had an “aha” moment. (Quigley (Altria) Tr. 2076; *see also* Quigley (Altria) Tr. 2029 (agreeing that discovery of nicotine salts’ necessity was the “eureka” moment he and Dr. Kobal had in early June)). Dr. Kobal showed Quigley the market comparison of the pH of all e-vapor products, which illustrated that none of Nu Mark’s products “had enough acid to have the pH to be similar to a cigarette.” (Quigley (Altria) Tr. 2007; *see also supra* Part V.C.1.b.i-ii).

685. Quigley learned from Kobal and Jupe that there were other features desired in an e-vapor product but “at the end of the day, if you didn’t have the immediate nicotine satisfaction, you would not be successful.” (Quigley (Altria) Tr. 2013; *see also* PX4504 (Altria) at 024; RX0419 (Altria) at 002). As Quigley explained at trial, drawing on his experience “work[ing] in the diaper business,” he came to understand that an e-vapor product that does not deliver nicotine satisfaction is a like a diaper that leaks—it does not do its job. (Quigley (Altria) Tr.

2015-16 (“[Y]ou could add velcro tabs and you can make them pull up and make them more comfortable, but if your diaper is leaking, no one is going to come back and buy your diaper.”)).

686. “[A]t [that] moment, [Quigley] felt like [he] had learned something that was . . . the most foundational thing about [Nu Mark],” and it gave him “the foundation to know . . . the problem with all of [Nu Mark’s] products,” and “what [Nu Mark] had to do to build a plan.” (Quigley (Altria) Tr. 2008).

687. But realizing the importance of salts and identifying the optimal ratio of nicotine to salts was only the first step. (Quigley (Altria) Tr. 2008-09). As Jupe explained, Altria still needed to determine “[w]hat type of acid? Is it acetic acid? Is it lactic acid? Is it benzoic acid?” (Jupe (Altria) Tr. 2140). And what is the “right ratio of those three acids in combination with the right ratio of the nicotine[?]” (Jupe (Altria) Tr. 2140). “Some acids give a vinegary taste to the product, so there’s an off note associated with these acids. And so that’s one big challenge, making sure you can get it in there at a level that doesn’t give a negative note unto itself.” (PX7016 Jupe (Altria) Dep. at 333).

688. In addition, Altria would have to test the “flavor system interacting with the acids, interacting with the nicotine.” (Jupe (Altria) Tr. 2147). “There’s a whole stability of the flavor system. The flavor system now has to be designed to co-exist with the acids because you do get some negative taste aspects of the acids.” (PX7016 Jupe (Altria) Dep. at 333).

689. Further, Altria would have to determine that the salts formula used would not “degrade” the components in the product: “[T]he flavor system has to survive within the pod, within a packed-down environment for at least six months to a year, such that it doesn’t interact with

the metals. Amino acids, obviously interact with metals. They interact with plastics.”

(PX7016 Jupe (Altria) Dep. at 333-34).

690. Finally, if it managed the steps above, Nu Mark still would need put that salts formula “in a format and deliver that aerosol in a product that consumers will want to use as opposed to their cigarettes.” (PX7016 Jupe (Altria) Dep. at 334).

691. In sum, if Altria “kn[e]w the right ratio” of nicotine to acids, there are still “a lot more pieces to the puzzle” of designing “a successful product that has the potential to convert smokers from cigarettes to e-vapor products.” (PX7016 Jupe (Altria) Dep. at 334).

692. And even if Altria had been able to solve all of the “pieces to the puzzle” in 2018, it still would be “two years too late because the market had [already] been locked” in place by the Deeming Rule. (Jupe (Altria) Tr. 2142; PX7016 Jupe (Altria) Dep. at 334). Altria could not add nicotine salts to its e-vapor formulations “and commercialize it, because now that was considered a new product, and that new product would first require authorization from the agency by going through [the] PMTA pathway.” (Jupe (Altria) Tr. 2230; *see also* Jupe (Altria) Tr. 2256; Murillo (JLI/Altria) Tr. 2927-28; Begley (Altria) Tr. 1081).

b. Garnick Learned That Altria Could Not Get PMTA Approval For Nu Mark’s Existing Products

693. In his new role as head of Regulatory Sciences, Garnick also began having “a series of meetings with the scientists” on a weekly basis starting in June 2018 to understand “what the problems were” with Nu Mark’s e-vapor products. (Garnick (Altria) Tr. 1712; Jupe (Altria) Tr. 2265; *see also* Gardner (Altria) Tr. 2578-2579, 2581; PX7036 Garnick (Altria) Dep. at 69).

694. The scientists presented Garnick with “a fairly dire view of the likelihood of many of our products getting FDA approval.” (Willard (Altria) Tr. 1382-83).

695. Garnick recalled at trial that in “every single meeting there would be a new problem that we were facing, whether it was the formaldehyde issue . . . or nickel issues or other issues.”

(Garnick (Altria) Tr. 1713). “[I]t was exhausting” (Garnick (Altria) Tr. 1713).

696. Indeed, Dr. Gardner earned the nicknames “Bad News Bill” and “Dr. Doom” because he so frequently had to raise “the challenges we had in the chemistry area early on.” (Gardner (Altria) Tr. 2581; *see also* Garnick (Altria) Tr. 1713).

697. At trial Gardner agreed that his reports to his “bosses and to executives” did not “ever overstat[e] the issues with the [Nu Mark] products.” (Gardner (Altria) Tr. 2582).

698. In their meetings with Garnick, Gardner and the other scientists advised him that the consensus was that FDA would not approve any PMTA for Altria’s products on the market: “I was told that [Altria’s] e-vapor products that were on the market would not get a PMTA. I was told that by [Altria’s] scientists and I believed them. . . . In fact, I didn’t think there was anyone on the science team who thought that they could get PMTAs.” (PX7036 Garnick (Altria) Dep. at 15). Indeed, a June 18, 2018 email from an Altria scientist to Garnick specifically advised that “no one thinks we can get a PMTA on current Mark Ten product.” (PX1890 (Altria) at 001; Garnick (Altria) Tr. 1725-27).

699. As of summer 2018, Altria’s scientists all agreed that none of Altria’s e-vapor products could obtain a PMTA. (Gardner (Altria) Tr. 2590; *see also* PX7036 Garnick (Altria) Dep. at 15; PX7000 Garnick (Altria) IHT at 29 (“There was a problem with each of the products that we had on the market. We did not believe any of them could get a PMTA.”)).

700. As a result of his meetings with the scientists, Garnick “developed a view that Altria should pull its e-vapor products from the market,” although this view was “not shared by others at the time.” (Garnick (Altria) Tr. 1583; *see also* PX7000 Garnick (Altria) IHT at 101-

02). As he explained, “it would cost a lot of money to create a new version that would get a PMTA. And for every product, then, we would have to file two PMTAs, one to keep the current product on the market and one to introduce a new product.” (PX7036 Garnick (Altria) Dep. at 101-02). In addition, “[e]very single product on the market was losing money,” and “none of the products on the market were effective in converting smokers.” (PX7000 Garnick (Altria) IHT at 101-02).

3. Quigley Identified “Overarching Gaps” In Nu Mark’s E-Vapor Portfolio

701. On June 18, 2018, within three weeks of assuming their new roles on June 1, Quigley and Crosthwaite held a day-long strategy session with their teams. (RX1282 (Altria) at 001; RX0371 (Altria)).

702. Quigley previously had met with his immediate team in his first week, and concluded that they “did not yet fully understand what was wrong with the business.” (Quigley (Altria) Tr. 2003-04, 2010-11; *see also* Quigley (Altria) Tr. 2003 (describing meeting with Nu Mark’s leadership team as the “very first thing” he did)). The attendees at the subsequent June 18 meeting were a broader group, including all the senior people from “every function that touched [Nu Mark’s] business,” such as marketing and manufacturing. (Quigley (Altria) Tr. 2010-11).

703. Quigley wanted to “start to share with them what I was learning and what we were learning[,] to share with them how I was starting to think about the future and what we wanted to accomplish with our business.” (Quigley (Altria) Tr. 2011). “I wanted to make sure I had feedback and alignment from everybody that touched the business” (Quigley (Altria) Tr. 2011).

704. Quigley’s presentation was “informed” by what he “had learned with Gerd [Kobal] and Richard [Jupe],” which was that Nu Mark “had to acknowledge, with the goal of getting smokers to switch,” that “the most important thing that products had to deliver to them was an immediate nicotine experience,” adult smokers’ “#1 requirement.” (Quigley (Altria) Tr. 2012-13; RX0371 (Altria) at 010). Quigley “wanted to make . . . clear to everybody” that “at the end of the day, if you didn’t have the immediate nicotine satisfaction, you would not be successful.” (Quigley (Altria) Tr. 2013).

705. Quigley felt like Nu Mark had not been “clearly articulating what was the goal with our business,” and that it was “critically important that we had to agree . . . that our vapor business’[s] job was to switch smokers.” (Quigley (Altria) Tr. 2014). “[W]hen you use the word ‘switch,’ what we are saying is, we have to ensure that the nicotine experience is going to be what it needs to be to get a smoker to put down a pack of cigarettes and move to an e-cigarette product.” (Quigley (Altria) Tr. 2014). Everyone was encouraged to be “candid” about Nu Mark, because “there was a concern that information was not freely flowing from the scientists to upper management.” (Garnick (Altria) Tr. 1722).

4. Senior Leadership Confronted These Challenges At A Multi-Day Organizational Review

706. Days after Quigley’s strategy session, on June 21 and 22, Altria’s senior leadership convened for a broader organizational review known as a Level Setting meeting. (RX0221 (Altria) at 003; *see also* RX0221 (Altria) at 007 (listing attendees)).

707. Because Willard was new to the CEO role, he “set up the meeting and called it enterprise level setting, and said he wanted the focus of that meeting to be to understand all of [Altria’s] products, understand where [the company was] with them, so he could assess . . . and [the

leadership] could all assess where did [the company] stand. That’s why he called it level setting.” (Quigley (Altria) Tr. 2020; *see also* Willard (Altria) Tr. 1375-76 (similar)).

708. The meetings included all “the operating company presidents, all the functional [senior vice presidents] and senior leaders, which we refer to as the executive leadership team, plus all of the functional VPs around product innovation, regulatory, and then, you know, probably five or ten other VPs from other functions across the company.” (Quigley (Altria) Tr. 2021). Overall there were “maybe 40 people in the room.” (Quigley (Altria) Tr. 2021).

709. In his opening remarks, Willard asked the group to “speak truthfully about the hard things” with regard to “the current situation,” particularly Altria’s “fundamental product and strategy gaps.” (PX4205 (Altria) at 017).

710. As Willard explained at trial: “We wanted everybody to have kind of a level set view across the company. And we also wanted to encourage executives to -- to really spend time with and listen to the more junior individuals in the organization, because it was those individuals that were starting to speak up increasingly and say, we know why we’re not having as much success as you had hoped. And so we were really trying to understand what there was to be learned that could help us be more successful in the future.” (Willard (Altria) Tr. 1376).

711. As the session unfolded, presentation after presentation highlighted the weakness of both Altria’s innovative process and e-vapor product pipeline. Quigley led off with a presentation highlighting the “[o]verarching [g]aps”—i.e., “a polite way of saying . . . weakness[es]”—in Nu Mark’s existing e-vapor products, including gaps in conversion and regulatory approval potential. (Willard (Altria) Tr. 1377-82; RX0450 (Altria) at 024; *see also* PX4205 (Altria) at 005 (discussing “[g]aps in developing leapfrog products”)).

712. Quigley took the opportunity to “explain[] to [senior leadership] what Gerd [Kobal] had explained to him”—that is, the scientists’ determination that nicotine salts are “required . . . to provide nicotine satisfaction to adult tobacco consumers.” (Quigley (Altria) Tr. 2022-23, 2028-29; *see also* Jupe (Altria) Tr. 2287-88; RX0450 (Altria) at 024). Nu Mark needed to “[g]round all efforts in nicotine satisfaction first.” (Quigley (Altria) Tr. 2022; *see also* RX0450 (Altria) at 021 (same)).
713. Quigley believed that it was “important [to] right size expectations for the current products,” (RX0419 (Altria) at 002), given that “a consumer will not repurchase” a product that does not offer “immediate nicotine satisfaction,” (PX7041 Quigley (Altria) Dep. at 147).
714. Quigley provided a blunt assessment of Nu Mark’s predicament: Nu Mark’s product portfolio had “[o]verarching [g]aps,” including a lack of “[c]lear understanding of how best to deliver nicotine satisfaction,” of the “foundational science . . . necessary to ground product design,” and “of how products map to” consumer desires. (RX0450 (Altria) at 024). The takeaway was that the leadership had “limited realistic confidence in [Nu Mark’s] current portfolio.” (Quigley (Altria) Tr. 2024 (discussing PX4205 (Altria) at 005)).
715. Quigley also believed that Altria and Nu Mark were not “structured appropriately” to develop innovative products. (Quigley (Altria) Tr. 2025). The companies always “approached product development like a cigarette company” and “needed to think more like a technology company and have different capabilities and different processes.” (Quigley (Altria) Tr. 2025).
716. In Quigley’s view, Altria had not been successful at innovating in the e-vapor space and he did not think it was well-positioned to do so going forward, which made designing a bridge

plan “tougher.” (Quigley (Altria) Tr. 2043). A “bridge plan” was to be a plan to achieve leadership with FDA-approved products by 2025. (Quigley (Altria) Tr. 1956, 2041).

717. Jupe, then head of Innovative Product Development, highlighted the litany of challenges facing Nu Mark’s existing products (RX0450 (Altria) at 053):

- (a) The pod product, Elite, would not be able to “compete successfully without higher level nicotine offerings,” (RX0450 (Altria) at 068);
- (b) MarkTen Bold similarly needed a reformulated e-liquid capable of delivering nicotine satisfaction, (RX0450 (Altria) at 065 (highlighting the need for “higher NBW” and “higher acids”)); and
- (c) The MarkTen cig-a-like’s PMTA was contingent on a new battery to prevent dry puffing, (RX0450 (Altria) at 062-63).

718. Based on these stark assessments, Murillo called for “[c]ompletely re-set[ting] [Nu Mark’s] product and filing plans.” (RX0671 (Altria) at 004; *see also* RX0450 (Altria) at 051 (same)). He “had no confidence in the current set of products and their filing plans, and it was a source of frustration, and [his presentation] was a somewhat perhaps unsuccessfully diplomatic way to convey to [his] colleagues that [the company] had to go back to the drawing board.” (Murillo (Altria/JLI) Tr. 2950).

719. Murillo also urged the leadership to “[e]mbrace what it means to be regulated and be realistic about the FDA’s approach.” (RX0450 (Altria) at 051; *see also* Murillo (Altria/JLI) Tr. 2949-50 (discussing slide)). Murillo wanted to convey to his “colleagues on the executive team that we needed to go back to first principles, that we’re a regulated company, and we can’t just run around and throw products against the wall and see which ones stick and fix them later and all that stuff. We have to be realistic about the expectations that the FDA is

setting forth with respect to these products.” (Murillo (Altria/JLI) Tr. 2949; *see also* Murillo (Altria/JLI) Tr. 2948 (characterizing the enterprise as “running around like chickens with our heads cut off trying to find products in the vapor space that could be successful,” and noting “it wasn’t going so well”); PX7015 Gogova (Altria) Dep. at 102-03 (noting that the Nu Mark “business model [of] having as many products in the marketplace as possible” was not, from the scientists’ perspective, “the right model to work under within the regulatory environment”)).

720. Much of what was presented was “new news” to Willard and the other executives in attendance. (Quigley (Altria) Tr. 2023; *see also* Garnick (Altria) Tr. 1727-28 (noting that “before June” the leaders had not realized “that [Altria’s] scientists believed that the MarkTen [cig-a-like] product would not get a PMTA” and “that in order to correct the problem with the MarkTen cigalike, [Altria] would need to get a PMTA first for the new product”)).

721. Quigley recalled that at the end of the meeting, Willard “stood up and just said, this is a lot of information to process.” (Quigley (Altria) Tr. 2023). Willard was “glad the information was provided” and that he “got more transparency,” although “it represented a fairly dire view of the likelihood of many of [Altria’s] products getting FDA approval.” (Willard (Altria) Tr. 1383; *see also* Murillo (Altria/JLI) Tr. 2952 (describing discussion as “sobering” and recalling “some people were dismayed”)).

722. Willard did not believe that these PMTA risks were manufactured or exaggerated. (Willard (Altria) Tr. 1382).

723. In the near term, the company resolved to focus on the need to “[r]ationalize and prioritize current filing/development work.” (PX4205 (Altria) at 012). As Willard explained, the PMTA process was “very expensive” and “nobody had really rationalized which products

should be dropped from the PMTA process and which products should continue, and we really felt like we needed to do that, because we knew a bunch of these products, that even if they got a PMTA, would fail to be profitable in the future. And . . . we increasingly were hearing from the scientific affairs organization that a bunch of them weren't even going to get FDA approval.” (Willard (Altria) Tr. 1382; *see also* RX0450 (Altria) at 066 (noting that decision about whether to pursue PMTA for Elite 1.0 would “occur in November 2019”); Jupe (Altria) Tr. 2291 (similar)).

724. At the same time, Altria began to consider whether the company should pivot to growth or “speed” teams to try to develop new products from scratch. (PX4205 (Altria) at 012; *see* Quigley (Altria) Tr. 2025-26). Having “pretty much exhausted the availability of products” that it could introduce in the market consistent with the Deeming Rule, the Altria “team came up with this idea that the time had come to use an approach that was often used in innovative companies, which is you put your best people on these teams, small cross-functional teams, you give them tremendous support, and you allow them to develop products from scratch that they think will win in the marketplace.” (Willard (Altria) Tr. 1380). “Given the increasing evidence that the Nu Mark products that were in the market were not going to be successful, this was an emerging idea at the time for how to continue to focus on being successful in e-vapor, despite Nu Mark’s challenges with its existing products.” (Willard (Altria) Tr. 1381).

5. In Early July 2018, The Regulatory Affairs Team Began Preparing An Update For The Board On The Dismal Regulatory Prospects Of Nu Mark’s Products

725. On July 12, 2018, soon after the Level Setting meeting, Garnick began working with his regulatory team to put together a presentation for an upcoming August Board meeting that would alert the Board to the problems with Nu Mark’s products. (RX0914 (Altria); PX1786 (Altria); RX0642 (Altria); PX7017 Magness (Altria) Dep. at 282-83).

726. The Board already had heard that Altria was working “really, really hard” on the vapor category and associated regulatory work. But Altria’s leadership “thought it was important to give [the Board] the benefit of [its] more . . . hard-nosed assessment of where [the company was].” (Murillo (Altria/JLI) Tr. 2952-53).
727. Garnick therefore asked the Regulatory Affairs team “to start putting together a board presentation so [the leadership] could discuss the issues as [it] saw them with the board.” (Garnick (Altria) Tr. 1732; *see also* RX0914 (Altria); PX1786 (Altria); RX0642 (Altria); RX0689 (Altria)).
728. Magness, at the time responsible for Altria’s PMTA submissions, understood that Garnick “was interested in walking the board through each of the products in the e-vapor portfolio and helping them understand the regulatory questions and risks that [the regulatory team] had identified.” (PX7017 Magness (Altria) Dep. at 176). Garnick expressed to Magness that he wanted to share that product-specific information because he “was concerned with some of the product risks as [the regulatory team] had been updating him and wanted to make sure the board was clear about the regulatory risks [the team] had advised the business on.” (PX7017 Magness (Altria) Dep. at 179).
729. The Regulatory Affairs team, including Magness, completed the first draft of the Board deck on July 15, 2018. (RX0689 (Altria) at 001).
730. Magness had no involvement with or knowledge of any negotiations with JLI while she was in Regulatory Affairs. (PX7017 Magness (Altria) Dep. at 166-70, 284-85). In preparing the Board presentation she did not consider any potential investment in JLI. (PX7017 Magness (Altria) Dep. at 284-85). Greg Wilson and Joe Murillo, other members of the

Regulatory Affairs team who also worked on the first draft of the Board presentation, similarly were not involved in the JLI negotiations. (Garnick (Altria) Tr. 1706, 1761).

731. The substantive information in the Board presentation “[came] from the scientists . . . and other technical experts in regulatory sciences.” (Garnick (Altria) Tr. 1732). Like Magness, these scientists had no involvement in the deal negotiations. (PX7015 Gogova (Altria) Dep. at 203-06; *see also* PX7016 Jupe (Altria) Dep. at 242-43 (“I was not involved in any negotiations, any discussions, conversations, nor due diligence, no.”)).

732. As the below slides illustrate, the first draft of the Board presentation identified “key concerns” with each of Nu Mark’s products and determined that each product failed to meet requirements necessary to obtain regulatory approval. (RX0689 (Altria) at 008, 011, 015, 016, and 017):

MarkTen® Key Concerns

- Starting assumptions about puffing conditions not reflective of actual human use data
- ▄ “Dry puff” prevention required
 - Unknown chemicals and metals detected
- External lab process and data quality concerns
- Low nicotine concentration and no acids (non-Bold variants)



Manufacturing	✓
Risk Reduction	X
Adult Smoker Conversion	X
No Unintended Consequences	✓


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(RX0689 (Altria) at 008).

MarkTen® Elite Key Concerns

-  Leaking
-  Aldehyde formation
 - Need to conduct full product integrity assessment
 - Low nicotine concentration and no acids



Manufacturing	X
Risk Reduction	X
Adult Smoker Conversion	X
No Unintended Consequences	?


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(RX0689 (Altria) at 011).

733. As to the MarkTen cig-a-like, the draft conveyed that the product could not satisfy two of the four criteria necessary to obtain PMTA approval: risk reduction and adult smoker conversion. (RX0689 (Altria) at 008; *see* Murillo (Altria/JLI) Tr. 2955-58; Garnick (Altria) Tr. 1735-36).

734. As to MarkTen Elite, the draft conveyed that the product could not satisfy three of the four criteria necessary to obtain PMTA approval: manufacturing, risk reduction, and adult smoker conversion. (RX0689 (Altria) at 011; Murillo (Altria/JLI) Tr. 2956-58; Garnick (Altria) Tr. 1738-39). The product's prospects as to the fourth criterion, no unintended consequences, were uncertain because of FDA's concerns regarding underage use of pod devices. (RX0689 (Altria) at 011; Murillo (Altria/JLI) Tr. 2957).

735. Elite overall had “three strikes and a question mark,” which reflected Murillo’s view that “it had very, very low prospects of success for a PMTA as it stood.” (Murillo (Altria/JLI) Tr. 2958; *see also* Murillo (Altria/JLI) Tr. 2954-55 (“[I]f a product is, like, super good at risk reduction and could be controlled in the manufacturing sense and so forth, but doesn’t convert smokers, then it’s a failure . . .”).

736. Although ultimately some of these slides from the first draft were revised before Garnick made the presentation to the Board on August 23, “the significant, substantive information” from this first draft remained the same in the final presentation given to the Board. (Garnick (Altria) Tr. 1734-35; *see* PX4149 (Altria) at 033, 036, 038, 040, 042 (corresponding slides from final August 23 Board presentation); *see also* Willard (Altria) Tr. 1420-26 (discussing product performance on four criteria); Jupe (Altria) Tr. 2303-07 (similar); Gardner (Altria) Tr. 2603-07 (similar)).

6. A Cross-Functional Team Of Scientists And Businesspeople Concluded That Nu Mark’s E-Vapor Products Had Low Conversion Potential

737. During his presentation at the June 21 Level Setting meeting, Quigley announced the creation of a cross-functional team that would undertake an assessment of the Nu Mark product portfolio. (RX0450 (Altria) at 026). That team, which was led by Nu Mark’s Strategic Product Innovation (“SPI”) group, included representatives from SPI or “Brand,” as they are sometimes known, Consumer Insights, Product Development, Regulatory, Operations, Sensomics & Flavor Development, and Strategy & Business Development. (RX0450 (Altria) at 026).

738. The team presented a bleak assessment of the conversion potential of Nu Mark’s products. (Gardner (Altria) Tr. 3091; RX0532 (Altria) at 001, 005-13).

739. For each product, the portfolio assessment group had collected a range of different data points, including consumer research, whether the product contained salts, market trends, and PK results. (RX0532 (Altria) at 005-13). The slides, which collected “Strengths,” “Opportunities” (corporate speak for “things they need to do better,” (Willard (Altria) Tr. 1381)), and “Red Flags,” offered an even-handed assessment of each product, (RX0532 (Altria) at 005-13).
740. The group noted, for example, that one of Bold’s strengths was that its “PK results [were] as close as [Altria had] to a cigarette” but also that it did “not have [the] optimal ratio of nicotine and salts.” (RX0532 (Altria) at 006). Likewise, for MarkTen cig-a-like, the slide highlighted both that it has shown some conversion potential in an adult user study and that its “[n]icotine delivery may be less satisfying than other devices.” (RX0532 (Altria) at 005). The group also noted that, as to Elite, the HUT showed an impact on cigarette usage “by week 4-5” but also that it did “not appeal to those seeking immediate nicotine satisfaction.” (RX0532 (Altria) at 008).
741. Drawing on this diverse range of inputs, the group rated each of Nu Mark’s cig-a-like and hybrid products—including MarkTen cig-a-like, MarkTen Bold, Elite, Cync, and Apex—as having limited conversion potential. MarkTen cig-a-like, Elite, Cync, and Apex—which all lacked salts—were each rated as having “low” conversion potential. (RX0532 (Altria) at 005, 008, 010, 011; *see also* Gardner (Altria) Tr. 3092-94 (discussing slides for MarkTen and Elite)). MarkTen Bold, Nu Mark’s only product with salts, was deemed to have “Low-Med” conversion potential, with the caveat that it was in a declining product format and did not have the “optimal ratio of nicotine and salts” to “provide expected nicotine satisfaction.” (RX0532 (Altria) at 006).

742. Both the brand representatives from Nu Mark and the scientists all agreed on those assessments, including the conclusion that Elite had low conversion potential for adult smokers looking to switch. (Gardner (Altria) Tr. 3092-94).

743. The conclusion that Nu Mark's products had limited conversion potential reflected not only the consensus of the product assessment team, it reflected the view of every Altria witness who was asked about conversion in this proceeding:

(a) **Howard Willard (former CEO):** Nu Mark's products "really hadn't delivered" on conversion. (Willard (Altria) Tr. 1379). MarkTen cig-a-like "wasn't having any success in the marketplace in converting adult cigarette smokers," especially once the market "expanded to include JUUL and some other products that adult cigarette smokers found more compelling." (Willard (Altria) Tr. 1421-22).

Likewise, Elite did not provide "any meaningful risk reduction because adult cigarette smokers weren't converting to it." (Willard (Altria) Tr. 1425).

(b) **Billy Gifford (current CEO):** "MarkTen Elite didn't have the nicotine experience necessary to satisfy consumers coming in from the cigarette category." (Gifford (Altria) Tr. 2779).

(c) **Murray Garnick (General Counsel & Head of Regulatory Affairs & Regulatory Sciences):** "[W]e had no evidence that Elite was being successful at converting smokers." (Garnick (Altria) Tr. 1738). MarkTen "was also not converting smokers." (Garnick (Altria) Tr. 1778).

(d) **Joe Murillo (former Senior Vice President of Regulatory Affairs):** "[W]e didn't think [MarkTen] was doing a great job of converting adult smokers based on the data we had, the business results, the studies we had conducted, and the way it

delivered nicotine.” (Murillo (Altria/JLI) Tr. 2956). “[W]e believe[d] that [Elite] was not demonstrating . . . adult smoker conversion . . . because we were seeing sort of, you know, okay, middling performance in the market; we were seeing not so great results in the consumer studies that were being conducted. [And] [i]t did not have nicotine salts at that point.” (Murillo (Altria/JLI) Tr. 2956).

(e) **Dr. Bill Gardner (Senior Principal Scientist):** “MarkTen was not converting adult smokers, especially compared to products that used increased nicotine salts.” (Gardner (Altria) Tr. 2644). The “MarkTen Bold products['] nicotine salts [were] insufficient for conversion.” (Gardner (Altria) Tr. 2644). And “MarkTen Elite did not have high conversion potential. It had insufficient nicotine satisfaction due to the absence of nicotine -- due to the absence of nicotine salts.” (Gardner (Altria) Tr. 2594-95).

(f) **Richard Jupe (Vice President of Product Development):** “We didn’t think [Elite] was going to be a product that was going to convert or switch smokers, because it lacked that nicotine satisfaction that really you can only ascertain through the introduction of salts. And, of course, Elite didn’t have that.” (Jupe (Altria) Tr. 2154). The “[c]onversion potential [of MarkTen cig-a-like] was weak.” (Jupe (Altria) Tr. 2304-05).

(g) **Brian Quigley (former President and General Manager of Nu Mark):** “[G]iven the lack of our high nicotine formula with salts using acids,” Nu Mark did not have a “product that had the ability” to switch adult smokers. (PX7041 Quigley (Altria) Dep. at 162; *see also* Quigley (Altria) Tr. 2017 (Elite was not providing nicotine satisfaction)).

- (h) **Jody Begley (former President and General Manager of Nu Mark):** Elite “didn’t deliver the nicotine satisfaction that adult smokers were looking for to lead to conversion.” (Begley (Altria) Tr. 1097).
- (i) **Dr. Maria Gogova (Vice President of Regulatory Sciences):** “[A]cid or nicotine salt technology is critical to adult tobacco consumer conversion.” (PX7015 Gogova (Altria) Dep. at 132). MarkTen was not optimized for adult smoker conversion. (PX7015 Gogova (Altria) Dep. at 87). “[T]he nicotine content in Elite” also was not “right for product [adoption] for adult smokers.” (PX7015 Gogova (Altria) Dep. at 97).
- (j) **Paige Magness (former Managing Director of Regulatory Affairs and current Senior Vice-President of Regulatory Affairs):** MarkTen cig-a-like “fell short [of the PMTA standard] on risk reduction and conversion. . . . With regard to adult smoker conversion, this [was] a product with a relatively low nicotine concentration and [it] did not have the presence of acids that would have improved the level of satisfaction. And . . . the cigalike platform was in decline.” (PX7017 Magness (Altria) Dep. at 290-91). Similarly, Elite fell short on conversion because “it was a product with low nicotine concentration and no acids.” (PX7017 Magness (Altria) Dep. at 293).
- (k) **Michelle Baculis (former Director of Strategy & Brand Development at Nu Mark):** “[T]he vast majority of smokers were looking for nicotine satisfaction in a vapor product that would enable them to make that switch more easily from a cigarette to a vapor [product] long term. Elite did not have that.” (PX7014

Baculis (Altria) Dep. at 174). None of Nu Mark’s products had that. (PX7014 Baculis (Altria) Dep. at 115).

(l) **K.C. Crosthwaite (former Chief Growth Officer):** Cig-a-likes have not “demonstrated [conversion] potential.” (PX7024 Crosthwaite (Altria/JLI) Dep. at 213-14). “Elite was not designed, formulation wise, to as effectively . . . convert adult smokers as other products [that] were in the market.” (PX7024 Crosthwaite (Altria/JLI) Dep. at 219).

(m) **Pascal Fernandez (former Senior Vice President of Consumer & Marketplace Insights):** There was mounting evidence based on consumer research that Elite was “not going to be able to be a product that was able to convert consumers.” (PX7023 Fernandez (Altria) Dep. at 85-86). “The problem we were having is the consumer[s] who intended to buy this product were more likely to be dual users and were not converting, or there was very little evidence of conversion and the product really sticking.” (PX7023 Fernandez (Altria) Dep. at 79). Elite just “didn’t satisfy to the extent it needed to satisfy” to convert smokers. (PX7023 Fernandez (Altria) Dep. at 152).

(n) **Craig Schwartz (former Senior Vice President of Operations at Nu Mark):** Nu Mark was not going to achieve its mission of converting smokers with MarkTen and MarkTen Bold cig-a-like products. (PX7018 Schwartz (Altria) Dep. at 162). And, based on the market data, Elite had “a long ways to go” before it could convert adult smokers. (PX7018 Schwartz (Altria) Dep. at 155-56; *see also* Schwartz (Altria) Tr. 1921 (explaining that Elite’s “vapor delivery system was inefficient in the sense that the vapor stream in the absence of salts was not getting

to the lower lung and up into the bloodstream,” which was a “[h]uge drawback” to providing a satiating alternative to smokers)).

(o) **Scott Myers (President and CEO of Altria Group Distribution Company):**

Retailers conveyed that Elite did not “[have] it right from a nicotine satisfaction standpoint.” (Myers (Altria) Tr. 3389).

744. This consensus reached within the company and by the portfolio assessment team was not unique to Altria. (*See, e.g.*, RX1420 (JLI), PX2269 (JLI)). For example, JLI’s cofounder, Adam Bowen, observed that Elite “do[es]n’t provide cig-like nicotine satisfaction.” (RX1420 (JLI) at 001). He also concluded, “Bold is a terrible product – they didn’t get it right.” (PX2269 (JLI) at 001).

745. JLI witnesses echoed these conclusions at trial. Bob Robbins, JLI’s Chief Growth Officer, testified that cig-a-likes did not “deliver[] the nicotine satisfaction that a smoker would want to convert.” (Robbins (JLI) Tr. 3244). And Elite “didn’t seem to be effective at converting cigarette smokers.” (Robbins (JLI) Tr. 3251).

746. Similarly, Joseph O’Hara, who previously served as Senior Director for Strategic Finance and was responsible for tracking competitor products, testified that MarkTen cig-a-likes “were not viable They didn’t have nicotine salts, they didn’t satisfy nicotine cravings, and they were cigalikes.” (O’Hara (JLI) Tr. 630). Elite also was not a viable product. (O’Hara (JLI) Tr. 641). It had “low nicotine strength” and it “was neither a salt-based nicotine nor a high-quality salt-based nicotine.” (O’Hara (JLI) Tr. 521).

747. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

D. As Altria Came To Grips With Its Weaknesses, JLI Solidified Its Dim View Of The Nu Mark Portfolio

1. JLI's View Of MarkTen Elite

748. As the evidence discussed above demonstrates, the weaknesses of Nu Mark's portfolio were no secret outside the company. JLI initially contemplated that Elite could be a competitive threat based on the brand name behind it, the potential for a large marketing campaign, and Altria's strong distribution network, (PX2356 (JLI) at 017), but it changed its mind "once [it] saw how the products performed on market," (PX7039 Robbins (JLI) Dep. at 82-83).

749. Contemporaneous documents reflect JLI's low opinion of the product, (*see supra* Part III.E.3.a (discussing PX2086 (JLI) at 001); PX2274 (JLI) at 001; RX1165 (JLI) at 004)), which was confirmed by trial and deposition testimony.

750. O'Hara did not think MarkTen Elite was a product with long term viability because it was a low-strength free-base nicotine product—rather than a higher-strength nicotine-salt product like JUUL—and as a result, Elite "would not satisfy consumer smokers to the degree necessary to convert them from combustible tobacco to vapor." (PX7033 O'Hara (JLI) Dep. at 198).

751. Thus, although Elite was a pod-based product, JLI was not "ever too focused on how MarkTen Elite was performing." (PX7042 Danaher (JLI) Dep. at 23; *see also* PX7019 Crozier (Sheetz) Dep. at 77 (noting he did not recall JUUL seeming concerned about the introduction of Elite when he met with them to plan their promotions)). Elite did not show attachment to

consumers; “retailers were not bullish on the product”; and the product attributes—low nicotine content and no salts—“would not have been attributes of a likely successful product.” (Robbins (JLI) Tr. 3250-51).

752. JLI observed that this assessment was borne out by Elite’s market performance. Robbins testified that Elite “never caught on in market. It didn’t seem to be effective at converting cigarette smokers to the product. And they sold -- I don’t recall them selling many devices or pods, but when they sold devices, it did not appear that there was pod purchases afterwards, so -- and, you know, feedback from the market was negative on it, which is to say wholesalers and retailers did not see it selling well either.” (Robbins (JLI) Tr. 3251).

753. At trial, O’Hara also recounted his perception of Elite’s leaking: He “thought that it was pretty clear that, you know, commercially the product was a failure, and in addition to that, the excessive leaking and product quality issues I thought had damaged the brand potentially so significantly that the brand was irreparably damaged.” (O’Hara (JLI) Tr. 556). O’Hara agreed that the “overall quality of the MarkTen Elite product was poor” and observed that the “pods were uniquely leaky.” (O’Hara (JLI) Tr. 548).

754. JLI understood that “98 or 99 percent of the market was cigarettes. So . . . there was no value in gaining for MarkTen or Vuse. It was -- the whole market was cigarettes.” (PX7039 Robbins (JLI) Dep. at 46). Over time, as JUUL “recruited adult smokers over into vapor, . . . it became less and less relevant at all what other vapor products were doing. It was all about how you could switch adult smokers.” (PX7039 Robbins (JLI) Dep. at 58).

2. JLI’s View Of MarkTen Cig-A-Like

755. JLI’s view of the MarkTen cig-a-like was no better. In April 2018, O’Hara sent his JLI colleagues an overview of a tobacco industry analysis by Wells Fargo. He explained that

many retailers who responded to a Wells Fargo survey were “saying MarkTen is ‘dead’” and were “getting fed-up holding space for it on the back-bar.” (RX1461 (JLI) at 001-02).

756. And though MarkTen Bold had nicotine salts, it was no exception to the cig-a-like’s generally poor performance. JLI’s data showed MarkTen Bold was “losing doors” at retailers, meaning that it was not selling in particular locations and those locations showed up in the sales data as lost or not counted “doors.” (RX1524 (JLI) at 001; O’Hara (JLI) Tr. 625-27).

757. O’Hara highlighted this MarkTen Bold data in a February 7, 2018 email, concluding “there are two possible reasons for this. Either 1) the product is sitting on the shelves and didn’t sell at all over this period, or 2) the retailers are actively de-stocking them. Either way, this is a high-conviction data point that MarkTen Bold is not something we should be extremely concerned about This is especially true given how publicly they’ve discussed their efforts to drive distribution on that product.” (RX1524 (JLI) at 001).

758. JLI also internally circulated reports from industry analysts observing that Bold’s sales never “materially spike[d] in the way that you might expect.” (RX1425 (JLI) at 008).

759. JLI’s witnesses testified at trial that no one at the company believed that Altria’s MarkTen cig-a-likes in general were a competitive threat. (O’Hara (JLI) Tr. 583-84, 624-28, 630; Robbins (JLI) Tr. 3245, 3248; *see also* PX7005 Danaher (JLI) IHT at 165 (“[W]e didn’t think that MarkTen was a significant competitive threat to us.”)).

760. As Joseph O’Hara, JLI’s director of regulatory strategy testified, the MarkTen cig-a-likes simply “were not viable.” (O’Hara (JLI) Tr. 630). They “were shaped like a cigarette, which isn’t ideal for people that are trying to switch from cigarettes, but more importantly, they had a very low nicotine concentration, and the nicotine formula in there was not salt-based and it was low quality.” (O’Hara (JLI) Tr. 625; *see also* O’Hara (JLI) Tr. 630 (“They didn’t have

nicotine salts, they didn't satisfy nicotine cravings, and they were cigalikes and not pod-based products.”)). As a result, MarkTen was “[a]bsolutely not” “successful.” (O’Hara (JLI) Tr. 624).

761. O’Hara believed that the cig-a-likes were “extremely low quality” and, after a few months of tracking sales data in his new role at JLI thought it “was pretty clear” that they were “a product failure.” (O’Hara (JLI) Tr. 583-84). Bob Robbins, JLI’s Chief Growth Officer, shared O’Hara’s dim view of the MarkTen cig-a-like: “They didn’t sell well. They didn’t appear to have attachment with adult smokers. They didn’t really drive down cigarette use, and it didn’t seem like the trade channel retailers or wholesalers had good feedback on them.” (Robbins (JLI) Tr. 3245).

VI. IN JULY AND AUGUST 2018, ALTRIA AND JLI CONTINUED DISCUSSING A POSSIBLE INVESTMENT, THIS TIME WITH GREATER SPECIFICITY

A. July 2018 Negotiations

762. By July 2018, Altria recognized that “a deal that include[d] a pathway to control [was] not actionable at [that] time.” (PX4347 (Altria) at 002).

763. Draft notes for a July 31, 2018 Altria Board of Directors call list three reasons for Altria’s decision to accept a minority investment in JLI: (1) due to “stellar performance in the marketplace,” JLI investors “are unwilling to transact at valuation levels we were proposing”; (2) “credible” interest from “a competing bidder that is open to a minority stake”; and (3) “the market is squarely convinced that every company competing in U.S. combustibles has a JUUL problem.” (PX4347 (Altria) at 002).

764. [REDACTED]
[REDACTED]; *see also* PX8008 Huckabee (Reynolds) Decl. at 002 ¶ 5).

765. On July 23, 2018, draft Altria talking points for a potential call with JLI pivoted to proposing a minority investment, contemplating a \$13 billion investment for a 49.9 percent stake in JLI's U.S. business. (PX3169 (PWP) at 001).

766. Before July 27, JLI had discussed with Altria the treatment of Nu Mark's existing e-vapor products in the event that Altria made a minority investment in JLI. "[I]n the context of understanding that it would require regulatory oversight," JLI had "proposed" divestment of Altria's e-vapor assets. (Pritzker (JLI) Tr. 683).

B. July 30, 2018 Term Sheet

1. Summary

767. On July 30, 2018, JLI sent an initial term sheet to Altria proposing a potential transaction structure. (PX1300 (Altria) at 001).

768. JLI was code-named "Jack" in the negotiations; Altria was code-named "Richard." (Pritzker (JLI) Tr. 687-88).

769. In the email attaching the term sheet, JLI's Pritzker confirmed plans for Pritzker, Valani, Burns, Willard, and Gifford to meet at the Park Hyatt Hotel in Washington, D.C. on August 1. (PX1300 (Altria) at 001).

770. The initial proposed term sheet by JLI contemplated that Altria would purchase a 45-percent stake in JLI's U.S. business but receive just five percent of the voting power. (PX1300 (Altria) at 002-03). In addition, JLI's proposed term sheet provided no protection against the dilution of Altria's shares, allowed JLI to sell the company or undertake an IPO without Altria's approval, and imposed a "standstill" that severely restricted Altria from increasing its ownership stake. (PX1300 (Altria) at 003 (dilution), 007 (IPO), 008-09 (standstill)).

771. For Altria, the ownership and control terms in JLI’s initial term sheet were “insult[ing],” “outrageous,” and “appalling.” (Garnick (Altria) Tr. 1745; Gifford (Altria) Tr. 2764; *see also* Pritzker (JLI) Tr. 825 (“[Altria was] very unhappy with the term sheet.”)). As Gifford testified: “[Y]ou give all of this money to get an economic interest and you really only have 5 percent of the say. I actually found it very appalling to see that.” (Gifford (Altria) Tr. 2764-65).

2. “Antitrust Clearance Matters”

772. JLI’s initial term sheet also included two technical provisions that addressed the contemplated investment’s implications for Altria’s e-vapor portfolio after the transaction took place. (PX1300 (Altria) at 004-06). The first of these provisions, under a section of the term sheet entitled “Antitrust Clearance Matters,” proposed steps to facilitate the required HSR clearance for the transaction. (PX1300 (Altria) at 004-05).

773. The provision proposed a ranked process for the treatment of Altria’s existing e-vapor assets as part of the HSR clearance process. (PX1300 (Altria) at 005).

774. This provision proposed that in connection with filing for HSR clearance, Altria would “divest” its existing e-vapor products. (PX1300 (Altria) at 005).

775. As Valani explained, “the prevailing assumption from antitrust counsel at the time was that divestiture was probably the most likely route” that the FTC would require as part of the HSR clearance process. (Valani (JLI) Tr. 918).

776. Similarly, Pritzker’s “expectation” was “that the FTC would require a divestiture and that the product would then stay in the market with a different ownership.” (Pritzker (JLI) Tr. 681).

777. At the time JLI sent the July 30 term sheet, Pritzker “had no reason to think” that divestiture might not be practicable. (Pritzker (JLI) Tr. 814).

778. Nevertheless, the term sheet proposed as an alternative, only “if divestiture [were] not reasonably practicable,” that Altria would “contribute” its products to JLI at no cost.

(PX1300 (Altria) at 005).

779. Under this scenario, Altria would “sell or grant to JLI” its e-vapor products, and “JLI would operate them or do something with them,” if required by the FTC. (Pritzker (JLI) Tr. 690).

780. Pritzker’s “understanding [was] that [JLI] had attributed no value to owning any of [Altria’s] products.” (PX7021 Pritzker (JLI) Dep. at 87). “We didn’t care whether they contributed to us.” (PX7021 Pritzker (JLI) Dep. at 87).

781. Only if contribution also were impracticable did the term sheet propose as a last resort that Altria would “cease to operate” its e-vapor business within nine months following the transaction. (PX1300 (Altria) at 005).

782. As Valani testified, “the notional concept of ‘cease to operate’ was meant to be a sort of fail-safe if the other options had been exhausted.” (Valani (JLI) Tr. 918-19). In any event, “this was all in the context of it being done under the sanction of the regulator, was the intent.” (Valani (JLI) Tr. 918).

783. The term sheet proposed that these steps to facilitate HSR clearance would be taken “[p]romptly and in no event later than nine months following the Purchase.” (PX1300 (Altria) at 005). As Pritzker testified, the “primary purpose” of this provision “was to give the regulators enough time to determine what they would allow or require as part of the [HSR] process.” (Pritzker (JLI) Tr. 692).

784. In the same Antitrust Clearance Section, JLI’s initial term sheet required that both parties would use “reasonable best efforts to seek Antitrust Clearance for a period of at least nine

months after the Purchase” and would “cooperate with the FTC and agree to the reasonable concessionary requirements of the FTC in connection with changes in [Altria’s] non-combustible reduced-risk products business.” (PX1300 (Altria) at 005). Pritzker explained that it was critical for JLI to obtain assurances that “if the FTC required anything of Altria,” including divestiture, that Altria “would agree to those things and that they would not be able to, for example, walk away from the deal because of concessionary requirements.” (Pritzker (JLI) Tr. 818). “[W]e needed to make sure that Altria would, in fact, be willing to sell those products in the marketplace . . . at the requirement of the FTC or anything else the FTC would require, for that matter.” (Pritzker (JLI) Tr. 811).

785. Nothing about the divestiture/contribution/“cease to operate” provision was “intended to describe an obligation or something Altria would do before they even had a transaction with JLI,” or prior to FTC review of that transaction. (Pritzker (JLI) Tr. 815; PX1300 (Altria) at 004-05; *see also* Pritzker (JLI) Tr. 854).

786. The July 30 term sheet “was a nonbinding letter of intent” and “the terms are not very accurate.” (Pritzker (JLI) Tr. 692-93). The term sheet itself noted that “[t]he transactional structure presented in this term sheet as the means for effecting [Altria’s] investment is illustrative but not definitive.” (PX1300 (Altria) at 002 n.1; *see also* Pritzker (JLI) Tr. 814 (explaining terms in a term sheet “are fluid and subject to significant expansion and revision by business and legal teams”)).

3. Noncompete And Carve-Out

787. The second provision in JLI’s initial term sheet that addressed the potential investment’s implications for Altria’s e-vapor portfolio was the noncompete and carve-out provision included in the “Richard Support Obligations” section of the term sheet. This section detailed

various support services that JLI proposed Altria would provide to JLI, such as regulatory assistance with JLI's PMTA applications. (PX1300 (Altria) at 005-06).

788. Because those services necessarily would give Altria access to JLI's "technology, trade secrets, data," and other confidential information that would "work to the detriment of JUUL if Altria . . . appl[ie]d that information to their own product portfolio," (Pritzker (JLI) Tr. 821), JLI's proposed term sheet called for Altria to "refrain from competing . . . in the e-vapor business," (PX1300 (Altria) at 006).

789. However, JLI's proposed noncompete provision also included a carve-out, which provided that Nu Mark could continue to sell "MarkTen and MarkTen Elite prior to their divestiture or contribution as described above" in the Antitrust Clearance section. (PX1300 (Altria) at 006).

790. The "goal" of the carve-out from the noncompete "was for those [products] to stay in the marketplace until the FTC ruled on what would happen to them." (Pritzker (JLI) Tr. 692). JLI believed the products "would be scrutinized by the FTC," and JLI intended for the carve-out to "allow Altria to keep those products on the market." (Pritzker (JLI) Tr. 822).

791. As Pritzker explained, JLI was not concerned about competition from Altria's existing products, but feared that Altria would "use information [it was] getting from [JLI] to be able to enhance [its] product or develop *new* products that would be injurious to [JLI's] business." (PX7021 Pritzker (JLI) Dep. at 82-83 (emphasis added)).

C. August 1, 2018 Meeting

792. On August 1, 2018, two days after receiving JLI's initial term sheet, Willard and Gifford from Altria met with Pritzker, Valani, and Burns from JLI at the Park Hyatt Hotel in Washington, D.C. (Willard (Altria) Tr. 1173-74).

793. The August 1 meeting "was not a meeting designed to go through in detail [JLI's] term sheet." (PX7031 Willard (Altria) Dep. at 177). Instead, the parties discussed at a high level

“some of the most important terms between the two sides, . . . to assess whether or not there was enough common ground to proceed.” (PX7031 Willard (Altria) Dep. at 177-78).

794. The discussion was “tense” and focused on issues of control and voting power. (RX1774 (PWP) at 001; PX7011 Valani (JLI) IHT at 85-87).

795. According to Gifford, the parties “barely got past” the proposed five percent voting power for a 45 percent economic interest, which was “a huge sticking point.” (PX7040 Gifford (Altria) Dep. at 143). “[I]t basically became a stand-still. [JLI] didn’t give, and [Altria] didn’t give.” (Gifford (Altria) Tr. 2770).

796. Pritzker similarly testified that Altria was “most unhappy” about “[t]he notion of buying 45 percent of the company and getting 5 percent of the vote.” (Pritzker (JLI) Tr. 825). Altria also was “not happy about no control.” (Pritzker (JLI) Tr. 826). “[T]heir goal was to acquire the company completely at some point, and [JLI was then] making it clear that that was not going to be possible.” (Pritzker (JLI) Tr. 826; PX7021 Pritzker (JLI) Dep. at 107-08).

797. There is no evidence that the parties discussed the noncompete or the antitrust clearance provisions at the August 1 meeting. Willard does not believe the parties discussed the divest/contribute/“cease to operate” provision at all at the meeting. (PX7031 Willard (Altria) Dep. at 184-86).

798. An August 1 email from Valani summarizing Altria’s comments from the meeting makes no mention of the noncompete. (PX2331 (JLI) at 001). Instead, Valani’s summary reflects that Altria wanted, among other things, protections against share dilution and to reduce from seven to five years the time period before which it could make an offer for a majority share of JLI. (PX2331 (JLI) at 001).

799. Similarly, JLI Board meeting minutes from August 3 make no reference to any discussion of the proposed noncompete or the antitrust clearance provisions. (PX2117 (JLI) at 025-26). The minutes note that Altria “responded at a high level to the non-binding Summary of Terms” without providing “granular” feedback, and that the JLI Strategic Committee, “together with management[] and outside counsel,” was “working to revise the Summary of Terms.” (PX2117 (JLI) at 026).

D. August 4, 2018 Term Sheet

800. On August 4, 2018, Pritzker sent Willard a revised proposed term sheet, (PX2570 (JLI) at 001), and explained that “[JLI] had taken [its] best shot at responding to [Altria’s] concerns,” (PX2387 (JLI) at 001).

801. The August 4 term sheet included increased voting power for Altria (from five percent to 15 percent, plus a proportion of Altria’s additional shares), the addition of an Altria-appointed nonvoting observer of JLI’s Board prior to receiving HSR clearance, and other terms related to control. (PX2570 (JLI) at 002-03 (voting power), 007 (observer)).

802. The divest/contribute/“cease to operate” provision in the Antitrust Clearance Matters section of the August 4 term sheet remained unchanged from the July 30 term sheet. (PX2570 (JLI) at 005). However, the word “shutdown” was added to the noncompete provision in the August 4 draft, so that instead of carving out “MarkTen and MarkTen Elite prior to their divestiture or contribution as described above,” it stated that the carve-out applied “prior to their divestiture, shutdown or contribution as described above.” (PX2570 (JLI) at 007).

803. Pritzker testified that this provision was not a subject of discussion with Altria, and he did not remember why the term was added. (Pritzker (JLI) Tr. 829-30). Based on the process of the revisions, however, Pritzker “believe[d] the lawyer that drafted it wanted to make this

draft compatible” with the three ranked scenarios in the divest/contribute/“cease to operate” Antitrust Clearance provision. (Pritzker (JLI) Tr. 829-30).

804. This was the last proposed term sheet to make any reference to “cease to operate” or “shutdown”; those terms did not appear in any subsequent draft term sheet, draft deal document, or in the final agreement. (*See* PX1432 (Altria) at 021-22, 024 (Aug. 19 term sheet); PX1269 (Altria) at 006, 008 (Oct. 15 term sheet); PX2503 (JLI) at 027-28, 030 (Oct. 28 term sheet); RX0285 (Altria) at 022, 024 (Oct. 30 term sheet); RX0838 (Altria) at 327-28, 373 (Nov. 15 draft purchase agreement); PX2141 (JLI) at 036-37 (Dec. 20 final purchase agreement)). Burns does not recall the parties ever discussing “ceasing to operate” after it was removed from the term sheet. (PX7025 Burns (JLI) Dep. at 207-08).

E. August 9, 2018 Term Sheet

805. On August 9, Altria sent JLI its first proposed term sheet. (PX2313 (JLI) at 001).

806. In this term sheet, Altria proposed that it would purchase a 45 percent stake in JLI’s U.S. business and receive 35 percent of the voting power. (PX2313 (JLI) at 012).

807. Altria’s August 9 term sheet continued to propose that both parties would use “reasonable best efforts to seek Antitrust Clearance,” adding that the “details relating to such efforts” were “to be discussed by the parties.” (PX2313 (JLI) at 015). The term sheet also still required Altria to “cooperate with the FTC and to agree to the reasonable concessionary requirements of the FTC” in connection with changes in Altria’s e-vapor business. (PX2313 (JLI) at 015). However, Altria struck the entire divestiture/contribution/“cease to operate” provision from the term sheet, instead proposing that Altria exclusively would license its e-vapor assets to JLI upon HSR approval. (PX2313 (JLI) at 014-15; Pritzker (JLI) Tr. 840-41).

808. Pritzker inferred from these changes that Altria’s negotiators “had a problem with the exact language” proposed by JLI but “they were okay with using reasonable best efforts to

seek clearance, and they wanted to discuss the details, clean the slate and propose something else related to the efforts.” (Pritzker (JLI) Tr. 841-42).

809. Altria’s August 9 term sheet also revised the noncompete and carve-out to say: “Richard agrees to refrain from competing anywhere in the United States in the e-vapor business (other than with respect to existing and under development products prior to the non-trademark IP license as described above).” (PX2313 (JLI) at 017). This revision retained the carve-out for MarkTen and MarkTen Elite with the language about “existing” products, and it expanded the carve-out to include “under development” products as well. (Pritzker (JLI) Tr. 844).

F. August 15, 2018 JLI Issues List

810. On August 15, 2018, Valani responded to Altria’s August 9 term sheet with a list of issues. (PX1012 (Altria) at 001). According to Willard, “this was a long document with a series of things that [JLI] indicated [it was] unhappy with.” (Willard (Altria) Tr. 1222).

811. Most issues on the list related to control and governance. For example, the first bullet stated: “We understood that you could accept not having a path to control except through a confidential offer which would be subject to approval by the non-Richard directors and stockholders. The following are inconsistent with that and are not acceptable to us”—listing, among other issues, Altria’s proposed right of first refusal on additional stock issuances, its proposal for 45 percent voting power with at least 35 percent discretionary voting right, and its proposed Board director structure. (PX1012 (Altria) at 002; *see also* PX1012 (Altria) at 002 (stating, among other issues, that Altria’s proposed valuation calculation was “not acceptable to [JLI]”; proposed indemnity provision was “not a topic for discussion”; and that Altria must agree to restrictions on its ability to transfer shares: “We need you to commit to stay in the stock as a partner for the long term[,] [which] is inconsistent with the lack of meaningful transfer restrictions in your draft”).

812. JLI also addressed Altria's revisions to the carve-out in the noncompete and the provision for divestment: "You have retained the right under certain circumstances to compete not only with existing Mark Ten products, but also with products under development and future products. The commitment to divest Mark Ten has been stricken. This is not acceptable to us." (PX1012 (Altria) at 002; *see also* Pritzker (JLI) Tr. 844-45; Valani (JLI) Tr. 915, 932-34). The issues list made no mention of Altria striking the "cease to operate" language. (PX1012 (Altria)).

813. As Pritzker explained this response, because Altria's employees would be "exposed to potential trade secrets, data, technology, information, as they provided regulatory services [to JLI, during which] they would see everything, it was not acceptable . . . for Altria to be developing products that might be incorporating" JLI's information. (Pritzker (JLI) Tr. 844; *see also* Valani (JLI) Tr. 932-34 (similar)).

814. JLI did not have any insights into what kind of products Altria had under development. (Pritzker (JLI) Tr. 845).

815. Pritzker testified that his "concern was always how Altria might use information that it would obtain from JUUL after the transaction in order to use JUUL's data and trade secrets against JUUL." (Pritzker (JLI) Tr. 895). He "would not have been worried about competition from MarkTen or MarkTen Elite as they were at that time"; instead, his concern was whether changes "might be made to those products," potentially as the result of confidential information Altria learned from JLI. (Pritzker (JLI) Tr. 895).

816. Although the scope of the noncompete was referenced in Valani's August 15 issues list, Willard does not "recall that [the] non-compete term was one that received significant face-to-face attention from [his] senior team or the JLI team." (Willard (Altria) Tr. 1223). "[T]here

were a number of items that consistently, throughout the deal negotiation process, were viewed as important enough for [the parties] to have significant face-to-face negotiations on them, but they represented a subset of what was in the documents[.]” (Willard (Altria) Tr. 1223). “[R]esolving some of the lesser issues, while they may have been included in something communicated to the whole team, was often delegated to more junior people.” (Willard (Altria) Tr. 1223).

817. Altria thought Valani’s list had “a negative tone to it,” which Altria found “upsetting.” (Garnick (Altria) Tr. 1745). To put an end to the back and forth that was leaving both sides increasingly upset, Garnick suggested Altria and JLI have a meeting to “sit down and talk it through.” (Garnick (Altria) Tr. 1746).

G. August 18, 2018 Meeting

818. Altria, JLI, and outside counsel for both parties met on August 18, 2018, at the offices of Pillsbury Winthrop Shaw Pittman (“Pillsbury”) in San Francisco. (PX1333 (Altria) at 001; PX2400 (Altria) at 001; Willard (Altria) Tr. 1403-04). Pillsbury was outside counsel for JLI, (Garnick (Altria) Tr. 1744; Willard (Altria) Tr. 1403), and “[a]ll of the meetings in San Francisco were at the Pillsbury offices,” (PX7040 Gifford (Altria) Dep. at 152).

819. According to Gifford, at the August 18 meeting, the parties continued to discuss voting power and whether the potential investment would be in JLI’s domestic business only or also include the international business. (Gifford (Altria) Tr. 2772).

820. As Pritzker testified, “progress was starting to be made.” (Pritzker (JLI) Tr. 845). However, “the problem with valuation was really becoming a problem. . . . [I]t was clear that we were very significantly apart.” (Pritzker (JLI) Tr. 845-46).

821. There is no evidence that the noncompete provision was discussed at the August 18 meeting. As Willard explained, the treatment of Altria’s e-vapor products was not a topic he

recalled reaching during the discussions between the senior group of negotiators; rather, it was an issue “that the respective counsels at the companies were . . . focused on.” (Willard (Altria) Tr. 1219; *see also* Willard (Altria) Tr. 1223-24).

822. Meanwhile, as one of the lawyers involved in the negotiations, Garnick recalls that “in mid-August,” Altria and JLI came to an understanding on the antitrust clearance and the noncompete provisions: Altria’s existing products would remain in the market until the deal received HSR clearance, and then Altria would contribute the products to JLI. (PX7036 Garnick (Altria) Dep. at 53).

823. JLI’s concern, Altria came to realize, was that after receiving HSR approval, Altria “would be on their board and be involved in their operations.” (PX7036 Garnick (Altria) Dep. at 53). As Garnick recalled: “[O]nce [Altria] fully understood what [JLI’s] position was and the reason for it, we could understand it and we had some agreement, some sympathy for it, and that’s why we thought we could live with a carve-out provision that allowed us to stay in the market until we got HSR approval and, at that point, we would get board seats, we would have more operational involvement into [JLI], and that would be an appropriate time for us to contribute our e-vapor products to [JLI].” (PX7036 Garnick (Altria) Dep. at 54).

H. August 19, 2018 Term Sheet

824. On August 19, 2018, JLI sent proposed revisions to Altria’s August 9 term sheet. (PX1432 (Altria) at 001). At trial, the August 19 term sheet was occasionally referred to as the “August 18 term sheet” (reflecting the draft stamp on the document). (Pritzker (JLI) Tr. 847). Complaint Counsel frequently skipped this term sheet in its examinations. (*See, e.g.*, Pritzker (JLI) Tr. 715-23; Willard (Altria) Tr. 1408-09).

825. Like the previous term sheets, the August 19 term sheet continued to require the parties to “cooperate with the FTC” and “use reasonable best efforts to seek Antitrust Clearance,” and it

required Altria to “agree to the reasonable concessionary requirements of the FTC in connection with changes in [Altria’s] e-vapor business.” (PX1432 (Altria) at 022).

826. Additionally, the August 19 term sheet proposed that Altria would (1) contribute or (2), if required, divest its existing products upon HSR clearance: “[Altria] agrees that it will contribute, upon receipt of Antitrust Clearance and at no cost to [JLI], all [Altria] assets relating to the Field in the U.S., including all electronic nicotine delivery systems and products it acquired, developed or has under development (in each case to the extent it has the legal right to make such contribution). In the event Antitrust Clearance for the foregoing contribution is not obtained within nine months after the Purchase, then subject to the license referenced above, [Altria] will divest all such [Altria] assets relating to the Field in the U.S. within six months thereafter.” (PX1432 (Altria) at 021-22). The term sheet did not contemplate that Altria would cease to operate its existing e-vapor business. (PX1432 (Altria) at 021-22). Nothing in the term sheet suggested that Altria would take any action with regard to its e-vapor products before any transaction with JLI or before the FTC had a chance to review that transaction. (Pritzker (JLI) Tr. 853-54).

827. The August 19 term sheet also included the noncompete provision with a carve-out, proposing that Altria would “refrain . . . from competing (or preparing to compete including through research and development activities) anywhere in the world in the e-vapor business (other than with respect to MarkTen and MarkTen Elite prior to their contribution or divestiture as described above).” (PX1432 (Altria) at 024). This revision rejected Altria’s effort to expand the carve-out to include “under development products.” (PX1432 (Altria) at 024).

828. Unlike in earlier term sheets, JLI also revised the noncompete to apply to Altria’s “current and future affiliates.” (PX1432 (Altria) at 024). This issue—whether a company that acquired Altria in the future would be bound by the noncompete—became known as the upstream affiliates issue. (Willard (Altria) Tr. 1431-32).

829. In light of the August 19 term sheet’s assumption that Altria would continue competing with its existing products until HSR clearance, and in order to facilitate the services agreement, JLI’s August 19 draft distinguished between services Altria “could provide to JLI” upon closing—“while still being a competitor”—and those it could provide only after HSR clearance. (Garnick (Altria) Tr. 1748; *see also* PX1432 (Altria) at 022-23).

830. As Garnick testified, this term sheet demonstrated to Altria that JLI “had no problem with our continuing to compete against them with the products we currently had on the market. What they wanted, though, is for that to stop once we got HSR approval and . . . participated on their board.” (Garnick (Altria) Tr. 1750). Altria “understood” this position and believed contributing upon HSR approval was “appropriate.” (PX7036 Garnick (Altria) Dep. at 54).

831. By contrast, other revisions in the August 19 term sheet demonstrate that control and valuation remained significant issues. As Pritzker testified, JLI was “trying to capture something that would work for both parties, so it -- I can’t say I was highly optimistic at this point, but we were trying to thread the needle and come up with something that would work.” (Pritzker (JLI) Tr. 849).

832. For example, JLI proposed that Altria would purchase a 45 percent stake in JLI’s U.S. business and receive 20 percent of the voting power—a decrease from the 35 percent Altria proposed in the August 9 term sheet. (PX1432 (Altria) at 017-18).

833. Additionally, as of mid-August, “[p]rice was still an issue.” (PX7021 Pritzker (JLI) Dep. at 119; *see also* Pritzker (JLI) Tr. 845-46). Separating the U.S. company from the international company—as Altria was proposing—was part of the pricing problem, because JLI thought the international business was worth “significantly more” than Altria was willing to value it. “[I]n many respects the entire gap between what Altria was valuing the company at and what [JLI] might value it at was the international aspect of the company, but not if it was split from the domestic company” (Pritzker (JLI) Tr. 835; *see also supra* ¶ 561).

I. August 22, 2018 Joint Issues List

834. On August 22, 2018, counsel for both parties circulated a joint issues list. (RX1783 (PWP) at 001; RX1784 (PWP) at 001).
835. This list demonstrated that the parties had reached consensus on the treatment of Altria’s existing e-vapor business in the event of an investment. (RX1784 (PWP) at 002, 004).
836. The issues list stated that Altria and JLI were in agreement regarding the Antitrust Clearance Matters section of the August 19 term sheet. Altria wrote, “In general, we do not see any material substantive difference on these antitrust points.” (RX1784 (PWP) at 002 (comparing the parties’ respective positions); *see also* RX1784 (PWP) at 002-03 (describing Antitrust Clearance procedure from August 19 term sheet as: “Upon receipt of antitrust clearance, [Altria] to contribute to [JLI] all [Altria] e-vapor assets at no cost to [JLI]”; and “[i]f antitrust clearance for contribution is not received within nine months, [Altria] to divest e-vapor assets within six months”)).
837. The list further reflected the parties’ understanding that MarkTen cig-a-like and MarkTen Elite were exempted from the noncompete agreement prior to HSR approval; JLI specifically asked Altria to “confirm that *except as to MarkTen and MarkTen Elite*, non-compete commences on signing.” (RX1784 (PWP) at 004 (emphasis added)).

838. As Garnick testified, by the time of the August 22 issues list, it was “well settled” that MarkTen cig-a-like and MarkTen Elite could stay on the market until the deal received HSR approval. (Garnick (Altria) Tr. 1752).

VII. WHILE NEGOTIATIONS WERE ONGOING, ALTRIA, RECOGNIZING THAT IT COULD NOT COMPETE WITH ITS CURRENT PORTFOLIO, BEGAN REORIENTING ITS E-VAPOR STRATEGY AROUND FUTURE PRODUCTS

A. August 2, 2018: Quigley Concluded That Altria Should Shift Its Focus To Having A New Portfolio Of Products By 2025

839. On August 2, 2018, Quigley convened a meeting with Altria’s senior management so that he could give them “an update on how [he] was thinking about the framing of [his] plan forward, and then to give an update on where [Nu Mark was] in the kind of current year performance.” (Quigley (Altria) Tr. 2029; PX1644 (Altria)).

840. Quigley was not involved in any JLI negotiations. (Willard (Altria) Tr. 1390-91).

841. Quigley acknowledged Nu Mark’s portfolio gaps: The company “[l]ack[ed] quality pod products” and “[p]roducts that provide immediate nicotine satisfaction.” (PX1644 (Altria) at 006, 018; Willard (Altria) Tr. 1395 (discussing PX1644-018 and explaining that “Portfolio Gaps” were “things [Nu Mark’s] portfolio d[id]n’t have that you would like to have”)).

842. Quigley believed that he “needed to start distinguishing with management that the products [Nu Mark] had [at the time] were flavor forward products but not necessarily the ones that had the nicotine satisfaction.” (Quigley (Altria) Tr. 2037). As Gifford recalled, Quigley explained to leadership that “competing in vapor was going to be an uphill battle with [Nu Mark’s] portfolio” and new products likely would take “five to seven years” to bring to market because of the Deeming Rule. (Gifford (Altria) Tr. 2778).

843. Quigley concluded that “Nu Mark is limited to competing today in the cig-a-like segment.” (PX1644 (Altria) at 006). This was problematic, because Quigley had determined

by this point that the cig-a-like segment was “very small and getting smaller relative to the growth in pods. So it was . . . not meaningful in terms of what was driving change in the tobacco landscape.” (Quigley (Altria) Tr. 2032).

844. Willard recalled Quigley had explained that, “at [that] point . . . the only products [Nu Mark] had that were at all competitive within a segment was the MarkTen cigalike, and while that might seem like a bright spot, [Altria] saw that the cigalike category was plummeting in share, and so if that was a bright spot, it was a very dim bright spot.” (Willard (Altria) Tr. 1393).

845. And as to Elite, Quigley acknowledged it was not “proven to deliver broadly against [adult tobacco consumer] desires for a satisfying, enjoyable nicotine experience.” (PX1644 (Altria) at 006). Elite “was not demonstrating that it could be a competitor to JUUL.” (Quigley (Altria) Tr. 2031).

846. Elite “did not have the nicotine relationship and levels of nicotine that adult smokers would be looking for,” and, given the product’s “design flaws” and what Quigley had learned from Dr. Kobal and his team, he “had to acknowledge” to senior leadership “that Elite was not an important part of the product portfolio.” (Quigley (Altria) Tr. 2031-33).

847. Again, Willard recalled Quigley had “concluded that [Nu Mark’s] attempt at making MarkTen Elite into a quality and successful pod product had failed or was on its way to failure.” (Willard (Altria) Tr. 1393-94). He understood Quigley to have been “suggesting that, you know, we needed to go back and redouble our efforts to come up with a product that might be more competitive.” (Willard (Altria) Tr. 1394).

848. Quigley also highlighted the talent gaps at Nu Mark, particularly the need to bring in “external talent that had more experience innovating and that had experience with electronic

products.” (Willard (Altria) Tr. 1396; *see also* PX1644 (Altria) at 022 (“Need proven capabilities to develop & launch[] innovative products outside a cigarette model[.]”); Jupe (Altria) Tr. 2319 (explaining that Altria simply “didn’t have the right talent, the right skills, the right experiences” to succeed in developing innovative products); PX7041 Quigley (Altria) Dep. at 148-49 (“[Altria] had a long history of failure trying to do anything other than what [it] had proven to do successfully for decades,” using a “cigarette model[.]”). An “electronic e-vapor product is dramatically different than a cigarette, which is essentially tobacco wrapped in paper that you light.” (Willard (Altria) Tr. 1396; *see also* PX7004 Willard (Altria) IHT at 177 (“[I]t’s actually fairly difficult to engineer a product that can pass what [Altria] expect[s] will be the FDA’s requirements for e-vapor products.”)). But as Willard explained, “[t]obacco is kind of controversial,” (Willard (Altria) Tr. 1397), and “for a number of years,” Altria had tried and failed to attract those with highly sought-after technical expertise to come to Richmond, Virginia, (PX7031 Willard (Altria) Dep. at 264). Candidates with the requisite skills and experience generally preferred to “work for a tech company in an exciting field that’s not nearly as controversial.” (Willard (Altria) Tr. 1397; *see also* PX7024 Crosthwaite (Altria/JLI) Dep. at 270 (noting that, of all the many “employees that [JLI has] had to let go as a result of the competitive environment [it is] in, [Crosthwaite] can’t think of one that’s joined a tobacco company” subsequently)). Altria tried to make do by taking “really good people from [its] cigarette business and mov[ing] them over [to Nu Mark], but [those people] lacked an experience set certainly like the JUUL group had.” (Willard (Altria) Tr. 1397).

849. Others at Altria had undertaken similar assessments and reached bleak conclusions. In advance of the August 2 meeting, Elizabeth Mountjoy, then-Vice President of Corporate

Strategy, circulated her “preliminary evaluation,” which was “that Nu Mark does not have any products that merit a full-blown PMTA.” (RX0199 (Altria) at 001; *see also* PX7034 Mountjoy (Altria) Dep. at 147). Mountjoy advised that “[t]he current portfolio should continue to be in market but with limited resources and applications. There needs to be (i) rapid advancement of our innovation system to develop a robust pipeline and (ii) an intense scrutiny of the people and roles supporting these efforts.” (RX0199 (Altria) at 001).

850. To redirect Nu Mark going forward, at the August 2 meeting, Quigley proposed a “bridge plan,” under which Nu Mark would struggle for the foreseeable future with its in-market products and any other products it might be able to acquire, with the hope of potentially “achiev[ing] leadership” with FDA-approved products “[b]y 2025”—in other words, seven years later. (PX1644 (Altria) at 004; Quigley (Altria) Tr. 1956). Quigley knew that if Nu Mark was to achieve leadership, it “needed to have new products that [Nu Mark] did not have authorized to sell in the market, because [the existing products] didn’t have the nicotine salt. And at [that] point, [he] pegged 2025 as when [he] thought [Nu Mark] could be in a position . . . to achieve leadership.” (Quigley (Altria) Tr. 2041; *see also* Willard (Altria) Tr. 1392-93 (Willard recalled Quigley conveying, “in the short run, I can’t do much better than we’re doing today, but if you need us to be doing something in the here and now in the market, that’s kind of the best I can do. And then he was saying, but I am willing to sign up to build a better capability going forward, but it’s going to take a while.”)).

851. As Quigley admitted, his bridge plan was “a very long plan” that required “five to seven years’ worth of work.” (Quigley (Altria) Tr. 2032). “[I]t was going to be a long plan and an expensive plan, and there was a lot of risk on the science. We had learned, even when we thought we had a formula, we would be doing tox testing and it would fail. So [everyone]

understood that this was going to be a long endeavor.” (Quigley (Altria) Tr. 2042). Quigley acknowledged that even this plan was a “long shot,” (PX7003 Quigley (Altria) IHT at 118-19), and a “risky approach,” (Quigley (Altria) Tr. 2066).

852. In response to Quigley’s presentation, Gifford asked whether Altria should consider pulling Elite from the market. (PX7041 Quigley (Altria) Dep. at 33-34). Quigley recalled that Gifford observed at the time that Altria was “losing money” and did not “have the nicotine we need,” and so he wondered “why are we continuing to lose money on this piece of business.” (PX7041 Quigley (Altria) Dep. at 33-34).

853. And Gifford was not the only one; as Quigley explained, the question of what to do with Elite “was a question on almost everybody’s mind” and it was being asked “across the organization,” including “by regulatory affairs, product development, the [Leadership Team], [and] [Quigley’s] team.” (PX7041 Quigley (Altria) Dep. at 173; *see also* Quigley (Altria) Tr. 2073 (agreeing that the question of what to do with Elite was “a reasonable question” that was “being asked by people throughout the organization”)).

854. Though Quigley was not anticipating the question of Elite’s fate to come to a head yet, Gifford’s questions made sense to Quigley in light of “the[] fundamental business gaps” that Quigley had highlighted. (Quigley (Altria) Tr. 1958-59). He knew that nicotine satisfaction “was the most important thing [Nu Mark] needed in [its] products and [Nu Mark] didn’t have it.” (Quigley (Altria) Tr. 1959, 2031-32).

855. For this reason, at this point, Gifford was “really pushing, even on the cigalike, was it worth investing in a space that was greatly declining.” (Gifford (Altria) Tr. 2781). In his view, “[f]rom a financial standpoint, you always want to put your resources, because they are limited, both people resources and financial resources, against those areas where you think

you can have the biggest bang for those dollars and people resources. And what we were seeing here is that we had significant gaps. Certainly we should invest to get ready for the future, but from this standpoint, what we had in the marketplace wasn't appearing to work.” (Gifford (Altria) Tr. 2781-82).

856. Given the continued delays in the profitability projections and Nu Mark's capability gaps, Gifford thought Altria “really needed to assess whether [it] needed to free up those people and financial resources and invest them elsewhere.” (Gifford (Altria) Tr. 2782).

857. Nevertheless, Willard told Quigley to keep working on Elite for the time being. (Quigley (Altria) Tr. 2049-50).

B. August 23, 2018: Garnick Presented The Regulatory Assessment To The Board And The Board Directed Leadership To Try To Resolve Disputes With JLI

858. Just under two weeks later, on August 23, 2018, General Counsel Murray Garnick presented to Altria's Board the assessment of Nu Mark's regulatory prospects that the Regulatory Affairs team had begun preparing in early July. (See Willard (Altria) Tr. 1417; RX0689 (Altria) at 001; *see also supra* Part V.C.5).

859. As Garnick agreed at trial, the purpose of the presentation was to give the Board of Directors “a full and complete briefing on the regulatory issues the company was facing with [its] e-vapor products.” (Garnick (Altria) Tr. 1743).

860. In advance of the meeting, Garnick and Willard discussed “that some of the board [might] be unhappy that [Nu Mark] hadn't had a better outcome,” but they agreed “that the board needed to know the facts about what [Garnick] had found in his regulatory review.” (Willard (Altria) Tr. 1422; *see also* Willard (Altria) Tr. 1422 (explaining he believed it was necessary to “share the bad news”); Gifford (Altria) Tr. 2787-88 (explaining that Altria's leadership informed the Board about the products' regulatory issues “[b]ecause we really needed to, one,

be honest with the board, but two, you had to level-set about -- we had to change directions in where we were headed, that what we were doing was not working, and even if it were working, there were significant regulatory hurdles to get through”).

861. At the meeting, Garnick explained to the Board FDA’s expectations for reduced-risk products, the “[o]nerous and costly PMTA requirements,” and that each of Nu Mark’s products had significant regulatory red flags that likely would prevent FDA authorization. (PX4149 (Altria) at 027-041). The primary problem, shared by all of Nu Mark’s products, was lack of smoker conversion. (PX4149 (Altria) at 030, 033, 036; *see also* Willard (Altria) Tr. 1420-26; Jupe (Altria) Tr. 2303-07; Gardner (Altria) Tr. 2603-07).

862. The regulatory assessments for MarkTen cig-a-like and Elite regarding “Manufacturing,” “Risk Reduction,” “Adult Smoker Conversion,” and “No Unintended Consequences” that Garnick presented to the Board at the meeting, (*see* PX4149 (Altria) at 033, 036), are identical to those contained in the first draft of the presentation prepared by the Regulatory Affairs team in mid-July, (*see* RX0689 (Altria) at 008, 011; *see also supra* Part V.C.5).

863. During the meeting, Willard reported that Altria was still in discussions with JLI, and the Board asked that he keep working on the deal. (Willard (Altria) Tr. 1417-18; *see also* [REDACTED]). The Board told Altria’s leadership to “really look at what were all of the options available to [Altria] to improve how [it was] competing in the e-vapor space,” and it said to continue negotiations with JLI to try to make an investment. (Gifford (Altria) Tr. 2797-98; *see also* [REDACTED]).

864. Overall, it “wasn’t a very fun meeting,” because Altria’s leaders were “delivering bad news to the board.” (Gifford (Altria) Tr. 2786-87). Willard testified that although the Board members “appreciated the update” and felt like it “was the kind of information that they . . .

needed to receive,” they were “frankly, frustrated” with Nu Mark’s performance. (Willard (Altria) Tr. 1427). Willard shared this frustration. (Willard (Altria) Tr. 1428).

865. At and before trial, Complaint Counsel has attacked the credibility of the final August 23 presentation and contended that it overstated the problems with Nu Mark’s products in order to provide a justification for withdrawing the products in response to JLI’s supposed demand in the July 30, 2018 term sheet that Altria exit the market. (*See, e.g.*, Willard (Altria) Tr. 1426-27). As shown below, this assertion is refuted by the record evidence.

866. As an initial matter, the presentation was prepared starting on July 12, weeks before Altria and JLI exchanged the first term sheet, and it was consistent with months’ worth of internal investigation and inquiry. (*See supra* Part V.C.5).

867. The conclusions in the deck regarding the Nu Mark products’ problems and regulatory prospects “[came] from the scientists . . . and other technical experts in regulatory sciences,” who were not involved in the Altria/JLI investment negotiations. (Garnick (Altria) Tr. 1732-33; *see also supra* ¶¶ 730-31).

868. Moreover, every Altria employee who was asked about it at trial or in a deposition—including employees who were not involved in the JLI negotiations—affirmed that the presentation was both accurate and complete. (Willard (Altria) Tr. 1427; Garnick (Altria) Tr. 1743; Jupe (Altria) Tr. 2305-07; Gardner (Altria) Tr. 2604-07; Murillo (Altria/JLI) Tr. 2961; PX7017 Magness (Altria) Dep. at 285-86, 290-94):

869. Willard testified that Complaint Counsel’s statement that “Altria executives . . . gave the impression that Nu Mark’s products were doing worse than they actually were” at this meeting is “completely false.” (Willard (Altria) Tr. 1427). To the contrary, the executives

“were doing [their] best to portray an accurate view of the results that [they] had found from [their] scientific assessment.” (Willard (Altria) Tr. 1427).

870. Garnick testified that he believes he accomplished his goal of giving the Board a full and complete briefing on the regulatory issues the company was facing with their e-vapor products. (Garnick (Altria) Tr. 1743).

871. Murillo confirmed that he saw Garnick’s final presentation and believed it to be accurate and complete. (Murillo (Altria/JLI) Tr. 2961).

872. Jupe agreed that the presentation’s depiction of the problems with MarkTen cig-a-like and Elite were accurate. (Jupe (Altria) Tr. 2305-07).

873. Gardner concurred, indicating that the problems conveyed in the Board presentation regarding MarkTen cig-a-like and Elite were accurate and not overstated. (Gardner (Altria) Tr. 2604-07).

874. Magness confirmed that the evaluations in the Board presentation reflected her assessment at the time of the regulatory prospects of Nu Mark’s products. (PX7017 Magness (Altria) Dep. at 285-86, 290-94).

875. Complaint Counsel has emphasized an email that Quigley sent calling a draft of the Board deck the “bad news version of the story,” (CC Pretrial Br. at 23 (citing PX1008 (Altria) at 002)), but Quigley himself acknowledges that “ultimately . . . the facts in the deck were accurate,” (PX7041 Quigley (Altria) Dep. at 155-56). Quigley’s chief complaint in his email was that the deck stated that “mark ten cig a like platform is declining,” which he called “incorrect.” (Quigley (Altria) Tr. 2061; PX1008 (Altria) at 001). As Quigley has clarified, however, “[r]elative to the overall category, [MarkTen cig-a-like] was underperforming significantly,” and—with respect to the objection in his email—a subsequent draft of the deck

made clear that the cig-a-like platform was “growing in absolute terms,” even if only marginally. (PX7041 Quigley (Altria) Dep. at 157; *see also* Quigley (Altria) Tr. 2061-62 (similar)). Quigley did not raise any concerns regarding the deck’s ultimate conclusion that the product could not get FDA approval. (PX1008 (Altria) at 001).

876. At trial, Quigley further explained that he was critical of the presentation when he reviewed it because he was upset that then-Chief Growth Officer Crosthwaite was “working on a deck on [Quigley’s] business,” and he thought that Crosthwaite was trying to “make himself look better in the eyes of the board and negatively hurt [Quigley’s] career.” (Quigley (Altria) Tr. 2060). Quigley “wanted to make a point to K.C. that [he] was pissed at him.” (PX7041 Quigley (Altria) Dep. at 156). But Quigley does not actually know whether Crosthwaite had any involvement in making the presentation, (Quigley (Altria) Tr. 2061), and in fact the substance of the regulatory update did not come from Crosthwaite but came from Altria’s scientists and other technical experts, (Garnick (Altria) Tr. 1732-33).

877. Moreover, if Quigley had had the opportunity to present to the Board, he, too, would “have told the board the bad news about [Nu Mark]” that was reflected in the deck. (Quigley (Altria) Tr. 2066).

VIII. DESPITE THE PARTIES REACHING A CONSENSUS ON THE TREATMENT OF ALTRIA’S EXISTING E-VAPOR BUSINESS IN THE EVENT OF AN INVESTMENT, NEGOTIATIONS ULTIMATELY BROKE DOWN OVER OTHER ISSUES

878. In late August 2018, the parties realized they “had reached an impasse” in the negotiations, (Garnick (Altria) Tr. 1753), and discussions “broke down,” (Willard (Altria) Tr. 1419).

879. On August 27, Altria, JLI, and their respective outside counsel met at Wachtell, Lipton, Rosen & Katz’s offices in New York to try to resolve outstanding issues. (Willard (Altria) Tr.

1418). Wachtell Lipton was outside counsel for Altria. (Valani (JLI) Tr. 945; Willard (Altria) Tr. 1402-03).

880. The August 27 meeting “didn’t go well” and was “fairly quickly . . . dissolved.” (Willard (Altria) Tr. 1418).

881. The impasse continued through September 2018, and there were “no substantive negotiations” between Altria and JLI during this time. (Garnick (Altria) Tr. 1753; *see also* [REDACTED]). There were no term sheets exchanged, and Altria had “no meetings with JLI people in September.” (Garnick (Altria) Tr. 1754-55).

882. As Garnick agreed at trial, this impasse did not “have anything to do with whether [Altria] could keep MarkTen or MarkTen Elite on the market” until receiving HSR clearance. (Garnick (Altria) Tr. 1753).

883. Instead, negotiations stalled over disputes around valuation, deal structure, and control. (Garnick (Altria) Tr. 1826-27; Pritzker (JLI) Tr. 807-08, 856; PX7011 Valani (JLI) IHT at 110-11).

884. A core issue that caused the impasse was whether Altria would agree to a simultaneous sign-and-close transaction. (Garnick (Altria) Tr. 1826-27; PX7032 Valani (JLI) Dep. at 87-90). Under this structure, Altria would purchase nonvoting shares of JLI that would convert to voting shares upon HSR clearance, as opposed to providing a smaller upfront investment pending antitrust review or purchasing voting shares outright following HSR clearance. (Pritzker (JLI) Tr. 860-61).

885. As James Wappler, a partner at Perella Weinberg Partners and Altria’s financial advisor, explained sign-and-close transactions: “Oftentimes, in M&A transactions, you sign an agreement [with] an investor to acquire another company. You await antitrust approval and

then you close and wire the funds at the time of close.” (PX7028 Wappler (PWP) Dep. at 75-76). By contrast, in a simultaneous sign-and-close deal, “you sign, simultaneously close and transfer the money and then seek antitrust approval.” (PX7028 Wappler (PWP) Dep. at 76).

886. At the August 27 meeting, JLI indicated that if Altria would not agree to a sign-and-close transaction, JLI could not “bear the risk, and that was that.” (PX7032 Valani (JLI) Dep. at 90).

887. Valani recalls that, at the meeting, “[t]here was a discussion around payment structure, that there was a question of whether or not they would buy nonvoting shares to start and then convert them, you know, post receiving HSR approval. And again, I’m not an antitrust expert, but, you know, the notion that the company would be -- that [JLI] would be bearing the risk in a transaction was something that we just could not entertain, because it would mean the company was in limbo and it was kind of a questionable association with them as opposed to knowing that it was, yeah, delivered, so we thought we’d be taking a lot of heat and not getting any benefit and it could be really bad for the company. And so they said that they -- you know, before, they were very comfortable with the idea of buying nonvoting shares first, and then they said they couldn’t do it.” (PX7011 Valani (JLI) IHT at 110-11).

888. JLI insisted on the sign-and-close because it would be “really difficult” for JLI “to enter into a transaction and then wait nine months or more” to find out if it would receive the full investment. (PX7032 Valani (JLI) Dep. at 89). As Valani explained, “[i]t was difficult because the company was going to raise capital from somewhere, and if it wasn’t Altria, it would have been financial investors. . . . [I]f [JLI] decided on this route, [the Altria investment,] it almost . . . foreclosed any other options. And so, to foreclose all those other options and to be left in limbo with a lot of explaining to do, in terms of how this is all

supposed to work, felt like a very tenuous position for the company to be [in].” (PX7032 Valani (JLI) Dep. at 89; *see also* PX7032 Valani (JLI) Dep. at 89-90 (explaining that the Altria investment “foreclosed any other options” because “[y]ou’re either selling equity to them or you’re selling equity to someone else[,] [i]t’s . . . one or the other”)).

889. In describing the August 27 meeting, Garnick recalled, “[m]y understanding is that we did not want to pay [until] after HSR approval. . . . [W]e were far from any kind of an agreement. We were at a fundamental odds and there was an impasse.” (PX7036 Garnick (Altria) Dep. at 49).

890. On August 28, the day after the meeting, the JLI Board concluded that, “in light of the wholly unsatisfactory nature of recent discussions with [Altria]” the negotiations were “highly unlikely to result in an investment by, or strategic relationship with, [Altria].” (PX2117 (JLI) at 031-32). Pritzker explained that “wholly unsatisfactory” was a reference to pricing. (PX7021 Pritzker (JLI) Dep. at 123). The companies “still were very far apart on what a reasonable price would be,” in part because of “a failure by Altria to recognize the value of the international company”—which Altria wanted to exclude from the transaction—and JLI’s concern that a 45 percent interest was “too close to 51 percent,” as Altria might “somehow figure out how to get a controlling position.” (PX7021 Pritzker (JLI) Dep. at 123-24).

891. At the end of August and into September, Gifford thought that the deal with JLI “was off.” (Gifford (Altria) Tr. 2798).

892. As of September 5, Pritzker “thought [they] were done” with negotiations. “We didn’t have a transaction. The reasons, the frustrations that I described before, were still there, that being price, separation of the companies, timing of payments.” (PX7021 Pritzker (JLI) Dep. at 132).

893. On September 8, JLI's Strategic Committee, composed of Pritzker and Valani, informed the JLI Board that "[the Committee] was frustrated with the progress that was being made with Altria and recommend[ed] that conversations cease for reasons that are listed" in the Board's meeting minutes. (Pritzker (JLI) Tr. 855-56 (discussing PX2117 (JLI) at 041)). The Committee was concerned about the gap in valuation, the distraction to the company, and the risk that the fact of negotiations would leak and "be reputationally harmful to the company." (Pritzker (JLI) Tr. 856).

894. The JLI Board agreed with the Strategic Committee's recommendation. After an update on "certain legal discussions between counsel to the parties," the Board concluded that, "[i]n light of the (i) lack of progress in the negotiations, (ii) the number of remaining, significant, unresolved outstanding issues between the parties, (iii) the ongoing distraction and burden on the Company's management of further negotiations with Richard at a time when the Company was experiencing extraordinary growth, and (iv) the increase in valuation of the Company during the course of its discussions with Richard and its prospects for future growth and further increases in valuation (independent of any transaction with Richard), which were not adequately reflected in the Richard investment offer, . . . the Company should cease discussions of an investment or strategic relationship with Richard." (PX2117 (JLI) at 041; *see also* PX7021 Pritzker (JLI) Dep. at 131 ("[W]e were no longer talking to Altria about the deal . . . [and] we determined at the board [meeting] that this was just not going to happen.")).

895. By September 11, JLI decided to pursue different financing than the Altria investment, and Pritzker "wanted to just get that done and move on." (PX7021 Pritzker (JLI) Dep. at 132; *see also* PX3154 (PWP) at 001). "[Valani] had communicated to [Dinyar Devitre, an Altria

Board member] that [JLI was] planning on pursuing a different path.” (PX7028 Wappler (PWP) Dep. at 124-25).

896. The “different path” was a tender offer that JLI was pursuing in early September during the impasse. (PX3154 (PWP) at 001). As a result, Wappler was “very pessimistic” about the chances of renewed negotiations. (PX7028 Wappler (PWP) Dep. at 125; *see also* PX7028 Wappler (PWP) Dep. at 78-79).

897. Due to the impasse, negotiations remained stagnant through September and into October, (PX7031 Willard (Altria) Dep. at 178-79), and there were no further substantive negotiations after the August 27 meeting until Willard sent a letter to JLI on October 5, (Willard (Altria) Tr. 1418-19).

IX. HAVING CONCLUDED ITS EXISTING PRODUCTS WOULD NOT SUCCEED, NU MARK SHIFTED ITS FOCUS TO NEW OPPORTUNITIES

A. In Early September 2018, Altria—Setting Its Sights On 2025—Began Planning For The Growth Teams

898. By the start of September 2018, Altria “had learned a lot about the e-vapor business and what was good about it and what was bad about it.” (Willard (Altria) Tr. 1433).

899. Each September, Altria customarily begins putting together its plans for the upcoming year, and September 2018 was no exception: Altria “had to decide what [it was] going to do in the next year’s plan.” (Willard (Altria) Tr. 1433).

900. At this point, Altria “had concluded that many of the existing Nu Mark products -- actually, all of the existing Nu Mark products -- had failed to be successful in the marketplace,” and that a “different approach” was needed. (Willard (Altria) Tr. 1434). Everyone agreed that Nu Mark “didn’t have products in the marketplace . . . that [it] felt like could be successful.” (Gifford (Altria) Tr. 2798; *see also* Quigley (Altria) Tr. 2070-71 (agreeing Altria had “very little confidence” to “no confidence” in Nu Mark’s current

portfolio and its existing business approach to innovative products); Jupe (Altria) Tr. 2183 (“[Y]ou . . . have got to be clever to know when you fold up your cards.”); PX7031 Willard (Altria) Dep. at 268-69 (“[U]ltimately, we decided that, really, none of the MarkTen products had a reasonable likelihood of future success as measured by adult smoker conversion or profitability or, frankly, even being able to stay on the market, and we decided to take a different approach, which was . . . take everything we had learned, start over again with what we called growth teams, and acknowledge that it was probably going to be, I don’t know, five or six years before the products that were designed by those teams . . . could go on the market And so we decided that the growth teams [were] a long shot, it was going to be slow, but that was the best path forward.”); PX7036 Garnick (Altria) Dep. at 173-74 (“As it became clear to the company that our products were not converting smokers and were not going to get a PMTA and were not profitable, we clearly needed to think about the future and what we would be doing in the future in the e-vaping market.”); PX7041 Quigley (Altria) Dep. at 23 (“[T]he Cync and Elite products we felt were not competitive with the JUUL[,] Vuse Alto[,] and blu Intense.”); PX7003 Quigley (Altria) IHT at 104-05 (“[Altria] didn’t believe that there were any other products. That work had already been completed.”); RX1149 (Altria) at 001 (indicating Altria needed “to course correct all of Numark’s activity”).

901. As of September 2018, “it didn’t look like anything would come through with JLI.”

(Gifford (Altria) Tr. 2798; *see also* PX7036 Garnick (Altria) Dep. at 173-74, [REDACTED]; *supra* Part VIII).

902. Altria therefore decided that it “needed to put in place growth teams to get started right away, knowing that [it] would be out on the market, call it, . . . five to seven years to get through the FDA process.” (Gifford (Altria) Tr. 2799; *see also* Willard (Altria) Tr. 1380-81,

1434 (discussing PX1182 (Altria) at 001); Jupe (Altria) Tr. 2307-08; [REDACTED]
[REDACTED]
[REDACTED]).

903. The “Growth Teams” were designed to be “small teams” of individuals that would be “empowered . . . to move quickly” in pursuit of developing new “satisfying, innovative products.” (RX0842 (Altria) at 002; *see also* Quigley (Altria) Tr. 2070 (recalling that the Growth Teams “would be empowered to make all the decisions going forward about what work continued and what work [Altria] needed to go do”). The goal was to develop new products that “had the potential to leapfrog the JUUL product, which was at the time the superior product in the marketplace.” (Willard (Altria) Tr. 1275). “[L]eapfrog products” are “traditionally viewed as products that are not a little bit better than the products that are out in the marketplace but that are so much better that they become a break-through leader when they’re put in the market.” (Willard (Altria) Tr. 1378).

904. The Growth Teams would be the culmination of the 100-day review that had started in May 2018 and led primarily by Quigley. (Quigley (Altria) Tr. 2079-80; *see also* PX7003 Quigley (Altria) IHT at 89-90). Originally, Quigley proposed that Nu Mark run the Growth Teams, but Altria decided instead to staff the teams with “different people who [had] a fresh perspective.” (Quigley (Altria) Tr. 2068-69). “[T]he idea [was] to start from scratch and build the expertise.” (PX7000 Garnick (Altria) IHT at 87).

905. There was no way to know how long it would take the Growth Teams to get a new product in the market, but everyone at Altria agreed any new product that the Growth Teams would come up with would be many years away: “[Altria] would be out on the market, call it, . . . five to seven years to get through the FDA process.” (Gifford (Altria) Tr. 2799; *see also*

Jupe (Altria) Tr. 2313 (describing the goal of getting a competitive product on the market by 2023 as a “really optimistic, aggressive goal,” even “overly optimistic”); Garnick (Altria) Tr. 1662 (explaining it “would have taken five to ten years” before any product developed by the Growth Teams could have received FDA approval and been placed on the market); Willard (Altria) Tr. 1436 (“It [would] . . . likely . . . take a number of years before their product could be introduced into the marketplace to compete”); PX7031 Willard (Altria) Dep. at 268-69 (“[I]t was probably going to be, I don’t know, five or six years before the products that were designed by those teams and applied for to enter the market by -- for FDA authorization, it would probably be five or six years before they could go on the market”); PX7000 Garnick (Altria) IHT at 86 (explaining the aspiration was to “think about the next generation of products that would be available 10 or 15 years down the line and try to start from scratch and try to work on those products”); PX7016 Jupe (Altria) Dep. at 326-27 (“[Altria was] years away, with the approach that [it was] taking, [from] having a consumer viable product that would be relevant in the market.”)).

906. Making the transition to Growth Teams was “a big undertaking.” (Gifford (Altria) Tr. 2800). Altria needed to “identify the best talent to go on the teams” and replace those people in their prior roles, as well as design the teams. (Gifford (Altria) Tr. 2799-2800).

907. In this effort, everyone agreed Altria was hamstrung by the shortcomings in its existing, cigarette-oriented expertise and its inability to recruit outside talent with experience in innovation, electronics, and product chemistry. (Willard (Altria) Tr. 1397; *see also* Quigley (Altria) Tr. 2295-96; Jupe (Altria) Tr. 2316-19; PX7024 Crosthwaite (Altria/JLI) Dep. at 268-70, 279; PX7031 Willard (Altria) Dep. at 262-64; PX7000 Garnick (Altria) IHT at 86-87; PX7016 Jupe (Altria) Dep. at 182-83; PX7017 Magness (Altria) Dep. at 202). As Jupe

explained, you cannot turn “a knob” and “all of a sudden you’re an innovative company.”
(PX7016 Jupe (Altria) Dep. at 212).

908. Beyond finding and reallocating the right talent, Altria also needed to free up resources to facilitate the Growth Teams’ work. In order to “fund” and “focus on” the Growth Teams, Altria “would have to stop a lot of work, and that’s what [it was] planning to do.” (Jupe (Altria) Tr. 2311; *see also* Jupe (Altria) Tr. 2243 (explaining organizations have to “make tradeoffs as far as where your resources, . . . your skills are being applied”); Quigley (Altria) Tr. 2069-71, 2078 (explaining that as a result of the Growth Teams, Altria was going to “downsize the Nu Mark business”); RX1292 (Altria) at 055 (“Resources are constrained, spread across all Nu Mark initiatives and impacted by other operating companies.”)).

909. As Jupe explained at trial, the most important question was “what needed to be stopped.” “[Y]ou want to take your best talent, move them to these teams, which means you have to stop additional work, and you would hit bottlenecks downstream if you were continuing to do all this work. So you had to focus your work and start putting your resources on the projects that made the most sense.” (Jupe (Altria) Tr. 2308).

910. On September 10, the regulatory team took an inventory of ongoing projects for this purpose, (Jupe (Altria) Tr. 2310; *see also* RX0828 (Altria); PX1585 (Altria)), while Quigley undertook a similar effort from the Nu Mark perspective, (PX7003 Quigley (Altria) IHT at 166-69).

911. The regulatory team was in agreement that work on all current and future iterations of Elite—including PMTA work—should be discontinued, along with development work on MarkTen Bold line extensions and other internal development projects. (RX0701 (Altria) at 001; *see also* PX7015 Gogova (Altria) Dep. at 100-01).

912. A few days later, Quigley advised Garnick that “[w]e should stop ALL work around the [Elite] pmta.” (RX0319 (Altria) at 001; *see also* Quigley (Altria) Tr. 2070-71 (agreeing that all work for the Elite PMTA should stop)).

913. And on September 17, Willard signed off on “stop[ping] all of the work that we have identified before as work we should stop,” including the PMTA work. (PX1182 (Altria) at 001; RX0319 (Altria) at 001).

914. Quigley knew the “ramifications” of this conclusion would be that he “was likely going to be standing in front of [his] employees and telling some of them that they didn’t have jobs.” (Quigley (Altria) Tr. 2048-49).

915. Altria kept the Growth Team plan confidential for this reason, because “it was going to have significant impact to [those staffed on the Growth Teams].” (Gifford (Altria) Tr. 2800-01).

916. The Growth Teams announcement involved “a fairly big organizational restructuring” and was likely “to be interpreted by employees as management acknowledging a failure on the Nu Mark effort.” (Willard (Altria) Tr. 1435 (discussing RX0842 (Altria))). In essence, Altria was telling the organization “we’re going back to square zero.” (Gifford (Altria) Tr. 2802).

B. Days Later, FDA Sent A Letter Calling For “Bold Action” On Youth Vaping, Which Induced Altria To Discontinue Elite And Non-Traditional Flavors

1. FDA Letter

917. After issuing several public warnings in spring 2018 about youth vaping (*see supra* Part III.G), on September 12, 2018, FDA sent a letter to five major e-vapor manufacturers and made a simultaneous public statement demanding that the manufacturers take “prompt action” to address FDA’s concerns related to youth vaping. (RX1120 (FDA) at 002, 003; RX1921 (FDA) at 005-06).

918. Both Altria and JLI received one of the letters from FDA. (RX1120 (FDA) (letter to Altria); PX9051 (FDA) (letter to JLI)).
919. In its letter to Altria, FDA noted that its spring “blitz” of retailers had uncovered “the illegal sale of MarkTen products to minors.” (RX1120 (FDA) at 002).
920. FDA advised Altria that it was reconsidering its exercise of discretion in connection with the Deeming Rule—i.e., FDA was raising the possibility that all e-vapor products, including those on the market before August 8, 2016, would need to be removed unless and until they received PMTA authorization. (RX1120 (FDA) at 002; *see also* Murillo (Altria/JLI) Tr. 2963 (recalling FDA’s letter “made clear” that the options on the table included “accelerating the deadlines or taking products off the markets pending an application or approval”)).
921. FDA asked Altria to both meet with FDA and respond in writing within 60 days with “a detailed plan . . . to address and mitigate widespread use by minors.” (RX1120 (FDA) at 003).
922. Among other things, FDA listed “[r]emoving flavored products from the market until those products can be reviewed by FDA as part of a PMTA” as a step that Altria could consider as part of its plan. (RX1120 (FDA) at 003). Altria understood this comment to “strongly suggest[]” that it should remove flavored products from the market pending FDA review. (Willard (Altria) Tr. 1441).
923. Commissioner Gottlieb’s simultaneously issued public statement echoed these messages and emphasized the high stakes of the situation. (RX1921 (FDA) at 006 (“We’re also re-examining the enforcement discretion we currently exercise for other e-cig products currently on the market without authorization.”)).

924. Commissioner Gottlieb’s public statement reiterated that “[o]ur comprehensive plan on nicotine and tobacco regulation remains intact.” Commissioner Gottlieb reemphasized FDA’s belief “that tobacco products exist on a continuum of risk, and that there are opportunities to move adult smokers down that ladder of harm.” (RX1921 (FDA) at 008).
925. But at the same time, Commissioner Gottlieb was clear that FDA would not “tolerate a whole generation of young people becoming addicted to nicotine as a tradeoff for enabling adults to have unfettered access to these same products.” (RX1921 (FDA) at 003).
926. As a result, Commissioner Gottlieb indicated that FDA was going to revisit its compliance policy and warned that it was “actively considering whether [it would] enforce the premarket review provision earlier.” (RX1921 (FDA) at 004).
927. Commissioner Gottlieb warned further that FDA was considering whether to “curtail the marketing and selling of flavored products.” (RX1921 (FDA) at 004).
928. Commissioner Gottlieb promised to hold e-vapor manufacturers like Altria “accountable” and explained that FDA’s five letters issued that day put them “on notice.” (RX1921 (FDA) at 006-07). He called for manufacturers “to respond with forceful plans . . . or face regulatory consequences,” and he reiterated his expectation that these manufacturers would bring those “robust plans” to FDA in 60 days. (RX1921 (FDA) at 006, 008).
929. Gottlieb followed these warnings with grim words: “Let me be clear: Everything is on the table. This includes the resources of our civil and criminal enforcement tools.” (RX1921 (FDA) at 007). At trial, Willard explained what this meant: “[I]t’s hard to miss his point. Unless you marshal all your resources to help solve the problem, it’s a pretty threatening letter.” (Willard (Altria) Tr. 1439).

930. The September 12 letter “from [Altria’s] most important regulator” was something that the company took “very seriously.” (Willard (Altria) Tr. 1322, 1437; *see also* PX7027 Murillo (Altria/JLI) Dep. at 202 (agreeing Altria took the letter “extremely seriously”)).

931. As is true for any participant in a heavily regulated industry—particularly one where the fate of a category hangs in the balance—Altria’s relationship with its regulator is critical. (Crozier (Sheetz) Tr. 1561 (agreeing that “meeting FDA regulations, dealing with issues such as youth, underage vaping or underage cigarette usage are very important for the category”);

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]; PX7031 Willard (Altria) Dep. at 270-71

(explaining that “[t]here were few things [Altria] took more seriously than” comments and guidance from FDA because “FDA had regulatory authority over the US tobacco business, and they ultimately decided which products could stay on the market, [and] which products had to be removed from the market”).

932. If FDA demands “bold action” in response to youth vaping, as it did here, (RX1921 (FDA) at 007), that is a request that Altria must take seriously and act upon, (Willard (Altria) Tr. 1437; PX7027 Murillo (Altria/JLI) Dep. at 202).

933. Garnick explained that FDA’s announcement had a particularly “profound impact” on Altria: “[F]or a number of years [Altria] had devoted a good deal of resources, time, and attention at reducing youth usage numbers for cigarettes, and we got them so that they were at an all-time low. Then for this issue to come up with respect to e-vapor products was

something that we thought was awful and something we really wanted to -- to address.”

(Garnick (Altria) Tr. 1757-58).

934. Willard in particular perceived the Commissioner’s letter as “pretty threatening,” as the Commissioner was “essentially . . . saying, you’re part of the problem, and I expect you to contribute to fixing it. I expect you to do it quickly and completely.” (Willard (Altria) Tr. 1437, 1439).

935. Willard had served as senior vice president for youth smoking prevention earlier in his career and was accordingly “very sensitive” to “FDA’s concerns about youth usage of tobacco products.” (Willard (Altria) Tr. 1321-22). He recognized that “youth usage . . . was a real threat to the [tobacco] industry overall,” because the rise of youth use of e-vapor was “reversing [the] success” the cigarette industry had achieved in prior decades. But Willard “was confident that [Altria] could help contribute to fixing the youth usage of e-vapor problem just as [it] contributed to combustible cigarettes.” (Willard (Altria) Tr. 1322-23). Willard believed that increases in youth usage could be reversed “with a collective effort and the right set of actions.” (Willard (Altria) Tr. 1322-23).

936. Before FDA’s September 12 letter, Altria independently had thought that youth vaping was a problem that needed to be addressed, but “when the FDA raised the issue and said how concerned they were, it increased [Altria’s] desire even more to help solve the problem.” (PX7031 Willard (Altria) Dep. at 271).

937. Altria also understood that protecting the continuum of risk concept—which FDA indicated was in jeopardy—was of existential importance for its business. (PX7027 Murillo (Altria/JLI) Dep. at 202-03 (“fear[ing]” that FDA was “threatening” to reverse course on the continuum of risk, which would be “of potential catastrophic consequence to” Altria)).

Murillo testified that it was “essential” for Altria to take steps that would preserve the continuum of risk because that was something “[Altria] had been working on for . . . 20 years.” (Murillo (Altria/JLI) Tr. 2964). He could not “overstate the significance” of FDA’s statement that it was reevaluating its compliance policy regarding closed-system products. (Murillo (Altria/JLI) Tr. 2962). In his view, FDA’s letter “cast a pall over the vapor category” as well as “the continuum of risk concept that the same Commissioner who signed this letter had advanced in 2017 for harm reduction products.” (Murillo (Altria/JLI) Tr. 2961).

2. September 26 Decision

938. [REDACTED]

[REDACTED] As Garnick explained at trial, Elite and the non-traditional flavored MarkTen cig-a-like products already were not “converting smokers, they were losing money, and they wouldn’t get a PMTA.” (Garnick (Altria) Tr. 1756-57). FDA’s letter provided just one more reason why Altria should discontinue these products: “[E]nough is enough.” (Garnick (Altria) Tr. 1756-58).

939. Two weeks later, Altria’s leadership team gathered for an annual planning meeting at Altria’s off-site facility in Montana, known as “the Ranch.” (Willard (Altria) Tr. 1443-44; *see also* PX7031 Willard (Altria) Dep. at 268 (“[T]he management team went off together . . . as part of our normal process, and we said, all right, given everything we’ve learned about the MarkTen product portfolio, what do we think we should do. And, ultimately, we decided to significantly scale back the MarkTen product portfolio.”); PX7003 Quigley (Altria) IHT at 65-66 (“So typical planning process for Altria, kind of the calendar, the rhythm of how we would run our business, every summer we would go through what we call the game plan.

That was our annual planning process. . . . [W]hich would then lead you to a planning meeting in September where you would agree and finalize on those initiatives . . . ”)).

940. By that point in late September, Altria “had really had enough time to evaluate MarkTen Elite,” and had determined that “[i]t was not successful.” (Willard (Altria) Tr. 1442). The product had been on the market for around seven months, which is sufficient time to make an assessment of a new product’s performance and prospects. (PX7003 Quigley (Altria) IHT at 55 (explaining you need “26 weeks plus” (i.e., 6 months) with a new brand to “really understand what you have”); PX7023 Fernandez (Altria) Dep. at 82).

941. Altria also considered Apex, another pod product, and concluded it was even less promising than Elite such that, despite its limited geographic distribution, leaving it in the market would “represent a missed opportunity.” (Willard (Altria) Tr. 1445; *see also infra* Part XVI.B.3).

942. By the time of the Ranch meeting, there was agreement among Altria’s and Nu Mark’s leaders that pulling Elite and pulling non-traditional flavors were two ways that the company should and would respond to FDA’s very serious concerns. (Murillo (Altria/JLI) Tr. 2965-66; Quigley (Altria) Tr. 1993, 2079; PX7031 Willard (Altria) Dep. at 266-70; PX7000 Garnick (Altria) IHT at 102-03).

943. Accordingly, as summarized in the below slide presented by Quigley on September 26, the leadership decided that “in response to FDA,” Altria would “[r]emove Elite & Apex from the Marketplace,” (RX1176 (Altria) at 024; *see also* Quigley (Altria) Tr. 2078; Garnick (Altria) Tr. 1759; [REDACTED]):



(RX1176 (Altria) at 024).

944. The leadership also decided at that time to remove all non-traditionally flavored cig-a-like products (defined as all flavors other than tobacco, menthol, or mint), as FDA specifically had suggested might be an appropriate response to its concerns. (Murillo (Altria/JLI) Tr. 2965-67 (explaining that Altria decided to pull its flavors to address the youth issue, with the exception of tobacco (shorthand “brown”) and menthol/mint (shorthand “green”); Willard (Altria) Tr. 1444-45; Garnick (Altria) Tr. 1759; RX1176 (Altria) at 024; PX7000 Garnick (Altria) IHT at 102, 105-06).

945. Murillo thought that removing pods and non-traditional flavors was the right decision and it “was [his] recommendation.” (Murillo (Altria/JLI) Tr. 2967). He explained that he “thought it was really important to take Dr. Gottlieb’s concern very, very seriously, and while Elite and Apex were both very, very small players and very early on in the market, and I had no reason to think that they were unduly appealing to kids, I thought that a precautionary

reaction or approach was appropriate, and I also thought that it was extremely appropriate to demonstrate to the FDA that the bigger principle of harm reduction was more important than sales of Elite or Apex or MarkTen Purple or whatever and that we could always come back with a PMTA in the future. So I thought it was very important to have a very responsive, very comprehensive and collaborative discussion with the FDA that demonstrated that we got the message, we're committed to harm reduction, we're committed to being part of the solution.” (Murillo (Altria/JLI) Tr. 2967).

946. Similarly, Quigley, then President and CEO of Nu Mark, “was fully supportive of pulling Elite off the market” in response to FDA’s letter. (Quigley (Altria) Tr. 1993). He thought it was the right decision “[b]ecause [Altria’s] legacy as a company was to lead and be the most responsible tobacco company, and [he] believed it was the most responsible thing to do, and it, frankly, would give the FDA the ability to think about . . . its strategy to deal with flavor pod products and youth usage.” (Quigley (Altria) Tr. 2078-79; *see also* PX7003 Quigley (Altria) IHT at 179-80).

947. [REDACTED]

948. At the time, there also was “stark debate” on whether Altria should go further and recommend that the Commissioner “pull or ban, rather, all e-vapor pod products.” (PX7036 Garnick (Altria) Dep. at 163-64). While Garnick thought such a recommendation made sense, others in the organization argued that there was “a fundamental difference between pulling an e-vapor product like [Elite], that was not converting smokers, and pulling a product like JUUL, that was having more success at converting smokers than virtually any other non-combustible tobacco product out there. And they had some very powerful arguments in that—in that extent.” (PX7036 Garnick (Altria) Dep. at 163-64).

949. Leadership kept the decision under wraps for a time because it was not yet final, had not yet been discussed with FDA, and would cause considerable distress for Nu Mark’s employees. (Quigley (Altria) Tr. 2081-82; Gifford (Altria) Tr. 2808-09, 2814; *see also* PX4309 (Altria) at 001 (“I have people over here, wondering about their lives and every little thing gets people upset.”)).

950. At the Ranch meeting, leadership also continued to talk about how to move forward with the Growth Teams. Quigley explained that Nu Mark lacked the “internal development capabilities and processes required to lead in innovative products,” including the “nicotine science and insights . . . to develop a product that c[ould] win and effectively switch smokers.” (RX1176 (Altria) at 012). To try to overcome these deficiencies, Quigley

explained, the company needed to “[i]mplement a different structure and operating model,” i.e., the Growth Teams. (RX1176 (Altria) at 017). As part of this step, Quigley proposed downsizing Nu Mark. (RX1176 (Altria) at 021-22).

951. As Gifford explained, “if [Altria was] going to keep investing,” it needed to figure out “how to shrink [costs] to reduce some of the overhead drag on [its] e-vapor or Nu Mark business.” (Gifford (Altria) Tr. 2806-07). And because the options for shrinking overhead were “either grow volume or reduce expenses,” the conversation among leadership shifted to, “if [Altria is] going to think about growth teams and that being an additional investment, how can [it] start right-sizing this organization to free up some financial resources and people resources.” (Gifford (Altria) Tr. 2806-07).

3. October 1 Work On Communications Plan

952. After the Ranch meeting concluded, Altria turned its attention to preparing for its meeting with FDA, which was scheduled to take place on October 18. (RX0314 (Altria) at 002).

953. As part of that preparation, Willard received an outline on October 1 detailing in part what he might say to FDA, including with regard to the decisions to withdraw pod-based products and limit cig-a-like flavors to tobacco, menthol, and mint. (Willard (Altria) Tr. 1446-49 (discussing RX0314 (Altria))). Altria knew the meeting with FDA was critical, because if afterward “FDA was unhappy with Altria, that could cause them to shut down not only [Altria’s] e-vapor business, but it could also flow into problems with [its] cigarette business or [its] smokeless business.” (Willard (Altria) Tr. 1447).

954. The October 1 outline was extensive, (Willard (Altria) Tr. 1447), and it was consistent with the September Ranch meeting decisions to discontinue Elite and non-traditional flavored cig-a-likes, (Garnick (Altria) Tr. 1762; *see also* RX0314 (Altria) at 003-04).

955. The outline also reflected Altria’s decision to approach FDA with the suggestion that it could “exercise its discretionary enforcement power to remove all pod-based products from the market until the manufacturer receives a market order.” (RX0314 (Altria) at 003).

4. October 4, 2018 Board Meeting

956. [REDACTED]

957. This notification was “part of [Altria’s] normal process.” (Willard (Altria) Tr. 1445-46). It would “do this planning session and then . . . brief the board on the major decisions, particularly ones that might be taken in the short run and have a significant impact on the organization or on the view that the external investors might have on our business.” (Willard (Altria) Tr. 1445-46).

958. [REDACTED]

959. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

C. From October Through December, Altria Pursued Two Alternative Strategies—Growth Teams And A JLI Investment

960. Looking to its e-vapor strategy post-Elite and with the prospect of a JLI transaction as uncertain as ever, Altria simultaneously pursued two alternative paths. (Willard (Altria) Tr. 1391 (“[T]he thing about acquisitions is, sometimes you find a good one and sometimes you can come to terms, but oftentimes, you can’t come to terms, and so you better have an internal strategy.”)).

961. On October 5, Altria took steps forward on each approach: Altria officially announced the launch of the Growth Teams, (RX0842 (Altria)), and it made one last effort toward making a deal with JLI, (PX1391 (Altria)).

1. Altria Launched Growth Teams In October

a. Announcement From Willard

962. On October 5, Willard circulated a company-wide memo announcing the Growth Teams’ formation. (RX0842 (Altria) at 001-02).

963. As outlined above, (*see supra* Parts V.C.4, IX.A, IX.B.2), the Growth Teams plan had “been in development for -- for quite some time,” primarily when there were no active negotiations between Altria and JLI. (Willard (Altria) Tr. 1433, 1436).

964. Willard’s memo explained that Altria had “spent the past 100 days doing a deep situation analysis” and determined that a “change in direction [was] necessary.” The company had decided that Growth Teams were the best way to continue the transformation that Altria had

begun in May 2018 when it “create[ed] the Chief Growth Officer and restructur[ed] parts of the organization to accelerate [Altria’s] innovation pipeline.” (RX0842 (Altria) at 001; *see also* Willard (Altria) Tr. 1435; Gifford (Altria) Tr. 2813).

965. Roughly 60 Nu Mark employees would be terminated or transferred. (RX0842 (Altria) at 003).

966. Nu Mark’s “focus” would be “narrow[ed] . . . to the current products in the marketplace,” while the Growth Teams—which were to be housed outside Nu Mark—would take over innovative product development work. (RX0842 (Altria) at 003). As Gifford testified, the message was “we’re going back to square zero.” (Gifford (Altria) Tr. 2802).

967. After the October 5 announcement, the Growth Teams got to work. They were entirely autonomous, (Jupe (Altria) Tr. 2293-94; *see also* RX0450 (Altria) at 045), and had “free rein” to determine the direction of e-vapor product development, (Garnick (Altria) Tr. 1657; *see also* Jupe (Altria) Tr. 2309 (noting that Growth Teams had the ability to set their own direction, choose what to work on, and were not constrained “by how [Altria] ran things in the past and hierarchical decision-making”)).

968. “[A]ll e-vapor work except for MarkTen cigalike stopped at that time to enable the resources to be available to support the growth teams.” (Gardner (Altria) Tr. 3088).

969. The Growth Teams were unconstrained by any budget. Then-CFO Billy Gifford “met with each of the growth teams and told them [to] not let the budget be a constraint on [their] efforts,” “giving them the freedom to start with the consumer and build from that point forward.” (PX7010 Gifford (Altria) IHT at 192-93; *see also* PX7016 Jupe (Altria) Dep. at 216-17 (noting that in the course of Altria’s normal budgeting process, which started every October, the Growth Teams were in the process of “defin[ing] . . . their budget”)).

970. But even with substantial authority and resources, the Growth Teams had a long way to go. As Garnick explained at trial, “at the time of these growth teams, we didn’t even have a product concept in mind, let alone a leapfrog concept. . . . The idea was to bring some of our best scientists together. . . and come up with a product concept.” That product would then require a PMTA before it could be sold. (Garnick (Altria) Tr. 1661-62; *see also* Jupe (Altria) Tr. 2309, 2313 (noting that autonomy was intended to facilitate product development by 2023, which was an “aggressive” schedule); PX7000 Garnick (Altria) IHT at 132 (“There was no concept of a product they were working on. It was a bunch of people in a room saying, okay, think of something.”); [REDACTED]
[REDACTED]
[REDACTED]).

b. Altria Struggled To Find The Right Talent For The Growth Teams

971. To guide the Growth Teams, Altria hired Bassiouni Khalid as Senior Vice President of Innovative Product Development. (Jupe (Altria) Tr. 2317; RX0842 (Altria) at 002).

972. Altria had been trying to hire someone with innovation experience “for a number of years,” and in 2018, then-Chief Growth Officer Crosthwaite had led a “very active effort . . . to hire somebody with that skill set at a relatively senior level.” (PX7031 Willard (Altria) Dep. at 264; *see also* PX7024 Crosthwaite (Altria/JLI) Dep. at 269 (describing the search for talent as “very, very challenging”); PX7015 Gogova (Altria) Dep. at 317-19 (noting Altria was in need of a leader who “could help [the Growth Teams] and teach [them] to change the culture and mindset” of the team members, as well as leverage an “external network with other innovators, potentially manufacturing facilities [and] academia”)).

973. When Altria internally announced it had hired Khalid, it touted him as an “innovation leader with a proven track record,” and a successful Amazon executive who had “led platform development for [Amazon] Alexa.” (RX0842 (Altria) at 002).

974. But within days of Khalid joining Altria, the company realized that it had been duped: Khalid was a “fraud” who had plagiarized his resume, invented references, and entirely fabricated his claimed employment history. (Jupe (Altria) Tr. 2319-20; RX0248 (Altria) at 002-03).

975. Altria was “very disappointed” and “quite embarrassed” by the situation. (Jupe (Altria) Tr. 2320).

976. Altria terminated Khalid’s employment and put Jupe in charge of the Growth Teams. (Jupe (Altria) Tr. 2320). But Jupe’s background was not in developing innovative products or electronic-based products; he is a physicist whose primary experience is in the design and manufacturing of cigarettes. (Jupe (Altria) Tr. 2198-2202).

977. Altria began again to look for external talent to replace Khalid, but “there was no other candidate . . . that came as close to being hired.” Altria “found it difficult to find someone who had the expertise that [it was] looking for who was willing to move to Richmond.” (PX7000 Garnick (Altria) IHT at 82; *see also* PX7024 Crosthwaite (Altria/JLI) Dep. at 269 (similar)).

2. Altria Simultaneously Renewed Negotiations With JLI

978. On October 5, 2018, Willard sent a letter to JLI, which Altria saw as “one last effort” to engage with JLI to “see whether some of these different terms [would be] of any interest to them.” (PX7031 Willard (Altria) Dep. at 226; *see also* PX2152 (JLI)).

a. Altria’s October 5, 2018 Letter Contained Key Concessions About Payment Structure And Control

979. JLI viewed the October 5 letter as a “turning point” because it “solved” several of the disputes between the parties. (PX7021 Pritzker (JLI) Dep. at 137). Specifically, the letter included several key concessions by Altria: (1) Altria would purchase a 35 percent economic interest; (2) Altria initially would “receive non-voting shares . . . , with the parties cooperating to seek regulatory approvals to convert those non-voting shares into voting shares”; (3) the “full investment would be made at closing”; (3) JLI would not be required to split its domestic and international business; and (4) Altria would agree to a standstill to prevent it from acquiring additional shares or control of JLI following the investment. (PX2152 (JLI) at 002-03; *see also* PX7021 Pritzker (JLI) Dep. at 119 (discussing points that were critical to JLI in August)).

980. According to Burns, the “major points that were changed relative to previous discussions” all related to control and supporting JLI’s mission through support services. (PX7025 Burns (JLI) Dep. at 212; *see also* PX7031 Willard (Altria) Dep. at 225-26 (stating that the terms in the letter that were “particularly important to JLI, particularly the first couple of terms” related to deal structure and control, and were “different, significantly different than the last deal [the parties] were discussing”)).

981. Altria’s new proposal for 35 percent ownership “divid[ed] what [Altria] would have preferred and what [JLI] would have preferred, which was less than that.” (Pritzker (JLI) Tr. 807; *see also* PX7021 Pritzker (JLI) Dep. at 138 (“I thought 35 percent was a good faith attempt to reach a number that might be acceptable to both parties”)). JLI “did not want to give up control” but it also wanted the investment to “be meaningful on [Altria’s] part,” so this was “the right zip code or area in terms of size.” (PX7025 Burns (JLI) Dep. at 211-12).

And, by proposing a 35 percent interest, the letter “made the likelihood of Altria’s getting to a control position less likely” and made the “cash outlay” more feasible for Altria. (Pritzker (JLI) Tr. 837).

982. In addition, JLI was pleased to see that “Altria would agree to a standstill that would prevent it from acquiring additional shares or engaging in a business combination with [JLI].” (PX2152 (JLI) at 003; *see also* PX7025 Burns (JLI) Dep. at 212). This was important to JLI because it did not want to “give [Altria] a path to control unless it was [JLI’s] desire to give them a path to control,” and a standstill meant that Altria “could not edge their way into control by purchasing other shares above the 35 percent level.” (PX7025 Burns (JLI) Dep. at 212). With the standstill provision, JLI “absolutely knew this was a non-control transaction.” (PX7025 Burns (JLI) Dep. at 212).

983. Finally, by offering “a proposal that would encompass the entire company, [the letter] gave the promise that actually [the companies] could get to an agreement on value.” (Pritzker (JLI) Tr. 836).

984. Altria’s concessions on ownership and control persuaded JLI to reengage. (PX2117 (JLI) at 052 (JLI Board minutes confirming that after discussing the October 5 letter, the Board authorized Pritzker, Valani, and Burns to reengage with Altria)). “[F]or the first time in the entire time that [the parties had] been talking,” Pritzker believed that the parties “had the outline of a transaction that might be possible.” (PX7021 Pritzker (JLI) Dep. at 137).

b. The October 5 Letter Did Not Alter The Parties’ Understanding Of The Proposed Noncompete Reflected In The August 19 Term Sheet And August 22 Joint Issues List

985. In contrast to the concessions on ownership and control, nothing had changed with respect to the proposed noncompete. Willard’s letter simply reiterated that, if a transaction ultimately

were reached, Altria would agree “not [to] compete, in a manner consistent with [the parties’] previous discussions.” (PX2152 (JLI) at 003).

986. The reference to “previous discussions” harkened back to the August 19 term sheet and August 22 issues list, which contained no “cease to operate” language and provided that Altria would not compete with JLI with future e-vapor products, but it would “keep MarkTen and MarkTen Elite on the market until they could be divested or contributed pursuant to FTC review.” (PX7021 Pritzker (JLI) Dep. at 204-05; *see also* Willard (Altria) Tr. 1217, 1416-17; Pritzker (JLI) Tr. 714-15, 863-70 (indicating Pritzker understood “consistent with [the parties’] previous discussions” to mean “consistent with prior draft[s] of the term sheets,” like the August 19 term sheet)). There were no other term sheets exchanged between late August and October 5. (Willard (Altria) Tr. 1416-17; Garnick (Altria) Tr. 1753-54).

987. Neither side was particularly concerned with the noncompete. Willard only included it in the October 5 letter because he thought “it was probably helpful in that at least some of what was in here was not a point of disagreement.” (PX7031 Willard (Altria) Dep. at 227-28). “[C]ompetition in the future was not typically a contentious term,” and it had not caused the negotiations to break down. (PX7031 Willard (Altria) Dep. at 228).

988. Similarly, Pritzker believed the noncompetition provision was “the least of [his] concerns,” and he “had a full belief that [the parties] would be able to reach an understanding on that based on . . . as [Willard] says, [‘]our previous discussions.[’]” (PX7021 Pritzker (JLI) Dep. at 141). JLI did not view “point number 6” (the noncompete) as a deal breaker in the negotiations, and it “always believed that [Altria] would follow a waterfall of likely divesting the business, which somebody else would pick it up and continue to compete.” (PX7025 Burns (JLI) Dep. at 160-61).

c. The October 15, 2018 Term Sheet Demonstrated That The Key Concessions Focused On Valuation And Control, Not The Noncompete

989. On October 10, 2018, the JLI Board, citing the “recent letter received from [Altria] proposing to re-engage in discussions regarding a potential investment and strategic relationship on certain specified terms,” authorized Pritzker, Valani, and Burns to “re-engage with Richard and to obtain further clarification of its proposal.” (PX2117 (JLI) at 052).
990. But there still was a long way to go to reach an agreement. The parties spoke on October 11 and, following the call, Devitre observed that Pritzker “was not showing interest in doing a deal. I guess it’s off. Everyone tried their best!” (PX4168 (Altria) at 001).
991. The next morning, on October 12, Pritzker informed Willard that JLI was amenable to the terms set forth in the October 5 letter. (RX1265 (Altria) at 007).
992. Shortly thereafter, Altria reported to members of the deal team thatz, “it appears that Tree is still alive (if on life support).” (RX0283 (Altria) at 001).
993. That same day, Willard provided an update to the Altria Board. He indicated that Altria had proposed “a 35% stake in the entire company,” and subsequently the parties had “agreed that it made sense for [Altria] to send [JLI] a revised draft term sheet.” (PX1350 (Altria) at 001). Willard indicated Altria would send JLI the revised term sheet “next week.” (PX1350 (Altria) at 001).
994. On October 15, Altria sent JLI a term sheet reflecting the terms proposed in the October 5 letter. (PX1269 (Altria) at 001). Regarding antitrust clearance, this term sheet continued to propose that both parties would “use reasonable best efforts to seek Antitrust Clearance” and would “agree to the reasonable concessionary requirements of the FTC in connection with changes in [Altria’s] e-vapor business.” (PX1269 (JLI) at 006-07). “[I]f necessary to obtain Antitrust Clearance,” Altria would offer to divest its e-vapor assets, and if those assets were

not otherwise transferred to a third party, Altria would contribute such assets to JLI upon receipt of antitrust clearance. (PX1269 (JLI) at 006-07; *see also* Pritzker (JLI) Tr. 868).

995. The October 15 term sheet also included a noncompete provision, with an identical carve-out as the August 19 term sheet for MarkTen cig-a-like and MarkTen Elite “prior to their contribution or divestiture.” (PX1269 (Altria) at 008). Altria revised portions of the noncompete unrelated to the treatment of its existing products, including by removing JLI’s proposals from the August 19 term sheet that the noncompete apply “anywhere in the world” or to “current and future affiliates” (rather than subsidiaries). (PX1269 (Altria) at 008; *see also* PX1432 (Altria) at 024; *supra* ¶ 828). The revised proposal contemplated that Altria would “refrain, and . . . cause its current and future subsidiaries to refrain, from competing in the e-vapor business (other than with respect to MarkTen and MarkTen Elite prior to their contribution or divestiture as described above). . . . The non-compete will terminate upon the termination of the Services Term.” (PX1269 (Altria) at 008-09).

996. Although the parties had reengaged in discussions, a deal was far from struck. In a text to Peter Gross (JLI’s banker) on October 16, Devitre wrote, “We have been through ups and downs before. Long way to go before this is over.” (PX4168 (Altria) at 002).

D. In Late October, Following A Meeting With FDA, Altria Announced Its Decision To Withdraw Pod Products And Non-Traditional Cig-A-Like Flavors

1. Altria Previewed Its Planned Response To The September 12 Letter At The FDA Meeting On October 18

997. On October 18, Altria met with Commissioner Gottlieb to discuss FDA’s September 12 letter and Altria’s planned response. (*See, e.g.*, Willard (Altria) Tr. 1288, 1446).

998. At the meeting, Altria informed FDA of its intention to withdraw both its pod products and its non-traditional cig-a-like flavors from the market in light of FDA’s concerns about the

“epidemic” rate of youth e-vapor use. (Willard (Altria) Tr. 1448-50; Garnick (Altria) Tr. 1764-65).

999. FDA responded positively to this news. (Willard (Altria) Tr. 1448; Garnick (Altria) Tr. 1764-65 (“We got a positive reaction.”)). Because Altria was “the leader in the overall tobacco category” (albeit not e-vapor), “if [Altria] were willing to take significant actions, . . . it set the right example for other companies to do the same” and “gave FDA somewhere to point when they compelled others to take action.” (Willard (Altria) Tr. 1448).

1000. Although Commissioner Gottlieb was “troubled by balancing how effective some pod products were at converting smokers with the youth issue,” Altria did not get the “impression” at the meeting that he was “seriously considering” pulling all pod products from the market. (Garnick (Altria) Tr. 1767-68).

2. On October 25, In Conjunction With Its Third Quarter Earnings Call, Altria Announced That It Was Discontinuing Its Pod Products And Non-Traditional Cig-A-Like Flavors In Response To FDA’s Letter

1001. On October 25, 2018, Altria sent its formal response to FDA, in a letter that the company made public that same day. (Willard (Altria) Tr. 1450-51).

1002. Altria announced that it would withdraw its pod products from the market. (PX1071 (Altria) at 002). Although Altria did not believe it had a “current issue with youth access to or use of [its] pod-based products,” it did “not want to risk contributing to the issue” with a product that was not converting adult smokers. (PX1071 (Altria) at 003).

1003. Altria also announced that it would discontinue all non-traditional cig-a-like flavors. (PX1071 (Altria) at 003).

1004. Altria sent the letter to FDA early in the morning of October 25. (Willard (Altria) Tr. 1238, 1451-53).

1005. Later, at 7:00 AM EDT, Altria released the letter “as part of a collection of information related to [its third quarter] earnings call.” (Willard (Altria) Tr. 1237-39, 1452-53; RX2028 (Altria) at 001).
1006. Altria timed the letter’s release to coincide with its regularly scheduled earnings call because “there was material information in [the letter] related to some of the actions [it was] suggesting to the FDA,” which Altria “thought the investment community was entitled to learn about.” (Willard (Altria) Tr. 1238-39).
1007. In the earnings call later that morning, Altria explained that although Elite and non-traditionally flavored cig-a-likes were being withdrawn from the market, 80 percent of Nu Mark’s e-vapor volume from the third quarter would remain on the market. (PX9082 (Altria) at 003). That was “essentially because, while [Nu Mark] had a number of flavored products and [it] had certainly some volume in the pod-based products, most of [its] volume was tobacco flavored or a menthol or mint, and so while this was an impact to [its] business, there was still a number of products that represented a lot of volume that would remain on the market.” (Willard (Altria) Tr. 1456; *see also* Gifford (Altria) Tr. 2809 (similar); Crozier (Sheetz) Tr. 1557-58 (confirming Elite’s removal had minimal impact on the category as a whole); RX1505 (JLI) at 001 (recounting Altria’s earnings call characterization of the impact on volumes as “immaterial”); RX1519 (JLI) at 001 (“Pulling these products from their portfolio have [sic] no material significance to their commercial returns (given their poor performance in e-cigs as a whole).”)).

3. Altria Thought JLI Would Be Displeased By The Letter And, As Predicted, JLI Viewed It As A Hostile Act, Not The Fulfillment Of An Agreement

1008. That same day, after the letter was released publicly, Willard sent it “to Mr. Pritzker and the JLI principals.” (Willard (Altria) Tr. 1237-38; *see also* RX0216 (Altria)).

1009. Altria had not discussed with JLI its decision to withdraw pod and non-traditional flavored cig-a-like products before sending the letter to FDA. (Garnick (Altria) Tr. 1763-64).
1010. JLI therefore had no advance notice of Altria’s response to FDA or of the possibility that Altria would remove products from the market. (Pritzker (JLI) Tr. 873-74; Valani (JLI) Tr. 956; *see also* PX7021 Pritzker (JLI) Dep. at 216-17; PX7032 Valani (JLI) Dep. at 149-50; PX7025 Burns (JLI) Dep. at 215-16; PX7035 Masoudi (JLI) Dep. at 126-27).
1011. JLI only learned about Altria’s letter to FDA after the letter became public. (Valani (JLI) Tr. 954).
1012. At the time, Altria anticipated that JLI would be unhappy with Altria’s announcement, particularly because the letter said that Altria “believed that pod products substantially contributed to the youth epidemic.” (Garnick (Altria) Tr. 1765; *see also* Gifford (Altria) Tr. 2830 (confirming Altria did not expect that discontinuing Elite and flavored cig-a-like products would “increase [the] chances of doing a final deal with JLI”)).
1013. The undisputed evidence—both from testimony and contemporaneous documents—demonstrates JLI was “shocked” to learn of Altria’s decision and viewed the letter as a “hostile action towards JUUL.” (PX7011 Valani (JLI) IHT at 124-26; *see also* Valani (JLI) Tr. 944-45 (characterizing Altria’s letter to FDA as “surprising”); PX7021 Pritzker (JLI) Dep. at 150 (similar)).
1014. A retailer emailed JLI the day Elite was discontinued to say of the announcement: “This just pisses me off. Continuously fail to compete in the category, so wa[ve] the white flag and try to bring others down with you.” (PX2473 (JLI) at 001). Robbins responded internally that this “seem[ed] to be the universal feeling out there. The Altria letter is a thinly veiled attempt

to get rid of competition that threatens their cig franchise. Glad the retailers see it for what it is.” (PX2473 (JLI) at 001).

1015. No one from JLI ever suggested that he or she was “pleased” by Altria’s decision to discontinue certain products, (Garnick (Altria) Tr. 1776), or contacted Altria to applaud the decision to pull products, (Gifford (Altria) Tr. 2829-30).

1016. Pritzker recalled he did not “welcome[]” Altria’s decision to pull its pod products, (Pritzker (JLI) Tr. 874-75), and was “amazed” that Altria “had taken the[] [products] off unilaterally,” (PX7021 Pritzker (JLI) Dep. at 150; *see also* Pritzker (JLI) Tr. 874 (confirming that Altria’s decision was “unexpected”); PX7021 Pritzker (JLI) Dep. at 154-55). JLI had been “perfectly happy to have [Elite] stay on the market.” (Pritzker (JLI) Tr. 874). Moreover, given the tenor of Altria’s letter, Pritzker was “very skeptical that [Altria was] sincere in wanting to invest in [JLI].” (PX7021 Pritzker (JLI) Dep. at 155).

1017. JLI had expected that after a deal was reached, the FTC would “determine what should become of [Altria’s e-vapor products] and expected that it would be divestiture,” and Pritzker worried that Altria’s decision to pull Elite “would complicate things.” (Pritzker (JLI) Tr. 874-75; *see also* PX7021 Pritzker (JLI) Dep. at 154-55).

1018. Although JLI was upset by the letter, Altria indicated it still was interested in pursuing a transaction and JLI was willing to continue negotiating with Altria. (Pritzker (JLI) Tr. 876-7; Garnick (Altria) Tr. 1766-67).

1019. As Garnick summarized in an email hours after JLI learned of the letter, “[t]he Tree folks are still talking to us even in light of the announcement we made today.” (PX4350 (Altria) at 001). Garnick explained at trial, “I was not sure we would still be talking by the end of the day because of our letter and our announcement that we were removing pods. We thought

that the folks at JLI might be upset by some of the statements we made in the letter and it might have ended the deal. So [in this email,] I was just expressing my relief that we were still going forward with the negotiations.” (Garnick (Altria) Tr. 1766-67).

4. Retailers Were Not Sad To See Elite Go And Applauded Altria’s Stance On Flavors

1020. Retailers were not disappointed to see Elite or the other non-traditionally flavored cig-a-like products discontinued. (Myers (Altria) Tr. 3368-69 (explaining that retailers “weren’t upset about [Elite’s] discontinuation” since Elite “hadn’t performed well in stores”). The product had been “underperforming in the marketplace,” and retailers “felt like [Altria] had the wrong product from the standpoint of it didn’t have the nicotine levels, the nicotine salts that they felt [were] needed to have a successful product in that category.” (PX7038 Myers (Altria) Dep. at 316).

1021. Crozier, Sheetz’s Category Manager for Cigarettes & Tobacco, explained that because he knew “Altria had been working on preventing youth access with the FDA,” he thought the product pull “was kind of in line with some of their views on the category.” (PX7019 Crozier (Sheetz) Dep. at 91). In Crozier’s view, Elite had not “res[o]nate[d]” with consumers and had not made “any dent in JUUL’s share.” (PX7019 Crozier (Sheetz) Dep. at 76-77).

1022. The withdrawal decision was helpful from a business perspective to retailers, because discontinuing Elite freed up inventory dollars and shelf space for other products. (Myers (Altria) Tr. 3369-70).

1023. Retailers and distributors also were “proud of the fact that [Altria] took a stance on flavors and was trying to address the youth epidemic.” (PX7038 Myers (Altria) Dep. at 156). Because the products “didn’t mean much to their business” and were not “something they were going to have to figure out how to cover a loss of . . . sales,” retailers and distributors

“were really focused on the responsible step [Altria] took.” (PX7038 Myers (Altria) Dep. at 156).

1024. The only real source of frustration for retailers was that they would need to deal with “product returns and moving stuff around on the shelves.” (PX7019 Crozier (Sheetz) Dep. at 92).

1025. But returns were not required. Altria announced to the trade that, instead of recalling the withdrawn products, retailers could sell through their remaining inventory. (Gifford (Altria) Tr. 2811; RX2030 (Altria) at 001).

5. After Altria’s Announcement, FDA Reaffirmed Its Support For E-Vapor Products That Could Convert Adult Smokers

1026. On October 31, 2018, after Commissioner Gottlieb met with the five e-vapor manufacturers who had received letters, FDA issued a statement in response to the meetings. (RX0159 (FDA) at 002).

1027. The statement reiterated FDA’s concern about youth usage of e-vapor products. (RX0159 (FDA) at 002).

1028. But at the same time, FDA confirmed that it remained committed to the public health benefit of converting adult cigarette smokers to noncombustible alternatives such e-vapor products: “We still believe that non-combustible forms of nicotine delivery may be less harmful alternatives for currently addicted adult smokers who still seek nicotine, without the risks associated with combustible cigarettes. And we want to keep this option for adults open.” (RX0159 (FDA) at 002).

1029. Murillo was “very pleased with this statement” because it indicated that Gottlieb “was still committed to the comprehensive plan for nicotine based on the continuum of risk” and

characterized the presentations by Altria and other companies as “constructive.” (Murillo (Altria/JLI) Tr. 2968-69).

1030. Although Altria remained “concerned about the youth issue,” it was encouraged to go forward with negotiations following FDA’s October 31 statement. (Garnick (Altria) Tr. 1769). Although youth use “absolutely had to be addressed,” Altria believed it “could help” JLI navigate the concerns raised by FDA. (Garnick (Altria) Tr. 1771).

1031. Moreover, unlike MarkTen Elite and MarkTen cig-a-like, JUUL successfully was converting smokers. (Garnick (Altria) Tr. 1771 (“We had our product that was not converting smokers, losing money, and not essentially going anywhere, wouldn’t get a PMTA. And then we saw JUUL, and we saw in the data that JUUL was converting smokers.”); Gifford (Altria) Tr. 2828 (“[By this point in time,] the outside world was clearly seeing—and . . . an independent survey [by market analysts showed] that JUUL was very successful in converting adult smokers,” so much so that it was “impacting brands across the cigarette space”); *see also* RX0858 (Altria) at 003). Altria believed that JUUL “was the most . . . effective noncombustible product on the market to convert smokers.” (Garnick (Altria) Tr. 1771).

6. In Response To FDA’s Letter, JLI Also Pulled Non-Traditional Flavors From Retail Stores

1032. Two weeks after Altria’s letter to FDA, JLI announced its own response to FDA’s letter. (RX1926 (JLI)).

1033. JLI discontinued sales of all non-traditional flavors from retail, leaving those flavors to be sold only online, where JLI would be implementing additional age-verification measures. (RX1926 (JLI) at 001-03; *see also* RX0292 (Altria) (news article previewing the announcement); Willard (Altria) Tr. 1243 (observing that JLI “restricted the sale of their

flavored products . . . to respond to the letter they received from the FDA”); Garnick (Altria) Tr. 1775-76 (agreeing JLI’s decision took place before Altria’s investment)).

1034. In its announcement, JLI explained that it was “sensitive to the concern articulated by Commissioner Gottlieb” about flavors. (RX1926 (JLI) at 002). Its decision to stop selling flavored products in retail stores reflected its “common goal” with FDA to “prevent[] youth from initiating on nicotine.” (RX1926 (JLI) at 001).

1035. As Danaher explained in his deposition, JLI had “been taking a series of escalating steps to also look at youth access and appeal. It was a major concern of [the company’s]. And [JLI] came up with a very comprehensive plan that, amongst other things, said that we were going to no longer sell any of [its] [non-traditional flavored pod] products to distributors or retailers as of the date that we made that announcement, which was I believe November 9th.” (PX7005 Danaher (JLI) IHT at 144).

1036. At the time, non-traditional flavored pods made up about 50 percent of JLI’s revenue, and virtually all of that was in retail stores. (PX7009 Burns (JLI) IHT at 163 (noting that of JLI’s eight products, the “four we extracted from the market[]” represented “about 50 percent of our revenue at that point”); *see also* [REDACTED] [REDACTED]).

1037. As a result, the company anticipated a “big” financial impact as a result of its decision, with many of its customers “go[ing] to a competitor’s products.” (PX7009 Burns (JLI) IHT at 164-165; *see also* PX7009 Burns (JLI) IHT at 17 (explaining that only five to 10 percent of JLI’s revenue was from its online business)).

1038. But as then-CEO Burns explained, JLI “d[id]n’t care” about the financial impact because it knew it “ha[d] to get the category in shape.” (PX7009 Burns (JLI) IHT at 165).

1039. Altria did not know in advance how JLI had planned to respond to FDA’s letter. (Garnick (Altria) Tr. 1764).

1040. Altria was “very encouraged” by what JLI ultimately announced: “[Altria] thought that was a step in the right direction . . . [and] reflected a commitment” to prevent youth usage of e-cigarettes, “so [it was] happy to see that.” (Garnick (Altria) Tr. 1769; *see also* Gifford (Altria) Tr. 2829 (“[Altria] thought that was a great step, because if you listened to what the FDA was saying,” it was “nontraditional flavors” that were causing concern for the agency)).

1041. Besides Altria, JLI was the only e-vapor manufacturer to remove flavored products edbefore FDA’s flavor ban in 2020, (Garnick (Altria) Tr. 1775). JLI wanted “to make sure that [it was] being proactive as a company.” (PX7011 Valani (JLI) IHT at 115).

E. The Parties Continued Negotiations And Exchanged A Final Term Sheet On October 30, 2018

1. October 28 and October 30 Term Sheets

1042. On October 28, 2018, JLI’s attorneys sent a revised term sheet to Altria’s counsel. (PX2503 (JLI) at 001).

1043. This term sheet’s proposed treatment of Altria’s e-vapor products was not materially different from the previous term sheet. Under the Antitrust Clearance Matters section, the term sheet continued to propose that the parties “would be required to use reasonable best efforts to seek Antitrust Clearance” and to “agree to the reasonable concessionary requirements of the FTC in connection with changes in [Altria’s] e-vapor business.” (PX2503 (JLI) at 006-08). The term sheet also maintained the proposal that Altria offer to divest its e-vapor assets “if necessary to obtain Antitrust Clearance,” and if those asserts were not otherwise transferred to a third party, to contribute such assets to JLI upon receipt of antitrust clearance. (PX2503 (JLI) at 007). The October 28 term sheet added that such contribution

would be “at [JLI’s] election,” but otherwise the provision was materially unchanged.
(PX2503 (JLI) at 007).

1044. The noncompete provision and carve-out also remained unchanged in its treatment of Altria’s existing e-vapor products: the noncompete continued to explicitly exempt “MarkTen and MarkTen Elite prior to their contribution or divestiture as described above.” (PX2503 (JLI) at 010).

1045. Other, minor revisions in the October 28 term sheet reflected that the parties continued to negotiate various noncompete issues unrelated to the treatment of Altria’s existing products, such as how the noncompete would apply to certain research and development activities and whether it would bind Altria’s controlled or upstream affiliates. (PX2503 (JLI) at 010). JLI added the following underlined text to the noncompete provision: “[Altria] agrees to refrain, and to cause its current and future subsidiaries and controlled affiliates to refrain, from competing (or preparing to compete, including through research and development activities) in the e-vapor business, other than (i) with respect to MarkTen and MarkTen Elite prior to their contribution or divestiture as described above and (ii) basic research not directed toward the e-vapor business and not undertaken with the intent (primarily or in part) of developing or commercializing technology or products in the e-vapor business. . . . Consequences of competition by an upstream [Altria] affiliate dealt with in “Richard Exit Right” below.” (PX2503 (JLI) at 010).

1046. On October 29, 2018, JLI and Altria negotiators met in New York for a previously scheduled meeting. (Pritzker (JLI) Tr. 875; PX2322 (JLI) at 001).

1047. Pritzker recalled this “was a long meeting” and the parties “covered a lot of points” and, to his “surprise, it ended with [him] feeling that actually there was a road to actually getting something done.” (Pritzker (JLI) Tr. 876).

1048. The conversations were “sufficiently promising” that the parties decided to begin work on the actual deal documents. (Pritzker (JLI) Tr. 876-77).

1049. JLI sent Altria a final, nonbinding term sheet on October 30. (RX0285 (Altria) at 001; *see also* RX0285 (Altria) at 004 n.1 (“This term sheet is not binding on any party.”)). That term sheet maintained the same structure for treatment of Altria’s existing e-vapor products, according to which Altria would either contribute or divest its existing products as part of the HSR clearance process. (RX0285 (Altria) at 021-22). The noncompete and carve-out remained unchanged, explicitly providing for Nu Mark’s existing products to remain on the market until antitrust clearance. (RX0285 (Altria) at 021-22, 024).

2. In October, The Parties Addressed Potential Restrictions Imposed By Altria’s Contractual Relationship With PMI By Delaying The HSR Clearance Timeline

1050. During the course of the negotiations, Altria became concerned that an existing agreement with PMI might complicate the potential investment in JLI. (Garnick (Altria) Tr. 1587-88).

Specifically, the issue was whether the agreement with PMI—the E-Vapor Joint Research, Development and Technology Sharing Agreement (“JRDTA”)—restricted Altria’s ability to divest or contribute its e-vapor products to a third party during the term of the agreement.

(Garnick (Altria) Tr. 1587; PX7036 Garnick (Altria) Dep. at 156-57; *see also* [REDACTED]

[REDACTED]).

1051. [REDACTED]
[REDACTED]
[REDACTED]

1052. [REDACTED]

[REDACTED] Altria was concerned that this agreement potentially constrained its ability to transfer ownership of those products during the term of the agreement. (PX7036 Garnick (Altria) Dep. at 156-57).

1053. By October 2018, Altria first raised this issue with JLI. (PX7036 Garnick (Altria) Dep. at 197-98). By then, Altria and JLI already had reached consensus on the noncompete carve-out, which permitted Altria to continue competing with its existing products “until HSR was granted, and then [Altria] would contribute those products to JLI or, if necessary to get HSR approval, [Altria] would divest.” (Garnick (Altria) Tr. 1591-92; *see also supra* Part VI.H-I).

1054. By the end of October, the parties had developed a work-around to the potential problem by agreeing to extend the date to file for HSR clearance past the date that the JRDTA was set to expire. (Garnick (Altria) Tr. 1591-92; PX7036 Garnick (Altria) Dep. at 197).

1055. In the October 15, 2018 term sheet, Altria proposed: “[Altria] shall elect the time (not to exceed two years from closing of the Purchase) when the parties initiate the HSR clearance process.” (PX1269 (Altria) at 006; *see also* Garnick (Altria) Tr. 1591-92). By the time of this term sheet, July 2020 was less than two years away. (PX1269 (Altria) at 001).

1056. As Garnick explained, this language “was to give us some room to file HSR so that when we did it, and we got HSR approval, we could go ahead and contribute our product or divest it, if necessary, if possible, to a third party.” (PX7036 Garnick (Altria) Dep. at 157).

1057. In the October 28 term sheet, JLI largely accepted Altria’s proposal to delay filing for HSR, but changed the filing deadline to be July 2020 rather than an undefined date within two years of closing: “[Altria] shall elect the time (no later than July 15, 2020) when the parties initiate the HSR clearance process.” (PX2503 (JLI) at 007).

1058. The October 30 final nonbinding term sheet left unchanged JLI's proposal that Altria could delay HSR filing until July 2020. (RX0285 (Altria) at 022 (“[Altria] shall elect the time (no later than July 15, 2020) when the parties initiate the HSR clearance process.”); *see also* RX0838 (Altria) at 325 (Nov. 15 draft deal document with deadline to file for HSR clearance “[o]n or prior to July 15, 2020”)).

1059. This solution was acceptable to both parties. (Garnick (Altria) Tr. 1671, 1677-78).

1060. For Altria, the resolution “avoid[ed]” any potential issue with the PMI agreement and allowed Altria to divest or contribute its existing products. (Garnick (Altria) Tr. 1671).

1061. Meanwhile, the delay was acceptable to JLI because JLI's “concern” was not “the time period before filing HSR. What [JLI was] concerned about [was] that once [Altria was] on their board, which would happen upon HSR approval, that we would not be competitors at that point.” (Garnick (Altria) Tr. 1677). Accordingly, JLI was fine with putting off HSR approval until July 2020, “because it meant pushing back the date when [Altria] would be on their board.” (Garnick (Altria) Tr. 1678).

3. Contrary To Complaint Counsel's Theory, There Is No Evidence That JLI Insisted That Marketing Services Commence Immediately Upon Signing

1062. The October 15 term sheet also distinguished between two types of services that Altria could provide to JLI. (PX1269 (Altria) at 007-08). The October 28 and October 30 term sheets similarly contained this distinction. (PX2503 (JLI) at 008-09 (Oct. 28 term sheet); RX0285 (Altria) at 022-23 (Oct. 30 term sheet)).

1063. Some services could be provided immediately upon closing the transaction. (PX1269 (Altria) at 007-08). These services included supporting, consulting, and assisting JLI in obtaining PMTA approval for its products. (PX1269 (Altria) at 007); *see also* PX2503 (JLI) at 008-09; RX0285 (Altria) at 022-23).

1064. Other services—known as enhanced services—could not be provided so long as Altria and JLI remained competitors in the e-vapor category because of antitrust considerations.

(PX7036 Garnick (Altria) Dep. at 193-94; PX1269 (Altria) at 008). Enhanced services included assisting with JLI’s marketing; assisting with JLI’s “efforts to gain distribution, display, and in-store support”; and providing JLI with access to Altria’s “best in class infrastructure (including distribution).” (PX1269 (Altria) at 008; *see also* PX2503 (JLI) at 009; RX0285 (Altria) at 023).

1065. To address this antitrust issue, the October 15 term sheet proposed that Altria would not provide the enhanced services until the “earlier of (i) contribution . . . or (ii) [Altria] otherwise exiting the marketing and sale of products in the Field.” (PX1269 (Altria) at 008). The October 28 and October 30 term sheets contained similar language but replaced “contribution” with “Antitrust Clearance.” (PX2503 (JLI) at 009; RX0285 (Altria) at 023).

1066. These revisions were added by Altria’s counsel “to ensure that [Altria was] protected and in compliance with the antitrust laws before . . . [it] provide[d] those enhanced services that [Altria] could not provide as long as [it was] a [competitor].” (PX7036 Garnick (Altria) Dep. at 194). This term, drafted by Altria’s outside counsel, simply defined when enhanced services could be provided; it imposed no obligations related to Altria’s e-vapor products. (*See* PX7036 Garnick (Altria) Dep. at 194; RX0308 (Altria) at 008).

1067. For JLI’s part, Pritzker does not recall noticing this language when it was added to the October 15 term sheet, and he does not know why it was added. (Pritzker (JLI) Tr. 872).

1068. Complaint Counsel has suggested that JLI insisted Altria provide the enhanced services upon signing, implying that Altria withdrew its products so it could provide those services quicker. (*See, e.g.*, Tr. 46 (opening statement); Garnick (Altria) Tr. 1668-69, 1675-79). But

no evidence supports this theory. Indeed, the record reflects that neither JLI nor Altria was concerned about delaying the start of enhanced services due to a delay in filing for HSR review. (Pritzker (JLI) Tr. 871-72; Willard (Altria) Tr. 1212-13).

1069. It was in fact the regulatory support services, which *could* be provided upon closing even if Altria were still in the e-vapor marketplace, that were most desirable to JLI. (Pritzker (JLI) Tr. 820; PX7025 Burns (JLI) Dep. at 211-12).

1070. Pritzker stated that it was Altria’s PMTA support services that were critical, because “getting PMTA approval is literally existential for the company. You cannot operate without PMTA approval Altria’s team was the best in the country, and . . . their willingness to provide services through that team was invaluable.” (Pritzker (JLI) Tr. 820).

1071. Similarly, as then-CEO Kevin Burns testified, the support services were “incredibly important,” to JLI, “especially things like support around PMTA submission and FDA support,” as those showed that Altria was “going to come out and support [JLI’s] mission.” (PX7025 Burns (JLI) Dep. at 212).

1072. By contrast, Pritzker viewed the enhanced services as “valuable services but not the critical service.” (Pritzker (JLI) Tr. 871). He “would not have seen [delaying the start of enhanced services] as a problem,” and he agreed that he was not “concerned about what the trigger date would be for starting them.” It was “important . . . for real and cosmetic reasons to know that [Altria was] prepared to offer [the enhanced] services, but when they started would not have been consequential to [him].” (Pritzker (JLI) Tr. 871-72).

1073. Willard’s memory was the same. He recalled that JLI wanted Altria’s services, but both sides understood that “there were certain reasons why they could be provided at various times, and . . . both sides were fairly flexible on that.” (Willard (Altria) Tr. 1213). He did not

“recall that the timing of those services was an important part of what [JLI was] expecting.”
(Willard (Altria) Tr. 1213).

F. In Early December, Altria, Seeking Cost Savings For New Opportunities, Discontinued Its Remaining Nu Mark Products

1074. In the course of its annual budget process in the fall of 2018, Altria came to terms with the fact that both of its “two pathways” to success in the e-vapor industry—developing a leap frog product through the Growth Teams or the potential investment in JLI—would require a substantial financial commitment. (Gifford (Altria) Tr. 2842; *see also* [REDACTED]). If Altria “could . . . ever be successful with JLI, . . . [it] would have to finance [the investment], and any money [it] saved would help with the interest cost. Or if [Altria] were unsuccessful with JLI, [that money would] fund the growth teams, and those investments would have to step up through time as they made progress” (Gifford (Altria) Tr. 2842; *see also* Gifford (Altria) Tr. 2810 (“[W]e really needed to . . . free[] up people resources and financial resources to put elsewhere in the business”); PX7010 Gifford (Altria) IHT at 189 (recalling that because Nu Mark was “unsuccessful from both a financial and a growth base and knowing that the existing products were going to take additional investment,” Gifford felt, “as the financial person,” that he “needed to free up the resources to fund the growth teams, or make the decision to fund . . . the interest related to an investment”); PX1348 (Altria) at 002 (memorializing discussion from Altria’s December 7, 2018 Board meeting about the need for \$300-600 million in annual cost savings); [REDACTED]).

1075. Altria already anticipated that each Growth Team would cost approximately \$30 million per year, and it was prepared to allocate more if necessary. (RX0570 (Altria) at 012, 024; PX7010 Gifford (Altria) IHT at 192-93 (explaining Altria would have given the Growth Teams \$100 million per year if that’s what they needed—“budget [would not be] a constraint” on the Growth Teams’ efforts)).

1076. And if Altria instead completed a multi-billion-dollar deal with JLI, that too would require significant financial resources. (PX7036 Garnick (Altria) Dep. at 214 (if the JLI transaction went forward, Altria “needed to find about \$500 million in cost savings [per year] to pay for it”)).

1. Nu Mark Had Been Losing Money For Years And Had No Path To Profitability

1077. Freeing up these resources was going to require Altria to make changes internally. From 2014 to 2017, Nu Mark lost \$600 million. (PX4029 (Altria) at 10 (detailing \$229 million in losses in 2014; \$182 million in losses in 2015; \$118 million in losses in 2016; \$71 million in losses in 2017)).

1078. As Begley recalled, Nu Mark lost money every year during his tenure as head of the company, (Begley (Altria) Tr. 1087-88; *see also* [REDACTED]):

(a) Nu Mark posted losses in every year prior to 2015. (Begley (Altria) Tr. 1062-63).

(b) In 2015, Nu Mark lost \$182 million. (PX4040 (Altria) at 012; Begley (Altria) Tr. 1061; Gifford (Altria) Tr. 2724-25).

(c) Going into 2016, Nu Mark expected to meet its 2016 operating company income target of a loss of \$115 million. (PX4073 (Altria) at 002; *see also* [REDACTED] [REDACTED]). That year, Nu Mark lost \$118 million. (Gifford (Altria) Tr. 2726; RX0746 (Altria) at 007).

(d) In 2017, Nu Mark lost another \$71 million. (Gifford (Altria) Tr. 2736-37; PX4012 (Altria) at 010).

1079. [REDACTED]

1080. Every year that Begley was CEO of Nu Mark, the point in the future at which Nu Mark hoped that it would break even or make a profit was pushed out further. (Begley (Altria) Tr. 1088):

(a) In 2015, Nu Mark predicted that it would become profitable in 2017. (Gifford (Altria) Tr. 2719-21; RX1733 (Altria) at 092).

(b) In 2016, Altria “pushed” its profitability projection “out a year to 2018.” (Gifford (Altria) Tr. 2725-26; PX4040 (Altria) at 012).

(c) Nu Mark’s 2017 plan “pushed out another year, break-even in 2019 was the estimated or the forecast.” (Gifford (Altria) Tr. 2726; RX0746 (Altria) at 007).

1081. The financial situation did not improve once Quigley was at the helm. In the first nine months of 2018, Nu Mark lost \$101 million. (Gifford (Altria) Tr. 2817-19 Willard (Altria) Tr. 1458-59; PX1127 (Altria) at 003). In that same time frame, Nu Mark’s share of the total dollars spent in e-vapor had tumbled from approximately 15 percent to 4.7 percent. (RX1447 (JLI) at 009).

1082. The reality was that with only cig-a-like products and without a successful pod product, Nu Mark “had no chance of achieving [its financial projections]” and would continue to incur losses. (Begley (Altria) Tr. 1087-88). The 2018 plan predicted that cig-a-like volumes would decline and pod volumes would grow substantially. (PX4012 (Altria) at 009; Begley (Altria)

Tr. 1131-32). And, as Complaint Counsel’s expert acknowledges, “[f]irms have economic incentives to invest in segments that are growing rather than shrinking,” (PX5000 Rothman Report ¶ 94), as cig-a-likes were.

1083. Indeed, Altria projected that Nu Mark’s losses would continue for the foreseeable future: Nu Mark expected to lose another \$235 million over the next three years. (PX4232 (Altria) at 013; *see also* [REDACTED]; [REDACTED]; Willard (Altria) Tr. 1459 (“[Altria] always hoped that [Nu Mark] would launch a successful product and [it] could turn that into a profit, but there didn’t seem to be any likelihood of that happening in the next few years for Nu Mark.”)).

1084. On top of those losses, Altria was sinking at least \$50 million per year into support and overhead for Nu Mark that was not allocated specifically to Nu Mark. (PX4232 (Altria) at 013; *see also* [REDACTED]; [REDACTED]; [REDACTED]).

2. New Problems Continued To Emerge With Nu Mark’s Remaining Cig-A-Like Products

1085. And even in late November 2018, there were “a number of other issues that were still being worked out” with respect to Altria’s efforts to address the dry puff problems with Nu Mark’s remaining on-market cig-a-like products. (Murillo (Altria/JLI) Tr. 3070-71). As Murillo described the process, it was “solving one issue and then creating at least, you know, a series of other issues.” (Murillo (Altria/JLI) Tr. 3072).

1086. As a result, by this time period, Altria’s scientists still were not sure that they had a dry puff prevention fix that they could submit for a PMTA. (Gardner (Altria) Tr. 2573-74; *see also* PX7015 Gogova (Altria) Dep. at 245-46 (“[The scientists] knew what to anticipate and

what to look for, but [they] had no way to know exactly what are the consequences [of the battery change.]”).

1087. In particular, Altria discovered that battery manufacturing quality decline caused changes to the aerosol mass. (PX7026 Gardner (Altria) Dep. at 258-59 (“The aerosol delivery was different from what it was in 2016.”)). Despite their best efforts, Altria scientists were unable to resolve the changed aerosol mass. (PX7016 Jupe (Altria) Dep. at 83 (“[W]e never figured out how to get a consistent aerosol at the end of the day.”); PX7017 Magness (Altria) Dep. at 156 (explaining consideration of an annealing process that may have had to be added to address the aerosol mass change); PX1407 (Altria) at 014; RX0552 (Altria) at 006, 007 (noting unresolved investigation into problems with the cartridge and battery quality)).

1088. Murillo was “concerned” that the aerosol mass issue “could not be resolved favorably in time to do all the work required for an application, including stability, because aerosol mass is essential to stability,” and to show “12 months stability, you need 12 months.” (PX7027 Murillo (Altria/JLI) Dep. at 132; *see also* Murillo (Altria/JLI) Tr. 2937-38).

1089. Altria’s scientists also had discovered that there were problems with the cig-a-like’s wicking rate, (Gardner (Altria) Tr. 2571-74), and cartridge, (RX0552 (Altria) at 006, 007 (noting unresolved investigation into problems with the cartridge and battery quality)).

3. Altria Withdrew Nu Mark’s Remaining Products On December 7, 2018

1090. Faced with these financial losses and dire regulatory prospects, Altria “decided to go ahead and shut [Nu Mark] down. Without a pathway to profitability, [Altria] had already funded the growth teams,” and it decided, “let’s shut it down, let’s not lose additional money, and let’s look at how . . . [to] continue the growth teams and look for ways to participate well into the future in the e-vapor space.” (Gifford (Altria) Tr. 2841; *see also* Willard (Altria) Tr.

1460 (“[Altria] was making hard decisions to cut costs on products that hadn’t worked out, and so [it] ultimately decided to eliminate these e-vapor products” because “[it was] not in the business of losing money, [it was] in the business of making money”); PX7024 Crosthwaite (Altria/JLI) Dep. at 283 (recalling Altria decided it “would be better served putting resources towards future platforms and not supporting the [cig-a-like] platform”); PX7031 Willard (Altria) Dep. at 281; PX1182 (Altria); RX0878 (Altria); *see also* [REDACTED] [REDACTED] [REDACTED]).

1091. On December 7, 2018, Willard sent an internal email to Altria employees announcing that the company would be discontinuing “production and distribution of all *MarkTen* and *Green Smoke* e-vapor products,” (RX1000 (Altria) at 004), and the company issued a public press release saying the same, (PX9080 (Altria) at 001).

1092. Both Altria’s internal and public announcements indicated that this decision was made based on “current and expected financial performance, coupled with regulatory restrictions that burden our ability to quickly improve these products.” (Willard (Altria) Tr. 1459-61; RX1000 (Altria) at 004; PX9080 (Altria) at 001).

1093. The announcements also indicated that Verve products would be discontinued. (PX9080 (Altria) at 001; RX1000 (Altria) at 004).

1094. Verve was an oral product in Nu Mark’s portfolio—essentially a chewable rubber disk that released flavor and nicotine. (Willard (Altria) Tr. 1459). Because Verve was not an e-vapor product, it would not have been affected by the eventual noncompete agreement reached between Altria and JLI. (Garnick (Altria) Tr. 1777-78). But Altria was losing money

on Verve, and “there was no sign it was ever going to be successful.” (Willard (Altria) Tr. 1459-60).

1095. Altria discontinued Verve because like the MarkTen cig-a-like, “it was not profitable, and we did not have a pathway to profitability, and it was also not converting smokers.” (Garnick (Altria) Tr. 1777-78).

1096. Altria was not the only company to make such a decision. R.J. Reynolds, for example, has also discontinued e-vapor products that had minimal sales. (Huckabee (Reynolds) Tr. 383-84; *see also* [REDACTED]

[REDACTED]; Quigley (Altria) Tr. 1961 (“[I]t would not be uncommon to make a decision where we’re losing money and a product is not performing or doesn’t have what it needs to be successful to be pulled from the market.”)).

1097. There was no demand from JLI that caused Altria to make the decision to discontinue these products on December 7. (Gifford (Altria) Tr. 2850; *see also* Gifford (Altria) Tr. 2844). Gifford explained that he never was asked to remove Altria’s e-vapor products from the market before finalizing the JLI transaction, (Gifford (Altria) Tr. 2774), and he never at any point in the negotiations understood that Altria had to pull any or all of its existing e-vapor products to get the deal done. (Gifford (Altria) Tr. 2774, 2850).

1098. Indeed, Altria employees not involved with the JLI negotiations agreed that the products should come off the market. Quigley thought it was a “reasonable business decision” to shut down a business that was “still losing money.” (Quigley (Altria) Tr. 1993; *see also* PX7041 Quigley (Altria) Dep. at 131 (“I think it was the right business decision.”)). Although the decision “was hard” for him “because of the impact on people,” “[u]ltimately, . . . [Nu Mark]

didn't have the products [and] was losing money." (PX7041 Quigley (Altria) Dep. at 131). Jupe "was very pleased by the decision in that we were refocusing our resources [and] thinking forward." (Jupe (Altria) Tr. 2322-23). Schwartz explained, "[c]onsumers had moved away from cigalike. If the idea was to convert smokers, which was our mission, right, and to achieve leadership in the e-vapor space, we were not going to accomplish that with what was left of the portfolio." (PX7018 Schwartz (Altria) Dep. at 162; *see also* PX7002 Schwartz (Altria) IHT at 160 (agreeing with the decision because Nu Mark "only had a cig-a-like franchise" left and had eliminated its non-traditional flavors)). Michael Brace, who at the time was the general manager of Nu Mark, testified that he also "underst[ood] the decision to discontinue Nu Mark and agreed with it." (PX7013 Brace (Altria) Dep. at 11, 172).

4. Retailers Were Not Disappointed By The Withdrawal Of Nu Mark's Remaining Products

1099. As it had with Elite, Altria allowed its trade partners to sell through their remaining inventory. (Gifford (Altria) Tr. 2812 (explaining the product pull was not a recall); *see also* [REDACTED] [REDACTED] [REDACTED]).

1100. Retailers were not disappointed to see the other Nu Mark products discontinued, because the products did not sell, and discontinuing them freed up inventory dollars and shelf space for other products. (*See* Myers (Altria) Tr. 3369-71; *see also* Crozier (Sheetz) Tr. 1557-60 (agreeing that a business limited to cig-a-likes was unlikely to be a competitive threat); PX7038 Myers (Altria) Dep. at 307 ("MarkTen . . . was a very small part of their category business contributor . . .")).

5. JLI's Principal Negotiators Did Not Even Notice Altria's Announcement

1101. JLI did not have any prior notice of Altria's December 7 withdrawal, nor had anyone at JLI requested that it take that action. (Pritzker (JLI) Tr. 884-85; Valani (JLI) Tr. 957; *see also* PX7021 Pritzker (JLI) Dep. at 164, 169; PX7032 Valani (JLI) Dep. at 151-52; PX7025 Burns (JLI) Dep. at 217-18; PX7035 Masoudi (JLI) Dep. at 89, 128-29).

1102. Indeed, neither Pritzker nor Valani could even recall learning prior to this litigation that Altria had shut down Nu Mark and removed its remaining cig-a-like products in December 2018. (Pritzker (JLI) Tr. 877-78; Valani (JLI) Tr. 951-52, 957; PX7021 Pritzker (JLI) Dep. at 163-64 (“[The announcement] was of no consequence because [he] didn’t think that [the products] were particularly competitive to Juul.”); PX7011 Valani (JLI) IHT at 134 (calling the decision “irrelevant” because MarkTen was a “terrible” product)). As O’Hara explained: “[I]t barely even registered” because Nu Mark was not “a competitive entity in the market. I did not track them closely. It was not meaningful at all when they did that to [JLI’s] competitive stake, you know, in the market.” (PX7033 O’Hara (JLI) Dep. at 176).

X. IN DECEMBER 2018, THE PARTIES EXECUTED THE TRANSACTION

A. The Transaction Remained Uncertain Throughout November And December As The Parties Conducted Due Diligence And Addressed A Series Of Late-Breaking Disputes

1103. Following the parties’ renewed negotiations in October, Altria “began due diligence in November.” (Garnick (Altria) Tr. 1776).

1104. The deal’s prospects were uncertain throughout that month because Altria “had no idea what due diligence would have uncovered,” and the parties “still had the actual [deal] documents to negotiate, and there were various issues that were still open.” (Garnick (Altria) Tr. 1776; *see also* PX7024 Crosthwaite (Altria/JLI) Dep. at 284 (“Diligence is always . . . a

very, very important step in any transaction. Until [Altria] had completed diligence, nothing was certain.”)).

1105. Due diligence took “at least a month” and involved “large volumes of people” undertaking an “exhaustive” review of the “financial, legal, technological, [and] strategic matters of the business.” (Valani (JLI) Tr. 955).

1106. While diligence was ongoing, on November 15, 2018, the parties exchanged the first drafts of the deal documents. (Garnick (Altria) Tr. 1780-81; *see, e.g.*, RX0838 (Altria) at 001, 035 (draft voting agreement), 306 (draft purchase agreement), 354 (draft relationship agreement)). These were drafts of the “actual transaction documents,” as distinguished from the term sheets. (Garnick (Altria) Tr. 1781).

1107. Like the term sheets, the November 15 draft deal documents included a noncompete provision with a carve-out for Altria’s existing products. This carve-out permitted Altria to engage in business relating to its MarkTen and MarkTen Elite brands “as such business is presently conducted.” (Garnick (Altria) Tr. 1781-83; RX0838 (Altria) at 373).

1108. Valani testified that he did not know where the “as such business is presently conducted” language came from. (PX7011 Valani (JLI) IHT at 140).

1109. As of November 15, Altria’s business was selling MarkTen cig-a-likes in tobacco, menthol, and mint flavors, so this provision would have unquestionably permitted Altria to keep MarkTen cig-a-like on the market through the antitrust review process with the FTC. (Garnick (Altria) Tr. 1782; Gifford (Altria) Tr. 2831). Further, JLI understood that both MarkTen cig-a-like and Elite were exempted from the noncompete provision in the draft and final deal documents prior to HSR approval: Pritzker’s understanding was that Altria could have put its withdrawn products “back on the market if [it] wished.” (Pritzker (JLI) Tr. 879).

1110. This provision in the deal documents did not change between its introduction on November 15 and the documents' execution on December 20. (Garnick (Altria) Tr. 1782-83).
1111. Altria and JLI continued to disagree about major issues like valuation. (Pritzker (JLI) Tr. 838-39; *see also* Willard (Altria) Tr. 1464 (“[O]ne of the most important terms of the deal was value.”)). Although the parties had settled on a 35 percent investment by early October 2018, it took another two months to agree on valuation. (Pritzker (JLI) Tr. 839).
1112. Indeed, valuation was “an eleventh-hour issue” that the parties continued to negotiate up through December 17. (Pritzker (JLI) Tr. 839, 878; RX1417 (JLI) at 001).
1113. The fact that Altria pulled its remaining MarkTen e-vapor products on December 7 had no impact on JLI’s thinking and did not make the deal easier to finalize. (Pritzker (JLI) Tr. 878-79). The move did not even register with JLI’s lead negotiators—as described above, neither Pritzker nor Valani could recall learning prior to this litigation that Altria had discontinued its remaining cig-a-like products. (*See supra* Part IX.F.5).
1114. Contemporaneous documents demonstrate that the deal remained uncertain after December 7 as the parties worked through the numerous still-outstanding issues. (*See, e.g.*, RX1591 (JLI) at 001; [REDACTED]; PX2494 (JLI) at 001; RX1592 (JLI) at 001; RX0910 (Altria) at 001; PX4167 (Altria) at 010; RX1417 (JLI) at 001; PX4167 (Altria) at 010).
1115. On December 8, Garnick wrote to his JLI counterpart that Willard believed the principals needed to discuss “10 or so outstanding issues . . . in order to close by Dec. 21.” (RX1591 (JLI) at 001; *see also* Gifford (Altria) Tr. 2844-45 (listing key unresolved issues in December, including “the [capitalization] table, pre-emptive rights,” and “right up until the last minute,” valuation); Gifford (Altria) Tr. 2765-66 (explaining that the capitalization table listed capital

investors in JLI and the stock options they controlled, which is relevant to whether Altria's ownership interest in JLI could be diluted by "an IPO in the future or other stock sales").

1116. At the December 11 Board meeting, Altria's leadership advised the Board that the deal remained [REDACTED] as the parties continued "working out issues," (PX7028 Wappler (PWP) Dep. at 130).

1117. In early- to mid-December, another late-breaking issue threatened to disrupt the deal: JLI expressed concern that under the proposed transaction, JLI might be considered a controlled affiliate of Altria pursuant to the JRDTA, which would require Altria to share all of JLI's IP with PMI. (See PX2494 (JLI) at 001; PX7035 Masoudi (JLI) Dep. at 98-102). On December 14, Garnick informed JLI that Altria was "not willing to give up voting or board rights" to address this remote potentiality, adding that "as a matter of practical reality, we both can point to other facts/circumstances in this deal that demonstrate without doubt that this deal does not give us either 51% ownership or the power to control [JLI]. Indeed, not only do we not control [JLI], but we have agreed never to control [JLI] without board consent." (PX2494 (JLI) at 001 (emphasis in original)).

1118. The next day, Garnick wrote again to "express a bit [of] dismay at some of the proposed terms [in the services agreement]" that Altria received from JLI, including "[a] provision that would have the effect of giving [JLI] a license, if not ownership, of the [Altria] IP it uses in providing the services" and "a provision that [Altria] pays [JLI's] taxes in certain instances." Garnick hoped that "[g]iven the severe time restraints . . . each side would propose reasonable terms from the very beginning and not seek to overreach." (RX1592 (JLI) at 001).

1119. Separately, Garnick advised his colleagues that the “deal may not survive the day” in light of a dispute over how to present the companies’ posture toward cigarettes—he had spoken to Willard and it was a “walk away point.” (RX0910 (Altria) at 001-02).

1120. Willard explained that as of December 15, there were two walkaway issues for Altria.

First, JLI was trying to dilute Altria’s position by half a billion dollars. (PX4167 (Altria) at 010 (Willard and Devitre discussing JLI’s “desire to dilute us by \$500mm more dollars,” which Devitre describes as a “critical” issue on which Altria “should not give in”)). *Second*, JLI wanted to issue a single press release but Altria thought its early drafts were “demeaning to cigarette smokers.” (Willard (Altria) Tr. 1462-63). As Willard wrote in a text message to Devitre on December 15, “[i]f they do not give on both the deal will not proceed.” (PX4167 (Altria) at 010).

1121. In light of those issues, the deal was far from certain as of mid-December. As Willard put it, “I’ve done a lot of deals. This one was not close to being finished.” (Willard (Altria) Tr. 1464; *see also* RX0920 (Altria) at 001 (partially redacted December 14 email describing an issue that, unless “somehow resolve[d] . . . today,” put “timely closing this month” “in substantial doubt”)).

1122. On December 16, the parties hit yet another “impasse on valuation.” (RX1417 (JLI) at 001; *see also* PX4167 (Altria) at 010 (text message from Willard to Devitre: “We reached an impasse tonight on value . . .”)).

1123. As a result, Willard did not have “any faith that th[e] deal would go through until the documents were signed on December 20.” (Willard (Altria) Tr. 1461; *see also* PX7000 Garnick (Altria) IHT at 88 (“We had undergone a year and a half of on-again, off-again

negotiations, and until the deal was done, none of us were confident that the deal would get done.”)).

1124. Then-CFO Billy Gifford shared this view. The deal “was on and off so many times” and the parties were often “so far apart” on terms that “it felt like there wasn’t going to be an agreement reached.” (Gifford (Altria) Tr. 2775). From his “vantage point, [he] was never sure until [the parties] actually signed the deal.” (Gifford (Altria) Tr. 2844).

1125. Indeed, in the final three days before the deal’s execution, “there was tremendous territory covered.” (PX7009 Burns (JLI) IHT at 160; *see also* PX7001 Devitre (Altria) IHT at 73 (“[T]here were changes taking place until the very last minute. The other side are very hard negotiators.”)).

B. On December 20, 2018, The Parties Executed The Transaction

1126. On December 20, 2018, Altria and JLI finally reached an agreement. Altria invested \$12.8 billion in JLI in exchange for a 35 percent economic interest. (RX1001 (Altria) at 001; PX9081 (Altria) at 001; *see also, e.g.*, PX2141 (JLI) (final purchase agreement); PX1276 (JLI) (final relationship agreement); PX1275 (JLI) (final services agreement); PX2216 (JLI) (final voting agreement)).

1127. The parties’ agreement settled long-fought issues of governance and control: Altria obtained the right to appoint one-third of JLI’s directors pending HSR approval and some restrictions on JLI’s sale rights, while JLI imposed several guardrails preventing Altria from acquiring control. (*See, e.g.*, PX2216 (JLI) at 004-05, 052; PX1276 (JLI) at 029-32, 041). The deal also included a services agreement, pursuant to which Altria agreed to provide JLI with regulatory assistance in connection with the preparation and filing of JLI’s PMTAs, among other services. (PX1275 (JLI) at 028).

1128. Consistent with JLI's concern that those services would lead Altria to access proprietary information about JUUL, the final relationship agreement included a noncompete provision: Altria agreed "not to, directly or indirectly[,] . . . own, manage, operate, control, engage in or assist others in engaging in, the e-Vapor Business" while the service agreement remained in effect. (PX1276 (JLI) at 025 § 3.1). Consistent with the term sheets, however, that provision included a carveout permitting Altria to "engage in the business relating to [its existing e-vapor products] . . . as such business is presently conducted," pending HSR approval. (PX1276 (JLI) at 026 § 3.1; Willard (Altria) Tr. 1194-95).

1129. The noncompete provision was limited to Altria's activities in "the e-Vapor Business," and therefore did not limit Altria's ability to market other inhalable alternatives such as IQOS and oral alternatives such as the On! product. (See PX1276 (JLI) at 025 § 3.1; Willard (Altria) Tr. 1195; Gifford (Altria) Tr. 2709-10). Additionally, the final relationship agreement included a six-year initial term length for the noncompete, making it set to expire on December 20, 2024 unless extended by the parties. (PX1276 (JLI) at 025 § 3.1(a) (relationship agreement) (noting the noncompete provision terminates at "the termination or expiration of the term (as set forth in the Services Agreement)"); PX1275 (JLI) at 005, 014 (services agreement) (defining the "Initial Discretionary Termination Date" for the services agreement as "the date that is the sixth (6th) anniversary of the date hereof"))).

1130. Although Altria had withdrawn MarkTen and MarkTen Elite from the market by this time, Altria still owned or held the rights to the intellectual property for these products, as it still does today. (Garnick (Altria) Tr. 1783-84). JLI believed that the final agreement's carve-out provision permitted Altria to bring back the products it had withdrawn from the market,

(Pritzker (JLI) Tr. 879), which was permitted under the Deeming Rule because the products had been on the market as of August 8, 2016, (Murillo (Altria/JLI) Tr. 3022).

1131. The final purchase agreement provided that Altria would divest its e-vapor assets as needed to obtain HSR approval: “The Investor, to the extent permitted . . . shall, and shall cause its Affiliates to, (i) propose, negotiate, offer to commit and effect (and if such offer is accepted, commit to and effect) . . . the sale, divestiture, license, disposition or hold separate of such assets or businesses of the Investor or any of its Affiliates . . . in each case, as may be required in order to avoid the entry of any decree, judgment, injunction, or other order . . . that would restrain, prevent or delay the Antitrust Conversion.” (PX2141 (JLI) at 036).

1132. To date, the FTC has never asked Altria to divest or otherwise sell off these assets. (Garnick (Altria) Tr. 1784-87; *see also* RX2031 (FTC) at 002). If the FTC had ever made such a request, nothing in the parties’ deal would have prevented Altria from complying. (Garnick (Altria) Tr. 1787 (agreeing that FTC never inquired to see whether Altria could divest “at any time,” and “certainly” nothing would have prevented Altria from complying with an FTC divestiture request after July 2020); *see also* Valani (JLI) Tr. 935 (“I believe that the actual transaction documents still referred to the possibility of divestiture. I believe the term sheets after [Altria discontinued Elite and non-traditional cig-a-like flavors in response to FDA’s letter] still talk about divestment. I think, indeed, the assets that are there today could still be divested.”)).

C. The Parties Amended The Agreements In January 2020

1133. On January 28, 2020, Altria and JLI amended their agreements. (PX0010 (Altria) (amended purchase agreement); PX0011 (Altria) (amended relationship agreement); PX0012 (Altria) (amended services agreement)).

1134. As a result of these amendments, Altria continues to provide regulatory affairs support for FDA filings but is not obligated to provide other services, including services related to distribution of JUUL, absent further agreement between the parties. (PX0012 (Altria) at 002 (terminating all distribution and other services except for services described in Sections II(F) (which would continue only through March 31, 2020) and IV(A) of the services agreement’s “Initial Services”); PX1275 (JLI) at 028-29 (services agreement) (defining “Initial Services” II(F) to include regulatory services and IV(A) to include shelf-space placement); *see also* PX7040 Gifford (Altria) Dep. at 32 (confirming that following the amendments, “the gist of” the remaining services “was to support [JLI’s] PMTA filing and their MRTP”).

1135. As described above, the noncompete provision of the final agreement included termination provisions, including a six-year initial term length for the noncompete. (*See supra* ¶ 1129). The amended relationship agreement provided two additional situations in which Altria may “permanently terminate” the noncompete provision: (1) if JLI were “prohibited as a matter of federal law” from selling e-vapor products in the United States for at least 12 months, unless a PMTA had been pending for at least six months; or (2) if the “aggregate value” of Altria’s shares in JLI were written down to \$1.28 billion or less. (PX0011 (Altria) at 002-03).

D. HSR Review Process

1136. Altria and JLI were able to sign and close the purchase agreement without first seeking HSR approval because the initial investment was for the acquisition of nonvoting shares. (PX2010 (JLI) at 007). Altria was allowed to, and did, appoint one nonvoting observed to attend JLI Board meetings. (PX2010 (JLI) at 007; PX7006 Crosthwaite (Altria/JLI) IHT at 145).

1137. On February 4, 2019, Respondents filed for HSR clearance to convert Altria’s nonvoting shares into voting securities and to grant Altria permission to appoint three of nine members

to JLI's Board of Directors. (Willard (Altria) Tr. 1472-73; Garnick (Altria) Tr. 1679, 1783; PX2218 (JLI) at 003, 013; PX0027 (Altria) at 011 ¶ 21).

1138. On November 12, 2020, after the HSR clearance waiting period elapsed, Altria announced that it was converting its nonvoting shares in JLI to voting shares. (PX9099 (Altria) at 001; *see also* RX2031 (FTC) at 001).

1139. As Altria explained in the accompanying press release, it did not intend to "exercise its additional governance rights obtained upon conversion, including the right to elect directors to [JLI's] board, or to vote its [JLI] shares other than as a passive investor, pending the outcome of the U.S. Federal Trade Commission (FTC) litigation." (PX9099 (Altria) at 001; *see also* Pritzker (JLI) Tr. 799 ("Altria did convert shares, although they agreed to not vote those shares and agreed to not put anybody on the board."); Garnick (Altria) Tr. 1785 (explaining that Altria "could have converted and claimed board seats" but "chose not to do so pending the outcome of this litigation" and "remained just passive investors"); Gifford (Altria) Tr. 2849 (confirming that today, Altria does not have any active JLI Board seats)).

1140. Although it possesses the power to do so, the FTC has never sought an injunction to prevent Altria from converting its shares or getting Board seats or to otherwise prevent the transaction from going forward. (Garnick (Altria) Tr. 1784-87; *see also* RX2031 (FTC) at 002).

E. Altria Has Written Down The Value Of Its Investment In JLI

1141. Also in its November 12, 2020 press release, Altria indicated that it "expect[ed] to account for its investment in JUUL under the fair value option," meaning that "Altria's consolidated statement of earnings [would] include any cash dividends received from its investment in JUUL as well as any changes in the fair value of the investment, which [would] be calculated quarterly." (PX9099 (Altria) at 001). The practical effect was that Altria would assess the

cost value of its investment in JLI each quarter rather than solely in response to a triggering event. (PX7040 Gifford (Altria) Dep. at 15).

1142. Altria has since conducted these assessments of the investment on a quarterly basis, which on several occasions has led the company to record impairment charges related to its JLI investment. (Gifford (Altria) Tr. 2845; RX2040 (Altria) at 002; RX2041 (Altria) at 002; RX2042 (Altria) at 003; RX2043 (Altria) at 003).

1143. In its 2019 third-quarter earnings results, Altria reported an “impairment charge of \$4.5 billion related to its investment in JUUL.” (RX2040 (Altria) at 002). This meant that about nine months after Altria’s investment, the total value of the investment had shrunk to approximately \$8.3 billion. (Gifford (Altria) Tr. 2846).

1144. In its announcement, Altria noted that although “there was no single determinative event or factor” that led to the impairment, it had “considered impairment indicators in totality, including: increased likelihood of U.S. Food & Drug Administration (FDA) action to remove flavored e-vapor products from the market pending a market authorization decision, various e-vapor bans put in place by certain cities and states in the U.S. and in certain international markets, and other factors.” (RX2040 (Altria) at 002).

1145. As Gifford explained at trial, “there was looming FDA potential to make a -- a statement across the industry to remove flavors.” (Gifford (Altria) Tr. 2846). Because Altria “didn’t know which specifically the FDA would say, . . . [it] ran various scenarios, weighted those scenarios, and the result of that was a \$4.5 billion write-down of the original JUUL investment.” (Gifford (Altria) Tr. 2846).

1146. In its 2019 fourth-quarter and full-year earnings results, Altria reported an additional “impairment charge of \$4.1 billion related to its investment in JUUL.” (RX2041 (Altria) at

002). It noted that for 2019 in total, “Altria recorded a total of \$8.6 billion in noncash pre-tax impairment charges to its JUUL investment, bringing the value of its JUUL investment to \$4.2 billion as of December 31, 2019.” (RX2041 (Altria) at 002).

1147. The company explained that this second impairment was “primarily due to the increased number of legal cases pending against JUUL and the expectation that the number of legal cases against JUUL [would] continue to increase.” (RX2041 (Altria) at 002; *see also* Gifford (Altria) Tr. 2847).

1148. In its 2020 third-quarter results, Altria reported another “impairment charge of \$2.6 billion related to its investment in JUUL.” (RX2042 (Altria) at 003). The company indicated that this impairment “was driven by Altria’s projections of lower JUUL revenues over time due to lower pricing assumptions and delays in JUUL achieving previously forecasted operating margin performance. These drivers were the result of (i) JUUL’s revised international expansion plans and (ii) the evolving U.S. e-vapor category and associated competitive dynamics.” (RX2042 (Altria) at 003).

1149. In total, as of September 30, 2020, Altria valued its JLI investment at \$1.6 billion. (RX2042 (Altria) at 003). Gifford testified that at this time, Altria “saw significant competitive activity in the U.S., and JUUL had announced plans internationally to pull back in various markets in their international space.” (Gifford (Altria) Tr. 2848). This led Altria to have “lower revenue and lower pricing assumptions related to [its] discounted cash flow for JUUL.” (Gifford (Altria) Tr. 2848).

1150. Finally, in its 2021 Q1 results, Altria reported an “unrealized loss of \$200 million as a result of a decrease in the fair value of JUUL.” (RX2043 (Altria) at 003). It attributed the loss to “(i) Altria’s projections of lower JUUL revenues over time due to lower JUUL volume

assumptions resulting from a continuation of heightened competitive dynamics in the U.S. e-vapor category and (ii) an increase in the discount rate due to a change in market factors.”

(RX2043 (Altria) at 003; *see also* Gifford (Altria) Tr. 2849). The company further indicated that the overall fair value of Altria’s JLI investment had fallen to \$1.5 billion as of March 31, 2021. (RX2043 (Altria) at 003; *see also* Gifford (Altria) Tr. 2849).

F. Key Negotiation Themes

1151. Certain themes emerge from the history of the negotiations (discussed *supra* Parts IV, VI, VIII, IX.C.2, IX.E, X.A-B) that refute Complaint Counsel’s assertion that JLI was using the exchange of proposed term sheets to communicate that Altria needed to remove its e-vapor products as a pre-condition of the investment.

1. Every Single Witness Involved In The Deal Negotiations Testified That There Was No Agreement To Pull Altria’s E-Vapor Products

1152. Complaint Counsel opened this trial with the statement: “This is a case about the leading U.S. tobacco company, Altria Group, Inc., agreeing to exit the e-cigarette business in exchange for a 35 percent equity stake in the dominant e-cigarette supplier, JUUL Labs., Inc.” (Tr. 12-13). But as every single witness involved in these negotiations testified under oath, there was no such agreement:

1153. **Nicholas Pritzker (JLI Board Member and Member of the JLI Strategic Committee responsible for negotiations):** Pritzker is “absolutely not” aware of any agreement “that JLI had with Altria that Altria would take any particular action” with respect to its e-vapor products prior to a transaction. (Pritzker (JLI) Tr. 884). As he testified, Complaint Counsel’s allegation to the contrary “is absolutely incorrect. I had zero knowledge or any idea that any product would be withdrawn from the market prior to the time it was ruled upon by the FTC, nor desired that any product be removed prior to that time or any inclination that it would be

removed. It was neither known to me nor desired by me.” (Pritzker (JLI) Tr. 885). Pritzker further testified that to his knowledge, no one at JLI had prior notice that Altria would withdraw its products on either October 25 or December 7, and he never requested Altria take these actions. (Pritzker (JLI) Tr. 884).

1154. Riaz Valani (JLI Board Member and Member of the JLI Strategic Committee

responsible for negotiations): Valani agreed that neither he nor anyone else he knows at JLI ever “reach[ed] any kind of agreement with anyone at Altria about withdrawing products” before the transaction was executed. (Valani (JLI) Tr. 956-57). Valani testified that he “absolutely [did] not” ask Altria for any kind of commitment that it would withdraw products from the market prior to the transaction, nor did anyone else from JLI to his knowledge. (Valani (JLI) Tr. 956). He had no prior notice “whatsoever” that Altria would be discontinuing any products, and no one from Altria had given him an “indication” that it planned to take these actions—indeed, it was not until his deposition that he learned about Altria’s December 7, 2018 announcement. (Valani (JLI) Tr. 956-57).

1155. Kevin Burns (Former JLI CEO and Member of the Strategic Committee responsible

for negotiations): Complaint Counsel did not call Burns to testify at trial, but in his deposition he agreed that there was not “any kind of agreement” between Altria and JLI that Altria would take the actions it announced on October 25 or December 7. (PX7025 Burns (JLI) Dep. at 216-18). Burns had no prior notice about either announcement, and JLI did not ask Altria “for any kind of commitment” to take the actions it took on October 25 or December 7. (PX7025 Burns (JLI) Dep. at 215-18).

1156. Gerald Masoudi (Former JLI General Counsel): Masoudi also testified at his deposition that he is not aware of any agreement between Altria and JLI that Altria would take

its products off the market as it announced it would in its October 25 and December 7 announcements. (PX7035 Masoudi (JLI) Dep. at 127-29). To Masoudi's knowledge, neither he nor anyone else at JLI made a request to Altria that they take the actions described in the October 25 and December 7 announcements, and Masoudi had no prior notice that Altria would do so. (PX7035 Masoudi (JLI) Dep. at 126-28).

1157. **Howard Willard (Former Altria CEO and Principal Negotiator):** As Willard testified at trial, it was his understanding that JLI would allow Altria to keep its existing e-vapor products on the market during the antitrust process. (Willard (Altria) Tr. 1410). Altria's decisions to discontinue Elite and flavored MarkTen cig-a-like products had "no connection to any agreement with JLI." (PX7031 Willard (Altria) Dep. at 272). "There was no agreement, and there was no deal, and we didn't -- we didn't have an understanding that a deal with JLI was possible until, ultimately, we came to a final agreement in December." (PX7031 Willard (Altria) Dep. at 272). It was never "[Willard's] understanding" at any point in the negotiations that to get a deal done with JLI, Altria had to pull its e-vapor products before it was allowed to invest in the company. (PX7031 Willard (Altria) Dep. at 279). "The principals at [JLI] had never expressed a concern about the impact our existing products might have on JUUL's performance in the marketplace." (PX7031 Willard (Altria) Dep. at 279-80).

1158. **Billy Gifford (Altria CEO, Former Altria CFO, and Principal Negotiator):** Gifford testified that at no point in the negotiations did he understand that Altria had to pull any or all of its existing e-vapor products to invest in JLI, nor did anyone from JLI suggest as much. (Gifford (Altria) Tr. 2850). Instead, Altria discontinued its products and shut down Nu Mark for "[s]eparate, independent business reasons." (Gifford (Altria) Tr. 2850). Indeed, no one at JLI contacted Altria to applaud the decision to pull products, and Gifford did not believe that

pulling Elite and flavored cig-a-like products was going to increase the likelihood of a deal with JLI. (Gifford (Altria) Tr. 2829-30).

1159. K.C. Crosthwaite (JLI CEO, Former Altria Chief Growth Officer): Crosthwaite testified in his deposition that he was “not aware” that the prospect of a deal with JLI “was a factor at all in [Altria’s] determination” to discontinue its e-vapor products. (PX7024 Crosthwaite (Altria/JLI) Dep. at 281). Similarly, he was not aware of JLI ever asking Altria or demanding that Altria discontinue its e-vapor products as a condition to the transaction. (PX7024 Crosthwaite (Altria/JLI) Dep. at 281).

1160. Murray Garnick (Altria General Counsel and Head of Regulatory Affairs And Sciences): As Garnick testified, Altria’s decisions to discontinue Elite and MarkTen cig-a-like were not made to try to effectuate an investment in JLI, and JLI never suggested that Altria should shut down any of its e-vapor products before it could invest in JLI. (Garnick (Altria) Tr. 1763). Altria made its decision to withdraw pod-based and flavored cig-a-like products at a time when negotiations with JLI were suspended, and it did not discuss the decision with JLI before sending its letter to FDA announcing that decision on October 25, 2018. (Garnick (Altria) Tr. 1760-61, 1763-64). Garnick “expected that JLI would have a negative reaction” to Altria’s October 25 letter, because it said Altria “believed that pod products substantially contributed to the youth epidemic.” (Garnick (Altria) Tr. 1765). Accordingly, Garnick agreed that Altria did not discontinue its products “to please JLI or to move the deal forward”—this decision was made “independently of JLI.” (Garnick (Altria) Tr. 1767; *see also* Garnick (Altria) Tr. 1759 (“I was advocating and ultimately we decided to pull these products regardless of the Tree deal and totally independent of the Tree deal.”)).

And JLI never suggested it was “pleased” by Altria’s decision to discontinue Elite and flavored cig-a-likes in response to FDA’s letter. (Garnick (Altria) Tr. 1776).

1161. Similarly, Nu Mark’s leaders who were not involved in the negotiations testified that they agreed with the decisions communicated in the October 25 and December 7 announcements to discontinue Nu Mark’s products, and they never heard that these decisions were made to facilitate a deal with JLI. (*See* Murillo (Altria/JLI) Tr. 2966-67 (explaining he “[a]bsolutely” believes leadership made the right decision to discontinue Elite and cig-a-like flavors in response to the FDA letter, and no one ever said this decision was made to facilitate a deal with JLI); Quigley (Altria) Tr. 2078-79 (agreeing it was the “right” decision to discontinue Elite and flavors, and recalling that he was involved in discussions at the Ranch and never heard anyone say the decision was made to facilitate a deal with JLI); Quigley (Altria) Tr. 1993 (agreeing that closing Nu Mark and discontinuing remaining cig-a-like business on December 7 was a “reasonable” business decision); Jupe (Altria) Tr. 2320-23 (recalling it was never suggested to him that the reason for discontinuing any of Nu Mark’s products was to facilitate a deal with JLI, and he has no reason to believe that it was; Jupe “was very pleased by the decision” to discontinue MarkTen cig-a-like in December “in that we were refocusing our resources, thinking forward, had the right approach in product development”)).

2. Altria And JLI Were Assisted By Outside Counsel Throughout Negotiations

1162. Altria and JLI were assisted in the negotiations by experienced outside counsel “every step of the way.” (Garnick (Altria) Tr. 1683; *see also* Pritzker (JLI) Tr. 789-90).

1163. JLI’s July 30 term sheet, along with every other term sheet exchanged by the parties, “was written by lawyers.” (Valani (JLI) Tr. 914). “All of the work” done to draft and revise term sheets, issues lists, and other deal documents was done by outside counsel for both parties—

Wachtell Lipton for Altria, and Pillsbury for JLI. (Garnick (Altria) Tr. 1744; *see also* Willard (Altria) Tr. 1403; Pritzker (JLI) Tr. 789-90).

1164. The negotiation principals discussed concepts, but it was outside counsel who reduced those concepts to writing in term sheets and letters. (Pritzker (JLI) Tr. 790).

1165. The antitrust clearance and noncompete provisions consumed a “[v]ery, very small” amount of the negotiation teams’ time. (Pritzker (JLI) Tr. 791). It was clear early on that “counsel was going to work together to figure out how that would work from a legal perspective. The fine-tuning on the business side was a minor part of the conversation at that time” (Pritzker (JLI) Tr. 791-92).

3. Core Disputes Centered On Money And Control Rights, Not The State Of Altria’s E-Vapor Products

a. Control And Voting Power

1166. The negotiations focused primarily on control rights, voting share, and deal structure, and not on the status of Altria’s existing e-vapor business. (Willard (Altria) Tr. 1218-19; Gifford (Altria) Tr. 2770-72). In addition to valuation issues and whether JLI would “split” its domestic and international business, “of key importance was actually the question of control. That was a threshold issue” (Pritzker (JLI) Tr. 792).

1167. “[JLI’s] philosophy, the main business intent of [JLI,] was to convert smokers. And many of those smokers used Altria cigarettes. So for Altria actually to control the company that was intending to convert its core customers was, to [JLI], creating a conflict” (PX7021 Pritzker (JLI) Dep. at 76).

1168. JLI did not want Altria to obtain a majority share because it was crucial to JLI that its customers and employees “understand that this was not a sellout to a cigarette company,” but rather was a partnership with Altria “to convert [cigarette] smokers . . . to [JLI’s] product,” in

line with the company’s mission. (Pritzker (JLI) Tr. 808-09). “[A]s long as JLI controlled and Altria didn’t, we could make that statement with confidence without anybody thinking that we were turning over the reins, putting the fox in control of the henhouse” (Pritzker (JLI) Tr. 809).

1169. But to Altria, JLI’s suggestion that Altria “give all of this money to get [a 45 percent] economic interest and . . . really only have 5 percent of the say” was “very appalling.” (Gifford (Altria) Tr. 2764-65). Additionally, Altria was dismayed by the lack of protection against dilution in JLI’s term sheets, because if it was going to lay out the funds to make a 45 percent investment, as contemplated in late July, it wanted to “make sure through time, regardless, whether there’s an IPO in the future or other stock sales, that [it had] the ability to maintain 45 percent ownership.” (Gifford (Altria) Tr. 2766).

1170. As Wappler explained, Altria was “seeking reasonable governance protections for an investment of this size and ownership stake.” (PX7028 Wappler (PWP) Dep. at 80).

b. Valuation And Payment Timing

1171. As of July 30, the parties were “sufficiently far apart [on valuation] that it wasn’t worth putting in a number” in the initial term sheet. (Pritzker (JLI) Tr. 816). Later term sheets also kept the price blank, and there was still a “significant bid/ask issue around price” in early August. (Pritzker (JLI) Tr. 828).

1172. Around the time of the August 18 meeting in San Francisco, “valuation was really becoming a problem.” (Pritzker (JLI) Tr. 845). Gifford agreed: The parties were not anywhere close to agreeing on price in August. (Gifford (Altria) Tr. 2771).

1173. As of August, the parties were discussing a \$12.6 billion payment for 45 percent of JLI’s U.S.-only business. The ultimate deal, while for a similar price, was for 35 percent of all of

JLI's business, both U.S. and international—representing a roughly \$8.5 billion increase from the August valuation. (Willard (Altria) Tr. 1193-94).

1174. Valuation was “one of the most important terms of the deal,” and there were still issues surrounding that term as late as December 16—four days before the investment was finalized. (Willard (Altria) Tr. 1464).

c. JLI's International Business

1175. Originally, Altria was interested in investing in JLI's domestic business only. “Even though [JLI] was one large company, which had their U.S. and their international business, we were trying to understand what we could do to strike a deal for the U.S. business.” (Gifford (Altria) Tr. 2762-63). There were “heavy conversations” regarding whether JLI could “spin off” the international business so Altria could invest in only the U.S. business. (Gifford (Altria) Tr. 2763).

1176. The international split was important to JLI because there were significant practical challenges with “hav[ing] a domestic company that was owned 45, 35 percent by Altria, and an international company that was owned 100 percent by JLI,” as this “created all kinds of issues about coordination, who would work for whom, who would the CEO be, who would people report to, who would own the intellectual property. All of this would create tremendous distraction and potentially decrease the value of international.” (Pritzker (JLI) Tr. 834-35). Over time, the practical implications that splitting the international business would have for dividing the IP and talent became a central issue for JLI. (Gifford (Altria) Tr. 2771).

1177. The international split also contributed to the parties' valuation challenges: “[I]n many respects the entire gap between what Altria was valuing the company at and what [JLI] might value it at was the international aspect of the company” (Pritzker (JLI) Tr. 835).

4. The Purpose Of The Noncompete Was To Protect JLI's Proprietary Information From Potential Misuse By Altria

1178. Both Altria and JLI witnesses consistently testified that the purpose of the noncompete was to protect JLI's proprietary information, not to remove Altria's e-vapor products from the market because JLI viewed those products as a competitive threat. (*See infra* ¶¶ 1181-88).

1179. JLI believes it has "the most cutting-edge technologies of any group in the world."
(Valani (JLI) Tr. 908).

1180. The services that JLI and Altria were contemplating as part of the transaction were "vitaly strategic in nature," and "there would be very large access to proprietary information."
(Valani (JLI) Tr. 908). "[T]he idea that an investor would have access to those technologies and processes and be competing with their own products at the same time [was] of major concern to [JLI]." (Valani (JLI) Tr. 908).

1181. The noncompete provision in the contract was JLI's way to deal with the risk that Altria could use JLI's proprietary information to develop its own e-vapor portfolio. As Burns explained, this noncompete was necessary because of the deal structure and access that Altria sought: Altria "want[ed] to have a significant stake in the company, have transparency on all the major strategic and operational priorities, which are undoubtedly going to be around IP roadmap and product development." (PX7009 Burns (JLI) IHT at 138). "If, in fact, they were a minority, passive investor, had no governance rights over the company, and no access to our confidential information, I remember the discussions being that we would be far less concerned about them continuing to compete head to head against us in the marketplace."
(PX7025 Burns (JLI) Dep. at 122-23).

1182. JLI “did not feel like it was appropriate, natural, normal under any circumstances for a party that had access to all of [its] proprietary information” to be able to use that information to compete against them. (Valani (JLI) Tr. 933-34).

1183. As Masoudi, JLI’s former general counsel, explained: “[O]ur concern was that, as a shareholder, [Altria] would have informational rights. If they were on the Board, they would have rights. And . . . through the Services Agreement, there would be an exchange of information between the companies and they would have more information about where our products were sold, what our shelf space strategy was, what our distribution strategy was, so it was all of those kinds of information as a shareholder, as board members and as providers of commercial services to us.” (PX7035 Masoudi (JLI) Dep. at 129-30).

1184. “[I]n the course of providing services to [JLI],” especially “regulatory services,” Altria would be privy to “technology, trade secrets, data, really everything that the company had.” (Pritzker (JLI) Tr. 821). “[G]iven the nature of the information that JLI was going to be providing to Altria, it was important that Altria would not be able to take that information and use it to either modify an existing product that they had, of course assuming that they were complying with FDA regulations, or to create a new product that could compete against JLI, in addition to, obviously, Altria was going to be 35 percent owner in the business and was going to [have] board representation upon antitrust clearance.” (PX7042 Danaher (JLI) Dep. at 153-54).

1185. Altria understood these concerns. As Gifford explained, “[JLI’s] biggest concern that they portrayed to us was that we would work around their IP, if we got knowledge of it, or learn their process and be able to develop around that and compete against them in the

marketplace.” (PX7040 Gifford (Altria) Dep. at 156-57). Gifford believed this concern was “reasonable.” (Gifford (Altria) Tr. 2774).

1186. According to Willard, JLI “thought that if we made an investment and joined their board and learned about all the inside information about what makes their business successful, they didn’t think it was appropriate for us to be able to then use that information against them.” (PX7031 Willard (Altria) Dep. at 229-30). To Willard, “that didn’t seem to be an unreasonable request on their part,” particularly because of the information Altria would obtain by providing services to JLI. (PX7031 Willard (Altria) Dep. at 230). “[O]ur intention in making an investment in [JLI], particularly given the lack of success we’ve had with our own products, was to work with [JLI] to help make their product more successful than it already was. We were going to provide some services and do some other things.” (PX7031 Willard (Altria) Dep. at 230; *see also* PX7031 Willard (Altria) Dep. at 229 (“[JLI’s] real interest in -- in this provision not to compete was really more related to the future. They didn’t want us to invest in JUUL, learn a whole lot about their product and what made it successful, and then, separate from our investment in JUUL, go out and create an e-vapor business based on their information, and that was a fairly reasonable expectation on their part.”)).

1187. Similarly, as Wappler testified, JLI “was concerned that if Altria made an investment in [JLI] and had access to the boardroom [and] assistance on regulatory items,” Altria “could use that against [JLI] over time.” (PX7028 Wappler (PWP) Dep. at 66). To Wappler, it “made a lot of sense” that JLI “would reasonably be concerned” about misuse of their information absent a noncompete agreement, “and there was some work being done to try to ensure both

parties were comfortable, again, within the scope of antitrust laws.” (PX7028 Wappler (PWP) Dep. at 66).

1188. The protections to JLI’s proprietary information provided by the noncompete facilitated the services agreement, which was “one of the most critical things [JLI] saw as a benefit to JLI of this deal.” (Pritzker (JLI) Tr. 760). This was particularly true of Altria’s regulatory services. “[T]he PMTA process was critical,” and “the services that Altria was offering in terms of assistance to the regulatory process was a key part of the deal.” (Pritzker (JLI) Tr. 759-60). “[G]etting PMTA approval is literally existential for the company. You cannot operate without PMTA approval Altria’s team was the best in the country,” and their regulatory services were “in[]valuable.” (Pritzker (JLI) Tr. 820).

5. The Noncompete Did Not Apply To Existing Products Prior To HSR Clearance

a. JLI Was Not Concerned About Altria’s Existing E-Vapor Products Remaining In The Market

1189. As Pritzker agreed, JLI included the carve-out because it “wanted [Altria] to keep [its] products on the market until they could be presented to the FTC for divestiture.” (Pritzker (JLI) Tr. 853).

1190. It was “clear to [JLI] that a transaction of this kind would be subject to antitrust clearance.” (Pritzker (JLI) Tr. 817). As Pritzker confirmed at trial, the carve-out reflected the expectation that Altria would “leave MarkTen and MarkTen Elite on the market . . . until the FTC t[old] them what to do with the product[s].” (Pritzker (JLI) Tr. 853). JLI was “perfectly happy” with this; “[they] were expecting it.” (Pritzker (JLI) Tr. 874). That is why JLI (like Altria) engaged outside counsel to draft the term sheets in a manner that was “above-board and [would] optimize the chance for a successful regulatory outcome.” (Pritzker (JLI) Tr.

784). JLI “was not worried about any of [Nu Mark’s] products over anybody else’s products.” (Pritzker (JLI) Tr. 794).

1191. Altria understood throughout the negotiations that it would be allowed to keep MarkTen and Elite on the market during the antitrust review process. (Gifford (Altria) Tr. 2774).

1192. Every draft term sheet and deal document exchanged by the parties included a carve-out exempting MarkTen cig-a-like and MarkTen Elite from the noncompete, as did the final agreement. (PX1300 (Altria) at 006 (July 30 term sheet); PX2570 (JLI) at 007 (Aug. 4 term sheet); PX2313 (JLI) at 017 (Aug. 9 term sheet); PX1432 (Altria) at 024 (Aug. 19 term sheet); PX1269 (Altria) at 008 (Oct. 15 term sheet); PX2503 (JLI) at 030 (Oct. 28 term sheet); RX0285 (Altria) at 024 (Oct. 30 term sheet); RX0838 (Altria) at 373 (Nov. 15 draft relationship agreement); RX1408 (JLI) at 026 (Nov. 29 draft relationship agreement); PX1276 (JLI) at 025-26 (Dec. 20 final relationship agreement)).

1193. Pritzker was only concerned about Altria remaining in the e-vapor marketplace “to the extent that they had proprietary information from JUUL. Otherwise, [he] had no concern about what they were going to do in the e-cigarette market in the future. It didn’t bother [him] at all.” (PX7021 Pritzker (JLI) Dep. at 151-52).

1194. Similarly, as Willard testified, “[t]he principals at [JLI] had never expressed a concern about the impact [Altria’s] existing products might have on JUUL’s performance in the marketplace.” While “JUUL was tremendously successful,” Altria’s products “were not very successful,” and Willard did not “think it was important to [JLI] that” Altria somehow removed these products from the market. “[I]t was not a point of concern for them.” (PX7031 Willard (Altria) Dep. at 279-80).

1195. During negotiations, JLI made clear it was “not concerned about [MarkTen] as an effective competitor,” but did not want Altria “to learn everything about [JLI’s] business and then take what [was] learned and . . . compete with [JLI] in a vehicle outside of [Altria’s] investment in JUUL.” (Willard (Altria) Tr. 1273).
1196. Pritzker thought that Altria’s ultimate decision to pull its Nu Mark products was “of no consequence” because he “didn’t think they were particularly competitive to Juul.” (PX7021 Pritzker (JLI) Dep. at 163-64).
1197. Masoudi recalls that “there may have been business discussions about how the Altria products were not particularly good competitors that [JLI] would be interested in having.” This assessment was based on the fact that these products “didn’t have very significant share of the market or consumer uptake.” (PX7035 Masoudi (JLI) Dep. at 56).
1198. Gifford testified that “[JLI was not] worried about the products [Nu Mark] had in the marketplace. What they were worried about was that [Altria] would make an investment, learn what [JLI] had unlocked with the consumer, and that [Altria] would walk around that and then go compete on our own.” (Gifford (Altria) Tr. 2773).
1199. In fact, as JLI witnesses testified, JLI was more concerned about potential competition from IQOS than from Nu Mark’s MarkTen products. (O’Hara (JLI) Tr. 529 (noting IQOS “had shown some strength in a couple of Asian markets, Japan and Korea,” and although O’Hara didn’t personally like the product and “thought that JUUL was better,” “[s]ome people liked IQOS . . . [and] IQOS was the kind of product that . . . [he] felt [JLI] should watch”); PX7033 O’Hara (JLI) Dep. at 112-13 (agreeing that PMI, through IQOS, is “a competitor to JUUL”); PX7032 Valani (JLI) Dep. at 139-40 (noting that PMI is “the leader in . . . harm reduction in the tobacco industry,” and “made a very bold push on IQOS with a lot

of success’’)). Similarly, Isaac Pritzker and Zachary Frankel’s notes from the initial July 30, 2017 meeting between Altria and JLI reflect that the parties discussed potential competition between JUUL and IQOS for converting adult smokers, but not MarkTen products. (RX1459 (JLI) at 001, 003-04 (Isaac Pritzker stating, regarding converting smokers, “[Altria] must feel they are well positioned enough to take advantage of the switch from combustible to other delivery systems. If IQOS does as well in US as it has in Japan, maybe that’s true,” but doubting current JUUL users would “churn” to IQOS; Frankel listing “HNB [heat-not-burn] category building” as a “thing[] [Altria] think[s] will matter”; Frankel stating, regarding IQOS rollout, “[Altria] thinks some consumers want the tobacco flavor --> prefer hnb + iqos’’)).

1200. The noncompete did not apply to IQOS because it is not an e-vapor product. (Pritzker (JLI) Tr. 824). Altria has continued to market that product. (Pritzker (JLI) Tr. 811).

1201. Pritzker never heard anyone suggest that the transaction would be a good opportunity to eliminate MarkTen Elite from competition. (Pritzker (JLI) Tr. 794).

1202. JLI never asked Altria to remove its products from the market prior to finalizing the transaction in order to be permitted to invest. (Gifford (Altria) Tr. 2774).

b. JLI Contemplated That Altria’s Treatment Of Altria’s Existing Products Would Be Undertaken Pursuant To FTC Review

1203. At every step of the negotiations, the parties intended—and the term sheets proposed—that any actions taken with respect to Altria’s existing products as a result of the transaction would be “subject to scrutiny by the FTC in the course of its regulatory review.” (Pritzker (JLI) Tr. 821-22). “It was clear that if we were going to pursue a transaction of this nature, that it would be closely scrutinized by regulatory agencies, and that antitrust counsel would have to be brought in at an early stage so that any conversations around control, board seats,

existing products, all of that would be structured in a way so as to be above-board and to optimize the chance for a successful regulatory outcome.” (Pritzker (JLI) Tr. 784).

1204. JLI’s request that Altria not compete against it after the transaction was “subject to complete and total regulatory sanction.” (Valani (JLI) Tr. 934). It was “extremely . . . important to [JLI] that [Altria] used the appropriate means” to achieve that outcome “per regulatory sanction.” (Valani (JLI) Tr. 911-12).

1205. Throughout negotiations, Altria understood that the FTC would review any transaction and determine whether Altria needed to divest its products or take any other concessionary measure. As a result, Altria recognized early on that to secure antitrust clearance, it would “potentially” need to “exit [its] own vapor business” by divesting or contributing its e-vapor assets, (PX1389 (Altria) at 001), and it “[tried] to structure the deal . . . to have flexibility” to comply with any FTC requirements, (Willard (Altria) Tr. 1400).

1206. Pritzker believed that Altria would keep MarkTen cig-a-like and Elite on the market until they could be contributed or divested pursuant to FTC review, and Altria never “push[ed] back on that notion.” (PX7021 Pritzker (JLI) Dep. at 199-200).

1207. As Masoudi testified, “as reflected in the term sheets, it was contemplated that divestiture [or] contribution would be part of the Federal Trade Commission review process and so of necessity, [Altria] would be continuing to operate [their e-vapor business] through . . . some period of time.” (PX7035 Masoudi (JLI) Dep. at 73).

c. JLI Assumed Divestiture Would Be The Most Likely Outcome Of Regulatory Review, Which Would Keep Altria’s Products In The Market

1208. Pritzker “expected the FTC would likely require a divestiture of existing products.” (Pritzker (JLI) Tr. 674). In Pritzker’s mind, divestiture would achieve the goal of Altria not

competing with JLI after receiving JLI's proprietary information, "and at the same time maintain those products in the marketplace." (PX7021 Pritzker (JLI) Dep. at 70).

1209. Pritzker's views on divestiture stemmed from his recollection of the merger between Reynolds and Lorillard—"two large cigarette companies"—where the companies were required to sell one or more brands, which were divested and remained in the market. (Pritzker (JLI) Tr. 787).

1210. Conversations about divestiture were "usually in relation to dealing with the antitrust approval process." (PX7040 Gifford (Altria) Dep. at 130). For antitrust issues, the parties "usually ha[d] counsel on both sides deal with that topic versus detailed discussion [between] the principals. [The principals] usually dealt with more of the business terms of the agreement." (PX7040 Gifford (Altria) Dep. at 130; *see also* PX7031 Willard (Altria) Dep. at 185-86 (resolving potential antitrust issues involving Altria's existing products "wasn't a topic that rose to the senior people who were negotiating the most important terms of the deal")).

1211. As Pritzker testified, "[t]here were conversations that suggested to [Pritzker] that [Altria was] willing to divest if necessary, and [he] believed that they would be. This was not a gating issue. . . . [I]t ha[d] not gotten to the point where there was any additional agreement required, as far as [he] was concerned, on that issue." (PX7021 Pritzker (JLI) Dep. at 133).

1212. Pritzker believed that the FTC would likely require divestiture even before the parties exchanged the first draft term sheet. On the evening of July 27, Peter Gross, JLI's investment banker from Goldman Sachs, emailed Pritzker: "I was under the impression that [Altria] would just shut down Mark 10. We don't want them thinking that they will receive any consideration for contributing it to newco." (PX2330 (JLI) at 001; *see also* Pritzker (JLI) Tr. 795 (identifying Gross)). During the trial, Complaint Counsel made much of this line in

isolation, (Pritzker (JLI) Tr. 702-03), while ignoring Pritzker’s response: “I think they may need to sell it,” (PX2330 (JLI) at 001). As Pritzker explained at trial, “by ‘sell it,’ what [he] was referring to was divestiture, . . . selling the product to another company so that those products would remain in the market.” (Pritzker (JLI) Tr. 680). This is consistent with Pritzker’s expectation that “the FTC would require a divestiture and that the product would then stay in the market with a different ownership,” and that Altria should be obligated to cooperate with the FTC in that regard. (Pritzker (JLI) Tr. 681; *see also supra* ¶¶ 1017, 1208).

1213. Complaint Counsel declined to call Gross at trial to testify about his email in PX2330. In his deposition, Gross explained that he had not heard from anyone, either at Altria or JLI, that Altria was planning to “shut down” MarkTen. (PX7043 Gross (Goldman Sachs) Dep. at 35). Similarly, as Pritzker explained at trial, he did not know where Gross had “got[ten] any of these ideas”; no one, including Gross, had ever told Pritzker that he or she had heard Altria would discontinue any products. (Pritzker (JLI) Tr. 796).

1214. Gross’s focus “was on just the valuation.” (PX7043 Gross (Goldman Sachs) Dep. at 32). Because Gross had “heard . . . that [Altria’s e-vapor] products, including MarkTen, were inferior products that had no traction in the market,” (PX7043 Gross (Goldman Sachs) Dep. at 36), “[w]hat [he] wanted to avoid was Altria believing that they could” pay a lower price in exchange for contributing their “inferior product[s]” to JLI, (PX7043 Gross (Goldman Sachs) Dep. at 38, 36). Gross “assumed [Altria] attributed no value to MarkTen.” (PX7043 Gross (Goldman Sachs) Dep. at 34).

XI. FOLLOWING THE INVESTMENT, ALTRIA PROVIDED CRITICAL REGULATORY SERVICES TO JLI

A. From The Beginning Of The Investment, Altria And JLI Contemplated That Altria Could Provide Services Assisting JLI In Its Regulatory Applications

1215. At the same time that Altria made its 35 percent investment in JLI on December 20, 2018, the parties entered into a separate services agreement. (PX1275 (JLI)). This agreement contemplated that Altria would provide enumerated services to JLI at JLI's request. (PX1275 (JLI) at 007-08).

1216. The services agreement specified "Government and Regulatory Affairs" as one of the enumerated categories of services. (PX1275 (JLI) at 028).

1217. Among other things, the services agreement contemplated that Altria, "[a]s requested," would "provide legal, project management[,] and other support for advancing [JLI's] products through the PMTA, MRTP and other regulatory (including respect to the FDA) authorization or approval processes on behalf of [JLI], including, after July 2020, to the extent [Altria] has available capacity, providing histologic data, testing and analytical support and sourcing for product evaluation." (PX1275 (JLI) at 028).

1218. The services agreement also contemplated that Altria, "[a]s requested," would "provide leadership, organization, coordination and support in the execution of FDA-related compliance, regulatory reporting and engagement activities." (PX1275 (JLI) at 028).

1219. JLI was interested in Altria's services because it knew "Altria ha[d] resources and knowledge" that would help JLI to file a timely, higher quality PMTA. (RX1522 (JLI) at 001;

see also [REDACTED]

[REDACTED]

[REDACTED]; RX0678 (Altria) at 001 ("[JLI] want[s] to take advantage of our learnings and capabilities, especially as they start pulling together their PMTA.")).

1220. As Pritzker testified at trial, the possibility of Altria providing regulatory services was discussed from the outset of the negotiations and “definitely got [JLI’s] attention.” (Pritzker (JLI) Tr. 776; *see also* Pritzker (JLI) Tr. 759-60, 820; PX7021 Pritzker (JLI) Dep. at 161 (Altria’s regulatory capabilities were “highly desirable”); *see supra* Part III.A.4, III.A.7). Pritzker testified that he ultimately voted in favor of the Altria-JLI transaction in part because Altria’s services would be “extremely helpful,” (Pritzker (JLI) Tr. 886), and, of all the services to be provided, the regulatory services were “a key part of the deal,” and “one of the most critical” components from JLI’s perspective, (Pritzker (JLI) Tr. 759-60, 820, 871-72).

1221. The provision of regulatory services was critical to JLI because as Pritzker explained, “getting PMTA approval is literally existential for the company. You cannot operate without PMTA approval, and it was pending, and it was the company’s view that as good a team that JUUL had put together, that Altria’s team was the best in the country, and that their willingness to provide services through that team was [invaluable].” (Pritzker (JLI) Tr. 820; *see also* Murillo (Altria/JLI) Tr. 3009).

1222. The PMTA’s importance was “existential” because if JLI’s PMTA were denied by FDA, the company would “have to exit the marketplace.” (PX7009 Burns (JLI) IHT at 74; *see also*

[REDACTED]

[REDACTED]). At that point, JLI “essentially would have no business.” (PX7024 Crosthwaite (Altria/JLI) Dep. at 285-86).

1223. JLI had relatively little experience in regulatory matters, compared to Altria. (Murillo (Altria/JLI) Tr. 2973 (noting that while Altria “had been through, by this point, hundreds, if not thousands of applications to the Center for Tobacco Products,” JLI “had been through

none”); PX7021 Pritzker (JLI) Dep. at 161 (describing JLI as a “neophyte[.]” with respect to the regulatory process)).

1224. By contrast, Altria had “set up a fairly effective regulatory process and had lots of experience on the science and the regulatory aspects of these products.” (Murillo (Altria/JLI) Tr. 2983-84). Altria could provide JLI with “[e]quipment and methodologies and systems and . . . 20 years of working with FDA matters.” (Murillo (Altria/JLI) Tr. 3073).

1225. Altria had “dozens of experts” with deep regulatory and scientific expertise. (Murillo (Altria/JLI) Tr. 2973, 2980-81). As Murillo testified, having these “very specific expertises” was unique to Altria: “A lot of these folks, for example, had developed the methods in chemistry, right? So it’s one thing to hire a lab, but some of the folks on the chemistry group [at Altria] had invented any number of methods to actually assess products.” (Murillo (Altria/JLI) Tr. 2975).

1226. Critically, Altria had substantial experience with regulatory applications: By the spring of 2019, Altria had worked on “well over a thousand” nonreduced-risk product applications, and dozens of different reduced-risk products in preparation for FDA applications, including oral products. (Murillo (Altria/JLI) Tr. 2909-10; *see also* Murillo (Altria/JLI) Tr. 2973; PX7024 Crosthwaite (Altria/JLI) Dep. at 287 (“[G]iven their experience with the [C]enter for [T]obacco [P]roducts, PMTA applications . . . [Altria was] uniquely positioned[.] as a service provider to JLI.”)).

1227. As Gardner explained, “Altria has been working with the agency -- ‘the agency’ being FDA -- since . . . tobacco products became regulated by the agency[;] we had been working with the agency since then, and we had hundreds, literally hundreds of product applications

either authorized or, you know, in the process of review at the agency.” (Gardner (Altria) Tr. 2609).

1228. In particular, Altria had “a much broader scope [of experience] than other manufacturers that ha[d] pursued [the PMTA] pathway.” (PX7017 Magness (Altria) Dep. at 90; *see also* Jupe (Altria) Tr. 2221-22 (describing Altria’s broad and considerable PMTA experience and the “onerous” PMTA standard)). For example, Altria had assisted PMI’s PMTA for IQOS. (Garnick (Altria) Tr. 1687-88; King (PMI) Tr. 2524; Murillo (Altria/JLI) Tr. 2908; PX7017 Magness (Altria) Dep. at 90; PX7027 Murillo (Altria/JLI) Dep. at 64). Altria had also filed its own PMTA for Verve. (Garnick (Altria) Tr. 1777-78).

1229. Through its work on these other applications, Altria was “constantly learning something about how [FDA] wanted things, their process, their -- the documentation they were looking for.” (Murillo (Altria/JLI) Tr. 2910-11). Altria learned FDA’s “scientific expectations, as well as which science and study designs were necessary to answer questions that they had.” (Gardner (Altria) Tr. 2610).

1230. Even third parties recognized the value of Altria’s regulatory experience: Sheetz’s representative acknowledged at trial that Altria was “good at meeting the FDA rules and achieving high standards in doing so” and any assistance it could provide JUUL in meeting those rules “would be beneficial.” (Crozier (Sheetz) Tr. 1561). [REDACTED]
[REDACTED]
[REDACTED]; *see also* PX7020 King (PMI) Dep. at 65 (agreeing that even for a company of PMI’s size and stature, with a successful PMTA under

its belt, Altria's assistance can "lead to a higher likelihood of success and a faster likelihood of success").

B. Altria Provided Substantial Regulatory Services To JLI, Which Required Access To Confidential Information

1231. Altria and JLI began working on providing regulatory services "almost immediately" after the transaction. (Murillo (Altria/JLI) Tr. 2970-71). In January 2019, Murillo (then Senior Vice President in Regulatory Affairs at Altria) "present[ed]" to the JLI team on "on some of [Altria's] regulatory capabilities," including the areas in which Altria had particular expertise. (Murillo (Altria/JLI) Tr. 2971-73; *see also* RX2055 (Altria) at 008 (highlighting areas where Altria could be of particular assistance to JLI)). Murillo presented the same overview that he had used with Altria executives when reviewing the PMTA requirements as applied to Altria's products. (Murillo (Altria/JLI) Tr. 2971-72).

1232. Murillo testified at trial that JLI seemed excited to get Altria's regulatory expertise. He recalled that a number of people, including JLI Board members, approached him at a reception after the presentation to talk about Altria's capabilities and when it could begin work. (Murillo (Altria/JLI) Tr. 2975-76 ("[Murillo] was just surrounded by people asking [him] . . . when [Altria] could start . . .")).

1233. Accordingly, in late February 2019, Altria and JLI entered into an initial consultation agreement through which Altria would provide regulatory services for JLI's PMTA. (RX1288 (Altria) (Statement of Work #7: outlining regulatory services to run from February to August 2019); *see also* RX0980 (Altria) (Statement of Work #12: superseding Statement of Work #7 as of July 26, 2019)).

1234. The parties then met in March for a day-long meeting to review the work that JLI was doing for the PMTA. (Murillo (Altria/JLI) Tr. 2984; *see also* RX0702 (Altria) at 001). For

this meeting, Altria sent its “deepest experts in the different areas” who, by necessity, “would have to see confidential information of JLI.” (Murillo (Altria/JLI) Tr. 2980-82).

1235. After the meeting, JLI reflected that “Altria has resources and knowledge that will greatly enhance our probability of success.” (RX1522 (JLI) at 001).

1236. Ultimately, Altria’s regulatory team assisted JLI with essentially all aspects of the PMTA for JUUL. (Gardner (Altria) Tr. 2613, 2618 (discussing RX0630 (Altria) at 005)).

1237. Altria employees were responsible for much of the application’s chemistry section, which included stability and in vitro testing and analysis of HPHC levels and the ingredients in JUUL’s e-liquid formulation. (See Murillo (Altria/JLI) Tr. 3001, 3003-05; RX0811 (JLI) at 005, 008 (listing workstreams assigned to Altria scientists); RX0967 (Altria) at 004 (describing Dr. Gardner’s oversight of “ALCS deliverables in support of JUUL PMTA”); RX0966 (Altria) at 003-04 (identifying eight areas of project-specific work to fill critical gaps in JLI’s application)).

1238. Dr. Gardner summarized Altria’s provision of regulatory services at trial, explaining each of the statements of work according to which Altria performed services for JLI following the investment. (Gardner (Altria) Tr. 2623-29, 2633-35; see also RX1288 (Altria) (Statement of Work #7); RX0980 (Altria) (Statement of Work #12); PX2209 (JLI) (Statement of Work #15); PX4066 (Altria) (Statement of Work #19); PX4067 (Altria) (Statement of Work #20); PX4068 (Altria) (Statement of Work #21); PX4069 (Altria) (Statement of Work #22); RX0985 (Altria) (Statement of Work #23); PX2221 (JLI) (Statement of Work #25); [REDACTED] [REDACTED]).

1239. Dr. Gardner testified:

- (a) Altria helped JLI analyze the chemical composition of the aerosol produced by the JUUL device and pods. (Gardner (Altria) Tr. 2621-23).
- (b) Altria helped JLI with in vitro toxicology studies of the aerosol produced by the JUUL device and pods. (Gardner (Altria) Tr. 2624 -25).
- (c) Altria helped JLI with in vivo or animal studies of the aerosol produced by the JUUL device and pods. (Gardner (Altria) Tr. 2625-26).
- (d) Altria helped JLI with studies of second- and third-hand exposure to the aerosol produced by the JUUL device and pods. (Gardner (Altria) Tr. 2626).
- (e) Altria helped JLI with consumer behavior studies for the PMTA application. (Gardner (Altria) Tr. 2625).
- (f) Altria helped JLI with population modeling of potential harm or impact associated with a PMTA being granted. (Gardner (Altria) Tr. 2627).
- (g) Altria helped JLI with compiling scientific literature reviews for the PMTA application. (Gardner (Altria) Tr. 2627-28).

1240. Murillo also described at trial several areas of support where Altria provided regulatory services to JLI. (Murillo (Altria/JLI) Tr. 3003-06; *see also* [REDACTED])

[REDACTED]):

- (a) Altria “did a lot of the chemistry work in support of the application, particularly in the area of stability testing, and within that, especially in the area of nontargeted analysis, looking for the formation of different compounds over time with respect to the products. This was sort of an important aspect of the application, and luckily, Altria had the expertise and people ready to devote to that.” (Murillo (Altria/JLI) Tr. 3003).

- (b) Altria helped with gas chromatograph and mass spectrometry fingerprinting, which is a chemical analysis to characterize everything that is coming out of an aerosol. Anyone can purchase the relevant machines but “Altria had the methods and the personnel and -- particularly with respect to this type of analysis that [JLI] needed.” (Murillo (Altria/JLI) Tr. 3004).
- (c) “Altria provided extensive support in the toxicology area with respect to things like air liquid interface analysis, supporting the risk assessment for ingredients, both the qualitative risk assessment and the quantitative risk assessment, and some of the in vitro and in vivo interpretation.” (Murillo (Altria/JLI) Tr. 3005).
- (d) JLI “had not done perception studies . . . for some of the labeling. And so those are studies that Altria had done any number of times before, they had expertise in, and they were able to deploy those very quickly.” (Murillo (Altria/JLI) Tr. 3006).
- (e) “On the risks and benefits to the population, in addition to helping conceptualize some of the argumentation in the framework, [JLI] used the Altria population model, which was a validated age-based model that had been developed by Altria scientists with external public health scientists as well over the years, and [JLI was] able to essentially plug in [its] data to that model to demonstrate the population health impact of the product being marketed as suggested by FDA guidance.” (Murillo (Altria/JLI) Tr. 3006).

1241. Murillo also explained that Altria assisted JLI with bridging, which allows an e-vapor manufacturer to use data generated from testing on one product for the PMTA application of another, “sufficiently similar” product. (Murillo (Altria/JLI) Tr. 3004). “Altria had

developed the concept of bridging” and had “particular expertise that was deployed with respect to bridging enforceability testing.” (PX7027 Murillo (Altria/JLI) Dep. at 74-75).

1242. Bridging “was an important way to accelerate some of the work.” (Murillo (Altria/JLI) Tr. 3004). [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

1243. Providing the PMTA assistance to JLI that is described above required Altria employees to have access to JLI’s confidential information. (Murillo (Altria/JLI) Tr. 2981-82, 3006-07; Gardner (Altria) Tr. 2618-19).

1244. As a general matter, PMTAs contain confidential information and are not disclosed to the public. (Gardner (Altria) Tr. 2619). “The PMTA process is meant to be a private process between the agency and the applicant.” (Murillo (Altria/JLI) Tr. 3018).

1245. In addition, some PMTA work required Altria scientists to access trade secret information regarding the JUUL product. (Gardner (Altria) Tr. 2619).

1246. As Murillo recalled at trial, the “confidential sensitive information” that Altria received from JLI fell into two buckets: “One was sort of the most sensitive product composition information about the product, because it’s hard to do the chemistry and to do the toxicology and to comment on product design and control without having detailed information about every component and ingredient and so forth. The other bucket . . . was in terms of the forward-looking product strategy, marketing strategy, et cetera, which was super important for

purposes of the narrative and also to conceptualize the population health impact. And for that, it was absolutely necessary that [JLI's] colleagues at Altria have the information about how [JLI was] planning to market the product and future products.” (Murillo (Altria/JLI) Tr. 3007).

C. Altria's Services Enabled JLI To File A Timely PMTA And Substantially Increased The Quality Of That PMTA

1247. With the help of Altria's regulatory services, JLI was able to submit a strong PMTA application to FDA. (Gardner (Altria) Tr. 2639). JLI filed timely PMTAs for its JUUL products in July 2020. (RX1950 (JLI)).

1248. This effort cost JLI over \$100 million. (Murillo (Altria/JLI) Tr. 3074).

1249. As explained below, Altria's regulatory services assisted in both the quality of the PMTA filing and the ability to file the application on time:

1250. **Quality.** Altria's assistance “[a]bsolutely” “had an effect on the quality of the JLI PMTA.” (Murillo (Altria/JLI) Tr. 3009). “[T]heir help with the narrative alone, their ability to generate data quickly, their experience in generating such data and in -- you know, the hundreds of applications that Altria has worked on was very valuable.” (Murillo (Altria/JLI) Tr. 3010; *see also* Murillo (Altria/JLI) Tr. 3009 (agreeing that JLI could “[a]bsolutely not” “have made its PMTA filing without Altria's assistance”); PX7010 Gifford (Altria) IHT at 126 (Altria initially estimated that it could increase JLI's probability of success on its PMTA from 50/50 to 70 percent); PX7010 Gifford (Altria) IHT at 51-52 (explaining that facility with addressing FDA's questions during the PMTA process “builds higher probability of success . . . and also shorten[s] the window, if you will, and make[s] it more efficient versus sometimes conducting studies that the FDA doesn't need”)).

1251. As Murillo explained, Altria had “read every bit of word that the FDA put out” about PMTAs, looked to a number of different public health concepts, and used its “best judgment based on what [it] thought would be the key components” to develop a “theory and a plan or framework . . . for what it would take to get a PMTA.” (Murillo (Altria/JLI) Tr. 2908-10). When it then came to the JUUL PMTA, Altria was able to “leverage all of the work that [it] had done on the vapor applications at Altria to that point. So a lot of the -- for example, the outlines, the detailed flow charts, a lot of the analysis that [it] had accomplished for, say, MarkTen cigalike” could be used for the benefit of the JUUL PMTA. (Murillo (Altria/JLI) Tr. 3024).

1252. Altria’s regulatory services were particularly important because JLI faced “hurdles” in preparing its PMTA. (Gardner (Altria) Tr. 2588-89 (JLI was “facing some hurdles” in the PMTA process); *see also* [REDACTED]).

1253. By April 2019, Altria had “concerns” about the PMTA plan that JLI had developed on its own. (Gardner (Altria) Tr. 2629; *see also* [REDACTED]).

1254. An internal Altria memo circulated just before an April 2019 initial meeting between Altria and JLI noted that [REDACTED].

1255. Accordingly, Altria conducted a complete PMTA gap analysis, and came to the April 2019 meeting with a proposal to help fill the gaps it had identified: “[T]here were very

specific things that [Altria] thought were missing or could be missing,” including a “big picture story of why this product is appropriate for the protection of the public health.” (Murillo (Altria/JLI) Tr. 2985; *see also* Gardner (Altria) Tr. 2633 (explaining JLI had not devised a narrative to “explain the data” or present the “overall story”). JLI had “little to no science” supporting a number of its applications, had not undertaken an “assessment of the scientific literature,” which is required and “specifically called out in the PMTA rules and draft guidances and final guidances,” and had not identified a viable drafter for the applications, employing “an outside contractor” that Altria previously “determined . . . [was] incapable of doing scientific writing for a tobacco product application.” (Gardner (Altria) Tr. 2631-32, 2634-36; *see also* PX7007 Murillo (Altria/JLI) IHT at 77-78 (“I [thought] they needed help in every aspect of the application . . . starting with program management, the program management for the application was unclear. . . . The chemistry section needed a lot of support. And in fact, they were trying to determine how to do various types of [stability] studies. . . . They needed a lot of help in the toxicology areas in terms of understanding how to do or what to do for the risk assessment They -- their theory of how to do the actual use and behavioral work was still in development. . . . [I]n terms of perceptions, they hadn’t done any work, at least of the type that, you know I was thinking was necessary in that area[.] . . . They really had not gotten very far in the population effects area, certainly in terms of the modeling So those are some of the areas that come to mind. There were others.”);

[REDACTED]

[REDACTED]

[REDACTED]; PX1102 (Altria) at 001 (“JUUL is currently working to address gaps in their PMTA strategies and plans.”)).

1256. **Timeliness.** Altria’s assistance also was critical to ensuring JLI met FDA’s PMTA deadline, which was accelerated. JLI originally had been preparing its PMTA under the assumption that it would be due in August 2022, (Gardner (Altria) Tr. 2632; *see also* [REDACTED]), but the deadline was ultimately advanced to September 2020, (*see supra* Part I.D.5).

1257. The accelerated PMTA deadline “caught [JLI] a little bit flat footed.” (PX7011 Valani (JLI) IHT at 153).

1258. At the time the PMTA deadline was moved up, JLI’s internal PMTA workstream tracker showed that, assuming a May 2020 deadline, it was at “[r]isk of missing [the] deadline” in half of its PMTA workstreams. (RX0964 (Altria) at 007-08).

1259. [REDACTED]
[REDACTED]

1260. Altria scrambled to assist JLI with the accelerated PMTA deadlines. (RX0948 (Altria) at 001). Altria provided to JLI one of its top program directors as the full-time program lead and offered the full-time services of Dr. Gardner. (RX0966 (Altria) at 002). Altria also contributed a dozen scientists on a full-time basis and several dozen more on a part-time basis. (Gardner (Altria) Tr. 2639; *see also* PX4122 (Altria) at 005 (“43 ALCS employees allocated to supporting JUUL PMTA activities.”)). A new statement of work was signed to increase the number of people at Altria providing services to JLI. (Gardner (Altria) Tr. 2624).

1261. Altria ultimately devised strategies to help JLI substantially accelerate its application. (Gardner (Altria) Tr. 2634). Altria drafted the chemistry stability and bridging sections of JLI’s PMTA, and oversaw countless scientific studies. (Gardner (Altria) Tr. 2621-28, 2635; Murillo (Altria/JLI) Tr. 3001, 3003-05). In addition, Altria’s experts joined JLI and “hole[d]

up at [JLI's] offices here in Washington" in a "PMTA pod." (Murillo (Altria/JLI) Tr. 3008).
Altria's personnel could not have done this work without seeing JLI's confidential information. (Murillo (Altria/JLI) Tr. 2981-82).

1262. The testimony was consistent that JLI could not have made its PMTA filing on time without Altria's regulatory services. (Gardner (Altria) Tr. 2638-39; PX7008 Cullen (JLI) IHT at 129 ("I'm not aware of any other way that we could meaningfully accelerate the timeline as quickly as having the option to engage Altria on these services."); PX7024 Crosthwaite (Altria/JLI) Dep. at 287 (explaining Altria's services were "instrumental for [JLI]")).

1263. JLI estimates that Altria's services "sav[ed] 17 to 28 months on [the PMTA] process." (PX7008 Cullen (JLI) IHT at 123).

1264. In sum, the value of ensuring that JLI could "continue operating in the United States" by submitting a strong and timely PMTA "would be very difficult to overstate." (PX7008 Cullen (JLI) IHT at 123). The value of such assistance was "substantial," (PX7008 Cullen (JLI) IHT at 132-33), [REDACTED]

[REDACTED]

D. Altria Continues To Assist JLI With Its PMTA Work

1265. Today, JLI is "deep in the process of [FDA's] scientific review" of its PMTA and is "in back-and-forth with the FDA as they have questions." (Murillo (Altria/JLI) Tr. 3008).

1266. Altria continues to provide JLI with regulatory services to assist with this and other applications. For example, Altria is helping JLI pursue a Modified Risk Tobacco Product Application, which if successful would allow JLI to make reduced exposure claims about its products. (Murillo (Altria/JLI) Tr. 3010).

1267. Altria also is helping JLI [REDACTED]
[REDACTED]

1268. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

E. There Were No Less-Restrictive Alternatives

1269. Complaint Counsel’s attempts to offer less-restrictive alternatives that would have still allowed JLI to submit PMTAs on time and of the quality that it ultimately submitted are refuted by the record, as explained below. (*See infra* Part XI.E.1-4).

1. Firewalls Are Not Feasible

1270. Requiring Altria to cordon off employees providing regulatory services to JLI would have disincentivized Altria from putting its best people on the job—undermining the value of the services. As a result, the “dozens and dozens,” (Murillo (Altria/JLI) Tr. 3073), of Altria employees needed to provide regulatory assistance to JLI could not simply be walled off from e-vapor products at Altria, (Murillo (Altria/JLI) Tr. 2982 (“I don’t see how we could do that.”)). They were too critical to both companies’ work to be isolated, because they had “very unique expertise” built over “almost ten years [of working] on these issues.” (Murillo (Altria/JLI) Tr. 2982; *see also* Murillo (Altria/JLI) Tr. 2983-84 (describing Altria’s regulatory expertise)).

2. NDAs Provide Inadequate Safeguards

1271. The two companies had confidentiality agreements in place, but these were insufficient to protect JLI's confidential information and trade secrets, which to JLI were of the utmost importance. (Murillo (Altria/JLI) Tr. 3007-08).
1272. JLI's tremendous success did not come overnight; to the contrary, it had taken JLI several years to develop internally its JUUL products. (Pritzker (JLI) Tr. 771). It was precisely because JLI was "one of the few groups in the industry to design [its] own products" and had "the most cutting-edge technologies of any group in the world" that its "proprietary information" was so "highly sensitive." (Valani (JLI) Tr. 908).
1273. Altria, for its part, understood that JLI's intellectual property was what "made them the number one player in the e-vapor market," and thus was of critical importance for JLI to protect. (Willard (Altria) Tr. 1273; *see also* Pritzker (JLI) Tr. 821 ("[I]n the course of providing services to JUUL, especially . . . the regulatory services, . . . Altria would be privy to . . . technology, trade secrets, data, really everything that the company had that might actually work to the detriment of JUUL if Altria would actually apply that information to their own product portfolio.")).
1274. A nondisclosure agreement would have been a nonstarter for JLI, as it would do nothing to prevent Altria from using JLI's proprietary technology to design its own e-vapor products in the event of a breach. (Valani (JLI) Tr. 912-13 ("[Altria] would definitely have a lot of access to proprietary -- you know, very specific information . . . which could be used to develop products that would . . . benefit from that information, which didn't seem like a rational thing to us, particularly if they were providing the bulk of services, including very specialized regulatory services to JUUL."); PX7032 Valani (JLI) Dep. at 54 ("Well, if they were developing products, if they had access to all of the JLI . . . product roadmap, technology

roadmap, and they were developing markets and they were a major shareholder of JLI and supporting JLI with . . . services, then it’s kind of a risky position for JLI to be in”); PX7021 Pritzker (JLI) Dep. at 82-83 (“[I]f there was going to be a -- some kind of minority investment by Altria in Juul, it would give them access to data and information that was proprietary to Juul that it was not going to be viable for them to be spending their energies on other e-cigarette products or to use information they were getting from Juul to be able to enhance their product or develop new products that would be injurious to Juul’s business.”); PX7040 Gifford (Altria) Dep. at 156 (“Their biggest concern that they portrayed to us was that we would work around their IP, if we got knowledge of it, or learn their process and be able to develop around that and compete against them in the marketplace.”)).

3. JLI Hiring Away Altria’s Top Employees Was No Substitute For Altria’s Full Suite Of Regulatory Services

1275. JLI could not have hired everyone it needed with relevant PMTA experience from Altria.

(Murillo (Altria/JLI) Tr. 3073).

1276. [REDACTED]

1277. The services Altria provided were holistic consulting services that involved many people across the company, so JLI would need to hire “dozens and dozens of people, which would pretty much eviscerate, among other things, the chemistry and toxicology groups.” (Murillo

(Altria/JLI) Tr. 3073). And Altria had “unique” “[e]quipment and methodologies and systems and . . . collective experience” that could not be obtained from former employees. (Murillo (Altria/JLI) Tr. 3073).

4. Third-Party Contractors Lack The Necessary Expertise And Resources

1278. Nor could JLI “have replaced Altria’s experience and specialized know-how with consultants,” as Murillo agreed at trial. (Murillo (Altria/JLI) Tr. 3073). Complaint Counsel’s suggestion that JLI could have obtained equivalent services through other means, like using third parties, is “completely unrealistic.” (Murillo (Altria/JLI) Tr. 3009).

1279. As Murillo testified, “it’s one thing to hire a lab, but some of the folks on the chemistry group [at Altria] had invented any number of methods to actually assess products.” (Murillo (Altria/JLI) Tr. 2975). Altria’s gas chromatography/mass spectrometry methods and equipment, for example, could not have been provided by any third-party commercial laboratory. (Gardner (Altria) Tr. 2621-23; PX4069 (Altria) at 003).

1280. And beyond specific scientific methods and equipment, Gardner agreed that Altria’s “awareness of what it is like to go through a regulatory process as a company being criticized by the public health community” was unique, specialized expertise that no consultant could ever replicate. (Gardner (Altria) Tr. 2638).

1281. For example, the PMTA could not have been written as well by any contractor because “[i]t’s all about . . . adequately interpreting the information and telling it in a way that . . . a nonexpert -- as the FDA is not an expert on the JUUL product -- it’s being able to communicate the complex scientific information in a way that makes it clear that the product is appropriate for the protection of public health. Contractors with little to no experience in

the tobacco industry, we had learned that they -- they were incapable, especially under tight deadlines.” (Gardner (Altria) Tr. 2635-36).

1282. [REDACTED]

1283. Indeed, both Altria and JLI had learned that there were no third-party contractors available who could accomplish the necessary PMTA work. Long before it began providing services to JLI, Altria had “combed the world” to find third-party laboratories that were qualified to perform e-vapor product analyses, but ultimately was unsuccessful and had to expand its internal capacity so that it could run the large volume of tests required for a PMTA. (PX7017 Magness (Altria) Dep. at 72-75, 80). [REDACTED]

XII. FOLLOWING THE INVESTMENT, COMPETITION IN THE E-VAPOR MARKETPLACE FLOURISHED

1284. [REDACTED]

[REDACTED], and significant swings in the market shares of the remaining manufacturers, (PX7012 Eldridge (ITG Brands) Dep. at 110-14).

A. Two New Entrants—NJOY Ace And Vuse Alto—Used Steep Discounting To Drive Trial And Steal Market Share Away From JUUL

1285. In the second half of 2018, NJOY and Reynolds both commercialized pod-based products that—unlike Elite—used nicotine salts. (RX1456 (JLI) at 001-02; O’Hara (JLI) Tr. 633-34; *see also* [REDACTED]). And, recognizing that they each had a product capable

of satisfying both cigarette smokers and existing JUUL customers, the two companies engaged in what amounted to a “price war” to incentivize trial. (RX1061 (PMI) at 010; *see also infra* Part XII.A.1-2).

1286. Both of those products—NJOY’s Ace and Reynolds’s Vuse Alto—outperformed Elite’s sales during their first eight months on the market, (RX1217 Murphy Report ¶ 165), and succeeded in stealing share from JUUL, (RX1217 Murphy Report ¶ 106, Fig. VI.2).

1. NJOY Launched A 99-Cent Promotion

1287. [REDACTED]

1288. [REDACTED]
[REDACTED]
[REDACTED]; *see also* Farrell (NJOY) Tr. 362

(confirming all NJOY products currently on the market contain nicotine salts)).

1289. These attributes indicated to other e-vapor manufacturers that NJOY was “targeting the dominant player in the space,” JUUL. (PX7020 King (PMI) Dep. at 193).

1290. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED] A JUUL device, by comparison, retailed at the time for approximately \$34.99. (RX1217 Murphy Report ¶ 91, Fig. V.11 (showing JUUL device price

in January 2019 as approximately \$35); RX1605 (JLI) at 001 (listing the MSRP of a JUUL device as \$34.99)).

1291. [REDACTED]

[REDACTED] Six months into the promotion, in June 2019, JLI’s analysis showed that NJOY Ace was capturing 66 percent of device share at Circle K, almost three-quarters of which came “at JUUL’s expense.” (PX2602 (JLI) at 019).

1292. By September of 2019, roughly ten months after its entry, NJOY had captured 22.7 percent of total volume share. (RX1061 (PMI) at 010). According to detailed market analysis performed by Professor Murphy, using the same projected IRI sales data relied on by manufacturers, NJOY’s Ace device sales were approximately 80 times higher at the peak of its promotion (September 2019) than when it launched in 2018, increasing from roughly 2,500 devices per week to more than 200,000 devices per week. (RX1217 Murphy Report ¶ 70; *see also* RX1217 Murphy Report ¶ 12 n.17 (“Projected IRI data is an aggregated view of more than 80,000 sample stores out of a universe of more than 350,000 stores that sell tobacco products. IRI projects total retail sales based on this representative sample of stores.”); O’Hara (JLI) Tr. 538-39, 629 (discussing use of IRI data); Begley (Altria) Tr. 1108 (same); Gifford (Altria) Tr. 2732-33, 2854-55 (same); Robbins (JLI) Tr. 3243-44 (same)).

1293. [REDACTED]

[REDACTED]; *see also* PX7033 O’Hara (JLI) Dep. at 199 (explaining that NJOY has “seen their pod sales . . . increase as a result of their increased device sales”)).

1294. Market data shows that cartridge sales for Ace increased “from about 1,600 units in weekly cartridge volume” in 2018 “to about 1.16 million units in weekly cartridge volume starting in August 2019.” (RX1217 Murphy Report ¶ 70). Neither Dr. Rothman nor Complaint Counsel dispute this evidence. (PX5001 Rothman Rebuttal at ¶ 62; CC Pretrial Br. 68).

1295. In addition, NJOY’s launches at new retailers were “very positive and were in line with [NJOY’s] strategy at the time.” (PX7029 Farrell (NJOY) Dep. at 69-70; *see also* [REDACTED]

1296. Ace’s performance during this early launch phase also far outstripped that of MarkTen Elite. Comparing the two products’ performance at the 33-week mark, right before Elite was discontinued, Elite’s sales were “only 21 percent of NJOY’s sales.” (RX1217 Murphy Report ¶ 165).

1297. By the summer of 2019, NJOY’s deep discounts on Ace had put JUUL back on its heels. In an August 2019 email, Jared Fix, JLI’s Chief Strategy Officer, observed that, due to NJOY’s discounting, JLI was “facing an aggressive competitive threat for the first time.” (RX1547 (JLI) at 002).

1298. Kevin Cooke, JLI’s Senior Vice President of U.S. Commercial, responded with his analysis: NJOY’s promotion, he said, was the “biggest disruptor of the growth of [JLI’s] business.” In “[a]ccounts that have NJOY, our business on avg is up about 1% in the last 3 months. . . . Accounts that don’t have NJOY my biz is up 21% on average.” “We need to recco [sic] aggressive but thoughtful [device kit] pricing/promotions and will be doing this.” (RX1547 (JLI) at 002).

2. Vuse Matched NJOY's Promotion

1299. By the summer of 2019, Reynolds's Vuse Alto was "replicating [NJOY's] tactics."

(RX1547 (JLI) at 003).

1300. Vuse's Alto pod product, which was launched in August 2018, contained "high-quality nicotine salts." (O'Hara (JLI) Tr. 643-44). According to statements made by Reynolds in a July 2018 earnings call, consumer research showed that "Alto rate[d] significantly higher than any other nicotine salt Pod . . . product on a number of key consumer attributes and purchase intent." (RX1456 (JLI) at 001).

1301. In its first six months on the market, Vuse Alto "achieved monthly sales of roughly 4.7 times MarkTen Elite." Comparing the two products at the 33-week mark, Elite's sales were "only 12 percent of Alto's sales." (RX1217 Murphy Report ¶ 165). By December 2018, JLI's internal analysis concluded "Alto is the best performing launch by a major competitor in the past few years." (RX1618 (JLI) at 030).

1302. During this period, Alto's cartridge sales "rose rapidly and nearly continuously." (RX1217 Murphy Report ¶ 71).

1303. JLI quickly recognized that Alto posed a formidable threat. Bob Robbins, JLI's Chief Growth Officer, wrote in March 2019: "[W]e are keeping an eye on Alto. It is the most competent competitive product we've seen yet." (PX2575 (JLI) at 002).

1304. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

1305. [REDACTED]
[REDACTED]

1306. According to Professor Murphy’s analysis, sales of Vuse Alto, which had averaged “fewer than 50,000 devices per week over the period January to July 2019,” “jump[ed] to more than 200,000 devices per week in December 2019,” a fourfold increase. (RX1217 Murphy Report ¶ 71). And, again, neither Dr. Rothman nor Complaint Counsel dispute this analysis. (PX5001 Rothman Rebuttal ¶ 62; CC Pretrial Br. 68).

1307. [REDACTED]
[REDACTED]; *see also* PX7033 O’Hara (JLI) Dep. at 199 (explaining that Vuse “is a very strong competitor. It’s gotten stronger over time. [Vuse is] selling more than twice the number of devices per week than [JLI is]. And as a result, [it is] seeing increased pod demand, as you would expect”); [REDACTED]
[REDACTED]

3. JLI Was Forced To Drop Price

1308. [REDACTED]
[REDACTED]
[REDACTED]

1309. At one large retail chain, Circle K, NJOY Ace captured 66 percent of device share and, according to JLI estimates, almost three-quarters of that came “at JUUL’s expense.” (PX2602 (JLI) at 019).

1310. As JLI’s internal analysis explained, Ace’s users did not see JUUL as offering “meaningful advantages to justify its cost,” so “it [was] common and easy for users to try something else.” (RX1550 (JLI) at 006).

1311. [REDACTED]
[REDACTED]
[REDACTED]; *see also* PX7019 Crozier (Sheetz) Dep. at 76-77 (noting JLI did not offer new promotions in response to Elite); RX1061 (PMI) at 010 (observing that after NJOY “triggered [a] price war” in the e-vapor category, “JUUL’s dollar share slipped for the first time”).
1312. In September 2019, JLI dropped its device price to \$9.99, down from an MSRP of \$34.99. (RX1061 (PMI) at 010; *see also* [REDACTED]; RX1217 Murphy Report ¶ 91, Fig. V.11 (showing line graph of JUUL’s price, including a significant price drop in October 2019); Robbins (JLI) Tr. 3257 (“Since December 2018, we have lowered the price on the device permanently, and then we’ve run deeper promotions as well.”); O’Hara (JLI) Tr. 571 (“[JUUL’s] device price is even down to about \$10 now.”); PX7033 O’Hara (JLI) Dep. at 122 (explaining that JLI “had to . . . bring down the price of [its] own device” in response to aggressive promotions)). In addition to running “deeper promotions,” JLI later “permanently” lowered the price of its device. (Robbins (JLI) Tr. 3257; [REDACTED]
[REDACTED])
1313. The “competitive pressures” JLI is facing have “significantly reduced JUUL’s revenues and margins,” forcing the company to “retrench” and lay off roughly “70 or 75 percent of the company[’s workforce].” (Pritzker (JLI) Tr. 881-82).
1314. JLI’s price drops combined with aggressive promotions by competitors have “generally resulted in the overall market for devices being priced down significantly.” (PX7033 O’Hara (JLI) Dep. at 122).

4. Aggressive Promotions Have Continued

1315. E-vapor manufacturers have continued to compete aggressively. Despite JLI's September 2019 price drop, by December 2019, Reynolds had overtaken JLI as the leading seller of devices. (PX7037 Huckabee (Reynolds) Dep. at 70-72; *see also* [REDACTED]; [REDACTED]; [REDACTED]).

1316. Vuse has held onto that position in 2021, "selling more than twice the number of devices per week" as JLI. (PX7033 O'Hara (JLI) Dep. at 199; *see also* [REDACTED]; [REDACTED]).

1317. In addition, Vuse Alto's device sales were followed by "increased pod demand." (PX7033 O'Hara (JLI) Dep. at 199). By September 2020, it held a 21 percent share of the cartridge market. (RX1217 Murphy Report ¶ 73).

1318. Meanwhile, NJOY is "selling roughly the same number of devices per week" as JLI. (PX7033 O'Hara (JLI) Dep. at 199).

1319. JLI has correspondingly seen a sharp drop in market share in cartridge sales. (RX1217 Murphy Report ¶ 71, Fig. V.6).

1320. NJOY also saw cartridge sales "increase as a result of their increased device sales," (PX7033 O'Hara (JLI) Dep. at 199), growing to 7.4 percent of the market at its peak, (RX1217 Murphy Report ¶ 73).

1321. This aggressive competition has "significantly reduced JUUL's revenues and margins," as well as its market share. (Pritzker (JLI) Tr. 880-81).

1322. The new entrants sustained this competition in the face of a changing regulatory landscape. After FDA banned flavors other than tobacco and menthol effective February

2020, ITG, Reynolds, and NJOY each “significantly expanded their shipments of menthol and tobacco flavor pods.” (RX1217 Murphy Report ¶¶ 54-55, Figs. IV.5 through IV.7; *see also* PX9016 (FDA) at 001-02 (announcing ban); Crozier (Sheetz) Tr. 1495-96 (discussing ban)). “As a result, JUUL continued in 2020 to face significant head-to-head competition from e-cigarettes with very similar product look and feel and nicotine experience in the form of ITG’s *myblu*, NJOY’s *Ace* and Reynolds’s *Vuse Alto*, among others.” (Murphy Report ¶¶ 54-55, Figs. IV.5 through IV.7).

1323.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

B. Meanwhile, The Cig-A-Like Market Continued To Decline

1324. The cig-a-like segment has continued to exhibit dramatically different market dynamics.

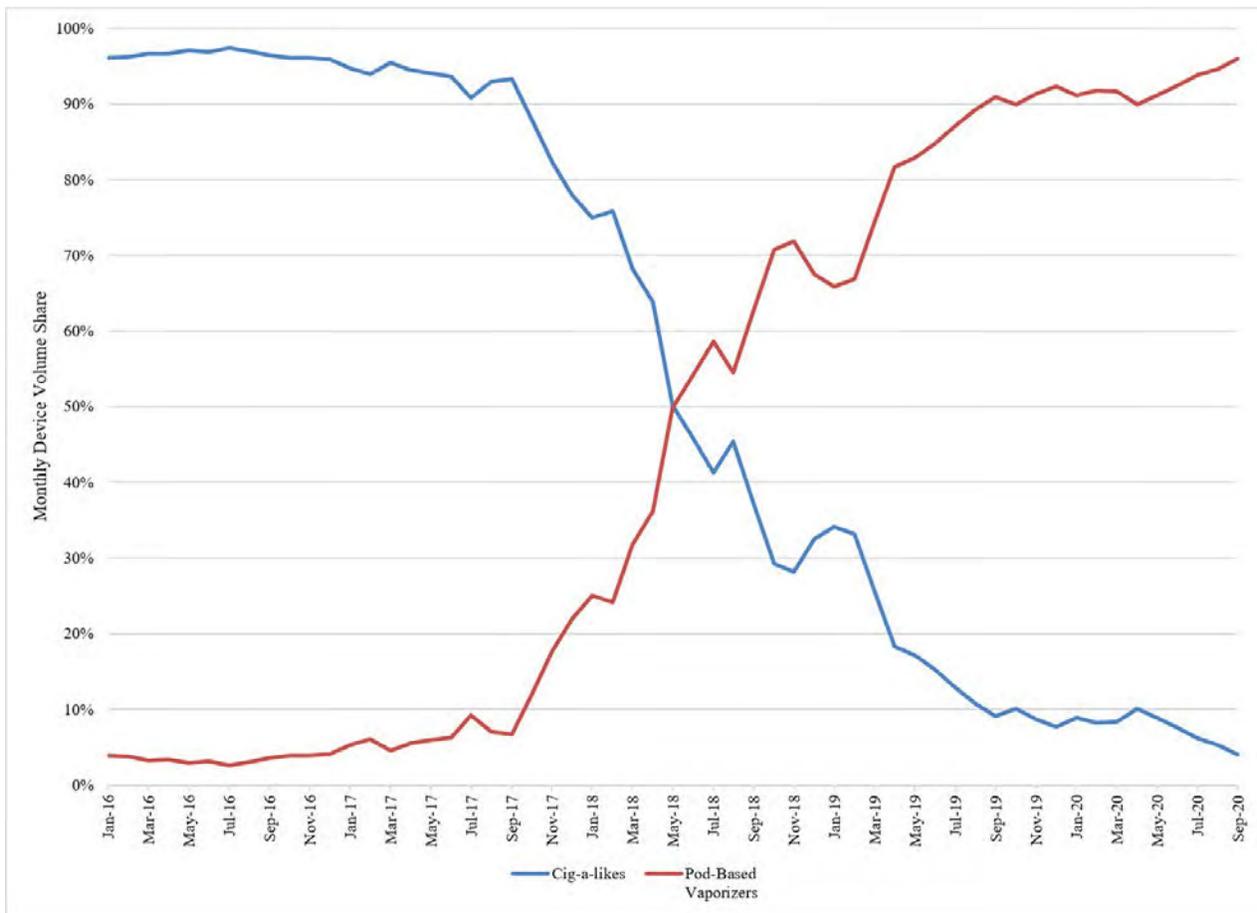
As K.C. Crosthwaite, the current CEO of JLI, summarized, cig-a-likes “are essentially irrelevant in the market today.” (PX7024 Crosthwaite (Altria/JLI) Dep. at 214; *see also* [REDACTED]).

1325. Although sales for pod-based products have continued to grow, cig-a-like sales have maintained their precipitous decline. In early 2016, “cig-a-likes represented more than 90 percent of total e-cigarette cartridge volume.” By January 2018, “this fraction had fallen to about 59 percent,” and shortly before Altria discontinued MarkTen in December 2018, cig-a-like cartridge volume had fallen “to less than 19 percent.” (RX1217 Murphy Report ¶ 80). Thereafter, it declined further still, to just five percent of all cartridge sales as of September 2020 (the end date of available data), with pods capturing the other 95 percent. (RX1217 Murphy Report ¶¶ 41, 62 n.143, Fig. IV.3; *see also* [REDACTED])

[REDACTED]
 [REDACTED]).

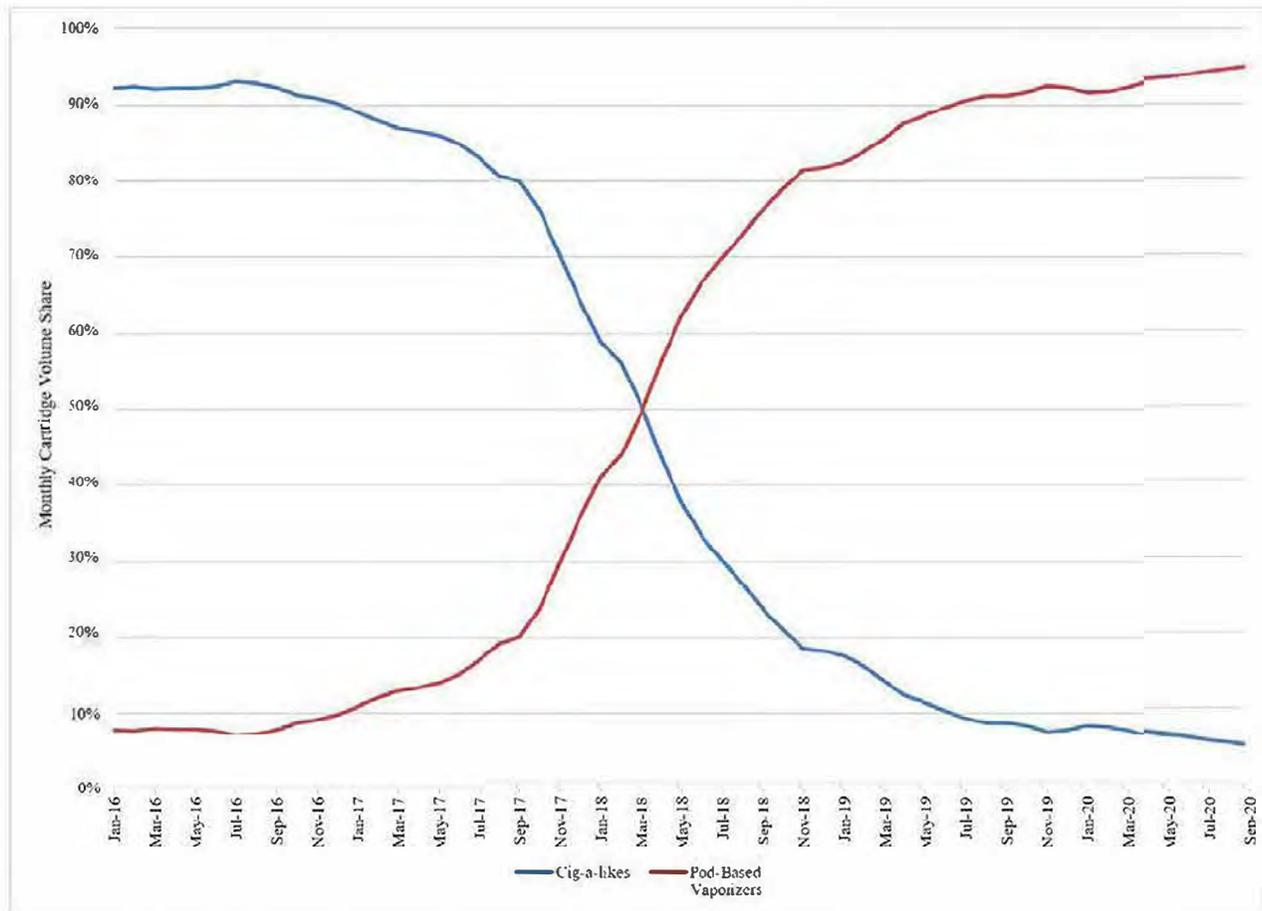
1326. This shift from cig-a-likes to pod-based products is summarized in the following charts depicting their relative volume shares for devices and cartridges, which were not disputed by Complaint Counsel or Dr. Rothman:

Fig. IV.2: Cig-a-like versus Pod-based Vaporizer Device Volume Share, Altria IRI Projected Data



(RX1217 Murphy Report ¶ 41, Fig. IV.2 (devices)).

Fig. IV.3: Cig-a-like versus Pod-based Vaporizer Cartridge Volume Share, Altria IRI Projected Data



(RX1217 Murphy Report ¶ 41, Fig. IV.3 (cartridges)).

1327. Sales data measured by units tell a similar story. The weekly sales volume of all cig-a-likes fell from approximately 3.6 million units at their peak in the summer of 2018 to approximately 770,000 weekly units in September 2020. (RX1217 Murphy Report ¶ 115, Fig. VI.3; *see also* RX1217 Murphy Report ¶ 111 (“Sales of cig-a-like devices and cartridges peaked in 2018 2Q and have declined since that time; by early 2019 cig-a-like sales had fallen below levels from three years prior.”)).

1328. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

1329. [REDACTED]

[REDACTED]

[REDACTED]; *see also* PX7037 Huckabee (Reynolds) Dep. at 26 (explaining that over the last two years the cig-a-like form factor products in Reynolds’s portfolio have declined because pods are now substantially more popular); [REDACTED]; [REDACTED]; Crozier (Sheetz) Tr. 1560 (agreeing that the e-vapor category “is now overwhelmingly pods”).

C. The Current Market Leaders All Contain Salts In Their E-Liquid Formulas

1330. The distribution of market share among existing market players also reflects a competitive insight that JLI saw early and Altria recognized too late: the importance of nicotine salts.

1331. As Joseph O’Hara, who was responsible for monitoring competitive products at JLI, testified in response to a question from the Court, none of the market leaders today are sold without nicotine salts. (O’Hara (JLI) Tr. 636; *see also* RX0962 (Altria) at 003 (listing the acid ratios of the leading products)).

1332. JUUL, Vuse Alto, NJOY Ace, and the ITG Brands *myblu* Intense cartridges all contain salts. (RX0962 (Altria) at 003 (listing nicotine-to-acid ratios of JUUL, Alto, and *myblu* Intense); Farrell (NJOY) Tr. 362 (confirming all NJOY products currently on the market, including Ace, contain nicotine salts)). JTI’s Logic Pro does not. (RX1739 (ITG Brands) at 019).

1333. According to the IRI data analyzed by Professor Murphy, in September 2020, the device share for Vuse Alto was approximately 60 percent, JUUL had fallen to under 30 percent, NJOY Ace was at approximately ten percent, ITG’s myBlu was near three percent, and JTI’s

Logic Pro—the only one of these devices without salts—was less than one percent. (See RX1217 Murphy Report ¶ 72, Fig. V.7; *see also* Murphy Tr. 3152-53 (specifying that Logic Pro was at 0.3 percent)).

1334. Other witnesses confirmed the competitive significance of salts. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]; *see also* RX1217 Murphy Report ¶ 133 (“Vuse Alto and NJOY Ace, which saw the highest pick-up among consumers also used salts, similar to JLI.”).

1335. [REDACTED]
[REDACTED]
[REDACTED]

1336. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]; *see also* PX3216 (NJOY) at 003 (similar).

1337. And, as JLI’s O’Hara testified, “these days customers in this market understand what nicotine salts are and understand them to be a more satisfying nicotine formulation.” (O’Hara

(JLI) Tr. 635-36; *see also* Farrell (NJOY) Tr. 362 (observing that *myblu* packaging and its website advertise that the product contains nicotine salts)).

XIII. ACTUAL EVIDENCE SHOWS THAT THE E-CIGARETTE MARKETPLACE IS INTENSELY COMPETITIVE

1338. As Respondents' expert, Professor Murphy, details, there is no evidence that the e-cigarette marketplace has become less competitive since Altria discontinued its e-vapor products. (RX1217 Murphy Report ¶ 61 ("My review of the direct evidence in this case finds no indication that the market has become less competitive since Altria discontinued its e-cigarette product lines."); Murphy Tr. 3189 (similar)).

1339. Instead, all of the evidence—from the assessment of industry participants, (*see infra* ¶ 1340), to the post-transaction market data, (RX1217 Murphy Report ¶¶ 61-76; Murphy Tr. 3102; *see also infra* Part XIII.A-C)—indicates that the e-vapor marketplace is intensely competitive.

1340. Each of the current leading e-vapor manufacturers that were deposed or testified in this case acknowledged that the industry bears the hallmarks of a competitive market:

(a) **Altria:** Following the investment, there was "significant competitive activity in the U.S.," which prompted JLI to "look at running promotions and things of that nature in the marketplace to lower the price." (Gifford (Altria) Tr. 2848).

(b) **JLI:** "Competition has steadily increased" since December 2018. (Robbins (JLI) Tr. 3256). The e-vapor business has "become exceedingly competitive" and "there has been a lot [of] price competition." (Pritzker (JLI) Tr. 880; *see also* PX7025 Burns (JLI) Dep. at 232 ("The market actually accelerated in terms of level of competition throughout 2019"))).

- (c) **NJOY:** [REDACTED]
[REDACTED] That is evident from the “deals” the leading brands are “offering to customers,” their competition for the amount and visibility of shelf space, and “a whole number of other dynamics that [Farrell] consider[s] to characterize intense competition.” (PX7029 Farrell (NJOY) Dep. at 142-43).
- (d) **Reynolds:** There has been [REDACTED], as well as “a great deal of movement across -- across brands and . . . price points.” (PX7037 Huckabee (JLI) Dep. at 85).
- (e) **ITG Brands:** There are a “lot[] of brands” engaging in “pricing action,” resulting in a loss of share from JUUL and market gains by other competitors. (PX7012 Eldridge (ITG Brands) Dep. at 109-11).

1341. The retailers also view the marketplace as highly competitive:

- (a) **Sheetz:** The e-vapor marketplace is “increasingly competitive since Altria removed its vaping products.” (Crozier (Sheetz) Tr. 1548).
- (b) **7-Eleven:** The market today is “competitive” and there is no “reason to think that the category has become less competitive than it was in 2018.” (PX7044 Stout (7-Eleven) Dep. at 15, 33).
- (c) **Wawa:** Category leadership has been dynamic, manufacturers have increased promotional activity, the market for shelf space remains competitive, and NJOY is now a leading supplier in Wawa, alongside JUUL. (PX8006 Kloss (Wawa) Decl. at 003-05 ¶¶ 13-15, 22; *see also* [REDACTED]).

1342. Empirical data confirms these observations. According to nearly two years of post-2018 market data analyzed by Professor Murphy, “(i) overall prices are lower; (ii) overall output is higher; [and] (iii) market concentration is lower,” with JLI having “lost share to multiple competitors.” (RX1217 Murphy Report ¶ 61; *see also* Murphy Tr. 3142-43, 3146).

1343. Complaint Counsel does not dispute these observations. To the contrary, its expert, Dr. Rothman, agrees that “overall prices are lower, overall output is higher, [and] market concentration is lower.” (PX7046 Rothman Dep. at 28; *see also* PX7048 Rothman Trial Dep. at 96-97 (similar)).

1344. This evidence, which is discussed in detail below, provides “strong and consistent evidence that competition was *not* diminished and consumers have *not* been adversely affected.” (RX1217 Murphy Report ¶ 21 (emphasis in original)).

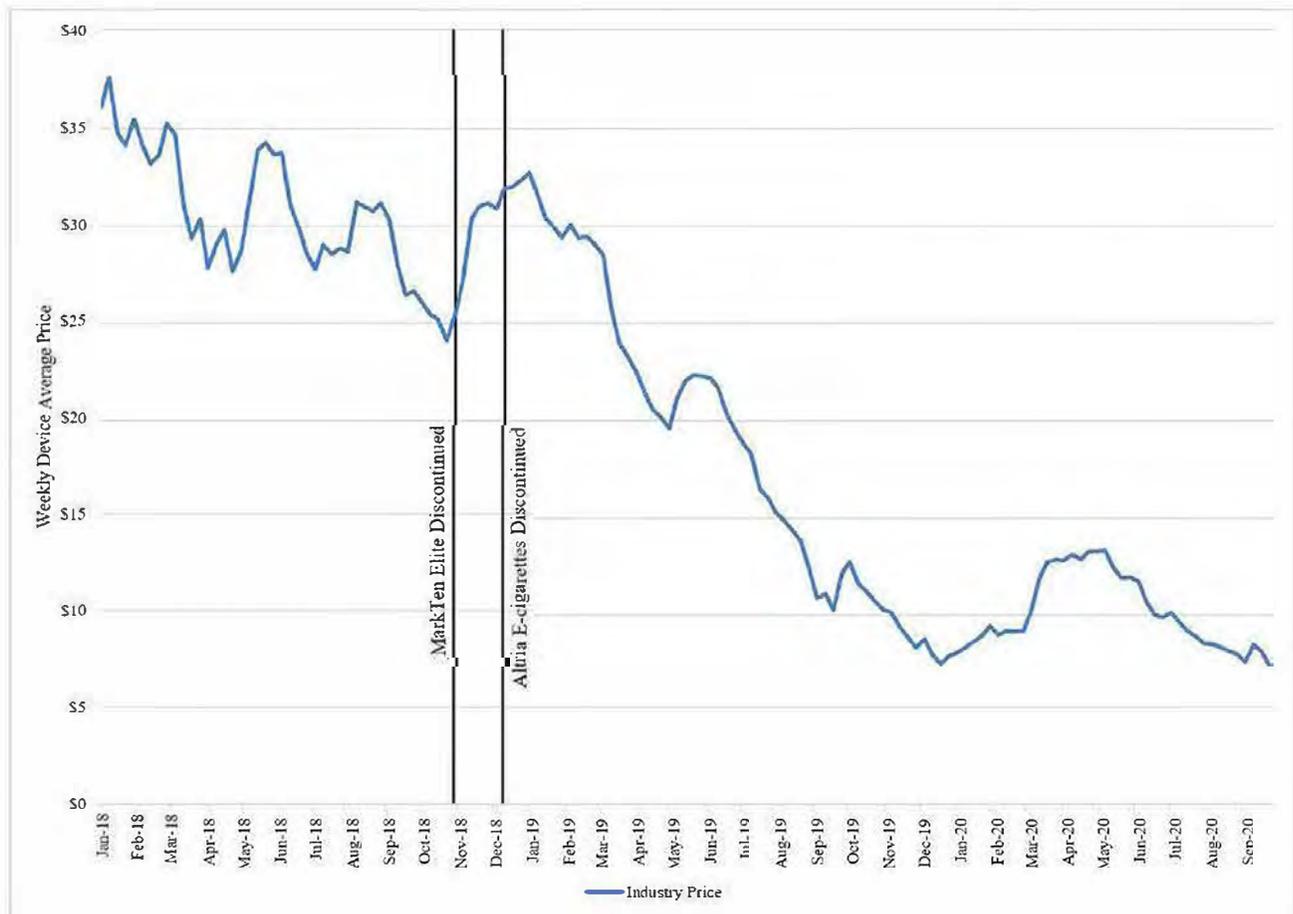
A. Prices Decreased, Driven By Aggressive Third-Party Discounting

1345. “[S]ince 2018, the market has gotten significantly more competitive on price,” with many companies “offering significantly discounted prices on devices as well as pods.” (PX7033 O’Hara (JLI) Dep. at 122; *see also* Pritzker (JLI) Tr. 880 (similar)).

1346. “[A]ggressive competition among the various producers of pod-based products, in particular, pricing by NJOY as well as Vuse Alto over this period of time” has led to significant price decreases. (PX7047 Murphy Dep. at 203).

1347. All told, the average price of a pod-based *device* “fell from about \$27 in September 2018 to around \$8 in September 2020, representing a roughly 72 percent price reduction,” (RX1217 Murphy Report ¶ 62; *see also* Murphy Tr. 3146-47 (similar)), as shown in the chart below:

Fig. V.1: Average Industry Price for Pod-Based Vaporizer Devices



(RX1217 Murphy Report ¶ 62, Fig. V.1).

1348. In addition, the average price of a *JUUL* device has decreased approximately 45 percent, from approximately \$35 in December 2018 to approximately \$19 in September 2020.

(Murphy Tr. 3147-48). And the promotions that JLI has run in the wake of Altria’s exit have been deeper than the seasonal promotion it ran while MarkTen products were on the market. (RX1217 Murphy Report ¶ 84).

1349. In addition, the average price of pod *cartridges* fell by over 15 percent during the same period. (Murphy Tr. 3146; RX1217 Murphy Report ¶ 63).

1350. These sharp declines in price were not simply the continuation of a trend that existed prior to Altria's exit. Rather, as explained above, (*see supra* Part XII.A.1), NJOY introduced its 99-cent price promotion for NJOY Ace—which led to cascading discounts across the pod segment—*after* Altria withdrew its products. (*See* PX7037 Huckabee (Reynolds) Dep. at 67 (discussing internal Reynolds document concluding that a “[q]uick, strong response to NJOY ACE 99 cent traction was necessary to secure [Vuse] Alto’s market potential”); RX1217 Murphy Report ¶ 91 (“NJOY and Vuse’s aggressive pricing . . . leads to JLI lowering its device prices.”); Murphy Tr. 3193 (similar)).

1351. The causal effects of NJOY’s aggressive promotion are also apparent from the market data, which shows that device prices have fallen faster *post*-transaction than they did before Altria’s discontinuation of its e-vapor products, and cartridge prices only began their downward trend after Altria had exited the market. (Murphy Tr. 3147; RX1217 Murphy Report ¶¶ 62-63, Figs. V.1, V.2).

1352. Although Dr. Rothman admits that average prices are lower in the e-vapor category since December 2018, (PX7048 Rothman Trial Dep. at 96), he contends that this decrease is irrelevant because “JLI likely would have offered lower prices and would have had a stronger incentive to offer lower prices” if Altria had remained in the market. (PX7046 Rothman Dep. at 96-97).

1353. This contention, which Dr. Rothman cannot tie to any analysis in his report, (PX7046 Rothman Dep. at 97-98), is baseless. Indeed, Dr. Rothman admits that he never analyzed whether JLI changed its price in response to Elite’s entry or exit. (PX7048 Rothman Trial Dep. at 171-72).

1354. And the evidence put forward at trial—including the unrebutted statements by JLI witnesses and the economic analysis conducted by Professor Murphy—shows that JLI never changed its prices in response to the entry or exit of any Altria e-vapor product. (*See infra* Part XVII.A).

1355. On this record, there is “no reason to believe” that the dramatic reduction in prices that occurred after the transaction would have been even more dramatic had Altria remained on the market. (Murphy Tr. 3195; PX7047 Murphy Dep. at 196, 199, 211). Complaint Counsel has not made any effort to meet its burden in this regard.

B. Output Increased, Thanks To Entry And Expansion

1356. As for output, it too is indicative of a competitive market after the transaction. A year after Altria discontinued Elite, sales of pod-based *devices* had increased by more than 20 percent. (RX1217 Murphy Report ¶ 65). Over the same time period, sales of pod *cartridges* increased by more than 30 percent. (RX1217 Murphy Report ¶ 65).

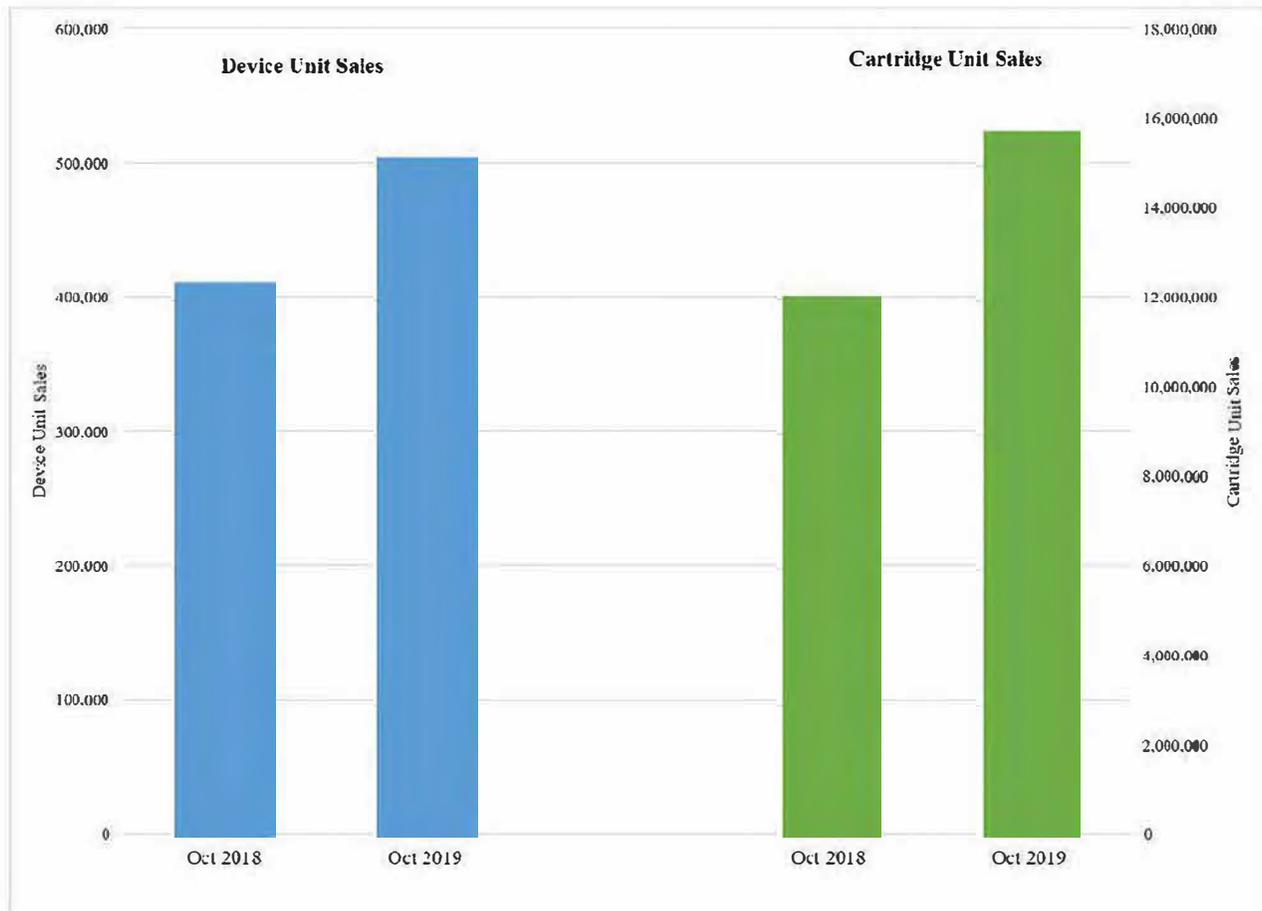
1357. While this growth in output was driven, at least in part, by growing demand, it was made possible by competitor *expansion* and new *entries*. (RX1217 Murphy Report ¶ 64). As Professor Murphy put it, “expansion of output is consistent with a competitive and dynamic market in which rivals were investing in launching and aggressively promoting products, and in which retailers were expanding product variety by introducing brands from a growing set of manufacturers to take advantage of growing market opportunities.” (RX1217 Murphy Report ¶ 64).

1358. After Altria’s exit, companies were “able to expand” and “easily make up for any loss of competition.” (Murphy Tr. 3154).

1359. “[P]roducts from rivals more than replaced MarkTen’s sales, with both NJOY and Vuse significantly outpacing MarkTen Elite in terms of sales performance.” (RX1217 Murphy Report ¶ 74).

1360. For example, at the time of its exit, Elite only sold 100,000 cartridges a week; less than two years later, sales by non-JUUL competitors had increased by *3.1 million* cartridges a week (from 1 million to 4.1 million). (RX1217 Murphy Report ¶ 85, Fig. V.10; Murphy Tr. 3126-28; *see also* Murphy Tr. 3127-28 (“[W]e have actual market evidence that these other sellers were able to expand the sales of their products on the market dramatically, 31 times what would be required to offset the loss of Elite in this case.”)). And, as the below chart shows, the overall sales for cartridges, including all competitors, increased by approximately 3.7 million cartridges per week:

Fig. V.3: Average Weekly Sales of Pod-Based Vaporizer Devices and Cartridges



(RX1217 Murphy Report ¶ 65, Fig. V.3).

1361. This expansion by existing competitors is essentially equivalent to new entry. (CoL ¶ 46).

1362. And the data shows that “the marketplace, through the normal competitive process, would be able to adapt to and compensate for the loss of specific products that were not very attractive at the time.” (PX7047 Murphy Dep. at 254-55).

1363. Likewise, “given the robust competition and the way in which [competitors] were able to market their products and expand their sales and cut their prices, there’s no reason, in economics, to believe that output would have been higher in some but-for world” in which Altria continued selling e-vapor products. (PX7047 Murphy Dep. at 216).

1364. Indeed, as evidence of the expansion that occurred after the transaction, the market data demonstrates that convenience stores carried more e-vapor brands after Altria exited the market than before, with the average number of products in the top 20 retailers increasing from 3.0 to 3.8. (Murphy Tr. 3140; RX1217 Murphy Report ¶ 75).
1365. Sheetz, in particular, “added products from three manufacturers that it did not previously sell when MarkTen was on the market—NJOY’s Ace, ITG’s *myblu*, and EAS’ Leap,” (RX1217 Murphy Report ¶ 74; *see also* Crozier (Sheetz) Tr. 1490 (similar)), as well as a product called Glas, (Crozier (Sheetz) Tr. 1482).
1366. The enhanced product diversity on retailer shelves was made possible, at least in part, by Altria’s departure. As Professor Murphy explained, in an environment where resources (such as shelf space) are scarce, “when a product leaves the market, that creates the ability and incentive for other products to expand, to come in and fill the void,” and to “create[] an opportunity for more attractive products.” (Murphy Tr. 3140).
1367. In this respect, “products leaving the marketplace is a normal part of the competitive process, and, indeed, it’s part of the process by which products that are relatively unsuccessful are replaced by more successful products.” (Murphy Tr. 3129-30).

C. Market Concentration Decreased As JUUL Lost Share To Rivals

1368. Market concentration has also decreased significantly in the two years following the transaction. (Murphy Tr. 3143; PX7047 Murphy Dep. at 243-44; RX1217 Murphy Report ¶ 66).
1369. As discussed above, (*see supra* Part XII.A), the “competitive repositioning” by NJOY and Reynolds that took place in the wake of Altria’s discontinuation of its products has enabled both competitors to capture substantial portions of device sales. (RX1217 Murphy Report ¶ 68 n.149).

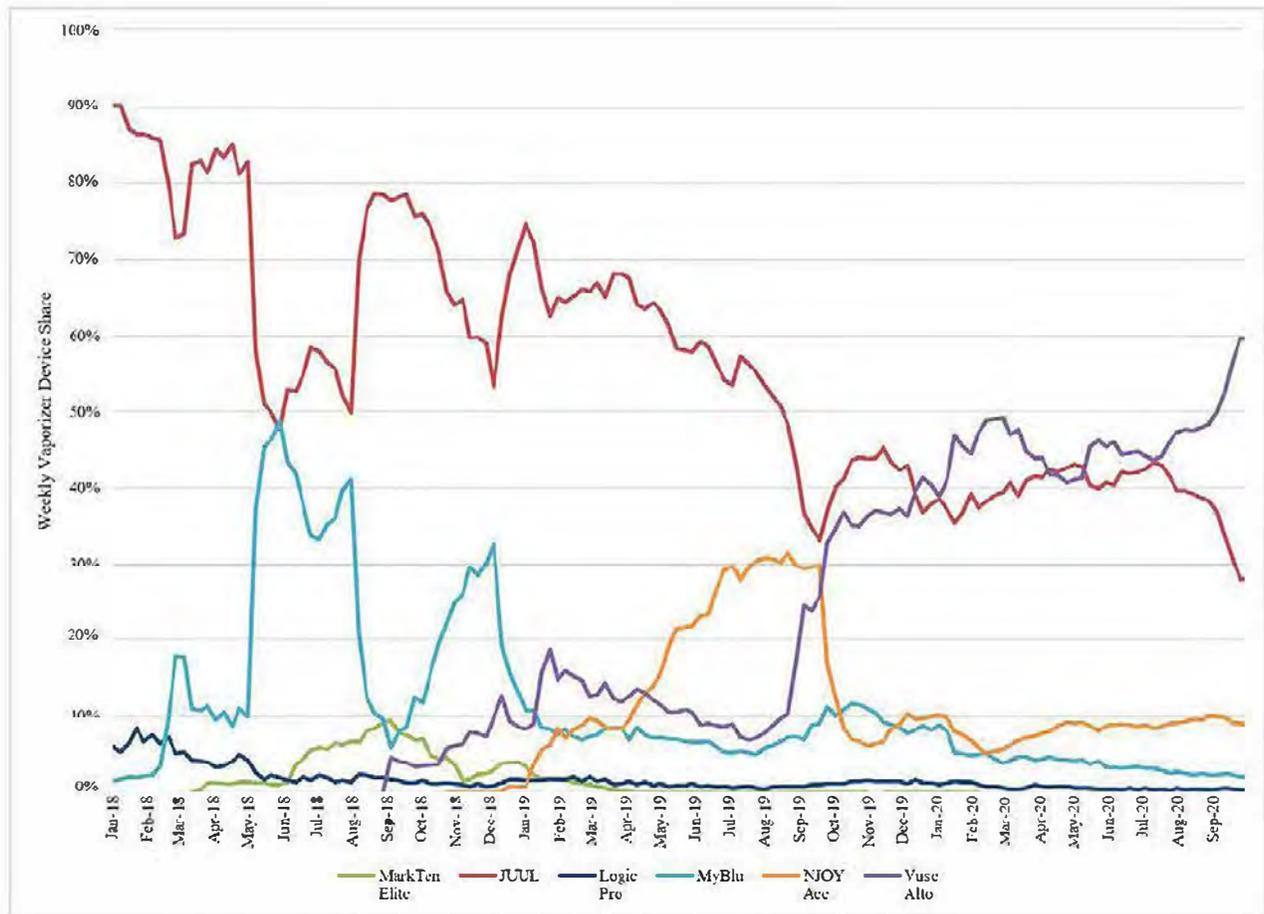
1370. Less than a year after its introduction, NJOY had used steep discounts on a highly satisfying pod product to achieve, for a time, a 30 percent share of device sales for pod-based products, approximately the same share as JUUL. (RX1217 Murphy Report ¶ 72).

1371. Reynolds's Vuse Alto later surged past both NJOY Ace and JUUL, capturing about 60 percent of all pod-based device sales as of September 2020. (RX1217 Murphy Report ¶ 72).

1372. As a result, JLI's share of *device* sales has plummeted from approximately 69 percent in October 2018 to approximately 30 percent in September 2020. (RX1217 Murphy Report ¶ 72). And JLI continued to lose device share even after it dropped its price in late 2019. (*See supra* ¶ 1315). By that point, JLI's share had fallen to about 43 percent. But in the next year it fell by an additional 13 percent. (RX1217 Murphy Report ¶ 72).

1373. JLI's loss of device share is depicted in the following chart:

Fig. V.7: Pod-Based Vaporizer Device Sales Shares by Brand (by Units)



(RX1217 Murphy Report ¶ 72, Fig. V.7).

1374. In addition, JLI lost approximately 20 percentage points in *cartridge* unit share from December 2018 to September 2020. (RX1217 Murphy Report ¶ 73). This too was a sustained and steady loss. “[I]n the first full year after Altria withdrew its e-cigarette products from the market, JUUL lost 15.6 percentage points in cartridge unit market share, before losing another 4.9 percentage points of share through the end of September 2020. During that same period, NJOY Ace grew its cartridge share to 7.4 percent in September 2019 and Vuse Alto gained share almost continuously and held a 21.0 percent share at the end of September 2020.” (RX1217 Murphy Report ¶ 73).

1375. At trial, Robbins, the Chief Growth Officer of JLI, confirmed that, JLI’s market share has decreased since December 2018. (Robbins (JLI) Tr. 3256).

1376. And Complaint Counsel’s own expert, Dr. Rothman, admits that JLI has, in fact, lost market share. (PX7048 Rothman Trial Dep. at 96; PX7046 Rothman Dep. at 14).

D. This Post-Transaction Evidence Is Highly Relevant To Assessing Market Competition

1377. Despite agreeing “that the market has continued to evolve over time, that new products have been introduced, that sales . . . have gone up, [and] that prices have fallen,” (PX7048 Rothman Trial Dep. at 39), Dr. Rothman failed to account for any of this post-transaction evidence in his analysis, (PX7048 Rothman Trial Dep. at 93-96; *see also* PX7048 Rothman Trial Dep. at 95 (conceding that “whether output is higher after December 2018 [was] not an input into [his] analysis of the competitive effect of the transaction”)). Instead he inappropriately dismisses the evidence that prices have decreased, output has increased, and market concentration has decreased as attributable to “confounding factors.” (PX7048 Rothman Trial Dep. at 40; *see also* PX5001 Rothman Rebuttal ¶ 50 (“Dr. Murphy’s before-and-after comparisons cannot be interpreted to reflect the effect of the discontinuation of Altria’s products in 2018.”)).

1378. Dr. Rothman offers no analysis other than his mere say-so that these indicia of a more competitive market are attributable to confounding factors. (PX5001 Rothman Rebuttal ¶¶ 19, 50 (repeatedly listing the same set of potential “confounding factors” without attempting to link them to the market data); PX7048 Rothman Trial Dep. at 169 (explaining that he simply “list[s] the factors that were changing over time as examples of confounding factors”); Murphy Tr. 3155 (explaining that Dr. Rothman did not attempt to measure effects after controlling for confounding factors)).

1379. In a market in which pod-based products account for 95 percent of the market and the competitors with pod-based products that used nicotine salts were already discounting devices to 99 cents and stealing substantial market share from JUUL, (*see supra* Part XII.A-B, XIV.C), there is no basis for Dr. Rothman to assume that the presence of Altria—which did not have any pod-based product with nicotine salts—would have resulted in lower prices, higher output, or a meaningful reduction in market concentration. (*See supra* Part XIII; Murphy Tr. 3155 (“The types of products that left the market here would easily be replaced by competition from those that remained.”)).

1380. Professor Murphy explains the significance of the post-transaction market evidence: “[W]hat happened in the marketplace during this period reflects the transaction and the lack, really, of impact of the transaction.” (Murphy Tr. 3154).

1381. Well-established principles of antitrust law confirm the relevance of post-transaction evidence. (CoL ¶¶ 33-38). And the key indicia of anticompetitive effects that courts look to are exactly those discussed by Professor Murphy and not disputed by Dr. Rothman—output, price, and market concentration. (CoL ¶ 39).

1382. Such evidence is particularly relevant where, as here, it pertains to increased competition by actors outside the parties’ control and thus cannot be manipulated. (CoL ¶ 36).

XIV. COMPLAINT COUNSEL FAILS TO CARRY ITS BURDEN OF DEMONSTRATING THE MARKET IS ALL CLOSED-SYSTEM PRODUCTS

1383. Complaint Counsel cannot meet its burden to demonstrate anticompetitive effects under Section 1 of the Sherman Act or Section 7 of the Clayton Act because, as explained below, its proposed market—closed-system devices—is unsupported by evidence.

1384. “[M]arket definition is, at its heart, a tool to identify and evaluate the competitive alternatives available to consumers,” alternatives that “constrain the pricing and other dimensions of competitive behavior by rival suppliers.” (RX1217 Murphy Report ¶ 107).

1385. Contrary to Complaint Counsel’s argument, neither practical indicia relevant to market definition, (*see infra* Part XIV.A), nor the hypothetical monopolist test supports a closed-system e-vapor market, (*see infra* Part XIV.B).

1386. To the contrary, “there is considerable evidence from the marketplace that substitution between cig-a-likes and pod-based vaporizers is limited and that cig-a-likes and pod-based vaporizers are in separate relevant markets.” (RX1217 Murphy Report ¶ 113).

A. Practical Indicia Show That Pod-Based Products And Cig-A-Likes Are Distinct Markets

1387. The practical indicia looked to by courts, (CoL ¶ 57), show that pod-based products and cig-a-likes are not close substitutes. Rather, as discussed below, pod-based products and cig-a-likes have different product features, appeal to different consumers, are priced separately, and are recognized as distinct product segments within the industry. (*See infra* Part XIV.A.1-4).

1. Pod-Based Products And Cig-A-Likes Have Peculiar Characteristics

1388. Complaint Counsel and its expert, Dr. Rothman, argue that there is only one distinguishing feature between cig-a-likes and pods—shape. (PX5001 Rothman Rebuttal ¶ 30; CC Pretrial Br. at 33-34). But this argument both trivializes the functional importance of the difference in shape and ignores at least two other distinguishing features between these two types of e-vapor products.

1389. *First*, there is a significant difference in the form of the two types of closed-system e-vapor products. A cig-a-like is “an e-vapor product that looks like a cigarette. It’s white, it’s

cylindrical, and frankly, it's more similar in size to a cigarette than these more recently introduced pod-based products." (Willard (Altria) Tr. 1352; Farrell (NJOY) Tr. 365 (because "cigalikes as a whole . . . try to mimic the appearance and shape and the feel of combustible cigarettes," an "adult smoker that wants to try them as an alternative [will] see[] some similarities between what they were using previously"); *see also supra* Part I.B.1).

1390. By contrast, pod products are "not tubular or similar to a traditional cigarette." They are "larger" and "more rectangular in nature." (Huckabee (Reynolds) Tr. 385; *see also supra* Part I.B.2).

1391. Contrary to Complaint Counsel's assertions, this difference in shape "is far more than just an aesthetic issue." (Begley (Altria) Tr. 1079).

1392. Cig-a-likes' resemblance to a traditional cigarette means that this form also "unfortunately still carri[e]s some of the stigmas of smoking a cigarette." (Begley (Altria) Tr. 1100). Many "smokers who want[] to convert to non-combustible tobacco products d[o] not want to appear to be smoking a cigarette," which makes the form of a cig-a-like "just wrong for conversion." (PX7036 Garnick (Altria) Dep. at 135; *see also* O'Hara (JLI) Tr. 624-25 (explaining that a cigarette shape "isn't ideal for people that are trying to switch from cigarettes"); PX7033 O'Hara (JLI) Dep. at 191-92 ("[Cig-a-likes] generally were not . . . a strong form factor for converting smokers.")). The photos below depict cig-a-like products:



(RX0279 (Altria) at 052 (left, MarkTen cig-a-like); RX2025 (right, NJOY King)).

1393. As a result, pod products, by virtue of not looking like a cigarette, offer “an emotional benefit to an adult smoker, because they aren’t viewed as a smoker. It really solves a problem for them.” (Begley (Altria) Tr. 1079).

1394. *Second*, pod-based products are generally larger, (Willard (Altria) Tr. 1348), which means they can use larger batteries. These “larger” and “more effective batteries” make pod-based products “more effective at taking the liquid and turning it into vapor and giving consumers an experience they desire.” (PX7030 Wexler (Turning Point Brands) Dep. at 42).

1395. [REDACTED]

1396. And pod-manufacturers, such as Reynolds, view superior battery performance as one of the product attributes that contributes to a “better experience [for] consumers.” (PX7037

Huckabee (Reynolds) Dep. at 44). By contrast, weaker battery power is a significant and long-recognized drawback of cig-a-likes. As explained by Larry Wexler, the CEO of Turning Point Brands, battery performance is an “inherent limitation[]” of cig-a-likes. (PX7030 Wexler (Turning Point Brands) Dep. at 60). Cig-a-like’s small size means a small battery; a “small battery create[s] less vape; less vape carries less nicotine. So, therefore, the consumer [will] get less satisfaction.” (PX7030 Wexler (Turning Point Brands) Dep. at 35; *see also* PX2289 (JLI) at 121 (improved battery is a key element of pod-based products’ ability to “fill a gap between low performance easy to use cig-a-likes and high performance complex open system devices”)).

1397. *Third*, the cartridges for pod-based devices are engineered differently than those of cig-a-likes, which also impacts the user experience. With a pod product, the cartridge generally clicks into place while with cig-a-likes the cartridge usually screws into the battery. (PX7019 Crozier (Sheetz) Dep. at 34-35; *see also* Crozier (Sheetz) Tr. 1487-88 (explaining screw vs. click distinction in context of MarkTen products); Huckabee (Reynolds) Tr. 378-79 (explaining that Vuse cig-a-like products screw together while its pod device connects with magnet)).

2. Pod-Based Products And Cig-A-Likes Have Distinct Customers

1398. In addition, cig-a-likes and pod-based products are forms that appeal to different demographics. (Begley (Altria) Tr. 1091).

1399. According to Quigley, Altria’s consumer research indicated that cig-a-likes and pods were not “comparable”; cig-a-likes appeal to “a different consumer,” one who is “looking for different things than a person who is looking for a pod.” (Quigley (Altria) Tr. 2034, 2038).

1400. Cig-a-like consumers were “generally an older consumer who is not worried about the social friction of cigarettes, and so they want a product that looks and feels and performs

similar to their cigarette product.” (Myers (Altria) Tr. 3350; *see also* PX7000 Garnick (Altria) IHT at 108 (“I think our traditional cig-a-like were generally used more by the older cohorts, I’m not sure what the age group was, but the older cohorts than the pod products.”)).

1401. Pods, by contrast “were used more by the younger adult cohorts.” (PX7000 Garnick (Altria) IHT at 108). That demographic was concerned about “the social friction aspect of [a cigarette], they wanted something that looked different.” (Myers (Altria) Tr. 3350).

1402. Competitors and retailers in the e-vapor industry share this understanding. [REDACTED]
[REDACTED]
[REDACTED]; *see also* PX7019 Crozier (Sheetz) Dep. at 34).

1403. Wexler, of Turning Point Brands, said the same: “[I]f you look at the demographics of Cigalike users today, the average age of a Cigalike user . . . is probably over the age of 50. I think the average age is about 55. . . . Pod systems are significantly younger in our particular database. They’d be -- 30 and under somewhere is around the average.” “[T]hey’re very different demographics.” (PX7030 Wexler (Turning Point Brands) Dep. at 51).

3. Pod-Based Products And Cig-A-Likes Are Priced Separately

1404. E-vapor manufacturers also priced their cig-a-like and pod-based products differently, and they did so by reference to the specific closed-system segment they competed in. (Begley (Altria) Tr. 991 (explaining that Nu Mark took JUUL’s price into account when pricing Elite); King (PMI) Tr. 2356 (explaining that internationally VEEV is priced “head to head” with JUUL)).

1405. For example, Robbins, the Chief Growth Officer at JLI, explained that JLI *never* “change[d] its pricing” or “promotions” of JUUL—a pod-based product—“as a result of cig-a-like competition.” (Robbins (JLI) Tr. 3245).

1406. Similarly, witnesses for each of the competitor brands that submitted a declaration and were deposed in this case indicated that they analyze cig-a-likes and pod-based products separately for purposes of pricing and promotions:

(a) **NJOY:** A competitor offering a promotion on a cig-a-like would not be a “primary driver” of whether to offer a promotion on a pod-based device. (PX7029 Farrell (NJOY) Dep. at 118-19). [REDACTED]

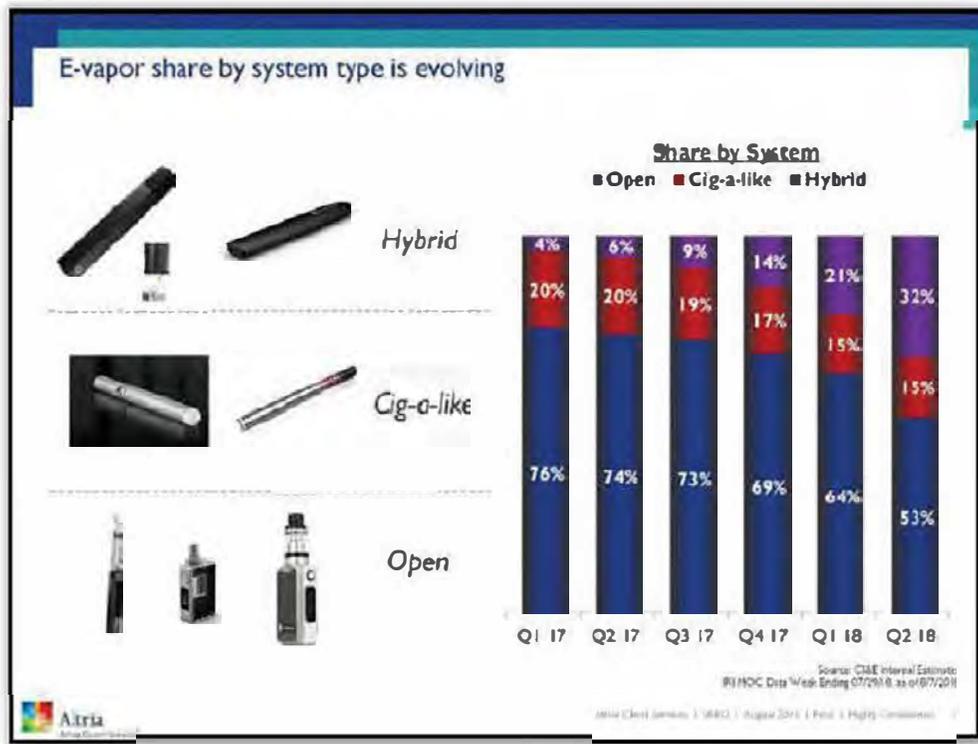
(b) **Reynolds:** [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] Instead, its cig-a-like prices have been relatively stable over time. (Huckabee (Reynolds) Tr. 389).

(c) **ITG Brands:** For price competition, ITG Brands “compare[s] pods to pods.” (PX7012 Eldridge (ITG Brands) Dep. at 130). [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

(d) **Turning Point Brands:** Wexler testified that, in setting the price of pod-based products, “[i]t would never occur to [him] to look at the price of Cigalikes.” (PX7030 Wexler (Turning Point Brands) Dep. at 50-51).

4. Market Participants Distinguish Between Pod-Based Products And Cig-A-Likes

1407. Finally, market participants assess the competitive landscape by distinguishing between pod-based products and cig-a-likes. (*See infra* ¶¶ 1047-14).
1408. For example, as Quigley explained, Nu Mark separated pods and cig-a-likes in its internal market analysis because “different product forms . . . were behaving differently in the market because they were different . . . consumer trends.” Pods were “driven exponentially by JUUL, and then we had cigalikes, which . . . were declining and were a smaller piece of the overall vapor business.” (Quigley (Altria) Tr. 2034 (discussing PX1644 (Altria) at 010 (analyzing “Volume by Form,” between cig-a-likes and hybrids/pods)); *see also* RX0865 (Altria) at 032 (explaining that “[c]losed systems include multiple product types”: cig-a-like, closed tank, and pod-based system); RX1290 (Altria) at 007 (depicting the “Evolving E-Vapor Category” as including cig-a-like, hybrid, closed tank, and open tank)).
1409. Nu Mark also separated the different e-cigarette categories by form when presenting market data to Altria’s Board. In explaining one such slide delineating between different types of closed-system products, Begley testified, “I thought it was important to understand, especially for the board to understand that . . . the winning product proposition in the market that was really driving the growth of the category were pod-based products.” (Begley (Altria) Tr. 1091 (discussing PX4012 (Altria) at 014 (splitting the market into cig-a-like, open, closed tank, and pod products))).
1410. The different categories also were delineated in the August 2018 Board presentation:



(PX1424 (Altria) at 012).

1411. Altria’s leadership was similarly precise when describing the e-vapor industry to its investors. For example, at Altria’s Investor Day in November 2017, Begley conveyed to the audience that there were three primary product formats: cig-a-likes, pods, and open tank systems. (Begley (Altria) Tr. 1080 (discussing PX4015 (Altria) at 008)).

1412. JLI also viewed closed-system vapor products as segmented and largely disregarded cig-a-likes because it did not compete in that market. As Burns explained, “we didn’t spend much time looking at cigalike products and their relevance in the marketplace. It was a very small percentage of the marketplace and one that was shrinking over time.” (PX7025 Burns (JLI) Dep. at 200; *see also* PX7025 Burns (JLI) Dep. at 199-200 (“We really didn’t look at the cigalike products as a product category that we were competing against. It was a very small category and one that was not growing and one that we did not believe was going to be

around, you know, forever.”)). To the extent JLI was tracking cig-a-like products, it was because, as O’Hara explained at trial, he “tracked everything from cigarettes to nicotine gum to nicotine patches, as well as all kinds of vapor products, including . . . open-pod systems.” (O’Hara (JLI) Tr. 506).

1413. [REDACTED]

1414. [REDACTED]

B. Dr. Rothman’s Application Of The Hypothetical Monopolist Test Does Not Support His Conclusion That The Market Is All Closed-Systems Products

1415. Dr. Rothman’s reliance on the hypothetical monopolist test cannot carry Complaint Counsel’s burden to demonstrate the market is all closed systems, including both pod-based and cig-a-like products. (PX7048 Rothman Trial Dep. at 14 (“Q. What framework did you use to define the relevant product market? A. I used the hypothetical monopolist test described in the Horizontal Merger Guidelines.”)).

1416. *First*, although Complaint Counsel bears the burden on this issue, Dr. Rothman did not use the hypothetical monopolist test to analyze whether there are distinct submarkets within closed-system e-cigarettes. In fact, he concedes that he made no attempt to determine whether a hypothetical monopolist with a pod-based device, such as JUUL, could profitably impose a price increase within a pod-based market. (PX7048 Rothman Trial Dep. at 128; *see also* Murphy Tr. 3114 (explaining that Dr. Rothman “didn’t do anything [in his initial report] dealing with the question of whether it is appropriate to think about a smaller market or, equivalently, whether it was important to think about differential rates of substitution between pod-based and cigalikes”)).

1417. This evinces a complete disregard for the “smallest market principle,” (RX217 Murphy Report ¶ 108), which reflects the customary practice that “when the Agencies rely on market shares and concentration, they usually do so in the smallest relevant market satisfying the hypothetical monopolist test.” (PX9098 Horizontal Merger Guidelines (“HMG”) at 013 § 4.1.1). Dr. Rothman’s report does not even acknowledge the existence of this principle. (PX5000 Rothman Report ¶¶ 63-66).

1418. *Second*, Dr. Rothman’s analysis in support of a market of all closed-system products relied on outdated elasticity studies that do not accurately reflect the market conditions in 2018—much less the market conditions today—and therefore are not probative of the extent to which consumers will substitute one e-vapor product for another. (RX1217 Murphy Report ¶¶ 102-06).

1419. Dr. Rothman acknowledged that “[e]lasticity could change over time and in different ways as the market evolves and matures.” (PX7048 Rothman Trial Dep. at 108).

1420. Dr. Rothman also acknowledged that the e-vapor industry is dynamic. (PX7048 Rothman Trial Dep. at 108).

1421. One of the market dynamics, Dr. Rothman agrees, was “JUUL’s growth,” which “really took off” in late 2017. (PX7048 Rothman Trial Dep. at 108-09). And that sort of change could “imply changes in elasticity.” (PX7048 Rothman Trial Dep. at 109).

1422. Despite recognizing that the market has changed in ways that could affect elasticity, *all* of the elasticity studies Dr. Rothman relies on in his hypothetical monopolist test are, as he admits, based on data from 2017 or earlier, *before* JLI was a significant player. (PX7048 Rothman Trial Dep. at 109; RX1217 Murphy Report ¶ 106).

1423. In fact, most of the data in these studies predate the introduction of pod-based products entirely. (PX7048 Rothman Trial Dep. at 109; *see also* RX1217 Murphy Report ¶ 105 (explaining that the studies “fail[] to differentiate between cig-a-likes and pod-based vaporizers”)).

1424. But despite this dramatic change in product offerings, Dr. Rothman relied on those outdated studies and made no attempt to assess whether the elasticity of pod-based products as a category is different from cig-a-like products as a category. (PX7048 Rothman Trial Dep. at 109).

1425. And this is just a small sample of the many ways in which the market has evolved since the elasticity data that underpins Dr. Rothman’s analysis was collected. As Professor Murphy details in his report, the elasticity studies that Dr. Rothman relies upon in his hypothetical monopolist test also:

- (a) Predate MarkTen Elite’s entry into the market and thus “cannot shed light on whether, in fact, MarkTen Elite competitively constrained JUUL,” an issue that is

“central to the market definition question in this case.” (RX1217 Murphy Report ¶ 103).

(b) Predate the rapid growth of the e-vapor products, much of which occurred after 2017, thereby failing to account for any different substitution behavior between early and later adopters of closed-system e-cigarettes. (RX1217 Murphy Report ¶ 104).

(c) Predate the stagnation of growth in cig-a-likes, which reflects “very different demand conditions in the relevant period,” trends that make it “unlikely that demand elasticities would be the same for cig-a-likes and pod-based vaporizers.” (RX1217 Murphy Report ¶ 105).

(d) Predate a period that “saw multiple brands trade the leading position in closed-system device sales (during 1H 2018), evidencing the highly dynamic nature of competition.” (RX1217 Murphy Report ¶ 106).

1426. These outdated and unrepresentative elasticity studies make Dr. Rothman’s hypothetical monopolist test for a prospective market of closed-system devices unreliable. (RX1217 Murphy Report ¶¶ 102-06).

XV. COMPLAINT COUNSEL CANNOT CARRY ITS BURDEN USING A PRESUMPTION BASED ON MARKET CONCENTRATION

1427. Ignoring all the real-world evidence discussed above, Complaint Counsel asks the Court to presume the transaction violates Section 7 of the Clayton Act “because it significantly increased concentration in the already highly concentrated market for the sale of closed-system e-cigarettes in the United States.” (CC Pretrial Br. at 62).

1428. As an initial matter, Altria’s decisions to pull its e-vapor products were not effects—anticompetitive or otherwise—of the transaction. *First*, the transaction is not *why* the

products were withdrawn. As previously demonstrated, Altria removed its products from the market for independent business reasons, not as the result of an agreement with JLI. (*See supra* Parts IX.B, IX.F, X.F). And Complaint Counsel acknowledged in its opening statement that if Altria removed its products for independent business reasons, Complaint Counsel is left with only a “potential competition claim,” (Tr. 72-73), a topic taken up below, (*see infra* Part XVI.C).

1429. *Second*, even assuming Altria removed its products because of the deal, Altria’s exit from the e-vapor marketplace is not an effect of the transaction based on *when* the products were pulled. Altria’s pre-transaction decisions, announced on October 25 and December 7, 2018, cannot be an effect of a partial acquisition that was not consummated until December 20, 2018. (*See supra* Parts IX.D.2, IX.F.3, X.B; *see also* CoL ¶¶ 65-66).

1430. Separate from this threshold problem, as explained below, Complaint Counsel is not entitled to a presumption, (*see infra* Part XV.A), and, even if it were, the presumption is rebutted based on the market conditions here, (*see infra* Part XV.B).

A. Complaint Counsel’s HHI Calculation Is Methodologically Flawed And Cannot Form The Basis Of A Presumption Of Anticompetitive Harm

1431. Complaint Counsel’s HHI calculation depends on three inputs—market definition, pre-transaction share figures, and post-transaction share figures—each of which are incorrect. (*See infra* Part XV.A.1-3).

1. Dr. Rothman’s Market Definition Is Unsubstantiated For The Reasons Explained Above

1432. *First*, as explained above, there is no support for Complaint Counsel’s proffered market definition. Practical indicia show that cig-a-likes and pod-based products are not close substitutes. (*See supra* Part XIV.A). And Dr. Rothman’s HMT analysis of a prospective

closed-system market cannot be credited because it rests on outdated and unrepresentative elasticity studies. (*See supra* Part XIV.B).

1433. But, even if the Court accepts that cig-a-likes and pods are in a single closed-system market, Complaint Counsel is still not entitled to a presumption because Dr. Rothman has not accurately calculated the market shares of the major competitors, as discussed in the sections that follow.

2. Dr. Rothman’s Pre-Transaction Market Share Calculation Improperly Disregards The Dramatic Decline Of Cig-A-Likes

1434. Dr. Rothman calculates pre-transaction HHI using the “shares of Altria, JLI, ITG, JTI, NJOY, and Reynolds in the *12-month period* from October 2017 to September 2018, before Altria began to remove its e-cigarette products from the market.” (PX5000 Rothman Report ¶ 87 (emphasis added)).

1435. Regardless of whether a twelve-month measurement may be appropriate in some contexts, “[i]n a dynamic market, relying on historical market shares is unlikely to provide a reliable assessment of the relative competitive strengths of different firms.” (RX1217 Murphy Report ¶ 130).

1436. During the twelve-month window that Dr. Rothman uses to measure pre-transaction HHI, the total share of cartridge volume for cig-a-likes declined rapidly, falling from having a majority (59 percent) of the market in January 2018 to a minority (19 percent) in late 2018. (RX1217 Murphy Report ¶ 80).

1437. Dr. Rothman admits that relative shares of cig-a-likes and pod-based systems “reversed” between 2017 and 2019. (PX7046 Rothman Dep. at 224).

1438. Unit volume reinforces the fact that cig-a-like sales were declining. The weekly sales volume of all cig-a-likes fell by approximately 500,000 units between cig-a-likes’ peak in the

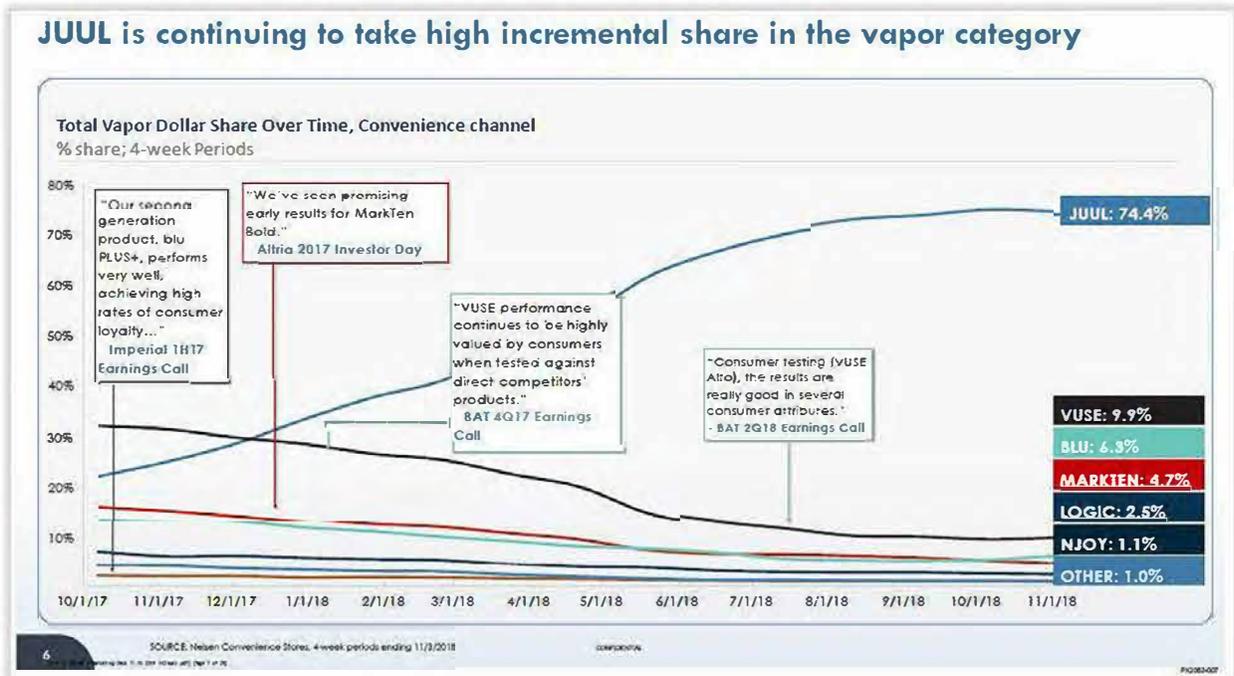
May of 2018 and October of that year. (RX1217 Murphy Report ¶ 115, Fig. VI.3 (showing unit sales fall from approximately 3.6 million to approximately 3.1 million); *see also* RX1217 Murphy Report ¶ 111 (“Sales of cig-a-like devices and cartridges peaked in 2018 2Q and have declined since that time”)).

1439. This decline was particularly significant for competitors like Altria, whose sales were heavily weighted towards cig-a-likes. (RX1217 Murphy Report ¶ 12; Murphy Tr. 3106-07).

1440. Although Dr. Rothman calculated that Altria had a 10.1 percent share among closed-system products, as measured over 12 months, (PX5000 Rothman Report ¶ 89, Tbl. 2), during his trial testimony he admitted that “Altria’s share between 2017 and 2018 went down.” (PX7048 Rothman Trial Dep. at 113).

1441. It not only went down, it had fallen to 7.5 percent among closed-system products, as measured by unit share, as of September 2018. (PX1127 (Altria) at 003).

1442. According to a JLI slide that Complaint Counsel presented during its opening statement, (Tr. 52), by November 2018, the dollar share of each of the major competitors had changed substantially over the course of October 2017 to September 2018:



(PX2062 (JLI) at 007).

1443. Altria’s share had fallen even lower to 4.7 percent, below both Vuse and ITG’s blu.

(PX2062 (JLI) at 007).

3. Dr. Rothman’s Post-Transaction HHI Is Based On A Faulty And Disproven Assumption That The Remaining Competitors’ Post-Transaction Shares Increased In Proportion To Their Pre-Transaction Shares

1444. Dr. Rothman posits an increase in HHI by assuming—contrary to reality—that Altria’s share was “reallocated to the remaining competitors in proportion to their shares.” (PX5000 Rothman Report ¶¶ 85, 88; *see also* PX7048 Rothman Trial Dep. at 123). Specifically, Dr. Rothman’s HHI calculation assumes that approximately half of Nu Mark’s customers switched to JUUL (which had a 51 percent share as of late 2018), approximately a quarter switched to Vuse (which had a 23 percent share), and so on. (RX1217 Murphy Report ¶ 124; PX5000 Rothman Report ¶ 89, Tbl. 2).

1445. Despite having access to post-transaction data and document productions of various market participants, Dr. Rothman admitted that he did nothing to test this arbitrary assumption. (PX7048 Rothman Trial Dep. at 123-34). Had he done so, we would have seen that his assumption of diversion proportionate to share is contrary to fact. In March 2019, JLI determined that the share that it had picked up from Nu Mark’s products was “pretty minimal,” as “most of the MarkTen share [was] picked up by VUSE Alto and other legacy players (i.e., Logic, VUSE ciro/vibe/solo and Blu).” (PX2457 (JLI) at 001). Those “legacy players” are mostly cig-a-likes. (*See supra* Parts I.B.1, II.A.1). That was unsurprising to JLI as MarkTen purchasers were “customers who for whatever reason were choosing markten over juul already.” (PX2457 (JLI) at 001).

1446. Similarly, Crozier, the category manager from Sheetz, agreed that “JUUL didn’t pick up the share that left the market when MarkTen came out, other competitors did.” (Crozier (Sheetz) Tr. 1548).

1447. [REDACTED]

1448. It is improper simply to assume—as Dr. Rothman does—that Nu Mark customers would overwhelmingly switch to JUUL when the actual market data shows that they in fact overwhelmingly switched to other brands. (Murphy Tr. 3145 (“[T]here’s nothing that would tell you that . . . proportional allocation is even close to what you would expect.”); Murphy Tr. 3118-20 (similar)).

1449. This illustrates one of the central problems with Dr. Rothman’s analysis: His “share reallocation calculation implicitly assumes that all e-cigarette products are equally close

substitutes to one another, regardless of their product differentiation.” (RX1217 Murphy Report ¶ 124).

1450. Dr. Rothman’s decision to disregard what actually happened has dramatic implications.

Dr. Rothman’s incorrect assumption that JLI would capture over half of Altria’s diverted sales accounts for nearly the entirety—94 percent, to be exact—of his calculated HHI increase of 652 points. (RX1217 Murphy Report ¶ 125 & n.220).

1451. An accurate assessment of HHI, using *actual market data*, shows that market

concentration has decreased substantially following the transaction, regardless of whether the Court defines the market as pod-based products or all closed-system e-vapor products.

(RX1217 Murphy Report ¶¶ 67-68).

1452. As Professor Murphy calculated, from October 2018 to September 2020 the HHI for *pod-*

based products fell over 3,000 points, a decrease of over 35 percent. (RX1217 Murphy

Report ¶ 67 (explaining that HHI fell from 8,492 in October 2018 to 5,440 in September

2020)). In addition, the HHI for all *closed-system e-vapor products* decreased by nearly 500

points during the same time period. (RX1217 Murphy Report ¶ 68 (showing that HHI fell

from 5,493 in October 2018 to 5,022 in September 2020, a decrease of 471 points)).

1453. Complaint Counsel does not challenge the accuracy of these HHI calculations. To the

contrary, Complaint Counsel’s expert, Dr. Rothman, does not dispute that, in the real world,

“HHI levels are . . . lower than they were prior to December 2018.” (PX7048 Rothman Trial

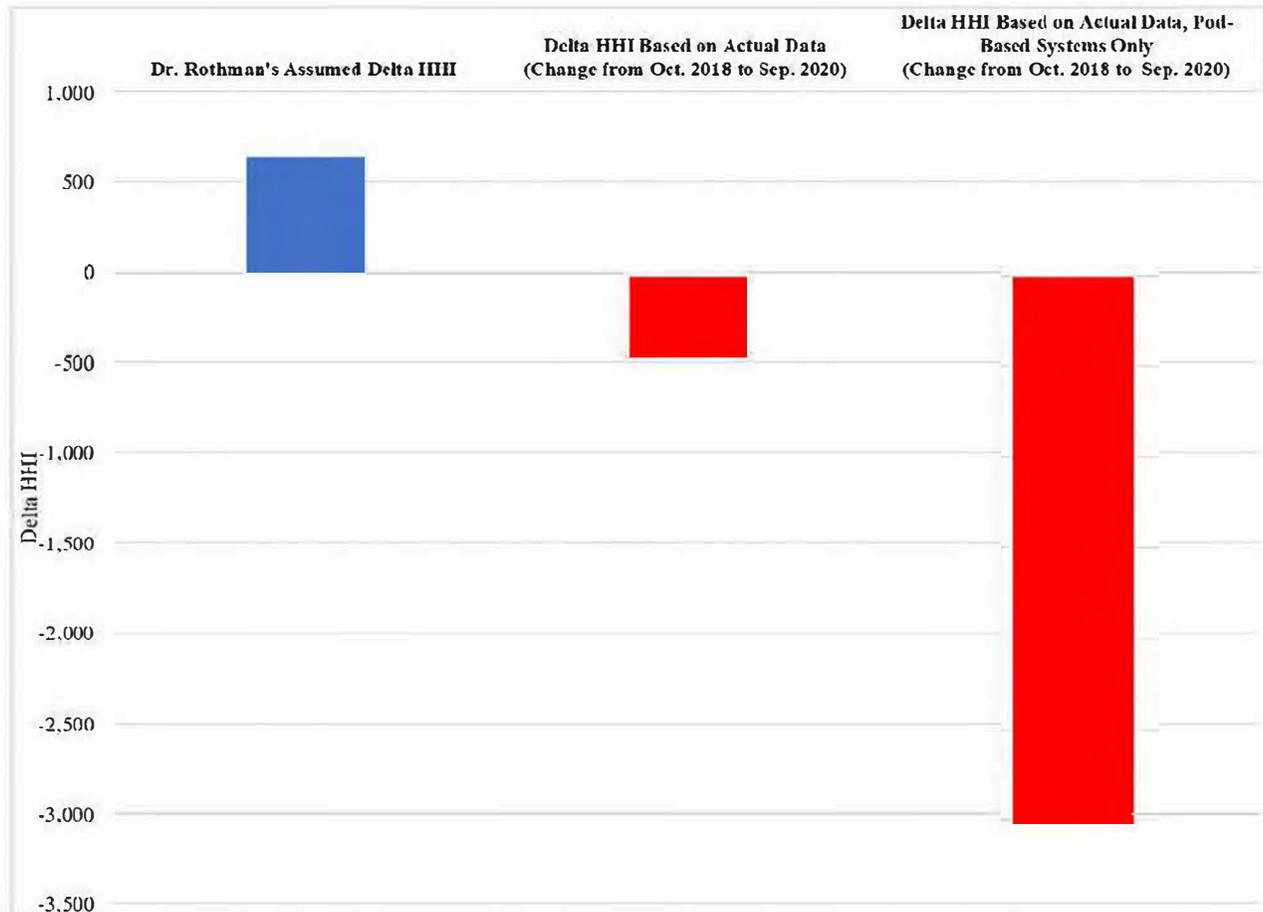
Dep. at 97).

1454. The difference between Dr. Rothman’s HHI calculation and an HHI calculation based on

actual data is illustrated in the following chart. The blue bar, which represents Dr. Rothman’s

calculation, shows an increase in HHI, while the middle bar, which represents the actual data for closed-system products, shows a substantial decrease in HHI:

Fig. VII.1: Dr. Rothman’s Delta HHI Compared with Delta HHI from Actual Data



(RX1217 Murphy Report ¶ 127, Fig. VII.1).

B. Even If The Court Credits Dr. Rothman’s HHI Calculations, In The Context Of This Case, HHI Is Not A Reliable Indicator Of Anticompetitive Effects

1455. Moreover, were the Court to accept Dr. Rothman’s HHI calculation, the presumption of anticompetitive effects is rebutted by evidence that HHI it is not a reliable indicator of Altria’s competitive significance or the competitiveness of the market more broadly. (*See infra* Part XV.B.1-2).

1. Altria’s Pre-Transaction Market Share Overstates Its Competitive Significance

1456. Even assuming that Altria’s pre-transaction market share among closed-system products was 10 percent, that share is not a reliable indicator of Altria’s competitive significance in October 2018 or going forward. (*See infra* ¶¶ 1457-79).

1457. HHI levels are not “a rigid screen.” (PX9098 (HMG) at 022 § 5.3). Instead, market concentration analysis takes account of whether “recent or ongoing changes in market conditions may indicate that the current market share of a particular firm . . . overstates the firm’s future competitive significance.” (PX9098 (HMG) at 019 § 5.2). This can be evidenced by “reasonably predictable effects of recent or ongoing changes in market conditions.” (PX9098 (HMG) at 019 § 5.2; *see also* PX9098 (HMG) at 021 § 5.3 (“Market shares may not full reflect the competitive significance of firms in the market or the impact of a merger.”)).

1458. Independent of the erroneous assumption regarding post-transaction HHI, Dr. Rothman’s *pre*-transaction market shares and resulting HHI calculation overstates Altria’s competitive significance because (1) Nu Mark’s offerings were primarily in the declining cig-a-like segment, (*see infra* ¶¶ 1459-63); (2) its pod-based product, Elite, lacked the nicotine salts that were nearly ubiquitous among its major pod-based competitors, (*see infra* ¶¶ 1464-69); and (3) following the flavor ban, at most one of the Elite cartridge flavors could remain on the market, (*see infra* ¶¶ 1470-74).

a. The Dramatic Decline Of Cig-A-Likes Undermined Altria’s Ability To Compete

1459. Just as the decline of cig-a-likes from October 2017 through September 2018 undermines the reliability of Dr. Rothman’s calculation of pre-transaction market shares for all the

competitors, it also overstates the competitive significance of Altria in particular. (*See infra* ¶¶ 1460-63).

1460. The decline in cig-a-likes was particularly significant for Altria because 90 percent of its sales in 2018 were cig-a-likes. (RX1217 Murphy Report ¶ 12; Murphy Tr. 3106-07).

1461. And, just as cig-a-likes' share of the e-vapor industry fell by more forty percent during the 12 months before the transaction, (RX1217 Murphy Report ¶ 41, Figs. IV.2, IV.3), distorting Dr. Rothman's inputs, they continued to decline in the wake of the transaction, falling to just 5 percent of closed-system volume share for both devices and cartridges as of September 2020, (RX1217 Murphy Report ¶ 62, n.143).

1462. "Given the continually declining importance of cig-a-likes within all closed-system e-cigarettes," Altria's pre-transaction share, however measured, dramatically overstates its competitive significance going forward and "is a poor predictor of what its share would have been in the but-for world in which Altria continued to sell e-cigarette products." (RX1217 Murphy Report ¶ 130; *see also* Murphy Tr. 3166-67 ("Altria's importance would be lower if you . . . looked at the more relevant future in that picture as opposed to the past.")).

1463. In sum, a "recent . . . change[] in market conditions," here the decline in cig-a-likes, "indicate[s] that the current market share of a particular firm," in this case, Altria, "overstates the firm's future competitive significance." (PX9098 (HMG) at 019 § 5.2).

b. The Market Shift Toward Pod-Based Products With Nicotine Salts Undermined Altria's Ability To Compete

1464. Altria's competitive significance is further overstated because the market was shifting towards pod-based products with *nicotine salts* and Altria was one of the few major participants without such a product. (RX1217 Murphy Report ¶ 40; Murphy Tr. 3137-38).

1465. “[U]nlike JLI’s JUUL, NJOY’s Ace, ITG’s *myblu* INTENSE and Reynolds’[s] Vuse Alto,” which all had nicotine salts, Elite did not contain nicotine salts in its e-liquid. (RX1217 Murphy Report ¶ 40; *see also supra* Part II.A, II.B.1-3).
1466. As Professor Murphy observed from analyzing the market data, “within the pod-based products, those that had nicotine salts tended to be far more successful than those that did not.” (Murphy Tr. 3138; *see also* PX7047 Murphy Dep. at 44; *supra* Part XII.C).
1467. This dynamic was on full display with Elite. Although Dr. Rothman acknowledges that Altria was “pushing MarkTen Elite aggressively” during the time that it was on the market, (PX7048 Rothman Trial Dep. at 176), Elite never achieved more than a 0.9 percent share of cartridge sales in the closed-system market, (RX1217 Murphy Report ¶ 79; *see also supra* Part III.E).
1468. In addition, based on 33 weeks of sales data analyzed by Professor Murphy, “MarkTen Elite’s sales were outperformed by sales of Reynolds’[s] Vuse Alto [and] NJOY Ace . . . during the corresponding post-launch periods for each of those competitors.” (RX1217 Murphy Report ¶ 133). Both of those products have salts. (RX1217 Murphy Report ¶ 133).
1469. As the Commission has recognized, “if a new technology that is important to long-term competitive viability is available to other firms in the market, but is not available to a particular firm, the Agencies may conclude that that firm’s historical market share overstates its future competitive significance.” (PX9098 (HMG) at 019-20 § 5.2).

c. The Flavor Ban Would Have Undermined Altria’s Ability To Compete

1470. FDA’s ban on all cartridges that were not tobacco or menthol flavored, which took effect in February 2020, (PX9016 (FDA) at 002), would have further diminished Altria’s competitive significance, (*see infra* ¶¶ 1471-74).

1471. Dr. Rothman incorrectly assumes that the flavor ban would have benefited Altria because, as of 2018, 83 percent of Altria's cartridge sales were of tobacco and menthol products.

(PX5000 Rothman Report ¶ 119, Tbl. 6).

1472. This assumption is doubly flawed. *First*, "Dr. Rothman's underlying assumption that the percent of tobacco and menthol flavored cartridges within a company's portfolio of cartridge sales prior to the Flavor Ban predicts sales or sales growth post Flavor Ban is incorrect."

(RX1217 Murphy Report ¶ 156). Although Dr. Rothman made no attempt to test his assumption, Professor Murphy's analysis shows there is no correlation between pre-flavor ban sales and post-flavor ban sales. For example, JTI, which had the highest share of tobacco and menthol flavored cartridges in 2018, accounted for only 2.2 percent of cartridge sales from January through September of 2020. (RX1217 Murphy Report ¶ 155).

1473. *Second*, Dr. Rothman fails to account for the fact that Altria's cig-a-likes had a "higher share of tobacco and menthol flavored [cartridges] than its pod-based vaporizer[s]" and "cig-a-likes were declining in demand such that the very factor Dr. Rothman identified as a predictor of future sales growth post Flavor Ban is in fact a predictor of declining sales in the case of Altria." (RX1217 Murphy Report ¶ 157).

1474. In addition, the flavor ban would have had significant negative consequences for Nu Mark's pod-product, Elite, a product for which the primary selling point was its strong flavors. (PX4012 (Altria) at 023 (stating that one of "Elite's primary benefit[s]" was its "good tasting flavors")). Four of the five cartridge offerings for Elite indisputably would be barred by the flavor ban. (PX1647 (Altria) at 014 (listing Strawberry Brulee, Apple Cider, Hazelnut Cream, and Glacier Mint)). The fifth, "Sweet Original," was described by Altria as having "a balanced tobacco blend with honeysuckle and fruit flavors," (PX1647 (Altria) at 014), and it

is not clear how FDA would have classified it, (PX9016 (FDA) at 002). What is clear is that, had Altria not discontinued all sales of its Elite product in October 2018, the flavor ban would have forced the company to discontinue selling nearly all or all of its MarkTen Elite pods beginning in February 2020. Even if Sweet Original had been allowed to remain on the market, “that flavor constituted less than one-quarter of MarkTen Elite sales and only 2.2 percent of Altria’s total e-cigarette product sales in 2018.” (RX1217 Murphy Report ¶ 53). Taken together, this suggests that, following the flavor ban, Altria would have become “an even smaller and more distant competitor” in the but-for world. (RX1217 Murphy Report ¶ 81).

2. Market Volatility Further Undermines The Reliability Of Dr. Rothman’s HHI Calculation

1475. As the Commission recognizes, “even a highly concentrated market can be very competitive if market shares fluctuate substantially over short periods of time in response to changes in competitive offerings.” (PX9098 (HMG) at 021 § 5.3).

1476. Thus, where market share statistics are volatile, HHI statistics are notoriously unreliable. (CoL ¶ 84; *see also* PX9098 (HMG) at 021 § 5.3 (“The Agencies give more weight to market concentration when market shares have been stable over time”)).

1477. This principle applies here: The dramatic fluctuations in market share among the e-vapor competitors further demonstrate that Dr. Rothman’s HHI calculation cannot support a presumption of anticompetitive effects. (RX1217 Murphy Report ¶ 72).

1478. Regardless of how one frames the HHI calculation or the market to which it is applied, the evidence indisputably shows that the market has experienced several “significant swings in market share” in the last several years. (RX1217 Murphy Report ¶ 72; *see also* PX8006 Kloss

(Wawa) Decl. at 003-04 ¶¶ 13-15 (explaining that category leadership has changed several times); PX7037 Huckabee (JLI) Dep. at 84-85 (similar)).

1479. “NJOY Ace expanding to nearly match JUUL’s market share in less than a year followed by Vuse Alto rapidly winning share and surpassing both JUUL and NJOY Ace, illustrate the dynamic nature of competition in e-cigarettes, with rival brands successfully repositioning and expanding to win sales.” (RX1217 Murphy Report ¶ 72; *see also supra* Part XII.A).

XVI. COMPLAINT COUNSEL CANNOT DEMONSTRATE ANTICOMPETITIVE EFFECTS BY SHOWING THAT ALTRIA WOULD HAVE BEEN A SIGNIFICANT COMPETITOR

1480. Nor can Complaint Counsel satisfy its burden to demonstrate anticompetitive effects by showing that, but for the transaction, Altria would have been a “significant competitor” in the e-vapor industry, either through (1) Nu Mark’s on-market products, (2) its development pipeline, or (3) potential partnership opportunities. (CC Pretrial Br. at 12-14, 52, 72-74; PX5000 Rothman Report at ¶¶ 131-33).

1481. As explained below, the record overwhelmingly refutes this assertion. (*See infra* Part XVI.A-C).

A. Dr. Rothman’s Opinion That Altria Would Have Been A Significant Competitor Lacks A Reliable Methodology And Is Devoid Of Meaningful Analysis Of The But-For World

1482. As an initial matter, Dr. Rothman’s opinion that Altria would have been a significant competitor cannot be credited because it lacks a reliable methodology and offers no tangible predictions about what would have happened in the but-for world where Altria remained in the e-vapor marketplace. (*See infra* Part XVI.A.1-2).

1. Dr. Rothman Has No Scientific Methodology And Concedes That His Analysis Is Not Replicable

1483. Complaint Counsel retained Dr. Rothman to “conduct an economic analysis of the effects of the transaction on competition.” (PX5000 Rothman Report ¶ 8). The bulk of his report is devoted to a factual discussion of whether Altria would have been a significant competitor based on Dr. Rothman’s review of selected documents and testimony, (PX5000 Rothman Report ¶¶ 91-140; *see also* PX5000 Rothman Report ¶¶ 18-61), and ignores the evidence presented by Respondents, (PX5000 Rothman Report at B-1 to B-15; PX5001 Rothman Rebuttal at A-1 to A-3).

1484. And, although Dr. Rothman does not know the “exact figure” that he has been paid for his work on this matter, he estimates that it is “between a million and \$2 million.” (PX7048 Rothman Trial Dep. at 192).

1485. But Dr. Rothman’s approach flouts the foundational principle that it is inappropriate for experts to serve as a vehicle for factual narrative. (CoL ¶ 120).

1486. Dr. Rothman’s significant competitor discussion opines on lay matters that the Court is capable of understanding and deciding without his testimony. For example, Dr. Rothman asserts that “Altria would not have shut Nu Mark down but for the transaction,” (PX5000 Rothman Report ¶ 121), even though intent is not a proper question for an expert, (CoL ¶ 120). And he admits that his significant competitor finding “was not based on a prediction of an economic model, but rather on an economic analysis of a broad collection of facts— data, documents, and testimony.” (PX5001 Rothman Rebuttal ¶ 57; *see also* PX7046 Rothman Dep. at 160-65 (explaining that he did not use econometric analysis for his significant competitor conclusion); PX7048 Rothman Trial Dep. at 164 (agreeing that he did not use the antitrust logit model to determine whether Altria was a significant competitor)).

1487. Dr. Rothman acknowledged that he is unable to explain his methodology for choosing what documents and testimony to rely on and what to disregard: “I’m not sure how I would explain to a judge or to another economist [what I did].” (PX7046 Rothman Dep. at 167; *see also* PX7048 Rothman Trial Dep. at 138-39, 181-82 (similar)). Nor can he explain why he skipped over critical documents like the August 19 term sheet. (PX7046 Rothman Dep. at 279; PX7048 Rothman Trial Dep. at 139-40).

1488. But no explanation is required to see that Dr. Rothman does what no fact-finder would ever be allowed to do—he considers only one side of the evidence, relying solely on exhibits offered by Complaint Counsel. (PX5000 Rothman Report at B-1 to B-15; PX5001 Rothman Rebuttal at A-1 to A-3 (relying on over 800 Complaint Counsel exhibits and zero Respondent exhibits)). Dr. Rothman’s “cherry-picking” of facts and “fail[ure] to adequately account for contrary evidence” makes his factual narration not only inappropriate for an expert, but completely unreliable. (CoL ¶ 121).

2. Dr. Rothman Cannot Say What Would Happen In The But-For World And Improperly Assumes, Without Explanation, That Altria Would Have Been A Significant Competitor

1489. Dr. Rothman’s repeated admissions that he cannot say *how* Altria would have been a substantial competitor in the but-for world further undermine the reliability of his opinion. (*See infra* ¶¶ 1490-500).

1490. Although Dr. Rothman opines that Altria “likely would have been a significant competitor” in the but-for world, he testified that *how* Altria would have achieved this is “not knowable.” (PX7046 Rothman Dep. at 263-64).

1491. For example, Dr. Rothman admits that he cannot identify which particular products Altria would have had on the market at any point in time in the but-for world. (PX7046 Rothman Dep. at 185-87, 264-65; PX7048 Rothman Trial Dep. at 155).

1492. Similarly, notwithstanding that Dr. Rothman’s analysis relies on pipeline products that Altria had in development, (PX5000 Rothman Report ¶ 106; PX5001 Rothman Rebuttal ¶¶ 12-14), he admits that he cannot say what would have happened to any of those products had Altria continued to work on them, (PX7046 Rothman Dep. at 212-13); which (if any) products would have received the FDA approval necessary to reach the market, (PX7046 Rothman Dep. at 201-02); or whether any particular pipeline product would have succeeded, (PX7046 Rothman Dep. at 265-66).
1493. Dr. Rothman cannot identify different measures that Altria could have taken to be successful had it stayed on the market. (PX7046 Rothman Dep. at 255-56; PX7048 Rothman Trial Dep. at 176).
1494. Dr. Rothman cannot say what Nu Mark’s overall market share actually would have been if it had remained in the market. (PX7046 Rothman Dep. at 243).
1495. Dr. Rothman cannot say what Elite’s or MarkTen cig-a-likes’ respective market shares would have been. (PX7048 Rothman Trial Dep. at 190; *see also* PX7046 Rothman Dep. at 268 (“I don’t have a prediction about what would have happened to the share of specific products over time and in the but-for world.”)).
1496. And Dr. Rothman cannot identify what JLI or any other competitor would have done differently had Altria remained in the market. (PX7046 Rothman Dep. at 91-92, 109-10; *see also* PX7046 Rothman Dep. at 293 (“In the but-for world, JLI, Reynolds, Njoy would have been competing in the market as they are in the actual world . . . ”)).
1497. Although Dr. Rothman predicts that Altria would have been a substantial competitor, he has no response to the fact that 90 percent of Nu Mark’s sales in 2018 were in the declining cig-a-like category. He has no explanation for how Elite, Nu Mark’s pod-based product,

could compete against products with nicotine salts when Elite did not have any salts. And he has no response to Altria's long history of failed innovation, and its implications for Altria's ability to succeed with any pipeline products. (PX5000 Rothman Report (offering no explanation on these topics); PX5001 Rothman Rebuttal (same)).

1498. Dr. Rothman's significant competitor assessment essentially boils down to this: "[W]hat made [Altria] a competitive threat, was its ability to make significant up-front investments to compete for the long run, the long run payoff." (PX7048 Rothman Trial Dep. at 74). In other words, Altria had the financial resources to lose a significant amount of money investing in e-vapor.

1499. But that is not how competition works. No amount of financial resources to support distribution, product rollout or marketing "can drive adoption of a product if the product isn't good and doesn't deliver on consumers' desires and needs." (PX7014 Baculis Dep. at 62-63). And no amount of investment in PMTA studies can secure approval for a product that is not appropriate for the protection of public health. (PX7017 Magness Dep. at 279 ("It's almost irrelevant how good we are as a regulatory team. If the products are unsuccessful at converting adult smokers, they will not succeed through the regulatory pathway.")).

1500. Instead "form and satisfaction were really the drivers and the product attributes that were required to convert adult smokers." (Begley (Altria) Tr. 1080). And, as discussed below, none of Altria's existing products had that combination. (Gardner (Altria) Tr. 2590; PX7031 Willard (Altria) Dep. at 268-69; *see also infra* Part XVI.B). And there is no evidence that Altria could have timely developed or acquired a new product. (*See also infra* Part XVI.C).

B. Altria’s Existing Products Were Weak Competitors With No Chance Of PMTA Approval

1501. Complaint Counsel and Dr. Rothman’s assumption that Altria would have been a significant competitor simply because “Altria had multiple closed-system e-cigarette products in the market and multiple closed-system e-cigarette products and collaborations in the pipeline,” (PX5001 Rothman Rebuttal ¶ 13; *see also* CC Pretrial Br. 12-14, 52-53 (similar)), is unsupported by any analysis of those products’ prospects and belied by the record.
1502. The evidence proves that Nu Mark’s predicate products—i.e., those products that were on the market in some capacity by August 8, 2016, and thus could be sold for a period of time before obtaining regulatory approval—were not capable of competing successfully in a market shifting toward salt-based pod products. (*See infra* Part XVI.B.1-5).
1503. Nor were these predicate products capable of acquiring the PMTA approval necessary to remain on the market. (PX7031 Willard (Altria) Dep. at 268-69 (“[N]one of the MarkTen products had a reasonable likelihood of future success as measured by adult smoker conversion or profitability or, frankly, even being able to stay on the market . . .”). As a result, Altria was not going to be able to continue competing with these products in the long term. (Garnick (Altria) Tr. 1690 (explaining that products that do not receive FDA approval need to be pulled from the market)).

1. MarkTen Cig-A-Like

1504. *First*, as discussed above, the MarkTen cig-a-like lacked the nicotine formula necessary for conversion. (*See supra* Part V.C.1). MarkTen cig-a-like both lacked nicotine salts and had a nicotine content of only 2.5 and 3.5 percent. (PX4029 (Altria) at 012). In contrast, JUUL came in a 5 percent nicotine by weight strength with 4 percent acid (leading to the creation of nicotine salts). (RX0796 (Altria) at 050; *see also* Jupe (Altria) Tr. 2273-74).

1505. Although MarkTen Bold had some nicotine salts, “it was the wrong level altogether.”

(Jupe (Altria) Tr. 2136; *see supra* Part V.C.1; *see also* Jupe (Altria) Tr. 2228-29 (explaining that Bold ultimately “was not satisfying” because it did not have “enough salt”)). Bold had 4 percent nicotine by weight and 1 percent acid. (Jupe (Altria) Tr. 2228-29; PX7015 Gogova (Altria) Dep. at 137; RX2036 (Altria) at 005). At that ratio, Bold still was “losing 60 percent of its nicotine into the mouth and throat region, not getting to the lung.” (Jupe (Altria) Tr. 2274).

1506. Although Altria was attempting to develop an e-liquid with the appropriate nicotine-to-salts ratio, that process was complex and the outcome uncertain. (Jupe (Altria) Tr. 2139-42; *see also* Jupe (Altria) Dep. at 107-08 (explaining the “huge amount of data that was missing from making [a product with nicotine salts] a reality”)).

1507. In addition, even if Altria had been able to develop an e-liquid with an appropriate nicotine-to-salts ratio, that would have constituted a “new product” under the Tobacco Control Act and thus would have required premarket approval by FDA before the redesigned product could be launched. (Garnick (Altria) Tr. 1691; *see also* Murillo (Altria/JLI) Tr. 3069).

1508. As discussed below, new product entries are subject to a higher standard under Section 7. (*See infra* Part XVI.C).

1509. *Second*, MarkTen cig-a-like was in the wrong format—the declining cig-a-like category. (*See supra* Part XII.B).

1510. *Third*, MarkTen lacked dry puff prevention technology, which meant that it generated higher formaldehyde levels compared to other e-vapor products. This imperiled its chances at obtaining regulatory approval and made it unlikely that the product would remain on the

market beyond a few years. (PX1890 (Altria) at 001 (“[N]o one thinks we can get a PMTA on current Mark Ten product.”); *see also supra* Parts III.B.1, V.C.2).

1511. Although Altria was working on a solution to the dry-puff problem, that solution was not finalized as of late 2018 and, even if it ultimately were perfected, could not be implemented without first obtaining FDA approval. (*See supra* Part IX.F.2).

2. Elite

1512. Elite’s competitive and regulatory prospects were hamstrung by a similar set of problems, minus the unfavorable form factor. (*See infra* ¶¶ 1513-16).

1513. Elite lacked salts and did not have a high nicotine content, meaning that it was incapable of providing the nicotine satisfaction necessary to convert adult smokers. (*See supra* Part V.C.1, V.C.6).

1514. The proof was in the numbers: Despite aggressive promotion and significant distribution, Elite never achieved more than 1 percent share of e-cigarette cartridge sales prior to its discontinuation, (RX1217 Murphy Report ¶ 122; *see also supra* Part III.D-E), and it did not show attachment by consumers, (Robbins (JLI) Tr. 3250-51).

1515. There is no reason to think the result would be any different in the but-for world. The only other pod product from a major manufacturer that lacks nicotine salts—JTI’s Logic Pro—in September 2020 had just 0.3 percent device share among pod-based products. (Murphy Tr. 3153).

1516. And like MarkTen cig-a-like, Elite lacked technology that would prevent dry puffing, which imperiled its PMTA prospects. (*See supra* Parts III.B.2, V.C.2). Thus, it too had only a limited window in which to compete. (Garnick (Altria) Tr. 1690).

3. Apex

1517. Apex was a PMI e-vapor product that Altria had a license to sell in the United States.

(Begley (Altria) Tr. 983; Murillo (Altria/JLI) Tr. 2958-59; *see also* [REDACTED]
[REDACTED])

1518. Apex was sold only in a limited, e-commerce test market, beginning in August 2018.

(PX7017 Magness (Altria) Dep. at 288; PX1072 (Altria) at 004).

1519. Altria had no plans to pursue Apex long term and had decided not to invest in a PMTA for the product in early 2018, (PX7027 Murillo (Altria/JLI) Dep. at 191-92), meaning it would have needed to exit the market upon the PMTA filing deadline, (Murillo (Altria/JLI) Tr. 2946).

1520. Apex had “no nicotine salts,” (Begley (Altria) Tr. 1082-83), and low nicotine concentration, (Murillo (Altria/JLI) Tr. 2960), making it “hard to see” how it would be “effective at conversion,” (Murillo (Altria/JLI) Tr. 2960; *see also* PX7023 Fernandez (Altria) Dep. at 197 (explaining that Apex did not “satisf[y] versus the smokers’ requirements”)). Indeed, the portfolio assessment group rated it as having “[l]ow” conversion potential due to “minimal nicotine satisfaction.” (RX0532 (Altria) at 011).

1521. In addition, Nu Mark did not view Apex as a product that appealed to adult cigarette smokers. (Schwartz (Altria) Tr. 1916). Instead, it was “a closed-tank product that . . . [Nu Mark was] thinking about in the context of a product potentially for open-system adult vapers in the event that open-system products couldn’t get approval from the FDA.” (Begley (Altria) Tr. 1082).

1522. For a mainstream audience, Apex’s “large,” “baton”-like shape was seen as too “[c]lunky.” (King (PMI) Tr. 2535; RX0532 (Altria) at 011; *see also* PX7023 Fernandez (Altria) Dep. at 197 (describing Apex as “too big, bulky”)).

1523. Apex’s design and nicotine satisfaction deficits were so disabling that PMI “never intended [for Apex] to be successful on its own. [PMI] never really had any idea or plan that it would be anything other than a limited test.” (King (PMI) Tr. 2547). From the outset, PMI understood that Apex needed to be “quite a bit smaller” and have a better e-liquid formula. (King (PMI) Tr. 2547; *see also* King (PMI) Tr. 2534 (explaining that when Apex was put on the market, PMI already was “making improvements in the form factor and in various other aspects” for the next generation)). “[W]hen [PMI] put [Apex] on the market in the UK, [it] already had a plan to move to the next generation as soon as possible” (King (PMI) Tr. 2534-35; *see also* PX7017 Magness (Altria) Dep. at 289 (explaining that because PMI “had moved on in [its] development,” it was only able to supply Altria’s Regulatory Affairs team with a new iteration of the product, which “would not have helped . . . in studying it for PMTA purposes [because] it was not the same product”)).

4. Cync

1524. Unlike the three products previously mentioned, Altria never commercialized Cync and its chances of ever doing so were “[s]lim to none.” (Schwartz (Altria) Tr. 1914).

1525. Shortly after Nu Mark acquired Cync, the scientists did “a brief evaluation of the product” and concluded “that there would be many things to change before [Altria could] even file [a] PMTA.” (PX7015 Gogova (Altria) Dep. at 44-45; *see also* PX7017 Magness (Altria) Dep. at 50-51 (similar)).

1526. Cync “had many of the same temperature control problems as the other products,” and it also had “a risk of acute chronic nickel poisoning, which is why [Altria] never put it on the market.” (Garnick (Altria) Tr. 1742-43).

1527. In addition, Cync consistently performed worse than Elite in consumer testing. For example, in the trio of home use tests Altria conducted in the fall of 2017, Cync had the

lowest purchase intent score and the lowest propensity to replace cigarettes. (RX0496 (Altria) at 008 (purchase intent), 019 (propensity to replace); *see also* RX0532 (Altria) at 010 (“HUT results indicated Cync was used primarily in situations where [consumers] couldn’t smoke and was not perceived as enjoyable and satisfying versus Elite[.]”)).

5. VIM

1528. VIM—a product Altria had acquired from a company called KangerTech— also was never commercialized. (PX7018 Schwartz (Altria) Dep. at 164; PX7017 Magness (Altria) Dep. at 288).

1529. Schwartz described VIM as “a big . . . honking kind of big thing and just a different proposition, vaping experience proposition.” (PX7018 Schwartz (Altria) Dep at 166-67). And “[i]t had a lot of work to do.” (PX7018 Schwartz (Altria) Dep. at 167; *see also* PX7015 Gogova (Altria) Dep. at 43 (“[W]e didn’t really think that . . . [VIM] would even pass the PMTA authorization.”); PX7017 Magness (Altria) Dep. at 49 (“[I]t became very clear that the road ahead for Vim would be very difficult.”)).

1530. Garnick previewed some of that work for the Altria Board in August 2018. (Garnick (Altria) Tr. 1743). As the presentation he gave to the Board explained, VIM had a host of regulatory red flags including, “[a]cute battery hazard,” “[a]cute toxicological risk due to nickel components,” and it “[n]eed[ed] [a] complete product integrity assessment, including consumption data,” given that “[e]ven formulations [were] not approved due to toxicological concerns,” while “others [were] still in review.” (PX4149 (Altria) at 042). VIM also lacked dry puff prevention, just like MarkTen cig-a-like and Elite. (PX4149 (Altria) at 042). Rectifying these issues would require a complete “[r]edesign.” (PX4149 (Altria) at 043).

1531. Altria also was unsure if VIM legally could be placed on the market because it was “struggling to get the fundamental documentation” to confirm that VIM was sold as of August 8, 2016. (PX7017 Magness (Altria) Dep. at 50-51; *see also* PX4149 (Altria) at 042 (similar)).

C. With Respect To Products That Altria Had Not Yet Developed Or Put On The Market, Complaint Counsel Cannot Satisfy The “Actual Potential Competition” Doctrine

1532. There also is no evidence that Altria would have been a significant competitor with a *new product* not currently in its portfolio. (*See infra* Part XVI.C.1-5).

1533. Complaint Counsel and Dr. Rothman both make much of (1) Altria’s efforts to modify MarkTen and Elite to fix their debilitating design flaws; (2) the company’s pipeline of internally developed products; and (3) its supposed ability to partner with another company to obtain access to a new product. (CC Pretrial Br. 14; PX5001 Rothman Rebuttal ¶¶ 15-16).

1534. But to the extent that Complaint Counsel’s anticompetitive effects argument is premised on a prospective product entry that *might occur* at some point in the future, either because the Court finds that Altria’s on-market products were withdrawn for independent business reasons or that those on-market products would not have been significant competitors, Complaint Counsel must satisfy a higher evidentiary standard. Complaint Counsel must establish the “future . . . competitive conditions” of the market into which those products might enter, namely (1) that it will be concentrated; (2) that there is a substantial likelihood that independent entry would produce deconcentration; and (3) that Altria is one of only a few equally likely actual potential entrants. (CoL ¶ 97). In addition, Complaint Counsel must present (4) “clear proof” that, but for the acquisition, independent entry would have occurred within the “*near future*.” (CoL ¶ 98).

1535. Complaint Counsel falls short of this standard in at least three respects.

1536. *First*, the PMTA approval requirement makes entry into the e-vapor industry a matter of government grace and Complaint Counsel cannot prove, much less *clearly* prove, that any future product would be approved. (*See infra* Part XVI.C.1).

1537. *Second*, the lengthy lead time for developing an e-vapor product and receiving FDA approval precluded Altria from entering the market with a new product in the “near future.” (*See infra* Part XVI.C.2).

1538. *Third*, Complaint Counsel cannot demonstrate that any of the internal or external products it identified as possible candidates that Altria might have pursued would have been viable competitors. (*See infra* Part XVI.C.3-4).

1. Complaint Counsel Failed To Demonstrate “Clear Proof” Of Future Entry In Light Of The Rigorous PMTA Approval Requirement

1539. Even assuming Altria had been able to develop a new e-vapor design, which itself is highly uncertain, (*see infra* Part XVI.C.3-4), Complaint Counsel failed to provide clear proof that such a hypothetical product could have obtained the regulatory approval required to reach the market.

1540. As Complaint Counsel emphasizes, the PMTA is a “strenuous requirement” and a “significant hurdle” to entry. (CC Pretrial Br. 67; *see also* PX5000 Rothman Report ¶ 183 (emphasizing that “[o]btaining PMTA approval is also costly and takes multiple years”); Garnick (Altria) Tr. 1685-86 (similar); PX8005 Graham (NJOY) Decl. at 004 ¶ 20 (similar); *supra* Part I.D.3). That barrier, which is product specific, applies to any “new entrant or current competitor.” (CC Pretrial Br. 67; PX5000 Rothman Report ¶ 181 (similar); *see also* Garnick (Altria) Tr. 1685-86). As a result, the barrier also applies to any hypothetical new product that Altria supposedly would have sought to commercialize in the but-for world. (*See* 21 U.S.C. § 387j).

1541. In addition, unlike those products that were on the market as of August 8, 2016, products that were commercialized after that date—including (1) hypothetical new versions of MarkTen cig-a-like and Elite with dry puff prevention and more satisfying nicotine formulations, (2) all the internal development projects, and (3) external partnership option that Complaint Counsel contends was available to Altria—would have required FDA approval before *entering* the market. (Garnick (Altria) Tr. 1686; CC Pretrial Br. 67; PX5000 Rothman Report ¶ 181; *see also supra* Part I.D.2).

1542. Industry participants understand that the standards for successfully obtaining a PMTA are “rigorous.” (Garnick (Altria) Tr. 1686; *see also* PX8009 Garner (Reynolds) Decl. ¶ 37 (same)). “The FDA will grant a PMTA only if the manufacturer meets a very demanding standard.” (PX8005 Graham (NJOY) Decl. at 003 ¶ 14; *see also* PX7017 Magness (Altria) Dep. at 89 (describing a PMTA as “a very high bar”)).

1543. And as even those manufacturers who already have commercialized products and submitted a completed PMTA acknowledge, when it comes to FDA review, the “outcome is uncertain.” (PX8005 Graham (NJOY) Decl. at 004 ¶ 23).

1544. In light of these barriers, Complaint Counsel did not even attempt to establish with “clear proof” that Altria could have obtained the FDA approval necessary for commercialization of any product not on the market as of August 8, 2016. To the contrary, Complaint Counsel’s expert Dr. Rothman conceded that he cannot say whether FDA would have approved any particular product. (PX7046 Rothman Dep. at 202 (“What the FDA would have done with respect to any product by 2020 isn’t knowable”)).

2. Complaint Counsel Failed To Demonstrate “Clear Proof” That Altria Could Have Launched A Prospective Product In The “Near Future”

1545. In addition, even if Altria could have (1) engineered dry puff prevention and satisfying nicotine formulations for MarkTen cig-a-like and Elite, (2) developed a new e-vapor product, or (3) partnered with an external company, Complaint Counsel failed to offer clear proof that such a product would have reached the market in the near future. To the contrary, the evidence at trial was that it would take, in a best-case scenario, at least five years to bring a product to market, and potentially 10 years. (Garnick (Altria) Tr. 1661 (agreeing it “would take five to ten years” to develop a product and “then do the necessary studies for a PMTA”); Gifford (Altria) Tr. 2778 (explaining new products likely would take “five to seven years” to bring to market because of the Deeming Rule); Murillo (Altria/JLI) Tr. 2936 (taking a product “from scratch . . . all the way to a market order” would take “five to ten years, you know, maybe seven on average”)).

1546. As a threshold matter, Altria first would need to complete the design of the new product or any product fixes. According to Jupe, the product development phase takes two years, in a best-case scenario. (PX7016 Jupe (Altria) Dep. at 340-41 (explaining that a product development cycle, “at minimum, if you’re lucky, is two years”); PX7016 Jupe (Altria) Dep. at 24 (similar); *see also* PX2016 (JLI) at 017 (“[P]roduct design cycles in the space have been relatively slow given the significant complexity and engineering required to deliver a consistently compelling consumer experience and nicotine satisfaction.”); RX0450 (Altria) at 069 (projecting, in June 2018, that product development work on Elite 2.0 would continue well into 2020)).

1547. Indeed, Complaint Counsel acknowledged as much in its pretrial brief, stating that e-vapor “[p]roduct development . . . takes *multiple* years.” (CC Pretrial Br. 67 (emphasis added)).

Complaint Counsel elaborated that “the timeline for product development is slow given the engineering complexity of e-cigarette products.” (CC Pretrial Br. 67).

1548. Once Altria had locked down a design, Altria still would need to prepare the PMTA and FDA would have to approve the PMTA before the product could be commercialized.

(Garnick (Altria) Tr. 1661-62; PX7016 Jupe (Altria) Dep. at 340-41).

1549. Complaint Counsel has conceded that “the timeline for submitting a PMTA and receiving FDA approval can take more than three years.” (CC Pretrial Br. 67).

1550. The record evidence is consistent with Complaint Counsel’s concession. Multiple witnesses testified that it takes “approximately two years from design lock to filing a PMTA,” (Murillo (Altria/JLI) Tr. 2924; *see also* Quigley (Altria) Tr. 2038 (similar)), and 18 months to two years for FDA review, (Jupe (Altria) Tr. 2301; *see also* King (PMI) Tr. 2525 (explaining that IQOS PMTA review took two years); *supra* Part I.D.3, I.D.6).

1551. Altria has no pending PMTAs for e-vapor products before FDA. (Garnick (Altria) Tr. 1609; Murillo (Altria/JLI) Tr. 3024).

1552. As the sections below will demonstrate, (*see infra* Part XVI.C.3-4), none of Altria’s internal development projects or the fixes for its existing products were anywhere near design lock, nor were several of the external opportunities posited by Complaint Counsel. Thus, each of those products was likely *five or more* years from reaching the market. (*See infra* Part XVI.C.3-4). This is well beyond the “near future.”

3. Altria Lacked The Capabilities To Innovate And None Of Its Pipeline Projects Were Close To Design Lock

1553. Even setting aside the regulatory barrier to entry and the temporal constraints, Complaint Counsel has not proven that Altria was capable of introducing an internally developed product. (*See infra* ¶¶ 1553-611).

1554. To the extent that Complaint Counsel and Dr. Rothman address Altria’s capabilities, they focus on marketing, distribution, shelf-space, and funding. (CC Pretrial Br. 15 (arguing Altria was “well-positioned” to achieve leadership in e-vapor because of its “world-class marketing, sales, and distribution[,] and regulatory capabilities” (alteration in original) (internal quotation mark omitted) (quoting PX9045 (Altria) at 007)); PX5000 Rothman Report ¶¶ 104-05 & nn.228-31 (similar)). Nowhere do they show that Altria had demonstrated any ability to develop innovative products. The most that they can say is that “Altria had *plans*—and was executing on its plans—to put substantial resources into developing e-cigarette products” (PX5000 Rothman Report ¶ 132 (emphasis added); *see also* CC Pretrial Br. 53 (nearly identical)).

1555. But plans and resources are not enough. Altria had invested over \$2 billion in developing reduced-risk products before it founded Nu Mark; every single one was a commercial bust. (*See supra* Part II.A.1.b). It then invested hundreds of millions of dollars in Nu Mark’s internal development initiatives; none came to fruition. (*See supra* Part II.A.1.d).

1556. Innovation is difficult and is “going to fail the lion’s share of the time.” (Jupe (Altria) Tr. 2182-83).

1557. As Dr. Rothman acknowledged, with product development, “there’s no certainty.” “[O]ne doesn’t know if a particular project is going to result in a product on the market at a particular point in time.” (PX7046 Rothman Dep. at 265-66).

1558. And the evidence presented at trial uniformly shows that product innovation is not a “core competency” of Altria’s. (Schwartz (Altria) Tr. 1913).

1559. Every product Nu Mark launched was an acquisition from another company. (PX7018 Schwartz (Altria) Dep. at 163-64; *see also supra* Part II.A.1.e).

1560. And every internal development project that Nu Mark pursued over the course of five years failed to “[bear] fruit.” (Murillo (Altria/JLI) Tr. 2940-41).

1561. As Jupe summarized, “we make very good cigarettes, . . . but to significantly reduce the risk, I would say we have not had that innovation success.” (Jupe (Altria) Tr. 2213; *see also* PX7034 Mountjoy (Altria) Dep. at 98 (explaining Altria “wasn’t set up for innovation”; instead, it was “a company that’s strength lies in maintaining existing big brands”)).

1562. PMI, which had been sharing R&D in e-vapor with Altria since 2015, took a dim view of Altria’s internal development efforts. PMI was “disappointed in the results of the joint research coming from Altria.” (PX7020 King (PMI) Dep. at 222; *see also* King (PMI) Tr. 2529). PMI agreed that Altria’s contributions to the collaboration were “quite limited.” (King (PMI) Tr. 2529). One of PMI’s frustrations was that, while PMI tended to build technology, test it, and then refine, Altria’s approach was to buy products and, if necessary, try to improve them. (PX7020 King (PMI) Dep. at 213-14; *see also* [REDACTED]). As King, formerly the CEO of PMI America, summarized, PMI “had not seen a lot of success coming from Altria’s innovation in really any of the reduced-risk product areas.” (PX7020 King (PMI) Dep. at 209, 222).

1563. Altria was not “structured” to innovate. It “approached product development like a cigarette company” and “needed to think more like a technology company and have different capabilities and different processes.” (Quigley (Altria) Tr. 2025; *see also* PX7023 Fernandez (Altria) Dep. at 227 (“[Altria’s] culture was not conducive to innovation.”)).

1564. One of Altria’s major limitations was talent, particularly in electronics. As Willard explained, an “electronic e-vapor product is dramatically different than a cigarette, which is essentially tobacco wrapped in paper that you light.” (Willard (Altria) Tr. 1396). Early on in

his tenure, Quigley highlighted the talent gaps at Altria, particularly the need to bring in “external talent that had more experience innovating and that had experience with electronic products.” (Willard (Altria) Tr. 1396). In that area, Altria had major “skill gaps,” including “Design Thinking Specialists, Electrical and Mechanical Engineering, [and] Industrial Designers.” (RX0585 (Altria) at 055).

1565. Altria also was “not good at predicting what the consumers wanted, adult smokers want[ed] in three to five years.” (PX7026 Gardner (Altria) Dep. at 22). It “tend[ed] to kind of chase” the e-vapor marketplace rather than anticipate where it was going. (PX7016 Jupe (Altria) Dep. at 176; *see also* PX7026 Gardner (Altria) Dep. at 23 (highlighting that the products that Altria had launched in the e-vapor space “were similar to the category at the time”)).

1566. Altria’s longtime preoccupation with cig-a-likes illustrates its difficulty in predicting consumer preferences. Even though Altria had, in the absence of knowing “where consumer preferences were going to land,” attempted to “plac[e] multiple bets,” it had clustered those bets on cig-a-likes. (Begley (Altria) Tr. 1108). But “[i]t turn[ed] out that the bet you really needed to make was a satisfying product that didn’t look like a cigarette.” (Begley (Altria) Tr. 1108).

1567. As Michelle Baculis, who managed product development at Nu Mark, summarized, product development is a “hard and lengthy” and “iterative process.” (PX7014 Baculis (Altria) Dep. at 151). It is “very cyclical” and “ha[s] a lot of dependencies. So when one thing [goes] wrong . . . [you] ha[ve] to start the cycle again.” (PX7014 Baculis (Altria) Dep. at 48). Baculis was “not sure” Altria’s product development goals “were achievable, based on [her] experience.” (PX7014 Baculis (Altria) Dep. at 49).

1568. As a result, as discussed below, none of the Altria internal development efforts underway by the end of 2018 had even reached a final design, let alone a design that could be successful on the market. (*See infra* ¶¶ 1569-611).

a. Project Lake

1569. Project Lake was a cig-a-like concept that neither Complaint Counsel nor Dr. Rothman claim was a viable product. (*See* CC Pretrial Br.; PX5000 Rothman Report; PX5001 Rothman Rebuttal).

1570. The initial concept of Project Lake was to build a cig-a-like device with single-use cartridges so that users could enjoy “fresh flavor every time.” (PX1135 (Altria) at 020, 054).

1571. Over time, the concept was updated to focus on a hybrid form factor, but such changes brought delays and the first engineering prototypes were not completed until December 2017, two years after the project was initiated. (*Compare* PX1135 (Altria) at 016, 054 (showing project began by July 2015), *with* PX1930 (Altria) at 035 (showing engineering work began in December 2017)).

1572. By April 2018, Lake was “returned to [the] concepting group”—in other words, sent back to the drawing board. (PX1930 (Altria) at 035; *see also* PX1139 (Altria) at 001 (explaining that Project Lake had “been put on hold” and was going “back into concepting phase”)).

1573. Jupe testified that part of the reason for halting work on Lake was a recognition that Altria needed to “stop getting wrapped up in projects that were kind of focused on following the competition” and instead, refocus on “where we anticipate the consumer to be in the future.” (Jupe (Altria) Tr. 2159).

b. Project Laguna

1574. Project Laguna also did not merit mention by Complaint Counsel or Dr. Rothman at trial. (*See* CC Pretrial Br.; PX5000 Rothman Report; PX5001 Rothman Rebuttal).

1575. Laguna was a closed-tank system intended to appeal to open-system users that Altria began working on in 2015. (RX1292 (Altria) at 048; PX1135 (Altria) at 046). Three years later, in 2018, it was nowhere near completed. (RX0585 (Altria) at 045).

1576. And ultimately Laguna was a victim of resource prioritization and market trends. In early 2018, Altria, recognizing that it could not pursue all of its bets at once, and that Laguna was out of step with where the market was heading, stopped work on Laguna so that “resources [could be] allocated to other projects.” (RX0496 (Altria) at 040).

1577. As Jupe explained, “in any organization, you have got to make tradeoffs as far as where your resources, your technical talent, your skills are being applied.” (Jupe (Altria) Tr. 2243). Pursuing multiple internal development projects “necessitate[d] a great deal of resources allocated against each initiative.” (Jupe (Altria) Tr. 2243-44 (reviewing PX1292 (Altria) at 055)). Even so, “[r]esources [were] constrained” and “spread across all Nu Mark initiatives” as well as “impacted by other operating companies.” (RX1292 (Altria) at 055). The solution was “[r]uthless prioritization where and when necessary.” (RX1292 (Altria) at 056; *see also* PX7007 Murillo (Altria/JLI) IHT at 33-34, 127 (discussing the need to prioritize resources across different PMTAs)).

c. Project Panama

1578. Project Panama is touted as a potential competitive product by both Complaint Counsel and Dr. Rothman. (CC Pretrial Br. 14; PX5000 Rothman Report ¶ 106). But, like Lake and Laguna, Panama was stopped in early 2018, a fact that neither Complaint Counsel nor Dr. Rothman mention. (PX5000 Rothman Report ¶ 106 n.242 (citing a February 2018 document as saying Panama was “on track”)).

1579. Work on Panama had begun in 2017, with the goal of developing a “small closed-tank device that [would] effectively compete with JUUL for [adult smokers and vapers] seeking a ‘smoking experience.’” (PX1754 (Altria) at 002; *see also* Murillo (Altria/JLI) Tr. 2939-40).

1580. But Panama “never really got out of the idea stage.” (PX7014 Baculis (Altria) Dep. at 111).

1581. In fact, “many” at Altria, including Joe Murillo, “thought that [Altria] just didn’t have the bandwidth and knowledge base to develop that sort of product on [its] own.” (Murillo (Altria/JLI) Tr. 2940).

1582. By March 2018, following the launch of Elite, the Nu Mark team responsible for overseeing the company’s project development recommended putting Panama on hold and instead focusing resources on improving Elite. (PX1130 (Altria) at 009).

1583. And that is exactly what happened later that month. (RX0630 (Altria) at 010 (“Status: Discontinued work”); *see also* Garnick (Altria) Tr. 1703 (“Panama was an e-vapor product that was under consideration that was dropped.”); PX7016 Jupe (Altria) Dep. at 59-60 (explaining that Project Panama was cancelled as a result of technical issues); PX1139 (Altria) at 001 (explaining that Project Panama had “been put on hold”); RX0585 (Altria) at 045 (“Stopped due to PMTA implications on timing/cost”)).

1584. Jupe explained that this decision was motivated by the same rationale as the pause on Lake—Panama was chasing the competition rather than anticipating it. (Jupe (Altria) Tr. 2158-59).

d. Project Hudson

1585. Project Hudson is another initiative that is highlighted by Complaint Counsel and Dr. Rothman without any meaningful context regarding where it stood when Altria withdrew its

e-vapor products and shut down Nu Mark in late 2018. (CC Pretrial Br. 14; PX5000 Rothman Report ¶ 106).

1586. The concept for Project Hudson was to develop a pod-based device with customized heat settings to correspond to different e-liquids. (RX1292 (Altria) at 047).

1587. Although Project Hudson had started by 2015, (PX1135 (Altria) at 049), in 2018 it was still languishing at the design phase, (PX4149 (Altria) at 044).

1588. As Dr. Maria Gogova, one of Altria's lead scientists explained, Hudson "was really only [a] concept coming from product development There were early prototypes which product development was playing with, but there was no concrete product . . . ready for PMTA filing." (PX7015 Gogova (Altria) Dep. at 32).

1589. Jupe, the head of product development, was equally candid about the lack of progress. Hudson "wasn't really much of a product so much as it was a platform for all the technologies you could feasibly throw at things. And we found that there was a lot of problems with that platform. It took us years and years and [we] never got the platform to a point where we thought we would commercialize it." (PX7016 Jupe (Altria) Dep. at 60; *see also* Murillo (Altria/JLI) Tr. 2941 (recalling Project Hudson never got to "design freeze, let alone design lock"; there were some "prototypes at some point in [2018], but it didn't get very far")).

1590. In the summer of 2018, the portfolio assessment team rated the project's long-term potential as "low-medium." Among the various considerations they flagged were, "[c]omplex PMTA (e.g., temperature levels, app)" and "[a]bility to deliver variety of flavors and nic levels . . . limited by cost of PMTA." (RX0532 (Altria) at 013).

1591. Beyond the regulatory problems, the platform also raised fundamental questions about consumer appeal. Hudson's shortcomings included a flavor intensity that was "too low for [a]

vaping audience,” a large size in a category that was “trending toward smaller devices,” and “user complexity.” (RX0532 (Altria) at 013).

1592. By August 2018, Altria’s leadership informed its Board that, while Hudson was Nu Mark’s most developed internal project, the company likely was a year away from finishing pre-PMTA testing and locking the product’s design and would not make a decision about whether to pursue a PMTA until that point. (PX4149 (Altria) at 044).

1593. And, even if design lock were achieved, the PMTA would take a particularly long time because Hudson “had a lot more variables to it than some of the simpler products [Altria] had seen.” (PX7017 Magness (Altria) Dep. at 47-48).

1594. Dr. Rothman, again citing a February 2018 document, claims that Hudson was “on track” for a PMTA filing in the first quarter of 2021. (PX5000 Rothman Report ¶ 106 & n.242 (citing PX1000 (Altria) at 012, which estimates PMTA filing date in Q1 2021)). He ignores evidence that, by August of 2018, the PMTA timeline had been delayed by six months and that Altria had not yet determined whether Hudson would merit a PMTA. (PX4149 (Altria) at 044 (indicating PMTA decision would be made in June 2019 and, if filing was pursued, the filing date would be in September 2021)).

1595. When asked about Hudson during his deposition, Dr. Rothman acknowledged that with product development, “there’s no certainty” and no telling “if a particular project is going to result in a product on the market at a particular point in time.” (PX7046 Rothman Dep. at 265-66).

1596. By October 2018, all internal development work, including on Hudson, had stopped to free up resources for the Growth Teams. (Jupe (Altria) Tr. 2312; RX0319 (Altria) at 001).

e. Elite 2.0

1597. The only other internal development project underway as of August 2018 was Elite 2.0, which was a “notionally upgraded version [of Elite 1.0]. In other words, it -- it didn’t exist. . . . [T]he idea [was] that . . . [Altria] would create a version of Elite that would be better in any number of ways, [although Altria] didn’t even know all the ways that it had to be better yet because [it was] still assessing Elite.” (Murillo (Altria/JLI) Tr. 3050).

1598. Some of the “must have” fixes included “[a]pproved pod materials,” “[r]educed pod leakage,” “[d]ry puff prevention,” and “[f]ormulas with higher nicotine and salts.” (RX0496 (Altria) at 022; Jupe (Altria) Tr. 2254-56; Murillo (Altria/JLI) Tr. 2942).

1599. Complaint Counsel and Dr. Rothman make much of Altria’s work on developing Elite 2.0. (CC Pretrial Br. 13; PX5000 Rothman Report ¶¶ 98, 106, 112; PX5001 Rothman Rebuttal ¶¶ 5, 16, 52, 83).

1600. But Elite 2.0 was no more than “a series of concepts on pieces of paper.” Those concepts “never made it to design lock let alone product lock.” (PX7027 Murillo (Altria/JLI) Dep. at 158-59).

1601. Dr. Rothman admits that he “do[es]n’t have an opinion that Altria could have had Elite [2.0] on the market in 2020, given where it was in 2018 and given the time required to complete a PMTA and to submit it and get it approved.” “The product wasn’t finished. They hadn’t submitted a PMTA.” (PX7048 Rothman Trial Dep. at 190-91).

1602. As of August 2018, Nu Mark’s “most optimistic plan” estimated that it would take until the first quarter of 2022 to file a PMTA on Elite 2.0. (Jupe (Altria) Tr. 2298-300 (discussing PX1673 (Altria) at 013)). But, in Jupe’s many years of experience, “[e]very single time,” the projected schedule would “go backwards.” (Jupe (Altria) Tr. 2299). Realistically, he believes that given the time necessary for product development, as well as PMTA preparation and

review, Elite 2.0 was five to six years away from being introduced into the market. (Jupe (Altria) Tr. 2156).

1603. And, as with Hudson, by early October 2018, Altria had stopped all work on Elite and Elite 2.0 so the Growth Teams could decide what projects to pursue. (Quigley (Altria) Tr. 2069-71 (discussing RX0319 (Altria) at 001); Gardner (Altria) Tr. 3088). It was not “a serious idea” that the Growth Teams would choose to pursue Elite 2.0, because “it was hardly a leapfrog product.” (Garnick (Altria) Tr. 1662).

f. Growth Teams

1604. That Altria had no viable product ready in its internal development pipeline is further confirmed by its pivot to the Growth Teams in October 2018. (*See supra* Part IX.A, IX.C.1).

1605. Thus, far from having “a lot of different bets,” (CC Pretrial Br. 17 (quoting PX7016 (Jupe (Altria) Dep. at 215); PX5000 Rothman Report ¶ 106 (same)), by October 2018, Altria had just one—a Hail Mary attempt to develop a leapfrog product through the Growth Teams, (Willard (Altria) Tr. 1275).

1606. Complaint Counsel did not demonstrate that the Growth Teams would be capable of developing a new product that could be commercialized in the near future. By the time the Growth Teams were disbanded in December 2018, they “didn’t even have a product concept in mind, let alone a leapfrog concept.” (Garnick (Altria) Tr. 1661-62; *see also* PX7000 Garnick (Altria) IHT at 132 (“It was a bunch of people in a room saying, okay, think of something.”)).

1607. The Growth Teams were at what Jupe called the “discovery or definition phase. . . . They were still defining what they thought the consumer product would look like.” (PX7016 Jupe (Altria) Dep. at 339).

1608. The undisputed evidence shows that it “would have taken five to ten years” before any product developed by the Growth Teams could have received FDA approval and been placed on the market. (Garnick (Altria) Tr. 1662).

1609. Jupe, who was tasked with overseeing the Growth Teams, outlined what lay ahead: The Growth Teams would need to finish the definition phase, then go to the development phase, where they would engineer the product. After that, they would go to the commercial phase, where they would write all the manufacturing specifications, after which they would lock down the design. All of that “product development cycle” would take two years, “if you’re lucky.” And only after design lock could the Growth Teams begin gathering scientific evidence, which would take approximately two years. Then they would wait during FDA review, which could easily be 18 months. “So [Altria was] five to six years away from a potential product.” (PX7016 Jupe (Altria) Dep. at 340-41; *see also* PX5000 Rothman Report ¶ 132 (saying that the “time horizon [for the Growth Teams was] four to five years”)).

1610. Moreover, there was substantial skepticism that the Growth Teams would have been able to design a viable product. As Jupe explained, you cannot turn “a knob” and “all of a sudden you’re an innovative company.” (PX7016 Jupe (Altria) Dep. at 212).

1611. Altria still faced the talent and innovation gaps discussed above. (*See supra* Parts II.A.1, VII.A, IX.A). Most significantly, Altria “lacked . . . certain areas of expertise that would have been really important in developing devices.” (PX7017 Magness (Altria) Dep. at 202). The Growth Team’s assignment was “a huge task for such a small team with everybody who really ha[d] no proven track record[] of innovation and bringing new product[s] into the marketplace.” (PX7015 Gogova (Altria) Dep. at 317-19).

4. Complaint Counsel Failed To Demonstrate “Clear Proof” That Altria Could Have Partnered With PMI To Introduce A Competitive Product In The “Near Future”

1612. The possibility that Altria could have acquired the right to sell a new product from another company is no more promising, and no less speculative. (*See infra* ¶¶ 1613-32).

1613. The only potential partnership that Complaint Counsel addressed at trial was a potential collaboration on PMI’s “Mesh” product. (*See* King (PMI) Tr. 2344; *see also* O’Hara (JLI) Tr. 610; Begley (Altria) Tr. 983).

1614. “Mesh” is a technology that has been used in at least three generations of PMI e-cigarettes. The name “Mesh” refers to the mesh heater that PMI uses in its products, rather than the standard wick and coil. (King (PMI) Tr. 2350). It is “like a fine-wire screen, in effect, where you pass electricity through the screen, and that creates the aerosol.” (King (PMI) Tr. 2350).

1615. The first generation, branded Nicocig Mesh, was introduced into the U.S. market before August 8, 2016. Altria commercialized the product two years later, in mid-2018, under the brand name Apex—the baton-shaped, saltless, tank product discussed above. (*See supra* Part XVI.B.3; *see also* King (PMI) Tr. 2535 (“It was . . . similar to the shape of a baton . . .”); PX7033 O’Hara (JLI) Dep. at 118-19 (explaining that the product “branded Nicocig Mesh . . . was the version that they had introduced into the US as Apex”)).

1616. As demonstrated above, Apex was not a viable contender in the U.S. market. (*See supra* Part XVI.B.3).

1617. [REDACTED]

The purpose of that test was to “verif[y] that the engine worked successfully.” (King (PMI)

Tr. 2546; *see also* O’Hara (JLI) Tr. 616-20 (discussing the quality of IQOS Mesh’s componentry)). [REDACTED]

[REDACTED], it was also a baton-shaped, [REDACTED] tank product, (PX1471 (Altria) at 032 (depicting IQOS Mesh); [REDACTED]

[REDACTED]; King (PMI) Tr. 2542 (acknowledging that in 2018 PMI was “still investigating . . . the right formulation” for countries without a nicotine cap)).

1618. Complaint Counsel does not appear to argue that this product would have been a significant competitor in the United States. Nor could it. As a post-August 8, 2016 product, it was not eligible for immediate market entry under the Deeming Rule. (Garnick (Altria) Tr. 1699 (explaining that new products could not be introduced after August 8, 2016 without prior FDA approval)). And there is no evidence that the second-generation product was any more viable than the first. [REDACTED]

[REDACTED].
Indeed, IQOS Mesh is no longer on the market today. (O’Hara (JLI) Tr. 644-45).

1619. The third-generation product, which PMI actively is working on today, is now shaped more like the pod products that dominate the U.S. market but uses the same “mesh engine” as the earlier iterations. (King (PMI) Tr. 2536-37). It is called IQOS VEEV. (King (PMI) Tr. 2344; O’Hara (JLI) Tr. 644).

1620. Complaint Counsel argues that, at the time of the transaction, Altria was not “many years” away from introducing a new e-vapor product because it could have partnered with PMI to commercialize successfully VEEV in the United States. (CC Pretrial Br. 28). The record evidence contradicts this assertion.

1621. [REDACTED]
[REDACTED]

1622. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]; *see also*
PX7020 King (PMI) Dep. at 184-86; [REDACTED] [REDACTED]
[REDACTED]
[REDACTED]

1623. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

1624. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] [REDACTED]
[REDACTED]

1625. *Second*, there is no evidence that VEEV contains an e-liquid formula capable of offering sufficient nicotine satisfaction so that the product could be competitive in the U.S. market.

The only evidence Complaint Counsel offers is Martin King’s assertion that consumers have given VEEV “good feedback” and are “switching from smoking.” (King (PMI) Tr. 2347).

1626. But how VEEV is perceived abroad is a poor proxy for how it will perform in the United States. According to King, VEEV first was rolled out in the United Kingdom, New Zealand, Finland, and Italy. (King (PMI) Tr. 2354). [REDACTED]

[REDACTED]

[REDACTED] By contrast, JUUL has a nicotine level of up to 5 percent. (RX0796 (Altria) at 050).

1627. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

There is no evidence about whether a new formula ever was introduced into New Zealand, how it performed there, or any other evidence that speaks to VEEV’s conversion potential in a market without a nicotine cap.

1628. *Third*, even assuming that PMI (1) had [REDACTED], and (2) eventually obtained FDA approval for the product, whether Altria would have been the company that launched VEEV in the United States is inherently speculative.

1629. [REDACTED]

[REDACTED]; *see also* PX7020 King

(PMI) Dep. at 200 (“There would have to be additional discussions before the commercialization could take place.”)).

1630. [REDACTED]
[REDACTED]
[REDACTED] As King summarized, “[o]f course it’s possible that we would not reach terms.” (PX7020 King (PMI) Dep. at 200-01).

1631. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

1632. Finally, none of this matters to the competitive nature of the e-vapor industry. As PMI has made clear, and as its witness reiterated at trial, it “intend[s] to move forward and have VEEV commercialized in the U.S. as soon as [it] can,” (King (PMI) Tr. 2369), [REDACTED]
[REDACTED]
[REDACTED]

5. Dr. Rothman Makes No Attempt To Predict The Conditions Of The Market Into Which A New Product Might Enter Several Years Hence, Nor Could He

1633. Complaint Counsel also has made no attempt to establish the future competitive conditions, (CoL ¶¶ 97-100), of the market into which these hypothetical future products might enter.

1634. Complaint Counsel’s expert, Dr. Rothman, admits that he did not look at any data postdating the December 2018 transaction when conducting his analysis, (PX7048 Rothman

Trial Dep. at 93-95), meaning he has made no attempt to analyze the competitive conditions of the market as it exists today, much less what it will look like several years hence.

1635. And Dr. Rothman cannot say “with certainty that anything would or wouldn’t have happened” in the but-for world. (PX7046 Rothman Dep. at 259-60).

1636. Thus, there is no evidence that the future market into any speculative new product might have entered (1) will be concentrated; (2) that independent entry would be substantially likely to produce deconcentration; or (3) that Altria is one of only a few equally likely actual potential entrants. (CoL ¶ 97).

XVII. COMPLAINT COUNSEL ALSO CANNOT DEMONSTRATE ANY ANTICOMPETITIVE EFFECTS WITH RESPECT TO PRICE, INNOVATION, OR SHELF SPACE

1637. Complaint Counsel cannot “bolster” its prima facie case, (CC Pretrial Br. 64), with other evidence of competitive harm. (*See infra* Part XVII.A-C).

1638. Contrary to Complaint Counsel’s contention, there is no evidence that Altria’s exit “deprived consumers of the future benefit of meaningful price, innovation, and shelf space competition.” (CC Pretrial Br. 65).

A. The Record Shows That Altria’s Products Did Not Constrain Price

1639. Complaint Counsel has identified no evidence that Altria’s products constrained price. As discussed above, Dr. Rothman admits that he did not even analyze whether JLI changed price in response to the introduction or removal of Elite. (PX7048 Rothman Trial Dep. at 171-72).

1640. By contrast, the evidence analyzed by Professor Murphy and the testimony of witnesses establishes that JLI neither lowered its price as a response to Elite’s entry nor increased its price in response to the withdrawal of Altria’s e-cigarettes, demonstrating that Altria was not a competitive constraint on JLI’s pricing. (RX1217 Murphy Report ¶¶ 86, 89).

1641. Robbins of JLI explained that JLI “did not change [its] pricing” as a result of the launch of MarkTen Elite. (Robbins (JLI) Tr. 3252).

1642. Instead, after the launch of Elite, JLI simply ran its “normal” seasonal promotion, namely their “standard” \$20 off the combined purchase of a battery and pods. (PX7019 Crozier (Sheetz) Dep. at 76-77). JLI’s promotions were generally planned six months to a year in advance, meaning that a spring 2018 promotion would have been planned by the fall of 2017 at the latest—long before Elite’s launch. (Robbins (JLI) Tr. 3255-56).

1643. JLI also did not change its pricing or promotions as a result of the withdrawal of MarkTen Elite. (Robbins (JLI) Tr. 3255; PX7025 Burns (JLI) Dep. at 232-33). Nor did it do so as a result of Altria’s decision to pull the remaining MarkTen cig-a-like products in December 2018. (Robbins (JLI) Tr. 3249; PX7025 Burns (JLI) Dep. at 232-33).

1644. At trial, Robbins confirmed that JLI did not “ever change its pricing” or “its promotions” in response to the MarkTen cig-a-like products. (Robbins (JLI) Tr. 3245; *see also* Robbins (JLI) Tr. 3248 (stating that JLI never made any pricing decisions as a result of MarkTen Bold)). The same was true of Elite. (Robbins (JLI) Tr. 3252; *see also* Robbins (JLI) Tr. 3253-54 (explaining that JLI did not change its prices or promotions in response to the \$8.99 promotion for Elite or the clerk incentive program)).

1645. “The fact that JLI did not respond to Altria discontinuing sales of its e-cigarette products by raising price clearly shows that Altria was not a competitive constraint on JLI and that, as a result, Altria’s discontinuation of its e-cigarette products did not diminish competition or harm consumers.” (RX1217 Murphy Report ¶ 89).

1646. As Professor Murphy explained further, “[t]he fact that competition from NJOY and Vuse, among others, has forced JLI to lower price, while JLI did not respond to competition from

Altria when it launched the MarkTen Elite pod-based products, and did not raise price after Altria discontinued its products from the market, demonstrates that Altria’s discontinuation of its e-cigarette product lines did not diminish competition and, therefore, did not result in any harm to consumers.” (RX1217 Murphy Report ¶ 92; *see also* RX1217 Murphy Report ¶ 86 (“The lack of response by JLI to competition from MarkTen Elite provides clear evidence that competition from Altria did not constrain JLI’s pricing.”)).

B. There Is No Evidence That Innovation Competition Has Decreased Following Altria’s Exit

1647. There is no evidence that Altria was itself a source of innovative pressure within the industry. As detailed in other sections, Altria had shown no aptitude for internal innovation in e-vapor, and in late 2018, five years after it entered the e-vapor industry, Altria had not successfully developed a single e-vapor product, (Murillo (Altria/JLI) Tr. 2940-41; *see supra* Part II.A.1.e.i), nor was it likely to do so anytime soon, (*see supra* Part XVI.C).

1648. To the contrary, all of Altria’s on-market e-vapor products were externally acquired. (PX7018 Schwartz (Altria) Dep. at 164; *see also supra* Part II.A.1.e.ii).

1649. Nor is there evidence that Altria’s exit dampened innovation by other manufacturers. For starters, the evidence elicited by Complaint Counsel demonstrates that most e-vapor manufacturers acquired their e-vapor products from third parties as opposed to developing the product internally. (Valani (JLI) Tr. 906-07; Schwartz (Altria) Tr. 1863 (stating that Altria licensed Elite from a third-party); *see also* [REDACTED]). And there is no evidence that these third parties, which churn out products in the hopes of a future acquisition or licensing arrangement, have become less invested in innovation. As for JLI, which is one of the only e-vapor manufacturers that designs its own products, (Valani (JLI) Tr. 907), [REDACTED]

[REDACTED]; *see also* RX1217 Murphy Report ¶ 200 (“As a matter of economics, the exit of a competitor will *not*, in general, lead to reduced incentives to create and improve products. To the contrary, it will often, if not typically, lead to the opposite effect by stimulating additional investment in new product development by rivals as they compete more intensely for business.” (emphasis in original))).

1650. Complaint Counsel suggested in its pretrial brief that the transaction decreased JLI’s incentive to develop a larger pod size, which Complaint Counsel insinuates was motivated by Elite. (CC Pretrial Br. 54 & n.320). But Complaint Counsel did not attempt to prove this theory at trial. And the evidence cited by Complaint Counsel in its brief does not support the allegation. Complaint Counsel merely cited a document noting that the “market is moving to larger, longer-lasting pods,” without referencing Elite. (PX2012 (JLI) at 020; *see also* PX2253 (JLI) at 001, 008 (forwarding Altria earnings transcript highlighting Elite’s pod size but not mentioning copying Nu Mark’s products)).

C. Competition For Shelf Space Increased After The MarkTen Products Were Pulled From The Market

1651. Nor did competition for shelf space decrease when Altria withdrew Nu Mark’s products from the e-vapor marketplace—to the contrary, and as explained below, Nu Mark’s exit created *more* competition.

1652. Dr. Rothman contends that Altria’s presence in the shelf-space market contributed to a “barrier” to entry for other competitors. (PX5000 Rothman Report ¶¶ 184-85). As he explains, “large tobacco companies like Altria can pay for shelf space by offering retailers rebates on traditional cigarettes.” (PX5000 Rothman Report ¶ 185; *see also* PX5000 Rothman Report ¶ 185 n.431 (explaining that, in addition to a traditional slotting fee, Altria offered up

to a 6-cent rebate on every carton of Altria cigarettes sold, “which is a large amount given Altria’s share of cigarette sales” (internal quotation marks omitted))).

1653. As a result, as Myers testified, Elite coming off the shelf in October 2018 made space available for other products to “compete for the space and . . . get the space.” (Myers (Altria) Tr. 3369). And when Altria discontinued its remaining Nu Mark products on December 7, 2018, further opportunities emerged. (PX2272 (JLI) at 001).

1654. JLI’s immediate reaction is telling in this regard: One employee commented, “[I]ots of great back bar space is going to be up for grabs. We are moving quickly on the chains to make sure we get that.” (PX2272 (JLI) at 001). Robbins, JLI’s Chief Growth Officer, responded: “Exactly right... thanks for sharing! Opportunity for us to gain some of that empty space.” (PX2272 (JLI) at 001).

1655. The increased competition that Nu Mark’s exit facilitated persisted even after Altria leased the ITP shelf space to JLI for approximately one year, from early 2019 to early 2020. (Willard (Altria) Tr. 1231-32; PX0012 at 001-02 (January 28, 2020 amendment terminating aspects of services agreement, including the lease of ITP shelf space)).

1656. To be sure, in some circumstances JUUL products moved up to take the place of Altria’s when Altria’s came off. (Murphy Tr. 3139). But this did not make JUUL the “biggest winner.” “The biggest winner was actually the people that got on the shelf, the people who moved onto the bottom of the shelf. That is, the people who made it onto the shelf who wouldn’t have been there before” (Murphy Tr. 3139-40).

1657. There were many of these “biggest winners”:

- (a) In an analysis that was not challenged by Complaint Counsel, Dr. Murphy “looked across the top 20 retailers, and . . . found that the average number of products per

store in those top 20 retailers went from 3.0 to 3.8,” which “was a pretty dramatic increase, not a decrease. There was not a decrease when Altria’s products left.”

(Murphy Tr. 3140).

(b) Farrell, NJOY’s Chief Revenue Officer, testified that while in 2018 MarkTen was “often at the top of the shelves,” in 2019, R.J. Reynolds’s Vuse “was often in the top half of the shelf,” (Farrell (NJOY) Tr. 257), [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

(c) At Sheetz, while the Altria-JLI shelf-space lease was in place in 2019, JUUL “occupie[d] the top three shelves in Sheetz’s vapor displays.” (PX8000 (Sheetz) Crozier Decl. at 003 ¶ 17). But Reynolds got “the next two shelves for its Vuse products. [And] NJOY, Blu, Logic, Leap, and dry nicotine pouches [were] all located below Vuse.” (PX8000 (Sheetz) Crozier Decl. at 003 ¶ 17). [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Sheetz also “added products from three manufacturers that it did not previously sell when MarkTen was on the market—NJOY’s Ace, ITG’s *myblu*, and EAS[’s] Leap.” (RX1217 Murphy Report ¶ 74). [REDACTED]

[REDACTED].

(d) At Wawa in 2018, Nu Mark, Reynolds, and NJOY paid to have their products displayed on “the best shelf space.” After Nu Mark’s products were pulled, other companies also were on Wawa’s shelves: “The third position [was] occupied by

NJOY or ITG's Blu brand, and JTI's Logic [was] at the bottom of the display.”
(PX8006 (Wawa) at 005 ¶ 20).

1658. Dr. Murphy explained these market dynamics at trial, and the benefits they have for consumer choice: “[O]ne of the things that happens when a firm leaves the market is resources are re-allocated to other uses and often re-allocated within the same marketplace. And the resource that was re-allocated in this case was the shelf space of retailers; that is, Professor Rothman’s analysis says, well, geez, Altria’s product left the market. That means less choice for consumers. But if, when that product came off the shelf, other products went on the shelf, the person walking into the store doesn’t have less choice. They might even have more choice than they had before.” (Murphy Tr. 3130). This process -- “products moving off the market and being replaced by other products -- is a normal part of the competitive process.” (Murphy Tr. 3134). “[W]hen products leave, particularly unsuccessful products, they typically will be replaced. And in this case, it looks like they were.” (Murphy Tr. 3134).

1659. This is exactly the process that played out at Sheetz, the example Dr. Murphy highlighted. After Altria’s exit from the e-vapor industry, “if you were going to a Sheetz outlet, what we would see is not fewer products but actually more products on the shelf afterward.” (Murphy Tr. 3132; *see also* RX1217 Murphy Expert Report ¶ 74). In sum, as the MarkTen products left the market, that shelf space was reallocated to other products. (Murphy Tr. 3132-33).

1660. The resulting gains that these manufacturers reaped upon Altria’s exit more than offset any anticompetitive effect. (Murphy (Altria) Tr. 3169-70). Because “Altria’s products were a relatively small part -- in the case of Elite, a very small part -- of the marketplace,” to offset any loss from their exit, “you would have only needed a very small expansion, and the fact that when they left, it opened opportunities, for example, through shelf space, to have more --

made it easier to make that expansion, you might say. You really would say there's just no reason to believe that this would amount to any anticompetitive impact.” (Murphy (Altria) Tr. 3169-70).

1661. Indeed, even if competition for shelf space had somehow been inhibited by Altria's participation or exit—which Complaint Counsel has not demonstrated—that would not hinder overall competition because shelf space is just one tool to market and promote e-vapor products, and there have been several e-vapor products that were able to grow and compete in the market without substantial shelf space. (Huckabee (Reynolds) Tr. 474).

1662. For example, “JUUL was able to grow their brand, particularly regionally, early on without national shelf space,” as was JTI's Logic product. (Huckabee (Reynolds) Tr. 474; *see also* PX7037 Huckabee (Reynolds) Dep. at 115 (similar); PX7022 Begley (Altria) Dep. at 216 (“Think about JUUL. JUUL's visibility was mixed in different stores. And even though JUUL didn't have, you know, the visibility that we enjoyed in these stores, they somehow found a way, because of the quality of their product, to do very well.”); PX7009 Burns (JLI) IHT at 191-92 (noting that JUUL “went from, you know, less than 1 percent of the combined cigarette/e-cig market to 7 to 8 percent, and [it was] doing that with less than optimal space”); PX7038 Myers (Altria) Dep. at 147 (noting that ZYN is another example of a product that “generally doesn't have a home” at retail—i.e., is “not merchandised in a category”—but is the “largest [tobacco derived nicotine (TDN)] product in the marketplace”)).

1663. Moreover, “[r]etailers . . . have an incentive to give products with growing demand premier shelf space.” (PX5000 Rothman Report ¶ 185). As JLI's former CEO Burns explained, “if you have increasing consumer demand, retailers are going to make space available to buy the product. So retailers were aware that [JUUL] was a product that was

accelerating in demand. In addition, retailers were making somewhere around twice the gross margin percentage on [JUUL] than they were making on cigarettes. So it is attractive in terms of new growth . . . [and retailers] are always looking for new things to put in their stores to increase their revenues and increase their margins.” (PX7009 Burns (JLI) IHT at 77-78; *see also supra* Part III.D.2).

1664. Citing that very evidence, Dr. Rothman acknowledges that “JLI had leverage with retailers that would have enabled it to expand to more stores and increase shelf space” without Altria’s assistance. (PX5000 Rothman Report ¶ 169 & n.400). He also notes that, even without Altria investing in fixtures, other companies, such as JLI, “would have invested in additional fixtures.” (PX5000 Rothman Report ¶ 169).

XVIII. COMPLAINT COUNSEL CANNOT ESTABLISH ANTICOMPETITIVE EFFECTS USING DR. ROTHMAN’S QUANTIFICATION OF CONSUMER HARM

1665. Finally, Complaint Counsel, relying on an analysis by Dr. Rothman, contends that Altria’s exit from the e-vapor industry has resulted in an annual loss of consumer surplus of \$33.6 million, assuming that Altria would have had a 10 percent share of the closed-system e-vapor market if it had not exited the market. (CC Pretrial Br. 57 (citing PX5000 Rothman Report at ¶ 144 & Tbl. 9)). Dr. Rothman also calculates that, had Altria achieved a 20 percent share, the annual loss of consumer surplus would be \$66.5 million, (PX5000 Rothman Report ¶ 144 & Tbl. 9), although Complaint Counsel does not invoke this higher calculation in its pretrial brief, (*see* CC Pretrial Br. 57).

1666. As a threshold matter, even if Dr. Rothman’s model were reliable, at most it predicts a miniscule impact on consumers that could easily be offset by competitor expansion. Approximately 80 percent of the “harm” calculated by Dr. Rothman is attributable not to any supra-competitive pricing, but rather his calculation of the harm to consumers who were

supposedly deprived of their first-choice e-vapor product. (Murphy Tr. 3161; RX1217 Murphy Report ¶¶ 25(a), 167; PX7048 Rothman Trial Dep. at 130-31). Dr. Rothman does not dispute this. (PX7048 Rothman Trial Dep. at 131).

1667. In the context of Dr. Rothman’s \$33.6 million harm calculation, this means that \$26 million is attributable to loss of consumer choice, with just \$7.6 million attributable to price impact. (RX1217 Murphy Report ¶ 167; PX7048 Rothman Trial Dep. at 131-32).

1668. Given that the closed-system e-vapor market was about \$2.4 billion as of 2018, that \$7.6 million price impact accounts for only 0.3 percent of overall market revenue. (Murphy Tr. 3169).

1669. In addition, as explained below, Dr. Rothman’s calculation is riddled with methodological flaws that render his model unreliable. (*See infra* Part XVIII.A). And any harm to consumers was more than offset by both competitor expansion and the efficiencies associated with the regulatory services Altria provided to JLI. (*See infra* Part XVII.B-C).

A. Dr. Rothman’s Model Supposedly Quantifying The Harm Is Flawed

1670. Dr. Rothman’s model of consumer harm rests on at least five unsupported factual and economic assumptions that result in overstatement of the conjectured harm. (*See infra* Part XVIII.A.1-5).

1. Dr. Rothman’s Economic Model—Logit Demand—Manufactures Harm By Assuming Consumers Were Unhappy With Their Alternatives To MarkTen And Elite, The So-Called Red Bus/Blue Bus Problem

1671. Dr. Rothman uses the antitrust logit model (“ALM”) to attempt to quantify consumer harm. (PX5000 Rothman Report ¶¶ 141-45; PX7046 Rothman Dep. at 111).

1672. It is widely recognized in the economic literature that the ALM is a poor choice for estimating the cost to consumers of removing a product from the marketplace. (Murphy Tr.

3158-59; RX1217 Murphy Report ¶ 168; *see also* RX1217 Murphy Report ¶ 169 (explaining that the ALM “assum[es] that the value a consumer receives from consuming a product is uniquely driven by the identity of the product, rather than by its features and characteristics”).

1673. A necessary implication of the ALM is that if any product leaves the market—regardless of its size or the ability of consumers to purchase other, similar products—consumers are harmed. (Murphy Tr. 3129).

1674. The paradigmatic example of this problem is the “red bus/blue bus” problem: Although consumers “do not value the particular color of the bus they ride,” the ALM would still “find that removing red buses and replacing them with blue buses generates consumer harm.” (RX1217 Murphy Report ¶ 169).

1675. As a result, the ALM will predict harm even if a consumer subsequently buys a cheaper product that is better at converting him or her from cigarettes. (Murphy Tr. 3159).

1676. Indeed, Dr. Rothman admits that according to his chosen model, “the removal of a product from the market will be harmful,” even if the consumer ultimately gets a cheaper or more effective product. (PX7048 Rothman Trial Dep. at 125, 133, 135-36). In fact, approximately 80 percent of his prediction of harm derives from his assumption that consumers were harmed by switching from the MarkTen brand to other products. (Murphy Tr. 3161; RX1217 Murphy Report ¶¶ 25(a), 167; PX7048 Rothman Trial Dep. at 130-31).

1677. Dr. Rothman points to no evidence that MarkTen cig-a-like or Elite were unique or offered features that no other e-vapor product could replace—and, in the absence of such evidence, MarkTen and Elite are akin to “red buses,” the removal of which does not harm consumers. (*See* PX5000 Rothman Report ¶¶ 141-44).

1678. Moreover, a loss of consumer choice is often anything but anticompetitive. (CoL ¶ 124).

“Exit is an important part of” the process by which industries progress. “[W]hen less successful products leave the market, that often will help consumers, because it makes resources available and encourages the expansion of other products in that marketplace.”

(PX7047 Murphy Dep. at 83; *see also* Murphy Tr. 3129-30).

1679. It is thus “not good economics” to assume that product exit, particularly exit of “unsuccessful products,” necessarily leads to competitive harm. (PX7047 Murphy Dep. at 83).

2. Dr. Rothman’s Chosen Model Also Requires An Assumption Of Proportional Diversion, Which Is Inconsistent With The Actual Patterns Of Substitution In The E-Vapor Marketplace

1680. Another “assumption of a logit demand model is that whenever you lose customers, [they]’re just redistributed proportionally amongst all the other products in the market.” (Murphy Tr. 3119; *see also* RX1217 Murphy Report ¶ 173 (explaining that the ALM “assum[es] a highly restrictive pattern of substitution among products such that diversion ratios . . . are assumed proportional to market shares, irrespective of how similar or distant those products are with respect to their characteristics and features”)).

1681. In other words, the ALM model would assume that if Porsche vehicles were removed from the market for passenger cars in the United States, “Porsche consumers would switch to other cars—pickup trucks, minivans, 4-door sedans, SUVs—simply in proportion to their market share.” But, of course, “[i]n reality, we expect Porsche consumers would be more likely to switch to other high-end German-engineered cars.” (RX1217 Murphy Report ¶ 173).

1682. Notably, this is the same proportional diversion assumption that underpins Dr. Rothman’s HHI calculation. (*See supra* Part XV.A.3; PX7048 Rothman Trial Dep. at 122-23 (acknowledging that proportional diversion is “an assumption of the logit model”)). And, as

explained above, this “is very different than what we actually see in the marketplace.”

(Murphy Tr. 3119-20; *see also supra* Part XV.A.3).

1683. As a result, Dr. Rothman’s model “grossly overstates the extent to which JLI benefitted from Altria’s removal of the MarkTen products . . . and greatly overstates the measure of antitrust harm.” (RX1217 Murphy Report ¶ 176).

3. Dr. Rothman’s Model Rests On Unrealistic Market Share Inputs

1684. Separate from the flaws inherent to his chosen model, Dr. Rothman unreasonably premises his calculation on the assumption that “Altria would have maintained its 10 percent [market] share” or “grown its share to 20 percent by 2020.” (PX5000 Rothman Report ¶ 143).

1685. *First*, Dr. Rothman’s 10 percent market share scenario is not a reliable baseline. Although Dr. Rothman characterizes 10 percent as Altria’s existing market share at the time of the transaction, it was actually a measure of Altria’s share for the previous 12-month period, just as in his HHI calculation. (PX5000 Rothman Report ¶¶ 87, 92; PX7048 Rothman Trial Dep. at 115-16; *see also* PX5000 Rothman Report ¶ 89, Tbl. 2 (assigning Altria a 10 percent pre-transaction share, which Dr. Rothman used for his HHI calculation)).

1686. But, as noted above, Dr. Rothman admits that Altria’s market share was declining over the entirety of the one-year period he used to calculate the 10 percent market share. (PX7048 Rothman Trial Dep. at 113, 115).

1687. As noted above, by the time that Altria withdrew MarkTen Elite from the market, the company’s market share had declined to 7.5 percent based on unit share, (PX1127 (Altria) at 003), and 4.7 percent based on dollar share, (PX2062 (JLI) at 007).

1688. In addition, this market share calculation does not take into account the additional decrease over the ensuing months in the cig-a-like segment, which is where the majority of Altria’s e-vapor sales were made. (Murphy Tr. 3166-67).

1689. *Second*, the only source for Dr. Rothman’s 20 percent scenario is a forward-looking goal from a single slide created by Altria in February 2018—*before Elite was even launched*. (PX4012 (Altria) at 009; *see also* PX7046 Rothman Dep. at 243 (conceding that neither the 10 percent nor the 20 percent scenario is based on any “specific opinion” about what Altria’s share would be at any particular time)).
1690. As Gifford explained, it would not be appropriate to rely on a February 2018 forecast to predict performance in 2019 and 2020 because businesses, including Altria, “make adjustments on a regular basis as the market is developing.” (Gifford (Altria) Tr. 2746). This was especially true in the e-vapor category in 2018, when cig-a-likes were “dropping so significantly” and pods “really w[ere] driving the e-vapor growth.” (Gifford (Altria) Tr. 2746). Instead, “[y]ou would look at the later part of the year, because things were changing so significantly . . . you would want the latest trends and latest forecasts.” (Gifford (Altria) Tr. 2836).
1691. In addition, Altria’s February 2018 projection depended heavily on the assumption that Altria would grow Elite’s market share substantially. (RX1217 Murphy Report ¶ 147). As Begley explained, “success in pod-based products was going to be absolutely critical for [Nu Mark] to achieve [its] three-year plan targets and . . . at that point in time, [Nu Mark was] optimistic, but [it] had, really, no marketplace learnings in terms of the pod-based products that [it] had in [its] portfolio.” (PX7022 Begley (Altria) Dep. at 262-63; *see also* Gifford (Altria) Tr. 2739 (explaining that the projection included assumptions about how Elite would contribute to Nu Mark’s financial viability)).
1692. Yet the next several months showed that Elite would not drive share growth for Altria. Rather, despite heavy promotions, Elite’s sales were dismal, (*see supra* Part III.E), and it

never achieved more than a one percent share of cartridge unit sales among closed systems, (RX1217 Murphy Report ¶ 147).

1693. Indeed, Altria recognized that Nu Mark’s February 2018 projection was unlikely to be achieved and, by mid-2018, had revised its forecast for Nu Mark’s retail share from 15.7 percent for 2018 to just 9.1 percent. (*Compare* PX4012 (Altria) at 009, *with* PX1127 (Altria) at 003; *see also* Gifford (Altria) Tr. 2744 (explaining that Altria prepares a “second revised forecast” or “2RF” of its budget projections “at midyear”)). And even that was overly optimistic: By September 2018, Altria calculated that Nu Mark’s actual retail share was only 7.5 percent. (PX1127 (Altria) at 003 (listing Altria’s “2018 Act” share)).

1694. Dr. Rothman also does nothing to account for the likelihood (and observed reality) that the 20 percent projection was excessively optimistic relative to the products’ actual performance. (RX1217 Murphy Report ¶ 148). This is a significant oversight given Nu Mark’s long history of missing market share and earnings projections, a trend that was documented by Professor Murphy, (RX1217 Murphy Report ¶¶ 149-51), and testified about by numerous Altria witnesses, (*see supra* Parts III.A.1, IX.F.1).

4. Applying The Correct Market Definition—Pods—Reduces Dr. Rothman’s Predicted Harm By Nearly 90 Percent

1695. Dr. Rothman’s consumer harm model also assumes a closed-system market including both cig-a-like and pod-based products. (PX5000 Rothman Report ¶¶ 141-44).

1696. As already discussed, cig-a-like and pod-based products are substantially differentiated. (*See supra* Part XIV.A).

1697. Correcting for this approach alone—even without correcting for the myriad other flaws—reduces Dr. Rothman’s “predicted harm by 88 percent to only \$4.2 million per year.” (RX1217 Murphy Report ¶ 179).

1698. In other words, 88 percent of Dr. Rothman’s predicted harm is driven by his assumption of substitutability between Altria’s cig-a-like product and pod-based products. (RX1217 Murphy Report ¶ 179).

5. Dr. Rothman Further Inflates The Alleged Harm By Positing An Unrealistic “Hypothetical” Profit Margin

1699. Dr. Rothman also inflates the alleged harm by manipulating the model’s profit margin input. He asserts that “Altria’s margin in 2018 likely understates its competitive significance,” (PX5001 Rothman Rebuttal ¶ 91), and therefore “calibrate[s]” his model using a “hypothetical” (i.e., made up) 27 percent profit margin for Altria, (PX5001 Rothman Rebuttal ¶ 89; *see also* RX1217 Murphy Report ¶ 182).

1700. Professor Murphy translated this into layman’s terms: Dr. Rothman “just said, I’m going to lower Altria’s costs from the actual value they had in the real world, to a hypothetical value low enough to generate that 27 percent margin.” (Murphy Tr. 3162).

1701. That hypothetical margin bears no relationship to reality. As Dr. Rothman concedes in a footnote to his report, Elite’s actual variable margin was negative 47 percent. (PX5000 Rothman Report ¶ 116 n.294).

1702. But Dr. Rothman does not explain how or when Altria would improve this margin, particularly in the face of more aggressive discounting by competitors. (PX7048 Rothman Trial Dep. at 166-67 (explaining that he had not done any analysis to show that Altria would have improved its profit margin); *see also* PX5000 Rothman Report ¶ 116 n.294 (describing aggressive price promotions on pod-based products)).

1703. Given the aggressive price competition in the e-vapor industry starting in late 2018 and continuing to today, (RX1217 Murphy Report ¶ 69; *see also supra* Parts XII.A, XIII.A), it is implausible to assume that Altria could both end price promotions on its MarkTen Elite

device and also gain market share, (RX1217 Murphy Report ¶ 133 (“MarkTen Elite was heavily promoted during its short time on the market; but for those promotions, its share would very likely have been substantially smaller.”)).

1704. Nor can Dr. Rothman explain how Altria would have more than doubled the 13 percent variable profit margin on its other products. (PX7048 Rothman Trial Dep. at 166-67; *see also* PX5000 Rothman Report n.294).

1705. In reality, Altria’s cig-a-like products, which constituted the majority of Altria’s e-vapor sales, could not reach Dr. Rothman’s hypothetical 27 percent margin because cig-a-likes were a declining category unlikely to improve margins. (Murphy Tr. 3163; RX1217 Murphy Report ¶ 41 & Fig. IV.2; *see supra* Part XII.B).

1706. Re-running Dr. Rothman’s model using only pod-based product sales and calibrating using Altria’s actual variable profit margin for all of its e-vapor products, which was 2 percent, reduces the predicted harm to only \$0.17 million per year, a 99.5 percent reduction. (RX1217 Murphy Report ¶ 187; Murphy Tr. 3168). And, if one uses the actual variable margin of Elite, which was negative 47 percent, “Dr. Rothman’s prediction of harm vanishes.” (RX1217 Murphy Report ¶ 187 n.266).

* * *

1707. Pulling all this together, to credit Dr. Rothman’s consumer loss calculation, the Court would need to find:

- (a) That consumers preferred Nu Mark’s products over available alternatives in the pod and cig-a-like markets such that they would not be able to find an equally attractive substitute, notwithstanding the lack of evidence that Nu Mark’s products offered uniquely desirable features. (*See supra* Part XVIII.A.1).

- (b) That following Altria's exit, Nu Mark's share was redistributed to remaining competitors in proportion to their market share in 2018, notwithstanding that (1) those shares were based on an average of the prior twelve months; (2) there have been dramatic shifts in market leadership in the ensuing years; and (3) the actual market evidence shows that Nu Mark's customers primarily switched to other cig-a-like brands, not JUUL. (*See supra* Part XVIII.A.2).
- (c) That Nu Mark would have attained at least a 10 percent market share had it not exited, notwithstanding that (1) as of October 2018 its actual share had already fallen well under 10 percent; (2) the cig-a-like market is now largely irrelevant; and (3) the pod-based products market is dominated by products with salts. (*See supra* Part XVIII.A.3).
- (d) That the relevant market is closed-system products, notwithstanding the wealth of evidence showing that cig-a-likes and pod-based products are meaningfully differentiated. (*See supra* Parts XIII.A, XVIII.A.4).
- (e) And that Altria would have dramatically increased its profit margins (while growing share), notwithstanding that among pod-based products, which account for 95 percent of closed-system e-vapor sales, all of the leading products are aggressively discounted. (*See supra* Part XVIII.A.5).

1708. Those findings, both individually and collectively, are untenable. (*See supra* Part XVIII.A).

B. Expansion By Competitor Firms Was More Than Sufficient To Offset Dr. Rothman's Predicted Harm

1709. Dr. Rothman is also wrong that his predicted loss of consumer surplus, flawed as it is, cannot be offset by enhanced competition. His argument focuses on *entry* by new

competitors. (PX5000 Rothman Report ¶ 180 (“Entry would not be timely, likely, and sufficient to mitigate the effect of the transaction.”)).

1710. Dr. Rothman ignores the *expansion* and repositioning by competitors that occurred in 2019 and 2020. (RX1217 Murphy Report ¶ 197). In fact, he sidesteps the effects of these recent expansions and instead focuses on whether expansion is *currently* likely, arguing that “current competitors do not expect to expand rapidly.” (PX5000 Rothman Report ¶ 186). But that is no answer to the fact that NJOY, Reynolds, and ITG have *already* expanded in the wake of Altria’s exit.

1711. Indeed, as Professor Murphy demonstrates, from October 2019 to September 2020, NJOY and Reynolds expanded more than *twice* the amount necessary to offset the harm predicted by Dr. Rothman’s model. (RX1217 Murphy Report ¶ 194).

1712. If Dr. Rothman’s model is limited to sales of pod-based products, just *2.2 percent* of NJOY and Reynolds’s actual expansion would have been sufficient to offset the predicted harm. (RX1217 Murphy Report ¶ 195).

1713. And, if the model is further calibrated with Altria’s 2 percent gross margin, then “just a *de minimis* percent of Reynolds’ and NJOY’s sales expansion would have been sufficient to offset the hypothetical harm predicted by Dr. Rothman’s model.” (RX1217 Murphy Report ¶ 195; *see also* Murphy Tr. 3168).

1714. Dr. Rothman cannot simply dismiss these expansions because, in his words, “they are not transaction-specific.” (PX5001 Rothman Rebuttal ¶ 62). Just as Dr. Rothman is wrong to ignore the real-world evidence of decreased prices, increased output, and decreased concentration, (*see supra* Part XIII.D), he is wrong to ignore post-transaction expansion.

1715. The only support he identifies is a snippet cherry-picked from the Horizontal Merger Guidelines, which explains that a particular section of that document focuses on entries that are “induced by the merger.” (PX5001 Rothman Rebuttal ¶ 62 n.154 (citing PX9098 (HMG) at 030 § 9)). But, read in context, that language is merely distinguishing between firms were already “committed to entering the market,” which “will normally be treated as market participants,” and those firms that subsequently decided to enter. (PX9098 (HMG) at 030 § 9). Elsewhere the Guidelines note, without any such limitation, that “Agencies consider any reasonably available and reliable evidence to address the central question of whether a [transaction] may substantially lessen competition,” including “actual effects observed in consummated” transactions. (PX9098 (HMG) at 005-06 § 2).

1716. And this Court has recognized—also without any caveat about inducement—that the “[t]he ability and willingness of current competitors to expand their foothold in the market . . . greatly reduces the anticompetitive effects of a merger.” (CoL ¶ 47).

C. The Harm Predicted By Dr. Rothman’s Model Is Offset By The Increased Probability That JLI’s Products Will Receive Regulatory Approval As A Result Of Altria’s Services

1717. Nor does Dr. Rothman meaningfully engage with Respondents’ efficiencies argument. Instead, he “looks only at the possible benefits of the Transaction in terms of factors that may have reduced JLI’s marginal costs.” (RX1217 Murphy Report ¶ 203; *see also* PX5000 Rothman Report ¶ 156 (“[T]he relevant question is . . . whether Altria reduced the cost required for JLI to receive PMTA approval.”)). In doing so, he “fails to consider efficiencies that could derive from Altria’s experience and expertise in seeking and securing regulatory approval yielding an *increased probability* of JLI obtaining regulatory approval for its products.” (RX1217 Murphy Report ¶ 203 (emphasis added)).

1718. But, as Professor Murphy explains, “given the demonstrated consumer appeal of the JUUL products and JLI’s large share, even a small increase in the probability of regulatory approval could lead to a large increase in consumer surplus.” (RX1217 Murphy Report ¶ 203; *see also* Murphy Tr. 3156-57).

1719. As detailed above, Altria’s assistance both improved the quality of JLI’s PMTA and enabled it to be filed on time. (*See supra* Part XI.C). Briefly summarized:

1720. Altria’s assistance “[a]bsolutely” had an effect on the quality of the JLI PMTA. (Murillo (Altria/JLI) Tr. 3009). Its expertise and experience “was very valuable.” (Murillo (Altria/JLI) Tr. 3009).

1721. And PMI, which is familiar with Altria’s services based on the two companies’ collaboration on the IQOS PMTA, believes that Altria’s “expertise on exactly what should be included in the [PMTA]” “would be very helpful.” (PX7020 King (PMI) Dep. at 65).

1722. As to timeliness, Dr. Gardner, who worked on JLI’s PMTA on behalf of Altria, testified that JLI could not have submitted a PMTA by September 2020 without Altria’s assistance. (Gardner (Altria) Tr. 2639).

1723. JLI estimates that Altria shaved “17 to 28 months” from JUUL’s PMTA process, and believes that the “value” of this time savings “would be very difficult to overstate.” “It is an input to [JLI’s] ability to continue operating in the United States as [it does] now.” (PX7008 Cullen (JLI) IHT at 123).

1724. Re-running Dr. Rothman’s analysis under multiple scenarios demonstrates how easily even a slight improvement to JLI’s PMTA prospects could offset the predicted harm:

1725. Taking all of Dr. Rothman’s inputs into the model, “a 1 percent increase in the probability with which JLI receives regulatory approval for its products would be sufficient to offset

approximately 25 percent [of] the hypothetical harm predicted by Dr. Rothman’s model due to *higher predicted prices.*” (RX1217 Murphy Report ¶ 203 (emphasis added)).

1726. Assuming a pod market but holding all other inputs constant, “a 1 percent increase in the probability with which JLI receives regulatory approval for its products would be sufficient to offset 25 percent of *all harm* predicted by Dr. Rothman’s model, including both harm due to higher predicted prices as well as alleged los[s of] consumer surplus from the removal of the Altria products.” (RX1217 Murphy Report ¶ 203 (emphasis added)).

1727. Assuming a pod market and recalibrating “Altria’s price and share to account for competitive dynamics, then even a 0.1 percent increase in the probability with which JLI receives regulatory approval would offset *all harm* predicted by Dr. Rothman’s model.” (RX1217 Murphy Report ¶ 203 (emphasis added)).

XIX. GLOSSARY FOR PROPOSED FINDINGS OF FACT

1728. The following are abbreviations and acronyms commonly used in the documents and testimony in the hearing record:

- a. AGDC stands for Altria Group Distribution Company. (Myers (Altria) Tr. 3298).
- b. ALCS stands for Altria Client Services LLC. (Begley (Altria) Tr. 1069).
- c. AS stands for adult smokers. (Jupe (Altria) Tr. 2314).
- d. AS&V stands for adult smokers and vapers. (Begley (Altria) Tr. 967).
- e. AV stands for adult vapers. (Begley (Altria) Tr. 1063).
- f. ATC stands for adult tobacco consumers. (Willard (Altria) Tr. 1394).
- g. BAT stands for British American Tobacco. (Huckabee (Reynolds) Tr. 471; [REDACTED]).
- h. BOM stands for bill of materials. (PX7018 Schwartz (Altria) Dep. at 32).

- i. CAGNY stands for Consumer Analyst Group of New York. (Willard (Altria) Tr. 1151).
- j. CI&E stands for Altria's Consumer Insights and Engagement group. (PX7023 Fernandez (Altria) Tr. 136-37).
- k. CMI stands for Altria's Consumer Marketplace Insights group. (PX7023 Fernandez (Altria) Dep. at 14)).
- l. CMT stands for Altria's Change Management Team. (Schwartz (Altria) Tr. 1891).
- m. CR stands for consumer research. (Jupe (Altria) Tr. 2145).
- n. CRO stands for clinical research organization. (PX8005 Graham (NJOY) Decl. at 004 ¶ 26).
- o. CRT stands for Altria's Center for Research and Technology. (Jupe (Altria) Tr. 2211).
- p. 
- q. EBITDA stands for earnings before interest, taxes, depreciation, and amortization. (PX7032 Valani (JLI) Dep. at 41).
- r. ELT stands for Altria's Executive Leadership Team. (PX7023 Fernandez (Altria) Tr. 179).
- s. ENDS stands for electronic nicotine delivery system. (Willard (Altria) Tr. 1361).
- t. FME stands for fixed manufacturing expenses. (Gifford (Altria) Tr. 2720).
- u. GC stands for gas chromatography. (Gardner (Altria) Tr. 2615, 2621; Murillo (Altria/JLI) Tr. 3004).
- v. HPHC stands for harmful or potentially harmful constituent. (Murillo (Altria/JLI) Tr. 3072).
- w. HUT stands for home use test. (Begley (Altria) Tr. 986).
- x. IRI refers to a third-party data service provider that measures and projects sales data using retailer registers. (Gifford (Altria) Tr. 2732; Robbins (JLI) Tr. 3243).
- y. ITP may refer to Altria's Innovative Tobacco Product program. (Begley (Altria) Tr. 1005-06; Quigley (Altria) Tr. 1951). 



- z. Jack was a code word used to refer to JUUL Labs, Inc. during the negotiations. (Pritzker (JLI) Tr. 688; Willard (Altria) Tr. 1231; Gifford (Altria) Tr. 2763).
- aa. JLI stands for JUUL Labs, Inc. (O’Hara (JLI) Tr. 492).
- bb. JTI stands for Japan Tobacco International. (Crozier (Sheetz) Tr. 1489; RX1616 (JLI) at 053).
- cc. LE stands for latest estimate. (Gifford (Altria) Tr. 2815).
- dd. LTM may stand for latest twelve months. (Gifford (Altria) Tr. 2832). Within Altria, it can also stand for leadership team meeting. (PX7022 Begley (Altria) Dep. at 198).
- ee. MICR stands for Altria’s Market Information Consumer Research group. (Gifford (Altria) Tr. 2858).
- ff. MO is Altria’s stock ticker symbol. (PX7033 O’Hara (JLI) Tr. 185).
- gg. MOC stands for multi-outlet and convenience. (Begley (Altria) Tr. 1089).
- hh. MRTP stands for modified risk tobacco product. (Murillo (Altria/JLI) Tr. 3010).
- ii. MS stands for mass spectrometry. (Gardner (Altria) Tr. 2615, 2621; Murillo (Altria/JLI) Tr. 3004).
- jj. MST stands for moist smokeless tobacco. (Myers (Altria) Tr. 3343-44).
- kk. NBW stands for nicotine by weight. (Jupe (Altria) Tr. 2146).
- ll. NB3 is a term used by Reynolds to refer to competitors that are not one of its top-three competitors. (PX7037 Huckabee (Reynolds) Dep. at 61-62).
- mm. NMI stands for Nu Mark Israel. (Jupe (Altria) Tr. 2184).
- nn. NPC stands for Altria’s New Products Committee. (Jupe (Altria) Tr. 2239).
- oo. OB stands for original budget. (Begley (Altria) Tr. 973).
- pp. OCI stands for operating company income. (Gifford (Altria) Tr. 2724).
- qq. OTP stands for other tobacco products, meaning products other than cigarettes. (Myers (Altria) Tr. 3340).

- rr. PD stands for product development. (Begley (Altria) Tr. 1004).
- ss. PFT stands for pre-filled tank. (Farrell (NJOY) Tr. 357).
- tt. PI stands for product integrity. (Murillo (Altria/JLI) Tr. 3054).
- uu. PK stands for pharmacokinetic. (Jupe (Altria) Tr. 2231).
- vv. PUK is a term used by Reynolds to refer to a power unit kit, also known as a device battery. (PX7037 Huckabee (Reynolds) Dep. at 71; *see also* [REDACTED]).
- ww. PMI stands for Philip Morris International, Inc. (King (PMI) Tr. 2336).
- xx. PMTA stands for premarket tobacco product application. (PX9027 (FDA) at 004).
- yy. PM USA stands for Philip Morris USA Inc. (RX1928 (Altria) at 001).
- zz. PWP stands for Perella Weinberg Partners. (Willard (Altria) Tr. 1181).
- aaa. RHP stands for reduced-harm product. (Jupe (Altria) Tr. 2315).
- bbb. Richard was a code word used to refer to Altria during the negotiations. (Pritzker (JLI) Tr. 688; Garnick (Altria) Tr. 1586; Gifford (Altria) Tr. 2763).
- ccc. RK stands for refill kit, also known as a cartridge. (PX7039 Robbins (JLI) Tr. 33-34).
- ddd. ROFR stands for right of first refusal. (Gifford (Altria) Tr. 2767).
- eee. RRP stands for reduced-risk product. (Willard (Altria) Tr. 1379; Quigley (Altria) Tr. 2024).
- fff. RST stands for regulatory strategy and tactics. (Gardner (Altria) Tr. 2578).
- ggg. S&BD stands for Altria's Strategy & Business Development group. (Begley (Altria) Tr. 1008).
- hhh. SKU stands for stock-keeping unit. (Murillo (Altria/JLI) Tr. 2950).
- iii. [REDACTED]
- jjj. SVC stands for standard variable costs. (Gifford (Altria) Tr. 2719).

- kkk. Tree was a code word used to refer to either Altria's investment in JLI, (Pritzker (JLI) Tr. 725; Willard (Altria) Tr. 1183), or JLI specifically, (Willard (Altria) Tr. 1469), during the negotiations.
- lll. TSM stands for territory sales manager. (PX7038 Myers (Altria) Tr. 64).
- mmm. USSTC stands for U.S. Smokeless Tobacco Company LLC. (RX1928 (Altria) at 001).
- nnn. YTD stands for year to date. (Gifford (Altria) Tr. 2783-84).
- ooo. 3YP stands for three-year plan. (Gifford (Altria) Tr. 2719).
- ppp. 2RF stands for second revised forecast. (Gifford (Altria) Tr. 2744).

RESPONDENTS’ PROPOSED CONCLUSIONS OF LAW

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RESPONDENTS' PROPOSED CONCLUSIONS OF LAW

I. COMPLAINT COUNSEL FAILED TO PROVE AN AGREEMENT THAT ALTRIA WOULD REMOVE ITS E-VAPOR PRODUCTS AS A PRECONDITION OF ITS INVESTMENT IN JLI, DOOMING ITS SECTION 1 CLAIM AND GUTTING ITS SECTION 7 CLAIM

A. Section 1 Requires Complaint Counsel To Prove An Agreement

1. Section 1 of the Sherman Act provides: “Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal.” 15 U.S.C. § 1.
2. The essence of a Section 1 violation is an illegal “agreement.” *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 553 (2007).
3. Complaint Counsel bears the burden to prove an illegal agreement. *In the Matter of McWane, Inc.*, 2013 WL 8364918, at *208, *227 (F.T.C. May 1, 2013) (initial decision).
4. To satisfy this burden, Complaint Counsel must prove “a unity of purpose or a common design and understanding, or a meeting of minds.” *Am. Tobacco Co. v. United States*, 328 U.S. 781, 810 (1946).
5. “In other words,” Complaint Counsel must prove there was “a ‘conscious commitment to a common scheme designed to achieve an unlawful objective.’” *McWane*, 2013 WL 8364918, at *223 (quoting *Monsanto Co. v. Spray-Rite Serv. Corp.*, 465 U.S. 752, 764 (1984)).
6. Section 1 does not prohibit “independent decisions” by market actors “even if they lead to the same anticompetitive result as an actual agreement among market actors.” *Id.*
7. Therefore, a “crucial question” in a Section 1 case “is whether the challenged anticompetitive conduct stems from independent decision or from an agreement.” *Twombly*, 550 U.S. at 553 (citations and alterations omitted).

8. “[P]roof of a [Section] 1 conspiracy must include evidence tending to exclude the possibility of independent action.” *Id.* at 554.
9. Where an antitrust plaintiff’s allegations “could just as easily suggest rational, legal business behavior by the defendants as they could suggest an illegal conspiracy,” the plaintiff has failed to carry its burden and cannot establish a Section 1 violation. *Kendall v. Visa U.S.A., Inc.*, 518 F.3d 1042, 1049 (9th Cir. 2008).
10. For example, where the evidence demonstrates that the conduct in question was the result of a company’s “strategic planning as to whether and when to pursue particular business opportunities,” courts have been “unwilling to question such business judgment.” *In re Baby Food Antitrust Litig.*, 166 F.3d 112, 127 (3d Cir. 1999).
11. Where a Section 1 “case is based entirely on . . . circumstantial evidence, the court must be especially vigilant to [e]nsure that liberal modes of proof do not become the pretext for unfounded speculation.” *Murdaugh Volkswagen, Inc. v. First Nat’l Bank of S.C.*, 639 F.2d 1073, 1075 (4th Cir. 1981) (quoting *Overseas Motors, Inc. v. Imported Motors Ltd., Inc.*, 375 F. Supp. 499, 531 (E.D. Mich. 1974)).
12. Where an antitrust plaintiff is confronted with uniform sworn denials that there was an agreement, the plaintiff faces a substantial burden to overcome the weight of that evidence and “produce significant probative evidence . . . that [the] conspiracy existed.” *Lamb’s Patio Theatre, Inc. v. Universal Film Exchanges, Inc.*, 582 F.2d 1068, 1070 (7th Cir. 1978); *see City of Moundridge v. Exxon Mobil Corp.*, 429 F. Supp. 2d 117, 130 (D.D.C. 2006) (same); *see also Impro Prod., Inc. v. Herrick*, 715 F.2d 1267, 1276 (8th Cir. 1983) (where “alleged conspiracy agreement ha[d] been denied under oath by [defendant] and all the officers and employees of the corporate defendants,” and where “uncontradicted sworn testimony”

rebutted plaintiff's "conspiracy interpretation," defendants were entitled to summary judgment).

13. A "plaintiff cannot make its case just by asking the fact finder to disbelieve the defendant's witnesses," as "[m]ere disbelief does not rise to the level of positive proof of an agreement." *McWane*, 2013 WL 8364918, at *267 (citations and alterations omitted).
14. "Communications between competitors do not permit an inference of an agreement unless those communications rise to the level of an agreement, tacit or otherwise." *Id.* at *364.
15. Likewise, meetings or discussions between parties, without more, are not evidence of conspiracy. *Id.* at *253 (holding "mere proof of a meeting" is not proof of conspiracy); *Areeda & Hovenkamp*, *Antitrust Law* ¶ 1417b ("The courts always conclude that the mere fact of meetings or discussions at which a conspiracy might have occurred, but without additional evidence of conspiracy, is insufficient.").
16. Non-binding term sheets exchanged between negotiating parties do not constitute offers that may be accepted for purposes of forming a Section 1 agreement. *See Azco Biotech, Inc. v. Qiagen, N.V.*, 2015 WL 12516024, at *5 (S.D. Cal. July 2, 2015) (holding that where term sheet left price open, it did not constitute an offer); *In re Ciprofloxacin Hydrochloride Antitrust Litig.*, 261 F. Supp. 2d 188, 217 (E.D.N.Y. 2003) (rejecting "claim of anticompetitive conduct flowing from" unexecuted term sheet that merely "embodie[d] [the parties'] attempt to negotiate in good faith").

B. Complaint Counsel Failed To Prove That Altria Agreed With JLI To Withdraw Nu Mark's E-Vapor Products

17. Complaint Counsel has failed to satisfy its burden to prove the essence of its Section 1 case: an illegal agreement between Altria and JLI that Altria would withdraw Nu Mark's e-vapor products as a precondition of an investment in JLI. *See Twombly*, 550 U.S. at 553. .

18. To the contrary, Respondents have introduced substantial evidence that the challenged conduct—discontinuing (1) Nu Mark’s pod-based and non-traditional flavored cig-a-like products in October 2018 and (2) discontinuing Nu Mark’s remaining cig-a-like products in December 2018—“stems from [an] *independent decision*” of Altria and not “from an agreement” between Altria and JLI. *Twombly*, 550 U.S. at 553 (emphasis added) (citations and alterations omitted).
19. Specifically, Respondents have introduced substantial testimony and documentary evidence that the decision to discontinue Nu Mark’s pod-based and non-traditional flavored cig-a-like products in October 2018 was made in response to FDA concerns about youth usage of such products and against the backdrop of other serious regulatory hurdles and commercial challenges that the products faced. (FF ¶¶ 917-59, 997-1007; *see also* FF ¶¶ 562-761).
20. Similarly, Respondents have introduced substantial testimony and documentary evidence that the decision to discontinue Nu Mark’s remaining cig-a-like products in December 2018 was made for budgetary and financial reasons and again against the backdrop of serious regulatory hurdles and commercial challenges that the products faced. (FF ¶¶ 1074-98; *see also* FF ¶¶ 562-761).
21. In addition, Respondents have introduced substantial testimony and documentary evidence that there was no agreement between Altria and JLI requiring Altria to withdraw from the e-vapor market as a precondition to the investment. (FF ¶¶ 1126-32, 1152-61).
22. The Court will not accept snippets of phrases in early non-binding term sheets exchanged as part of a lengthy negotiation as evidence of a conspiracy especially in light of the uniform sworn denials of fact witnesses with personal knowledge of the events at issue. *See Azco*,

2015 WL 12516024, at *5; *In re Ciprofloxacin*, 261 F. Supp. 2d at 217; *Lamb's Patio Theatre*, 582 F.2d at 1070.

23. As a result, Complaint Counsel has not carried its burden of proving an agreement. *See Lamb's Patio*, 582 F.2d at 1070; *Exxon Mobil Corp.*, 429 F. Supp. at 130.
24. Complaint Counsel has failed to prove an illegal agreement, and its Section 1 claim is dismissed. *See Twombly*, 550 U.S. at 553. As a result, and as Complaint Counsel conceded in its opening statement (Tr. 73), Complaint Counsel is left with only a potential actual competition claim under Section 7, which it cannot sustain.

C. Complaint Counsel's Failure To Sustain Its Theory Also Guts Its Section 7 Claim

25. The substantial evidence that Altria removed its products for independent business reasons also defeats Complaint Counsel's claim under Section 7. Complaint Counsel offers only conjecture in response and that is not sufficient. *See McWane*, 2013 WL 8364918, at *253.
26. Section 7 makes unlawful acquisitions that may have the "effect of . . . substantially . . . lessen[ing] competition." 15 U.S.C. § 18.
27. The removal of Altria's e-vapor products from the market, in October and December of 2018, was not an "effect" of the later-in-time investment in JLI. Thus, the investment is not actionable under Section 7. *Id.*

II. COMPLAINT COUNSEL FAILED TO PROVE SUBSTANTIAL ANTICOMPETITIVE EFFECTS

28. Complaint Counsel bears the burden of demonstrating substantial anticompetitive effects under both Section 1 of the Sherman Act and Section 7 of the Clayton Act.

29. Under Section 1, Complaint Counsel must prove “the challenged restraint has a *substantial anticompetitive effect* that harms consumers in the relevant market.” *Ohio v. Am. Express Co.*, 138 S. Ct. 2274, 2284 (2018) (emphasis added).
30. Under Section 7, Complaint Counsel must show that the effect of the transaction “may be *substantially to lessen competition*.” 15 U.S.C. § 18 (emphasis added); *see United States v. Citizens & S. Nat’l Bank*, 422 U.S. 86, 101, 121-22 (1975) (affirming denial of injunctive relief where the challenged transactions “would not ‘lessen’ competition”).
31. To demonstrate substantial anticompetitive effects, Complaint Counsel must demonstrate a “reasonable *probability* of a substantial impairment of competition”—a “mere *possibility* will not suffice.” *Freuhauf Corp. v. FTC*, 603 F.2d 345, 351 (2d Cir. 1979) (emphases added).
32. Complaint Counsel has not carried its burden to show a substantial anticompetitive effect flowing from the transaction, and therefore its claims under Section 1 of the Sherman Act and Section 7 of the Clayton Act are dismissed.
- A. Post-Acquisition Evidence Is Properly Before The Court For Purposes Of Analyzing Both Of Complaint Counsel’s Claims**
33. Under both Sections 1 and Section 7, post-transaction evidence is an “important indicator of the probability of anticompetitive effects.” *LektroVend Corp. v. Vendo Co.*, 660 F.2d 255, 276 (7th Cir. 1981) (Section 7); *see also Nat’l Coll. Athletic Ass’n v. Alston*, 141 S. Ct. 2141, 2144 (2021) (“*Alston*”) (requiring courts “to assess a challenged restraint’s *actual effect on competition*” under Section 1 (quotations omitted; emphasis added)).
34. The Horizontal Merger Guidelines “consider any reasonably available and reliable evidence to address the central question of whether a merger may substantially lessen competition,” including “actual effects observed in consummated” transactions. U.S. Department of Justice

and Federal Trade Commission, Horizontal Merger Guidelines § 2 (2010) (hereinafter, “HMG”).

35. Indeed, post-acquisition evidence may be “dispositive” where it shows “actual entry that has prevented the merged entity from maintaining its market share.” *United States v.*

Bazaarvoice, Inc., 2014 WL 203966, at *73-74 (N.D. Cal. Jan. 8, 2014).

36. Courts disregard post-acquisition evidence only where such evidence is the product of a conscious “decision [on the part of the transacting parties] to deliberately but temporarily refrain from anticompetitive actions.” *United States v. Gen. Dynamics Corp.*, 415 U.S. 486, 506 (1974); *see also United States v. Int’l Harvester Co.*, 564 F.2d 769, 780 (7th Cir. 1977) (consideration of post-acquisition evidence was proper where “much of it was beyond the power of the parties to manipulate”).

37. There is no evidence of such manipulation here, nor could there be. The increased competition and decreased market concentration have been driven by aggressive price competition and expansion by third parties such as Reynolds and NJOY. (FF ¶¶ 1285-1323). Neither Altria nor JLI has the ability to dictate those third parties’ decisions.

38. As such, the post-acquisition evidence is properly before the Court not only for Section 1 purposes, but for Section 7 purposes as well. And because this post-transaction evidence prevents Complaint Counsel from meeting its burden to demonstrate anticompetitive effects, the Section 1 and Section 7 claims are dismissed.

B. The Post-Acquisition Evidence, All Of Which Is Undisputed, Devastates Complaint Counsel’s Effects Theory

39. Key indicia of anticompetitive effects include “increased prices,” “reduced output,” and increases in market concentration. *Am. Express Co.*, 138 S. Ct. at 2284; *United States v. Baker Hughes Inc.*, 908 F.2d 981, 984-86 (D.C. Cir. 1990).

40. “[P]roving an adverse effect on competition without showing increased price, reduced output, or reduced quality in the market has remained possible in theory but elusive in practice.” *MacDermid Printing Sols. LLC v. Cortron Corp.*, 833 F.3d 172, 184 (2d Cir. 2016).

41. In the nearly three years since the transaction, all the key indicia of competitive effects demonstrate that the market is highly competitive and was not made less competitive by Altria’s minority investment in JLI.

1. Price

42. “To prove an *actual* adverse effect on price, [Complaint Counsel] must show just that—that prices actually increased.” *MacDermid Printing Solutions LLC v. Cortron Corporation*, 833 F.3d 172, 184 (2d Cir. 2016) (emphasis in original).

43. Here it is undisputed that prices have decreased significantly since the acquisition. (FF ¶¶ 1345-52). Complaint Counsel has failed to demonstrate that prices would have decreased even further if Altria would have stayed in the e-vapor market. (FF ¶¶ 1352-55).

44. “[C]utting prices in order to increase business”—as third parties such as NJOY and Reynolds have since late 2018 (FF ¶¶ 1287-1307)—“often is the very essence of competition.” *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 594 (1986).

45. The “intensified price competition subsequent to the . . . acquisition” undercuts any argument that Altria’s exit led to or will lead to a “substantial lessening of competition.” *United States v. Int’l Harvester Co.*, 1976 WL 1298, at *18-19 (N.D. Ill. Aug. 17, 1976).

2. Output

46. “[S]howings of increased output” can also “overcome claims of anticompetitive effects.” *In re AMR Corp.*, 625 B.R. 215, 250 (Bankr. S.D.N.Y. 2021) (citing *Am. Express Co.*, 138 S. Ct. at 2288).

47. Expansion by existing competitors is “essentially equivalent to new entry.” *In the Matter of Otto Bock Healthcare N. Am., Inc.*, 2019 WL 2118886, at *28 (F.T.C. May 6, 2019) (quotation marks omitted); *see also id.* (“The ability and willingness of current competitors to expand their foothold in the market and/or reposition greatly reduces the anticompetitive effects of a merger, and is essentially equivalent to new entry.” (internal quotation marks omitted)); HMG § 6.1 (recognizing that “repositioning” of competitors offsets anticompetitive effects).
48. The record shows that, following Altria’s withdrawal of Nu Mark’s e-vapor products, output in the e-cigarette market *increased* substantially, as evidenced by both device sales and cartridge sales. (FF ¶ 1356). This expansion was many times greater than what was required to offset the loss of Nu Mark’s e-vapor products. (FF ¶¶ 1357-63).
49. In addition, retailers added new products to the shelves, broadening the product options available to consumers. (FF ¶¶ 1364-67).

3. Concentration

50. Post-transaction evidence of market share is another relevant input into an anticompetitive effects analysis. *See, e.g., Lektro-Vend Corp.*, 660 F.2d at 276.
51. The government’s prima facie case depends on showing that the transaction “would produce a firm controlling an undue percentage share of the relevant market, and would result in a significant *increase* in the concentration of firms in that market.” *FTC v. H.J. Heinz Co.*, 246 F.3d 708, 715 (D.C. Cir. 2001) (emphasis added; quotation marks and alterations omitted).
52. Here, market concentration has significantly *decreased* in the wake of the transaction, while JLI has lost significant share in both devices and cartridges. (FF ¶¶ 1368-76).
53. Meanwhile, shares for other competitors, have surged. (FF ¶¶ 1315-20). Indeed, since the transaction, Reynolds has overtaken JLI as the market leader in devices. (FF ¶¶ 1315-16).

54. These share “fluctuat[i]ons] . . . over short periods of time” are evidence of a “very competitive” market. HMG § 5.3.

C. Complaint Counsel Failed To Carry Its Burden On Market Definition

55. Complaint Counsel bears the burden to define a relevant market. *Worldwide Basketball & Sport Tours, Inc. v. Nat’l Coll. Athletic Ass’n*, 388 F.3d 955, 962 (6th Cir. 2004) (Sherman Act); *FTC v. Arch Coal, Inc.*, 329 F. Supp. 2d 109, 119 (D.D.C. 2004) (Clayton Act).

56. If Complaint Counsel fails to meet its burden on market definition, both its Section 1 and Section 7 claims fail. *See Se. Missouri Hosp. v. C.R. Bard, Inc.*, 642 F.3d 608, 613 (8th Cir. 2011) (“Without a well-defined relevant market, a court cannot determine the effect that an allegedly illegal act has on competition.”).

57. The overwhelming weight of the evidence adduced at trial demonstrates that Complaint Counsel has failed to carry its burden of demonstrating that all closed-system devices (including both pod-based and cig-a-likes) constitute the relevant market. To the contrary, the evidence demonstrates that pod-based devices and cig-a-likes are not close substitutes and should not be lumped together into a single market.

1. Practical Indicia Show That Pod-Based Products And Cig-A-Likes Are Not Close Substitutes

58. Defining the relevant market requires examining “practical indicia,” such as a “product’s peculiar characteristics,” “distinct customers,” “distinct prices,” “sensitivity to price changes,” and “industry . . . recognition of the submarket.” *Brown Shoe Co. v. United States*, 370 U.S. 294, 325 (1962).

59. Complaint Counsel failed to carry its burden to establish that the relevant market is all closed-system devices (including both pod-based and cig-a-likes). To the contrary, the evidence demonstrates that pod-based devices and cig-a-likes should be in separate markets:

(1) the product segments have important functional differences, (2) they appeal to different consumer demographics, (3) they are priced independently, and (4) they exhibit distinct market trends and are analyzed separately by market participants. (FF ¶¶ 1387-1414).

2. Complaint Counsel Misapplies The Hypothetical Monopolist Test

60. Complaint Counsel also failed to show that the hypothetical monopolist test (“HMT”) supports its market definition.

61. *First*, in applying the HMT to a prospective closed-system market, Complaint Counsel’s expert relied on outdated elasticity studies that do not accurately reflect the market conditions in 2018, much less the market conditions today, invalidating his HMT results. (FF ¶¶ 1418-26).

62. *Second*, Complaint Counsel made no attempt to use the HMT to analyze whether pods and cig-a-likes were in distinct markets, (FF ¶¶ 1416-17), in contradiction of the “narrowest market principle,” under which “[t]he analysis begins by examining the most narrowly-defined product or group of products sold,” *FTC v. Sysco Corp.*, 113 F. Supp. 3d 1, 26 (D.D.C. 2015) (quotation marks omitted); *see also United States v. H & R Block, Inc.*, 833 F. Supp. 2d 36, 59 (D.D.C. 2011) (similar).

63. Just as the FTC “would not include cars in [a] market in analyzing [a] motorcycle merger” “[u]nless motorcycles fail the [HMT],” Complaint Counsel cannot lump cig-a-likes and pods into the same market unless pod-based devices—the only segment in which Altria and JLI both had a product—fail the HMT. HMG § 4.1.1.

D. Complaint Counsel Is Not Entitled To A Presumption Of Anticompetitive Harm

1. Even On Complaint Counsel’s Market Definition, Complaint Counsel Is Not Entitled To A Presumption Because Altria’s Unilateral Decisions To Discontinue Its E-Vapor Products Were Not “Effects” Of The Transaction

64. As noted above, Altria’s product withdrawals were not “effects” of the transaction and thus do not fall within the scope of Section 7 because those withdrawals are the result of independent business decisions, not a conspiracy with JLI. (FF ¶ 1428; *see* FF ¶¶ 917-59, 997-1007, 1074-98).
65. Even assuming Altria removed its products in anticipation of the acquisition, such *pre-transaction* conduct is not an “effect” of the transaction within the meaning of Section 7.
66. Section 7 “is concerned with whether an acquisition or merger *itself* may cause antitrust injury.” *Geneva Pharms. Tech. v. Barr Labs.*, 386 F.3d 485, 511 (2d Cir. 2004) (emphasis in original). The “government’s proposed approach of simply ignoring the reality” that Altria had already discontinued its products by the time of the transaction and “pretend[ing] that the facts are frozen as they were” prior to discontinuation of the products is improper under Section 7. *United States v. Aetna Inc.*, 240 F. Supp. 3d 1, 79 (D.D.C. 2017). This is so regardless of the reason for the removal. *See id.* at 79.
67. This means that Complaint Counsel must take the market as it existed at the time of the investment—*i.e.*, December 20, 2018, (FF ¶ 1429), when Altria had stopped selling its e-vapor products. *See Aetna Inc.*, 240 F. Supp. 3d at 79-80.
68. Because Complaint Counsel does not attempt to justify a presumption of anticompetitive effects based on market shares at the time of the transaction, it has not shown that it is entitled to any presumption.

2. Complaint Counsel's Calculation Of Market Concentration Is Methodologically Flawed

69. Complaint Counsel is not entitled to a presumption of anticompetitive effect based on a market concentration calculation of Herfindahl-Hirschman Index (“HHI”) figures.

a. Improper Calculation Of Pre-Transaction Share

70. Dr. Rothman’s *pre*-transaction HHI calculation, which is based on a *12-month period* from October 2017 to September 2018, cannot be credited because it biases the calculation in favor of a period well before the transaction when cig-a-likes accounted for close to half of e-vapor market share. (FF ¶¶ 1434-38).

71. Dr. Rothman’s approach improperly inflates the market shares of market participants, such as Altria, who sold a disproportionately greater amount of cig-a-likes, even though cig-a-likes steadily lost share over the 12-month period. (FF ¶¶ 1439-43).

72. This improper approach further undermines Complaint Counsel’s attempt to establish a presumption of anticompetitive effect.

b. Improper Calculation Of Post-Transaction Shares

73. Dr. Rothman’s *post*-transaction HHI calculation relies on the demonstrably incorrect assumption that, following Altria’s exit, its share was proportionally redistributed to the remaining competitors. That is, his calculation assumes that approximately half of Nu Mark’s customers switched to JUUL (which had a 51 percent share as of late 2018), approximately a quarter switched to Vuse (which had a 23 percent share), and so on. (FF ¶ 1444).

74. Dr. Rothman admits that he made no attempt to test this arbitrary assumption of proportional diversion against real-world post-transaction evidence. (FF ¶ 1445).

75. That real-world post-transaction evidence shows that JUUL did *not* pick up Altria’s share; other competitors did. (FF ¶¶ 1445-47).
76. Dr. Rothman’s erroneous assumption of proportional diversion accounts for *94 percent* of his calculated HHI increase. (FF ¶ 1450).
77. According to the market data showing what actually transpired, from October 2018 to September 2020, the HHI for *pod-based products* fell over 3,000 points and the HHI for all *closed-system e-vapor products* (i.e., Dr. Rothman’s preferred market) decreased by nearly 500 points. (FF ¶¶ 1451-53).
78. These additional failings confirm that Complaint Counsel has not established that it is entitled to a presumption of anticompetitive effect.

3. Even If The Court Were To Credit Dr. Rothman’s HHI Calculations, Altria’s Declining Business And Market Volatility Would Undermine Complaint Counsel’s Reliance On HHI

79. HHI thresholds are not a “rigid screen.” HMG § 5.3. Instead, market concentration analysis must account for “recent or ongoing changes in market conditions [that] indicate that the current market share of a particular firm . . . overstates the firm’s future competitive significance.” HMG § 5.2.
80. Here, even if the Court were to credit Dr. Rothman’s HHI calculations, any resulting presumption is rebutted by evidence showing that this calculation greatly overstates Altria’s “future competitive significance.” HMG § 5.2; *see also Gen. Dynamics Corp.*, 415 U.S. at 498 (looking at “other pertinent factors affecting the [relevant] industry and the business of the [parties to the transaction]”).
81. *First*, 90 percent of Altria’s e-vapor sales were in the persistently declining, and now largely irrelevant, cig-a-like segment. (FF ¶¶ 1459-63).

82. *Second*, as the Horizontal Merger Guidelines recognize, unavailability of “new technology that is important to long-term competitive viability” to a particular firm can undermine the firm’s “future competitive significance” of that firm. HMG § 5.2.

83. Here, the e-vapor marketplace is dominated by pod-based products *with nicotine salts*. Altria did not have a pod-based product with nicotine salts and could not introduce such a product without first obtaining FDA approval—a process that would take at least five years given that Altria did not even have a product in development at the time of the investment. (FF ¶¶ 1464-69).

84. *Third*, FDA’s flavor ban would have forced all or nearly all of the cartridge offerings of MarkTen Elite, Altria’s pod-based device, off the market. (FF ¶¶ 1470-74).

85. *Fourth*, HHI calculations are notoriously unreliable where, as here, (FF ¶¶ 1475-79), “market share statistics are volatile and shifting,” *Baker Hughes*, 908 F. 2d at 986 (quotation marks omitted).

E. Any Presumption Of Harm Would Be Rebutted By The Substantial Evidence That Altria Would Not Have Been A Significant Competitor In The But-For World Regardless Of Market Definition

86. “[M]arket concentration simply provides a convenient starting point for a broader inquiry into future competitiveness.” *Baker Hughes*, 908 F.2d at 992. “[O]nly a further examination of the particular market—its structure, history and probable future—can provide the appropriate setting for judging the probable anticompetitive effect of” a transaction. *Gen. Dynamics Corp.*, 415 U.S. at 498 (quoting *Brown Shoe*, 370 U.S. at 322).

87. Even assuming that Complaint Counsel is entitled to a presumption of harm in connection with its Section 7 claim (it is not), Respondents have “rebut[ted] it by producing evidence to cast doubt on the accuracy of the Government’s evidence as predictive of future anti-

competitive effects.” *Chicago Bridge & Iron Co. N.V. v. F.T.C.*, 534 F.3d 410, 423 (5th Cir. 2008).

1. This Court Must Take Account Of The Regulatory Scheme

88. The Supreme Court has cautioned that any antitrust analysis must “careful[ly] account” for “the pervasive federal and state regulation characteristic of [an] industry.” *Verizon Commc’ns Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 411 (2004); see *In the Matter of Impax Laboratories, Inc.*, 2018 WL 2336009, at *70 (F.T.C. May 18, 2018) (initial decision) (“Antitrust inquiries must always be attuned to the particular structure and circumstances of the industry at issue.”).
89. “The presence of [a] regulatory scheme and need for approval” may “convert[] what might have been deemed antitrust injury in a free market into only a speculative exercise,” especially where “[t]here are no facts . . . which permit [a court] to speculate as to the likelihood of” regulatory approval. *City of Pittsburgh v. W. Penn Power Co.*, 147 F.3d 256, 267-68 (3d Cir. 1998).
90. Here, it is undisputed that e-vapor products are regulated by FDA and that those products that were on the market by August 8, 2016 must receive FDA approval to *remain* on the market, while those products that are introduced or modified after August 8, 2016 must receive FDA approval to *enter* the market. (FF ¶¶ 59-66).
91. As a result, the ongoing sale of existing e-vapor products in the United States, as well as the sale of any newly developed products in the future, is “wholly a matter of governmental grace.” *United States v. Marine Bancorporation, Inc.*, 418 U.S. 602, 628 (1974).

2. Altria Would Not Have Been A Significant Competitor With Nu Mark's Existing Products

92. Complaint Counsel failed to carry its burden of demonstrating that Altria would have been a significant competitor with Nu Mark's on-market products.
93. The overwhelming majority of products in Nu Mark's portfolio were cig-a-like products. (FF ¶¶ 1460, 1504-05). The evidence demonstrated that these products were in a dying format, were not converting smokers, suffered from technical problems, and were unlikely to obtain FDA approval. (FF ¶¶ 1504-11).
94. Nu Mark's pod-based product, Elite, lacked the nicotine salts that were necessary for commercial success and conversion of smokers, and suffered from other technical problems. (FF ¶¶ 1512-16).
95. In addition, substantial evidence shows that Elite could not obtain FDA approval necessary to stay on the market. (FF ¶¶ 510-27, 610-37).

3. With Respect To Products That Altria Had Not Yet Developed Or Commercialized, Complaint Counsel Cannot Satisfy The "Actual Potential Competition" Doctrine

96. Nor can Complaint Counsel carry its burden of demonstrating that Altria would have been a "significant competitor" with a future product.
97. New entry must be assessed under the "actual potential competition" doctrine. *In the Matter of Heublein, Inc.*, 96 F.T.C. 385, 583 (1980) (initial decision) (applying the doctrine to assess whether a company selling imported wines would have, but for a merger, enhanced competition by selling domestic wines).
98. Under that doctrine, Complaint Counsel is required to show "future competitive conditions" of the market into which those products might enter, namely: (1) that it will be "concentrated"; (2) that there is "a substantial likelihood" that independent entry would

“produc[e] deconcentration”; and (3) that Altria is “one of only a few equally likely actual potential entrants.” *In the Matter of B.A.T. Indus., Ltd.*, 1984 WL 565384, at *7-8 (F.T.C. 1984).

99. Complaint Counsel must also present (4) “clear proof” that independent entry “would have occurred within the *near future*” but for the acquisition. *Id.* at *9 (emphasis added).

100. This final condition is particularly important because “even if all the conditions of the doctrine are . . . satisfied, there is no guarantee that these conditions will persist until the future time at which independent entry might occur.” *Id.* at *10.

101. Complaint Counsel has not satisfied this standard here.

**a. Complaint Counsel Cannot Demonstrate
“Clear Proof” Of Future Entry**

102. Complaint Counsel has not proven, much less “clear[ly]” proven, that any future e-vapor product Altria developed would be approved by FDA.

103. It is undisputed that the standards for obtaining a PMTA are “very demanding” and that the outcome is highly uncertain. (FF ¶¶ 1540-43).

104. Complaint Counsel has offered neither fact nor expert testimony on whether any hypothetical future Altria product could have obtained regulatory approval. *See City of Pittsburgh*, 147 F.3d at 262, 267-68; *Brotech Corp. v. White Eagle Int’l Techs. Grp.*, 2004 WL 1427136, at *6 (E.D. Pa. June 21, 2004).

**b. Complaint Counsel Cannot Demonstrate That Entry Would
Occur In The “Near Future”**

105. The lengthy lead time required to develop an e-vapor product, prepare a PMTA, and await FDA review, which collectively require at least five years, precludes any showing that entry would occur in the “near future.” *B.A.T. Indus.*, 1984 WL 565384, at *9.

106. Complaint Counsel concedes, indeed emphasizes, that the time required for entry is protracted and constitutes a significant barrier to entry. (FF ¶¶ 1547, 1549). The substantial evidence demonstrates that it would have taken Altria five to seven years, if not longer, to bring a competitive product to market. (FF ¶¶ 1545-52).
107. Courts are occasionally willing to accept predictions of the economic effects of an acquisition on entry “one to three years” out. *See, e.g., Heublein*, 96 F.T.C. at 565 (initial decision). But “[a]t some point,” certainly by “five years,” “the degree of concentration in the market becomes so inherently unpredictable that the entire predictive enterprise should be abandoned.” *Mercantile Texas Corp. v. Bd. of Governors of Fed. Rsrv. Sys.*, 638 F.2d 1255, 1271-72 (5th Cir. 1981); *see also BOC Int’l, Ltd. v. FTC*, 557 F.2d 24, 29 (2d Cir. 1977) (similar); *FTC v. Steris Corp.*, 133 F. Supp. 3d 962, 977-78 (N.D. Ohio 2015) (similar).
108. Any far-reaching predictions would be particularly tenuous in “a heavily regulated industry,” like the e-vapor industry, where “regulatory change can alter”—and has altered—“the structure of the market.” *Mercantile Texas Corp.*, 638 F.2d at 1272.

c. Complaint Counsel Failed To Prove That Altria Was Capable Of Developing A New, Competitive Product With Which It Could Attempt To Enter The Market

109. Complaint Counsel fails to carry its burden of demonstrating that Altria would have succeeded in developing a competitive product.
110. That Altria “is a leading figure in the [tobacco] industry as a whole” is insufficient to satisfy Complaint Counsel’s burden. *Chem-Nuclear Sys. v. Waste Mgmt.*, 1982 WL 1320, at *3 (W.D. Wash. July 16, 1982) (holding that such a “conclusion requires too much speculation on the part of the Court”).

111. Uncontroverted evidence establishes that Altria lacks the competencies, talent, and expertise needed to develop an innovative electronic product. *See FTC v. Atlantic Richfield Co.*, 549 F.2d 289, 295 (4th Cir. 1977) (rejecting FTC’s potential competition claim where entry into relevant market was “extremely difficult,” would take years to accomplish, and required “a certain level of technical expertise” that respondent lacked); *United States v. Black & Decker Mfg. Co.*, 430 F. Supp. 729, 758 (D. Md. 1976) (rejecting potential competition claim despite fact that acquirer “clearly desired” to enter the market because it “lacked the expertise” to do so).

112. Every reduced risk product Altria has attempted in the last thirty years has been a commercial flop, every internal development project Nu Mark pursued failed to bear fruit, and every product Nu Mark launched was acquired from another company. (FF ¶¶ 1553-1611).

d. Complaint Counsel Failed To Prove That Altria Was Likely To Partner With PMI And Enter The Market With PMI’s VEEV Product In The “Near Future”

113. Complaint Counsel cannot show that Altria would have entered the market by partnering with PMI on VEEV.

114. There is no evidence that Altria could have commercialized VEEV in the “near future.”

B.A.T. Indus., 1984 WL 565384, at *9. [REDACTED]

[REDACTED]

[REDACTED]

115. In addition, whether Altria and PMI would have agreed to terms necessary for Altria to commercialize VEEV in the United States, and whether Altria would have even wanted to commercialize VEEV, is pure speculation. (FF ¶¶ 1628-31). And even if Complaint

Counsel could show likely entry, neither Complaint Counsel nor its expert witness have tried to explain how that likely entry would affect the marketplace.

4. Complaint Counsel Did Not Show Any Harm To Price Competition, Innovation Competition, Or Shelf Space Competition

116. Nor can Complaint Counsel demonstrate any competitive effects with respect to competition for price, innovation, or shelf space.

117. Complaint Counsel introduced no evidence that Altria’s products constrained price. Its expert Dr. Rothman did not analyze whether Altria constrained JLI’s pricing and the witness testimony uniformly confirms that JLI never altered its price in response to Altria.

(FF ¶¶ 1639-46).

118. There is also no evidence of reduced innovation; to the contrary, JLI has accelerated its innovation activity since the transaction. (FF ¶¶ 1647-50).

119. As for shelf space, the evidence shows that Altria’s exit actually *created* opportunities for smaller brands to get on the shelf at major retailers. (FF ¶¶ 1651-64). Market participants confirm that competition for shelf space remains robust. (FF ¶ 1657).

F. The Conclusions Of Complaint Counsel’s Expert Rest On Indefensible Assumptions And Are Due No Weight

120. The analysis by Complaint Counsel’s expert, Dr. Rothman, is not “traceable to a reliable [economic] methodology.” *SEC v. Toure*, 950 F. Supp. 2d 666, 675 (S.D.N.Y. 2013).

1. Dr. Rothman’s Opinion That Altria Would Have Likely Been A Significant Competitor Is Unreliable

121. Dr. Rothman’s opinion that Altria would have likely been a significant competitor cannot be credited because it lacks a reliable methodology.

122. Dr. Rothman flouts the foundational principle that it is “inappropriate for experts to become a vehicle for factual narrative.” *Toure*, 950 F. Supp. 2d at 675 (barring expert from

“narrating facts and testimony from the record” to the jury). Dr. Rothman opines on “lay matters that the [Court] is capable of understanding and deciding without [expert] testimony.” *Highland Cap. Mgmt., L.P. v. Schneider*, 551 F. Supp. 2d 173, 180 (S.D.N.Y. 2008) (excluding expert’s proffered “factual narrative of events” to the jury). Indeed, Dr. Rothman’s opinions address intent, (FF ¶ 1486), which “is not a proper subject for expert testimony.” *Wolfe v. McNeil-PPC, Inc.*, 881 F. Supp. 2d 650, 661-62 (E.D. Pa. 2012) (quotations omitted).

123. Dr. Rothman’s assertion that Altria would not have discontinued Nu Mark but for the investment in JLI and would have been a “significant competitor” is premised on “cherry picked” documents—relying solely on exhibits offered by Complaint Counsel and skipping over critical documents like the August 19 Term Sheet, (FF ¶¶ 1487-88)—which renders his opinion unreliable. *See In re Lipitor (Atorvastatin Calcium) Mktg., Sales Practices & Prod. Liab. Litig.*, 174 F. Supp. 3d 911, 931-32 (D.S.C. 2016).

124. And, for all his attempts to analyze the facts, Dr. Rothman cannot explain *how* Altria would have been a significant competitor in a but-for world without the acquisition. He cannot identify what products Altria would have sold at any point, which products would have received FDA approval, how Altria could have increased its sales, what the performance of MarkTen cig-a-like and the Elite would have been, or how other competitors would have behaved differently had Altria remained in the market. (FF ¶¶ 1489-500).

2. Dr. Rothman’s Harm Estimates Rest On Indefensible And Illogical Assumptions

125. As for Dr. Rothman’s model of consumer harm, it turns on at least five unsupported factual and economic assumptions that render the model unreliable.

126. *First*, approximately 80 percent of Dr. Rothman’s calculated consumer harm is manufactured by assuming—without evidence—that consumers were unhappy with their alternatives to the MarkTen cig-a-like and Elite, the so-called red-bus blue-bus problem well-recognized in the economic literature. (FF ¶¶ 1671-77). But “a loss of consumer choice is often anything but anti-competitive.” *Energy Conversion Devices Liquidation Trust v. Trina Solar Ltd.*, 833 F.3d 680, 690 (6th Cir. 2016).
127. *Second*, as with his flawed HHI calculation, Dr. Rothman’s model rests on an assumption of proportional diversion, contrary to what actually happened after the transaction, and thereby grossly overstates both the extent to which JLI benefited from Altria’s exit and the associated consumer harm. (FF ¶¶ 1680-83).
128. *Third*, Dr. Rothman unreasonably premises his estimate of harm on the assumption that “Altria would have maintained its 10 percent [market] share,” which is implausible for all the reasons this share overstates Altria’s competitive significance. (FF ¶¶ 1685-88). His alternative calculation, which assumes Altria would have “grown its share to 20 percent by 2020,” is based on an outdated and disproven projection that was prepared before Elite even entered the market and well before its subsequent commercial flop. (FF ¶¶ 1689-94). Courts often exclude expert opinions that rely on internal estimates without examining “the[ir] validity,” as Dr. Rothman did here. *ZF Meritor LLC v. Eaton Corp.*, 646 F. Supp. 2d 663, 667-68 (D. Del. 2009).
129. *Fourth*, Dr. Rothman assumes a closed-system market including both cig-a-like and pod-based products, which is problematic in light of the significant differentiation between these product categories. (FF ¶¶ 1695-98).

130. *Fifth*, Dr. Rothman inflates the alleged harm by assuming Altria’s profit margin was 27 percent, rather than the actual 2 percent, without explaining how it would be possible for Altria to grow its margin more than tenfold in a market where the leading competitors were offering steep discounts. (FF ¶¶ 1699-706).

3. Dr. Rothman’s Harm Estimates Are Offset By Expansion And The Increased Probability That JLI Will Obtain PMTA Approval As A Result Of The Transaction

131. *First*, NJOY and Reynolds have already expanded more than *twice* the amount necessary to offset Dr. Rothman’s predicted harm, a fact for which Complaint Counsel has no credible response. (FF ¶¶ 1709-16).

132. *Second*, and independently, any purported consumer loss from Altria’s exit would be readily offset by the benefit of the regulatory services Altria provided to JLI, services that enabled a timely and improved PMTA for JUUL, thereby enabling a vastly more popular product, with significant conversion potential among adult smokers, to remain on the market. (FF ¶¶ 1717-27).

III. COMPLAINT COUNSEL FAILED TO PROVE THAT THE ACTUAL NONCOMPETE IS ANTICOMPETITIVE

A. Noncompete Agreements Are Generally Permissible Unless Anticompetitive And Overbroad

133. “The recognized benefits of reasonably enforced noncompetition covenants are by now beyond question.” *Lektro-Vend Corp.*, 660 F.2d at 265.

134. “[C]ovenants not to compete are valid if (1) ancillary to the main business purpose of a lawful contract, and (2) necessary to protect the covenantee’s legitimate property interests, which require that the covenants be as limited as is reasonable to protect the covenantee’s interests.” *Id.* at 265.

135. Courts uphold noncompete agreements under the rule of reason “[s]o long as the[] covenant[] [is] reasonable in scope.” *Eichorn v. AT&T Corp.*, 248 F.3d 131, 144-45 (3d Cir. 2001); *Syntex Labs., Inc. v. Norwich Pharmacal Co.*, 315 F. Supp. 45, 56 (S.D.N.Y. 1970) (“[I]t is hornbook law that a covenant not to compete ancillary to the sale of a business (or part of a business), when reasonably limited to time and territory, does not fall within the prohibitions of the Sherman Act.”), *aff’d*, 437 F.2d 566 (2d Cir. 1971).
136. As Complaint Counsel acknowledges, Compl. ¶ 79, its Section 1 challenges to noncompete agreements must be “examined under the rule of reason.” *Eichorn*, 248 F.3d at 144-45; *see also Consultants & Designers, Inc. v. Butler Serv. Grp., Inc.*, 720 F.2d 1553, 1560-61 (11th Cir. 1983) (“There has been an unbroken line of cases holding that the validity of covenants not to compete under the Sherman Act must be analyzed under the rule of reason.”).
137. It is “well established that any rule of reason analysis requires a showing of anticompetitive market effect.” *Lektro-Vend Corp.*, 660 F.2d at 268. “To hold otherwise would ignore the very purpose of the antitrust laws which were enacted for the protection of competition, not competitors.” *Id.*
138. “A showing of adverse market impact has been required in [Section] 1 cases specifically involving noncompetition covenants.” *Id.* at 269.
139. Therefore, under the first step of a Section 1 rule of reason analysis, it is Complaint Counsel’s burden to introduce evidence of actual anticompetitive effects. *See United States v. Brown Univ.*, 5 F.3d 658, 668-69 (3d Cir. 1993).

140. If Complaint Counsel meets this standard, in the second step of the rule of reason analysis, the burden shifts to the Respondents to show that the challenged conduct promotes a sufficiently pro-competitive objective. *Id.* at 669.
141. If Respondents show the challenged conduct promotes a sufficiently pro-competitive objective, in the third step of the rule of reason analysis, Complaint Counsel “must demonstrate that the restraint is not reasonably necessary to achieve the stated objective.” *Id.*
142. “To determine if a restraint is reasonably necessary, courts must examine first whether the restraint furthers the legitimate objectives, and then whether comparable benefits could be achieved through a substantially less restrictive alternative.” *Id.* at 679. Complaint Counsel “cannot just point to” a hypothetical alternative without demonstrating “equivalent viability of the alternative[] proffered.” *N. Am. Soccer League, LLC v. U.S. Soccer Fed’n, Inc.*, 883 F.3d 32, 45 (2d Cir. 2018).
143. As the Supreme Court recently emphasized, “[f]irms deserve substantial latitude to fashion agreements that serve legitimate business interests,” including agreements, along the lines of those at issue here, “aimed at introducing a new product into the marketplace.” *Alston*, 141 S. Ct. at 2163.

B. Complaint Counsel Failed To Prove That The Noncompete Violates Section 1

144. Complaint Counsel has failed to prove that the noncompete agreement at issue in this case—which prohibited Altria from developing new e-vapor products while it was providing services to JLI—is anticompetitive.
145. Applying a rule of reason analysis here shows that Complaint Counsel’s claim must fail.
146. Complaint Counsel’s claim fails at the first step of the rule of reason analysis because, as explained above, competition flourished in the wake of the transaction, (FF ¶¶ 1284-376), and Complaint Counsel has failed to show actual anticompetitive effects, (FF ¶¶ 1427-727).

147. Moreover, as explained above, Complaint Counsel cannot show that Altria would have had a competitive product on the market in a timely manner. (FF ¶¶ 1501-632).
148. Specifically, in the years following Altria's December 2018 investment in JLI, with regard to pod-based devices: (1) average prices have decreased; (2) output has increased; (3) market concentration has decreased; and (4) JLI's market share has fallen by more than half. (FF ¶¶ 1338-76). In the face of this real-world evidence, Complaint Counsel has failed to carry its burden of demonstrating that the market would somehow have been even more competitive had Altria not withdrawn Nu Mark's products.
149. Even if Complaint Counsel did not fail at the first step of the rule of reason analysis, and reached the second step, Respondents have shown that the challenged conduct promotes a sufficiently pro-competitive objective, such that the burden would shift back to Complaint Counsel to demonstrate that the restraint is not reasonably necessary to achieve the stated objective.
150. Respondents demonstrated that the noncompete enabled Altria to provide regulatory services in support of JLI's PMTA. (FF ¶¶ 1178-88, 1243-46). These services made it possible for JLI to file a timely PMTA and made it more likely that JLI's PMTA will be approved by FDA. (FF ¶¶ 1247-64). If JLI's PMTA were denied, JLI would be legally required to remove JUUL from the market, resulting in less competition. (FF ¶¶ 1221-22).
151. Respondents demonstrated further that because of the noncompete agreement, Altria's scientists and regulatory experts could work on the PMTA for JUUL and view JLI's confidential information as necessary, without risk that Altria could use that confidential information to develop new products to compete against JLI. (FF ¶¶ 1178-88, 1270-74).

152. Complaint Counsel’s claim would also fail at the third step of the rule of reason analysis because it has not identified a viable less restrictive alternative.

153. To carry its burden at the third step, Complaint Counsel must prove that its proffered alternative is “viable,” “substantially less restrictive[,] and virtually as effective in serving the legitimate objective *without significantly increased cost.*” *Cnty. of Tuolumne v. Sonora Cmty. Hosp.*, 236 F.3d 1148, 1159-60 (9th Cir. 2001) (emphasis in original).

154. Complaint Counsel at trial raised the possibility of non-disclosure agreements, firewalls, or the use of third-party contractors as alternatives, but failed to demonstrate that any of these alternatives would have “equivalent viability.” *U.S. Soccer Fed’n, Inc.*, 883 F.3d at 45. Nor did Complaint Counsel rebut sworn testimony from fact witnesses that the theoretical alternatives would *not* be viable. (FF ¶¶ 1269-83).

155. Respondents have also introduced substantial evidence that the noncompete agreement went no further than necessary because the noncompete was limited to the period in which Altria is providing services and only applies to Altria’s e-vapor products, and not other products such as IQOS or oral nicotine products. (FF ¶ 1129).

156. In sum, the noncompete agreement is reasonable in scope and not anticompetitive. Therefore, Complaint Counsel’s antitrust claim regarding the noncompete agreement is dismissed.

IV. JLI CANNOT BE FOUND TO HAVE VIOLATED SECTION 7 OF THE CLAYTON ACT

157. Section 7 provides that no person “shall acquire” the stock or assets of “another person” where the effect of the acquisition may be substantially to lessen competition. 15 U.S.C. § 18 (emphasis added).

158. Courts have consistently held that Section 7 provides no basis to find a violation by the seller in a transaction. *See, e.g., United States v. Coca-Cola Bottling Co. of Los Angeles*, 575 F.2d 222, 227 (9th Cir. 1978); *Gerlinger v. Amazon.com, Inc.*, 311 F. Supp. 2d 838, 852 (N.D. Cal. 2004); *Dailey v. Quality School Plan, Inc.*, 380 F.2d 484, 488 (5th Cir. 1967).
159. Accordingly, JLI, the seller in this transaction, cannot be found to have violated Section 7.

V. FTC ADMINISTRATIVE PROCEEDINGS ARE UNCONSTITUTIONAL

A. These Proceedings Are Unconstitutional Under Article II Of The Constitution

1. The President Must Have The Ability To Remove Key Decisionmakers At Federal Agencies

160. Article II of the Constitution vests all “executive Power” in the President, who alone is charged with executing the laws. U.S. Const. Art. II, § 1, cl. 1; *id.* Art. II, § 3.
161. The President therefore must have “the authority to remove those who assist him in carrying out his duties,” including principal officers who head Executive departments. *Free Enter. Fund v. Pub. Co. Acct. Oversight Bd.*, 561 U.S. 477, 513-14 (2010).
162. The Supreme Court has held unconstitutional the structure of the Consumer Financial Protection Bureau, which was headed by a single director removable only for inefficiency, neglect of duty, or malfeasance. *Seila Law LLC v. CFPB*, 140 S. Ct. 2183, 2191-92 (2020).
163. Whenever “an agency does important work,” its leaders must be removable by the President, regardless of the agency’s “size or role.” *Collins v. Yellen*, 141 S. Ct. 1761, 1784 (2021).

2. These Proceedings Are Unconstitutional Because Key Decisionmakers At The FTC Are Removable Only For Cause

164. Here, because the FTC Commissioners are removable only for cause, they are unconstitutionally shielded from removal, and that renders the FTC’s structure and these proceedings unconstitutional and void.

165. Similarly, and independently, because the Court is removable only for cause, it is unconstitutionally shielded from removal, and that renders the FTC’s structure and these proceedings unconstitutional and void.

B. These Proceedings Unconstitutionally Deprive Respondents Of Due Process And Equal Protection

1. The Constitution Guarantees Litigants Due Process And Equal Protection

166. Due process demands some scrutiny of how the government makes consequential decisions. *Cf. Beckles v. United States*, 137 S. Ct. 886, 892 (2017) (“[T]he Due Process Clause prohibits the Government [from depriving property under a law] so standardless that it invites arbitrary enforcement.”); *Ballard v. Comm’r*, 544 U.S. 40, 46 (2005) (holding Tax Court cannot exclude special trial judge reports from the record on appeal); *Fuentes v. Shevin*, 407 U.S. 67, 80 (1972) (holding government has a “duty” to “follow a fair process of decisionmaking when it acts to deprive a person of his possessions”). Relatedly, equal protection requires that the government make non-arbitrary decisions as to the forum for pursuing an antitrust claim, and not arbitrarily subject parties to different legal standards. *Cf. Zobel v. Williams*, 457 U.S. 55, 58-64 (1982) (drawing arbitrary lines between citizens based on length of residency in the state violates the Equal Protection Clause).

167. Due process also requires that parties be given a “fair opportunity to rebut the Government’s factual assertions before a neutral decisionmaker.” *Hamdi v. Rumsfeld*, 542 U.S. 507, 533 (2004).

2. These Proceedings Unconstitutionally Deprive Respondents Of Due Process And Equal Protection

168. The government’s enforcement scheme is unconstitutional because it precludes scrutiny of how the government is making consequential decisions. For example, the decision of whether the FTC or Department of Justice will lead an antitrust investigation or matter under Section 1 or Section 7 is largely devoid of scrutiny. The same is true for cases where the FTC is leading and decides whether to proceed internally within the agency or in federal court.

169. The government’s enforcement scheme is unconstitutional because the FTC Commissioners are the judge, jury, and executioner of any given case. Forcing parties to go through a convoluted litigation that allows the Commission to attain its preferred outcome regardless of the preceding steps does not comport with due process. *See Hamdi*, 542 U.S. at 533.

170. The FTC Commissioners’ ability to overturn all factual findings of this Court is further evidence that that these proceedings deprive respondents of a meaningful opportunity to respond to allegations against them and lack a neutral decisionmaker as required by due process.

171. While federal court review is available, the federal court reviews only “the Commission’s ruling, not the ALJ’s” and is deferential to the Commission’s “factfinding.” *Impax Labs., Inc. v. FTC*, 994 F.3d 484, 491 (5th Cir. 2021) (affirming Commission decision to reverse ALJ decision in favor of respondent).

172. These proceedings and the enforcement scheme at issue are unconstitutional and the Complaint must be dismissed.

VI. REMEDY

A. Antitrust Remedies Must Comport With Law And Fact

173. The lynchpin of an antitrust remedy must be “restor[ing] competition,” not “punish[ing] antitrust violators.” *United States v. E. I. du Pont de Nemours & Co.*, 366 U.S. 316, 326 (1961). “Thus, [courts] attempt to craft a remedy that will create a competitive environment that would have existed in the absence of the violations.” *In the Matter of Evanston Nw. Healthcare Corp.*, 2007 WL 2286195, at *77 (F.T.C. Aug. 6, 2007).

174. “[A]bsent some measure of confidence that there has been an actual loss to competition that needs to be restored, wisdom counsels against adopting radical structural relief.” *New York v. Deutsche Telekom AG*, 439 F. Supp. 3d 179, 230 n.23 (S.D.N.Y. 2020) (quoting *United States v. Microsoft Corp.*, 253 F.3d 34, 80 (D.C. Cir. 2001)).

175. Antitrust remedies should come “with as little injury as possible to the interest of the general public.” *United States v. American Tobacco Co.*, 221 U.S. 106, 185 (1911).

176. The “current situation is always relevant to the question of equitable relief.” Areeda & Hovenkamp, *Antitrust Law* ¶ 1205e.

177. The “solely for investment” exemption provides that minority investments do not implicate the Clayton Act, so long as they are not accompanied by efforts to direct or control the company whose stock is being acquired. *See United States v. Tracinda Inv. Corp.*, 477 F. Supp. 1093, 1098-1102 (C.D. Cal. 1979) (dismissing government’s Section 7 claim because defendant’s acquisition of 19 percent of stock fell within the “solely for investment” exemption); *Anaconda Co. v. Crane Co.*, 411 F. Supp. 1210, 1212, 1218-19 (S.D.N.Y. 1975)

(holding “solely for investment” exemption applied to defendant’s acquisition of 22.6 percent of target’s stock).

B. Complaint Counsel’s Proposed Remedy Is Not Reasonable, Legally Or Factually

178. Complaint Counsel is not entitled to a remedy because it did not prove a violation of law.

179. Even were the Court to find a violation, Complaint Counsel has not shown that its proposed remedy—an order that the parties terminate the noncompete and Altria divest its stake in JLI—is warranted under the law and facts of the case.

180. Complaint Counsel has not shown that Altria’s divesting its interest in JLI and terminating the noncompete would create a competitive environment that would have existed in the absence of the violations. Altria does not have any grandfathered e-vapor products that it could market in the absence of a PMTA. (FF ¶¶ 60-66, 119). And even assuming that Altria could develop a viable e-vapor product from scratch years from now, there is no basis to assume that product would garner FDA approval. (FF ¶¶ 1539-52). Divestiture and termination of the noncompete will not change those realities.

181. Complaint Counsel has not shown with any measure of confidence that there has been an actual loss to competition because, as explained above (FF ¶¶ 1284-376), competition flourished in the wake of the transaction.

182. Complaint Counsel has not shown that divestiture and terminating the noncompete would minimize injury to the interest of the general public. To the contrary, given the critical and ongoing regulatory support and guidance that Altria is providing to JLI, divestiture and termination of the noncompete could be a serious detriment to JLI’s efforts to secure regulatory approval for a product that could benefit public health.

183. Under the “current situation” and unique circumstances of this case, where competition has flourished in the wake of the transaction at issue, it would be unfair and punitive to require Altria to divest its stake in a fire-sale type setting that would likely further diminish any return on an investment that has already been written down by over \$11 billion (almost 90 percent), (FF ¶¶ 1141-50), and to terminate the noncompete that enables JLI and consumers to benefit from Altria’s regulatory expertise, (FF ¶¶ 1717-27).

184. Finally, because Altria’s investment is currently passive, it is punitive, incoherent, and untethered from the text of the Clayton Act for Complaint Counsel to demand a remedy that would proscribe what Congress expressly permitted.

Dated: August 23, 2021

Respectfully submitted,

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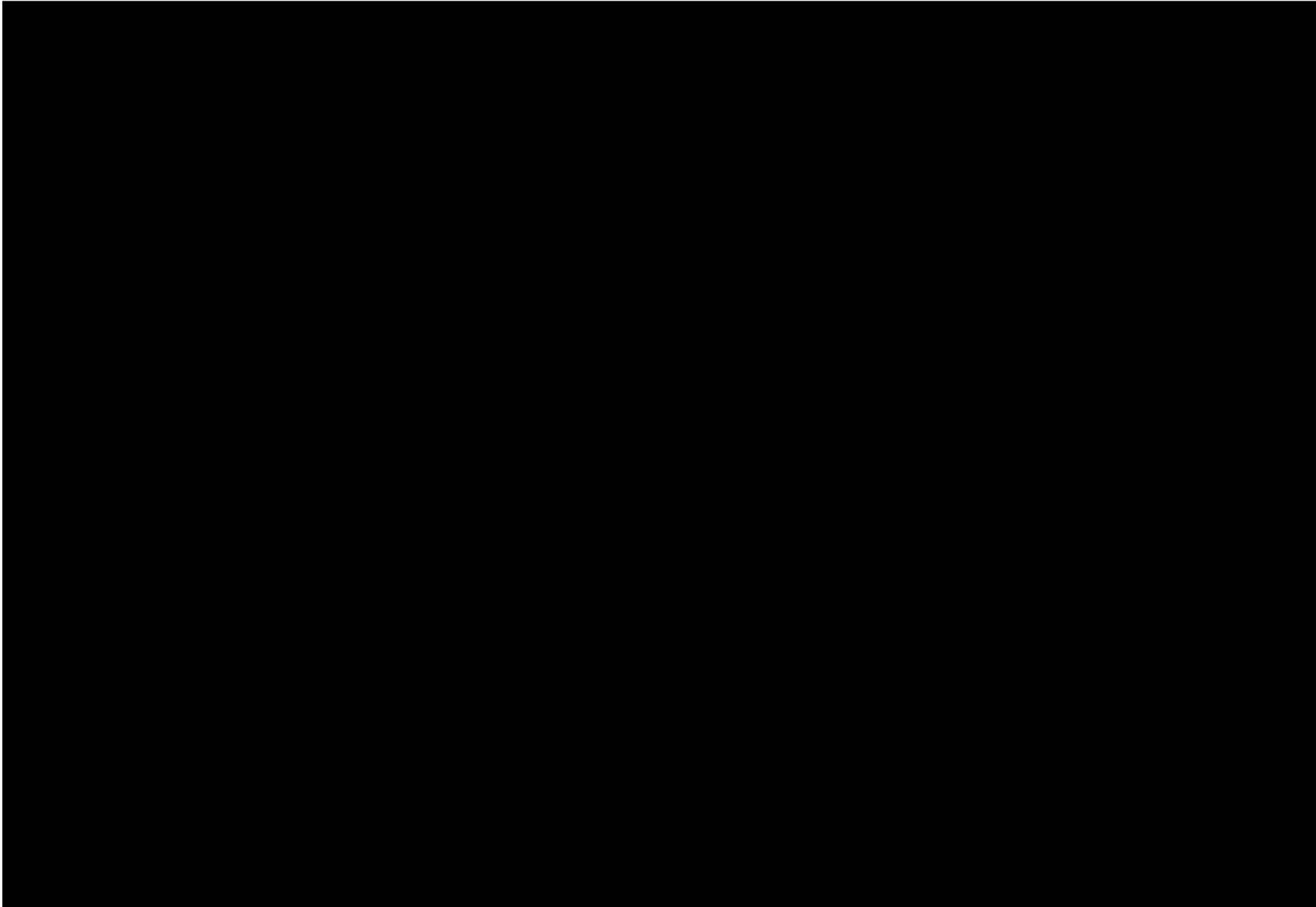
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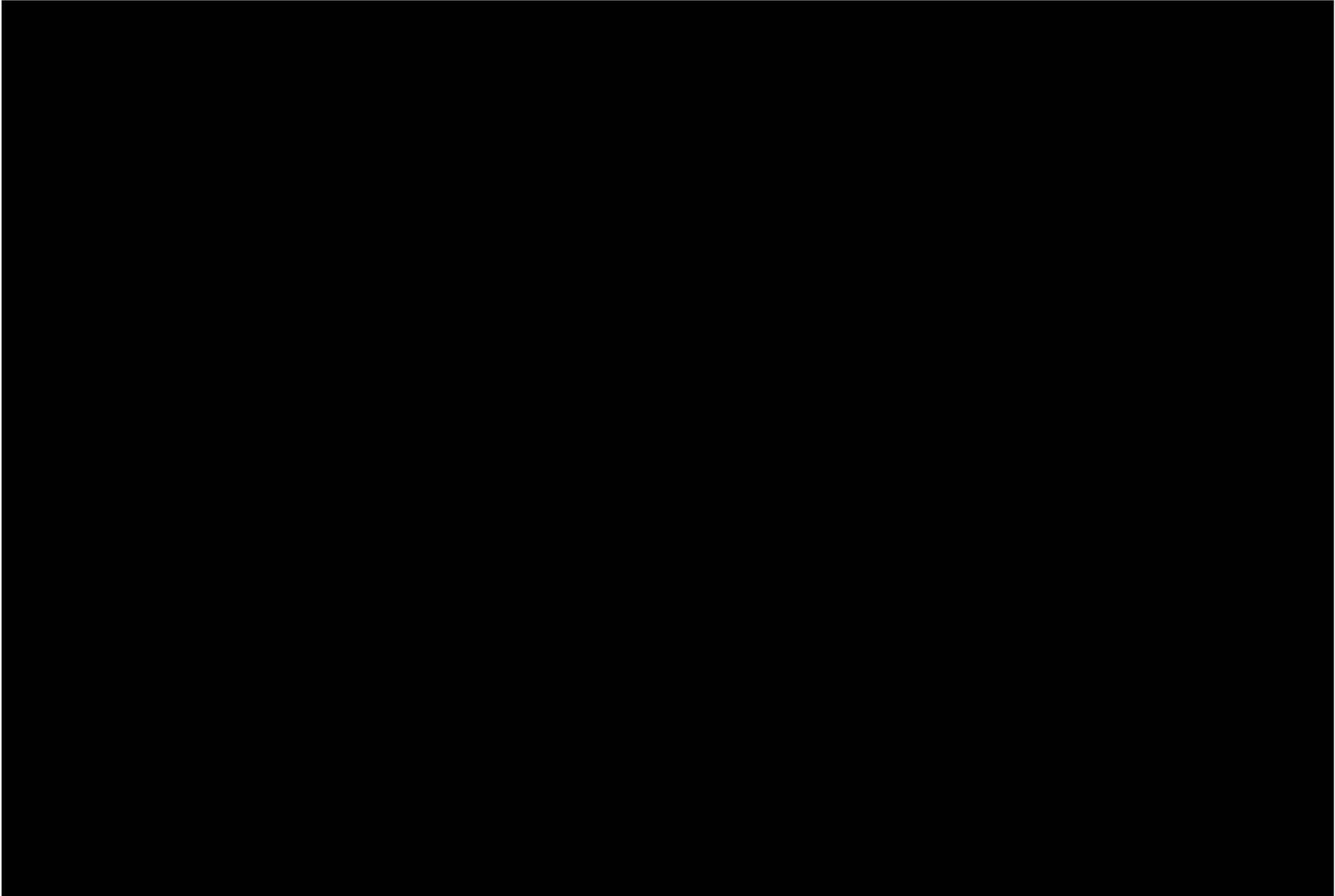
RESPONDENTS' WITNESS INDEX

**IN THE MATTER OF ALTRIA GROUP, INC. AND JUUL LABS, INC.
DOCKET NO. 9393**

RESPONDENTS' WITNESS INDEX

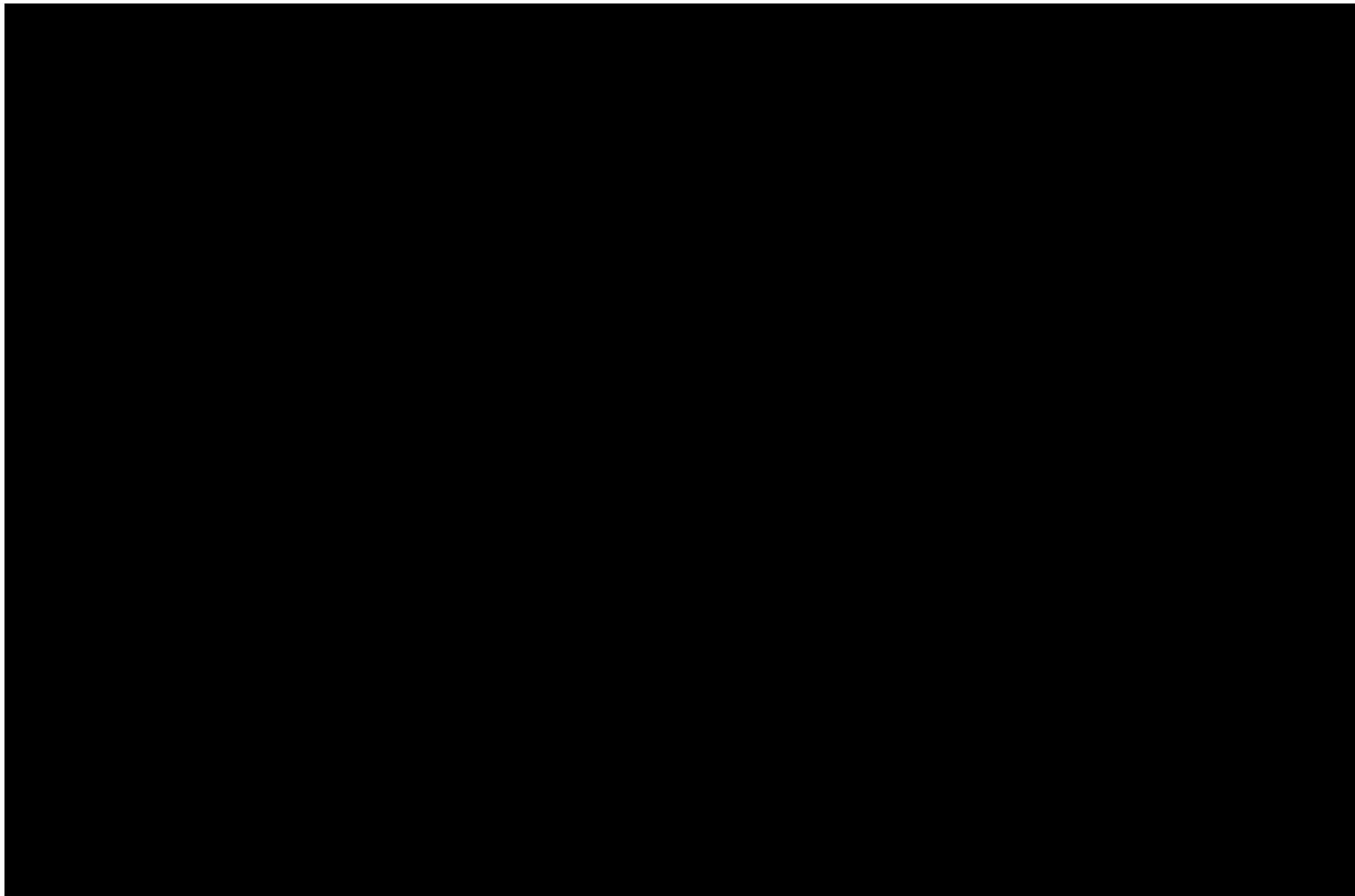


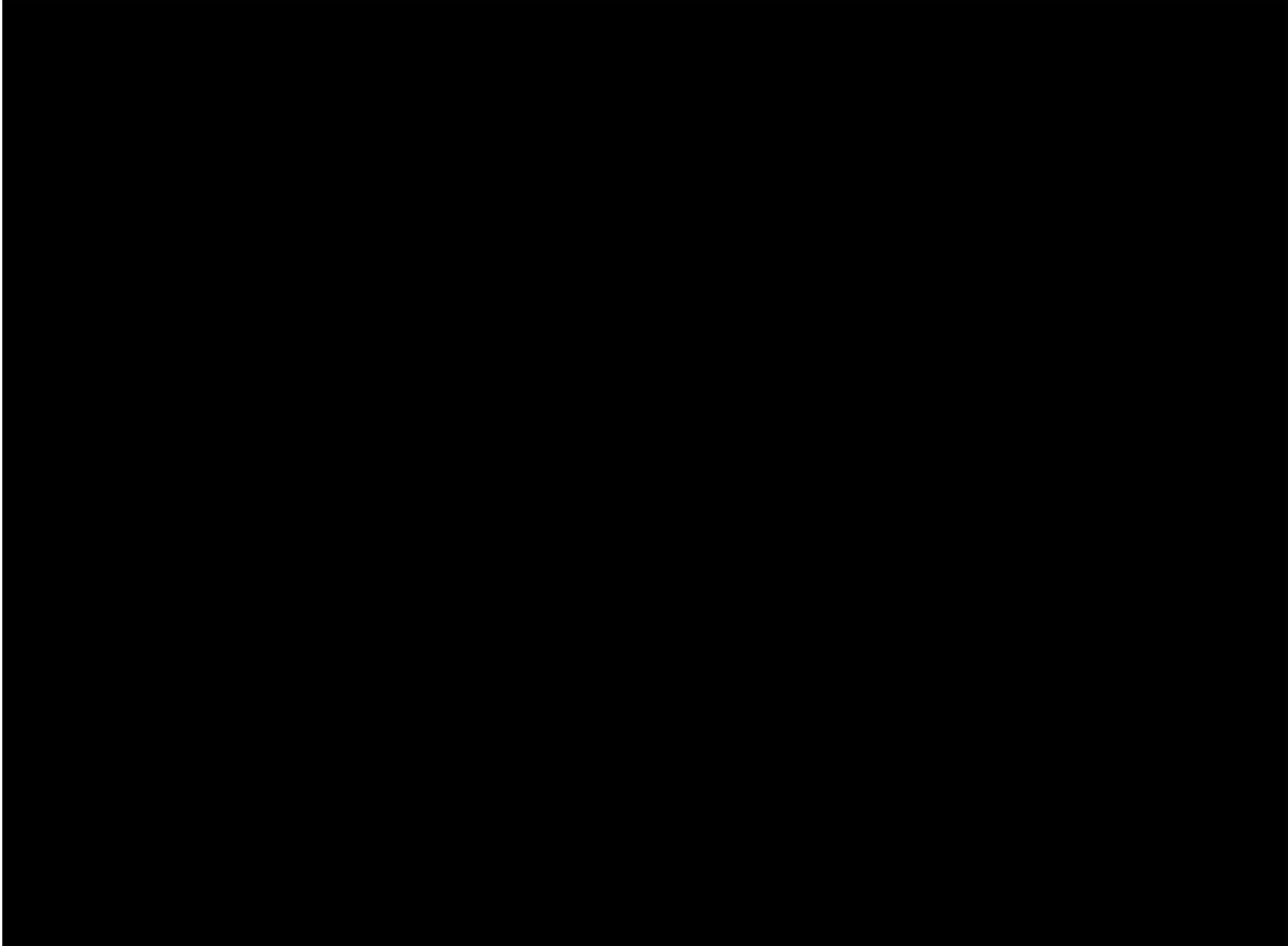


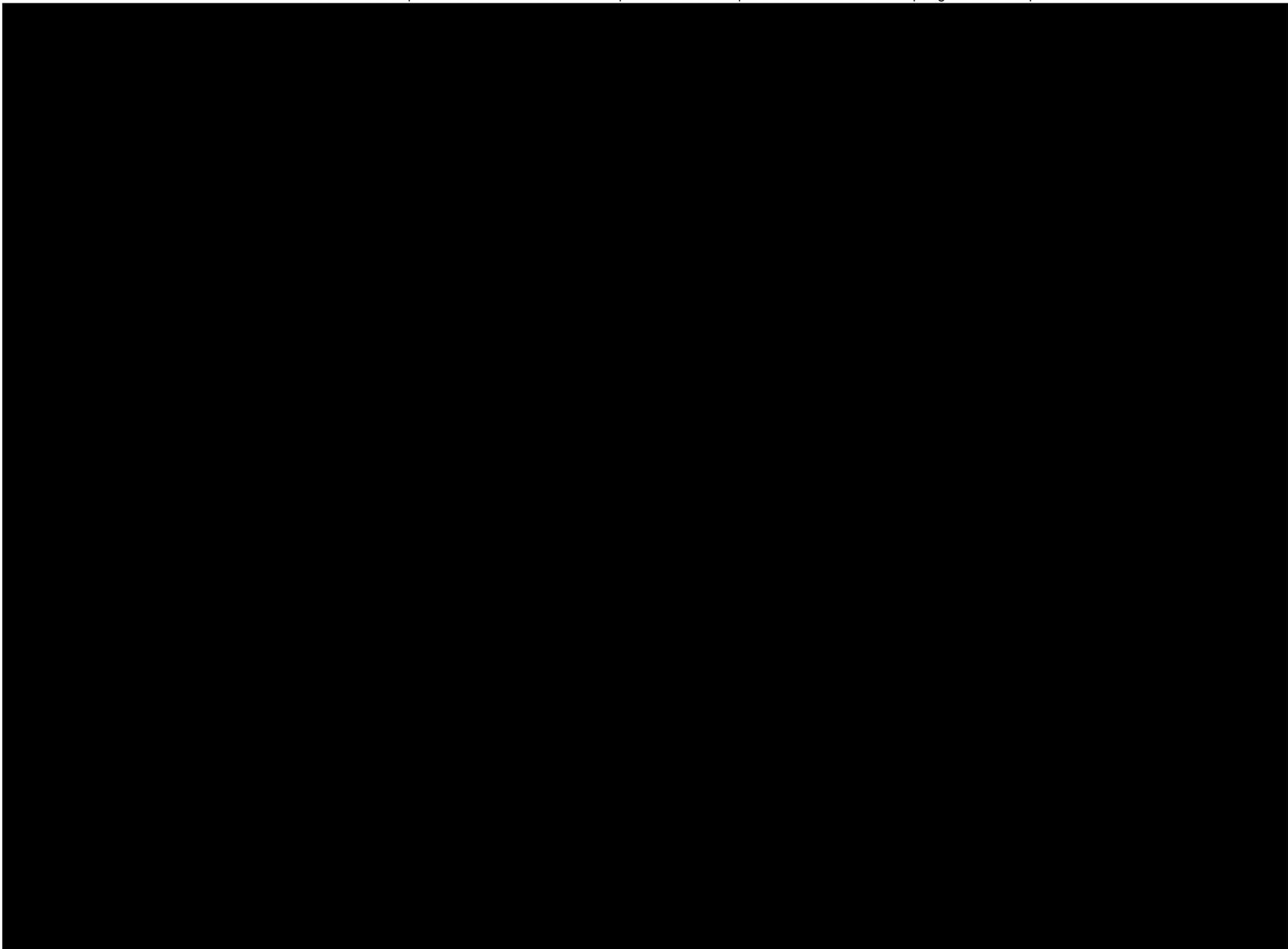


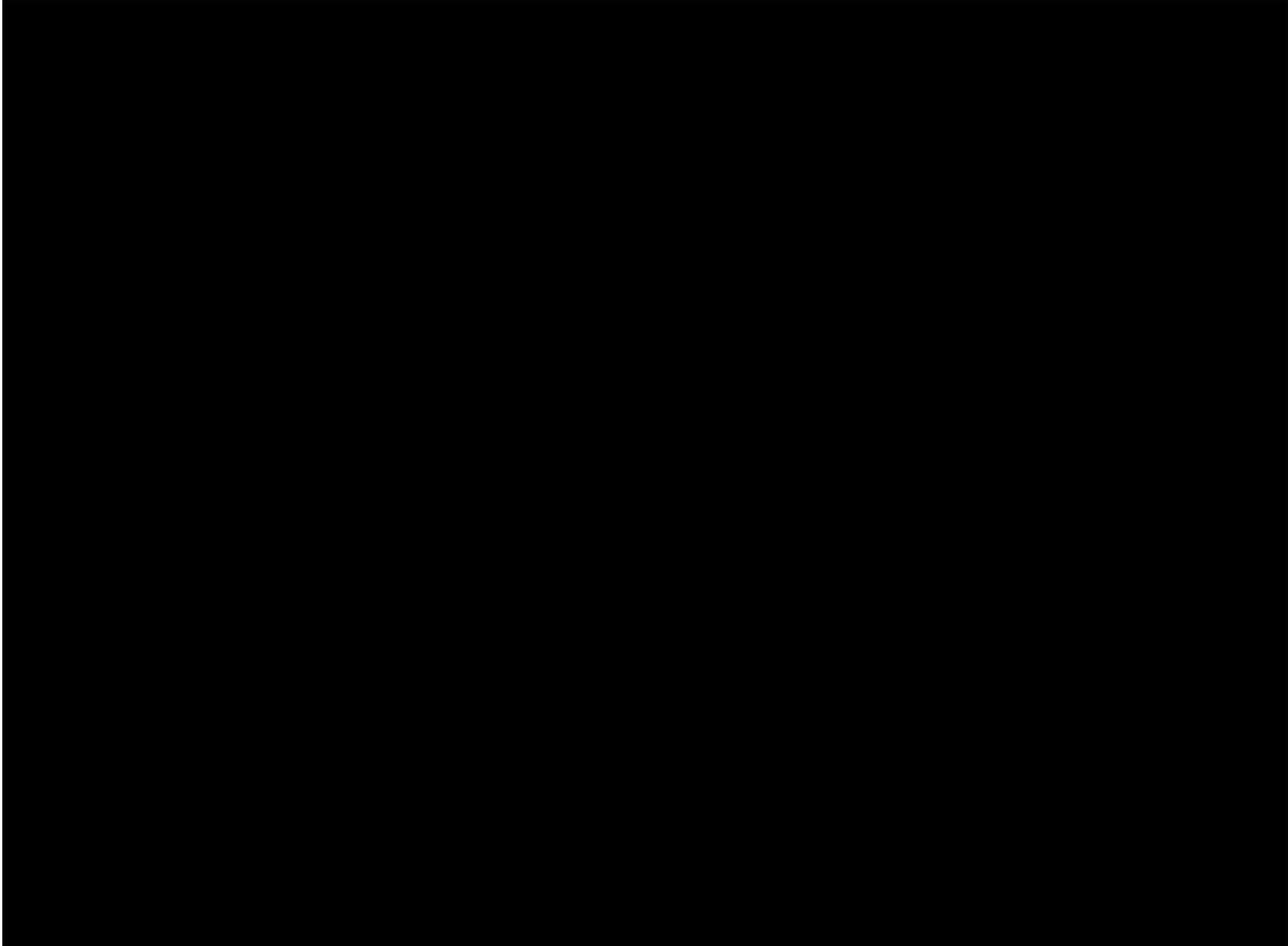
RESPONDENTS' EXHIBIT INDEX

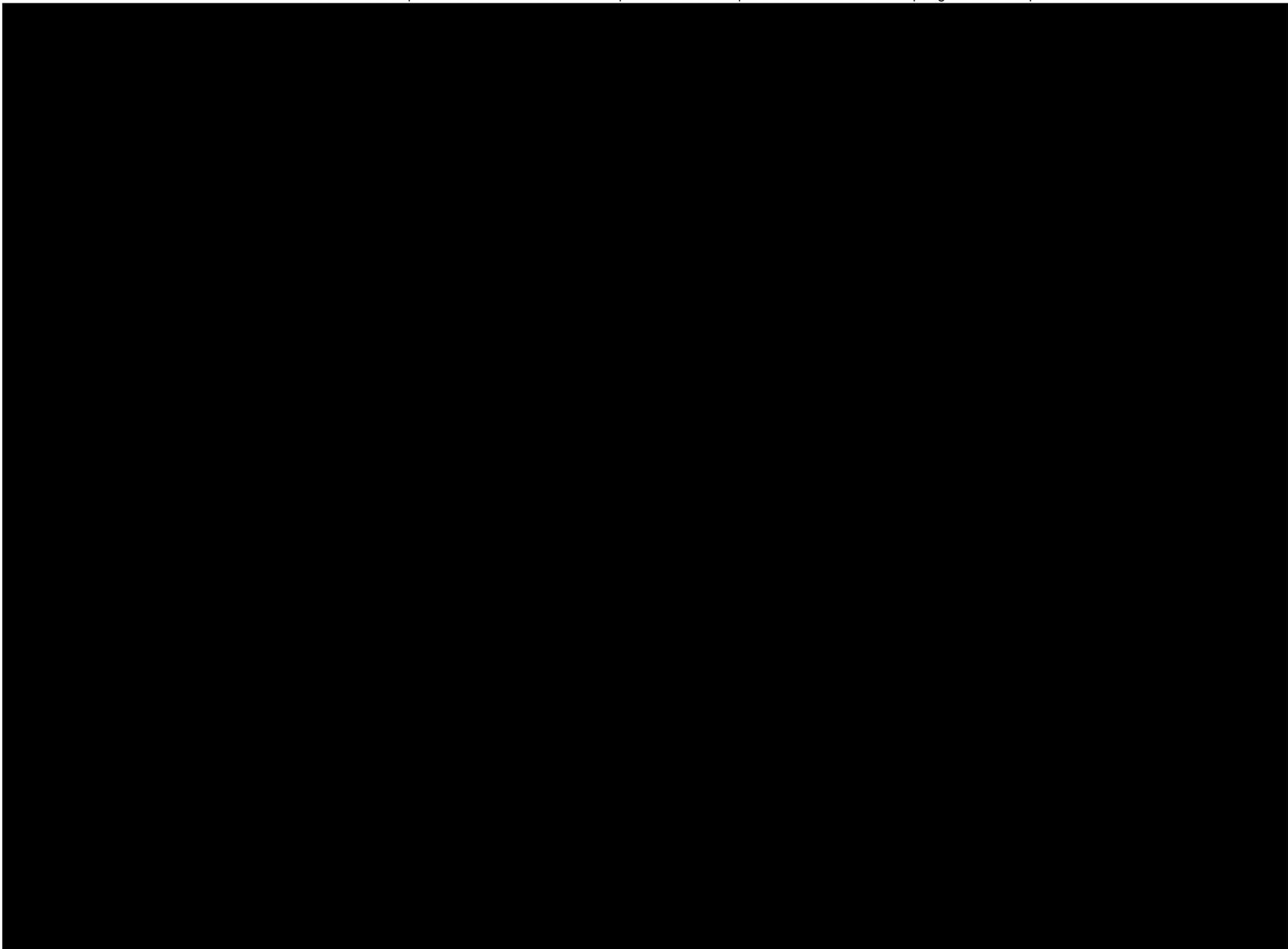
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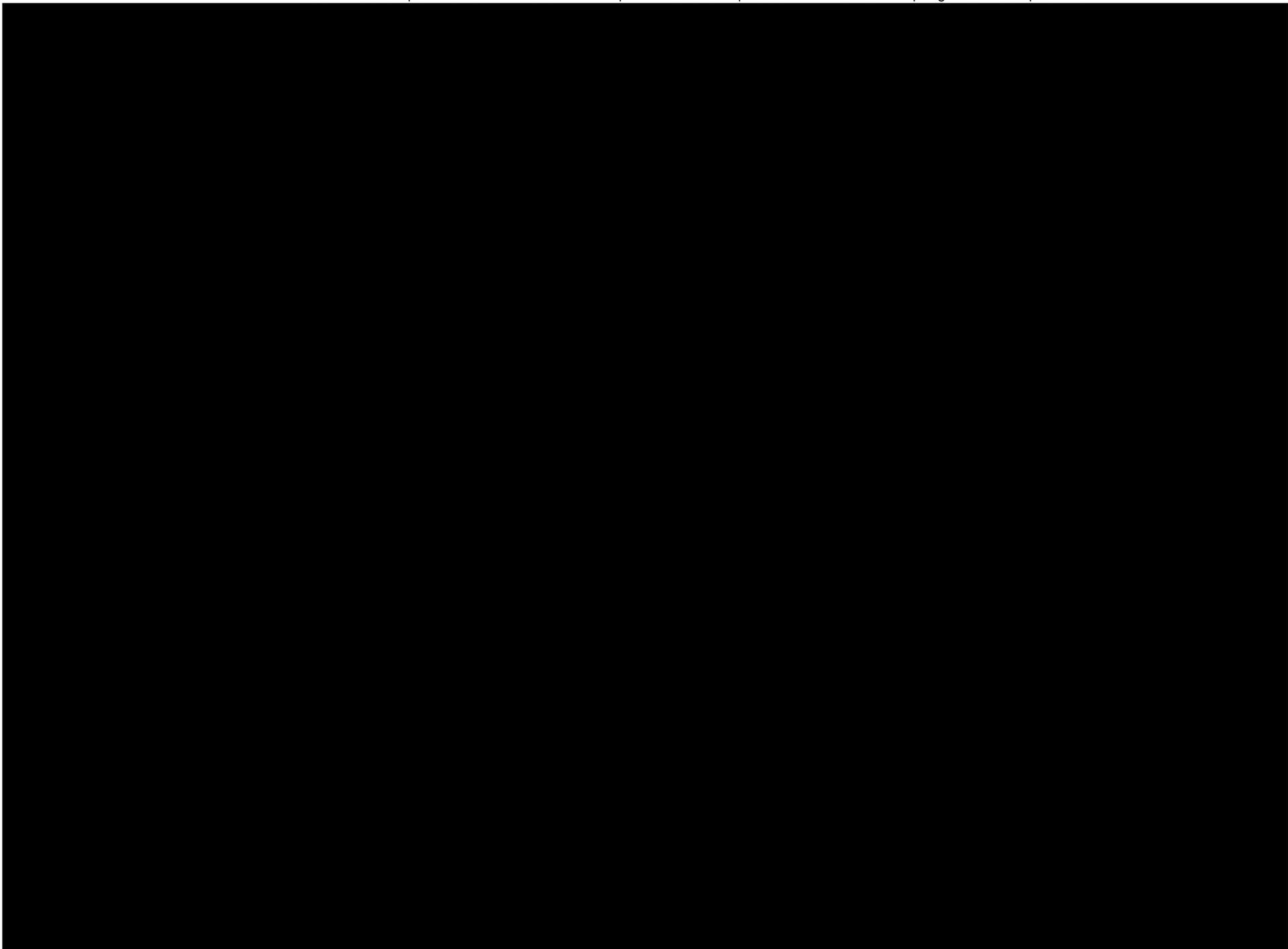


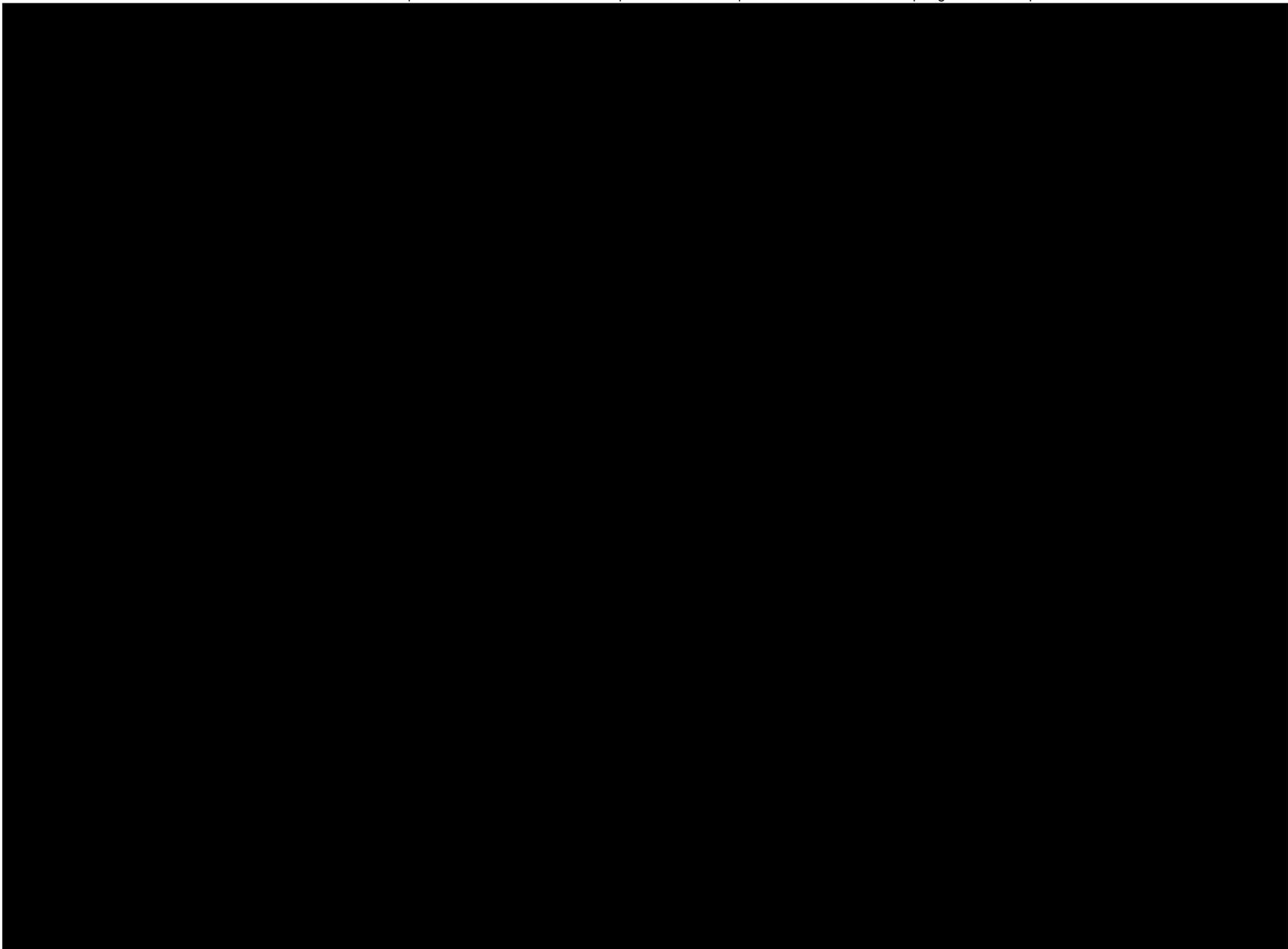


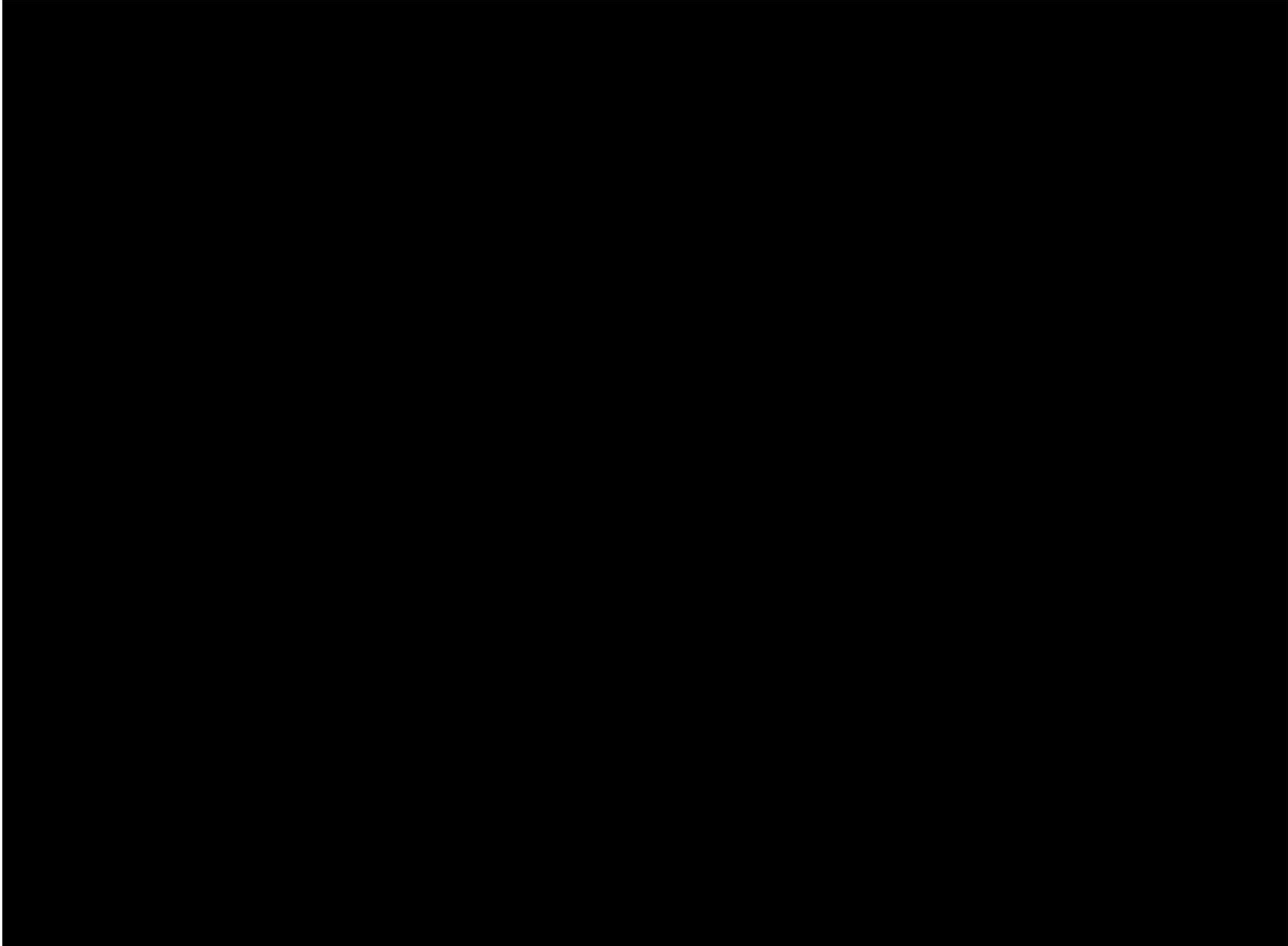


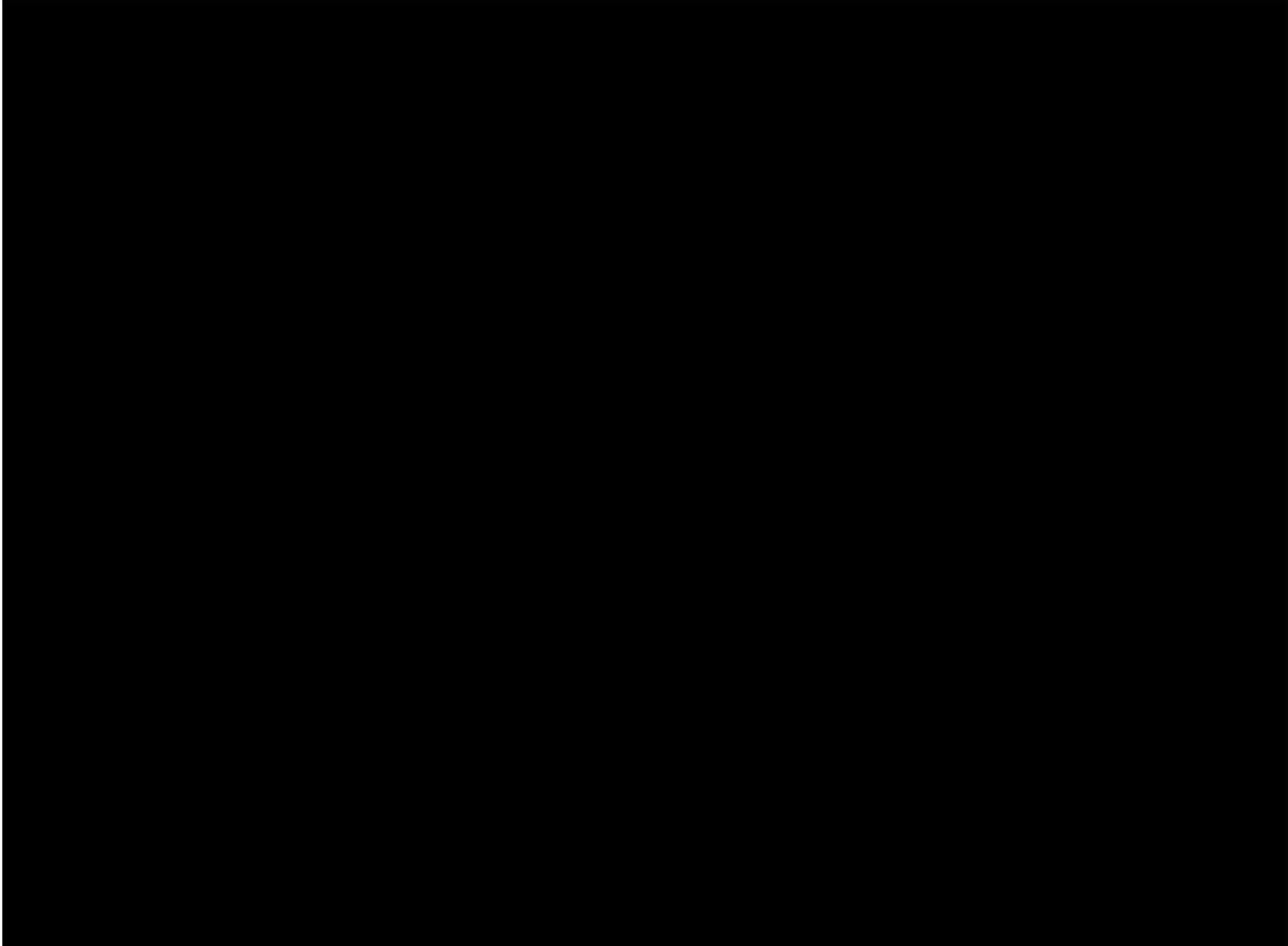


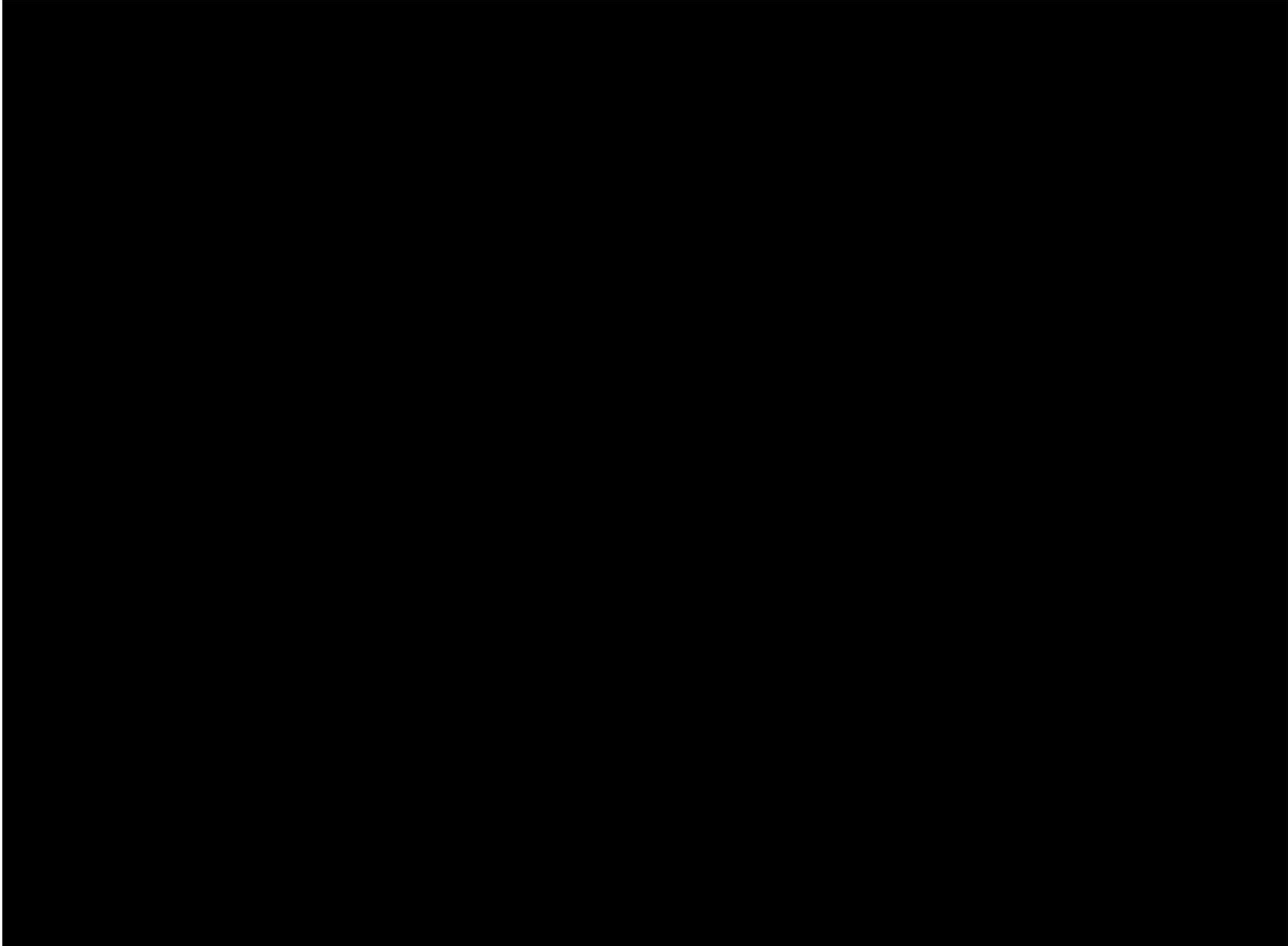


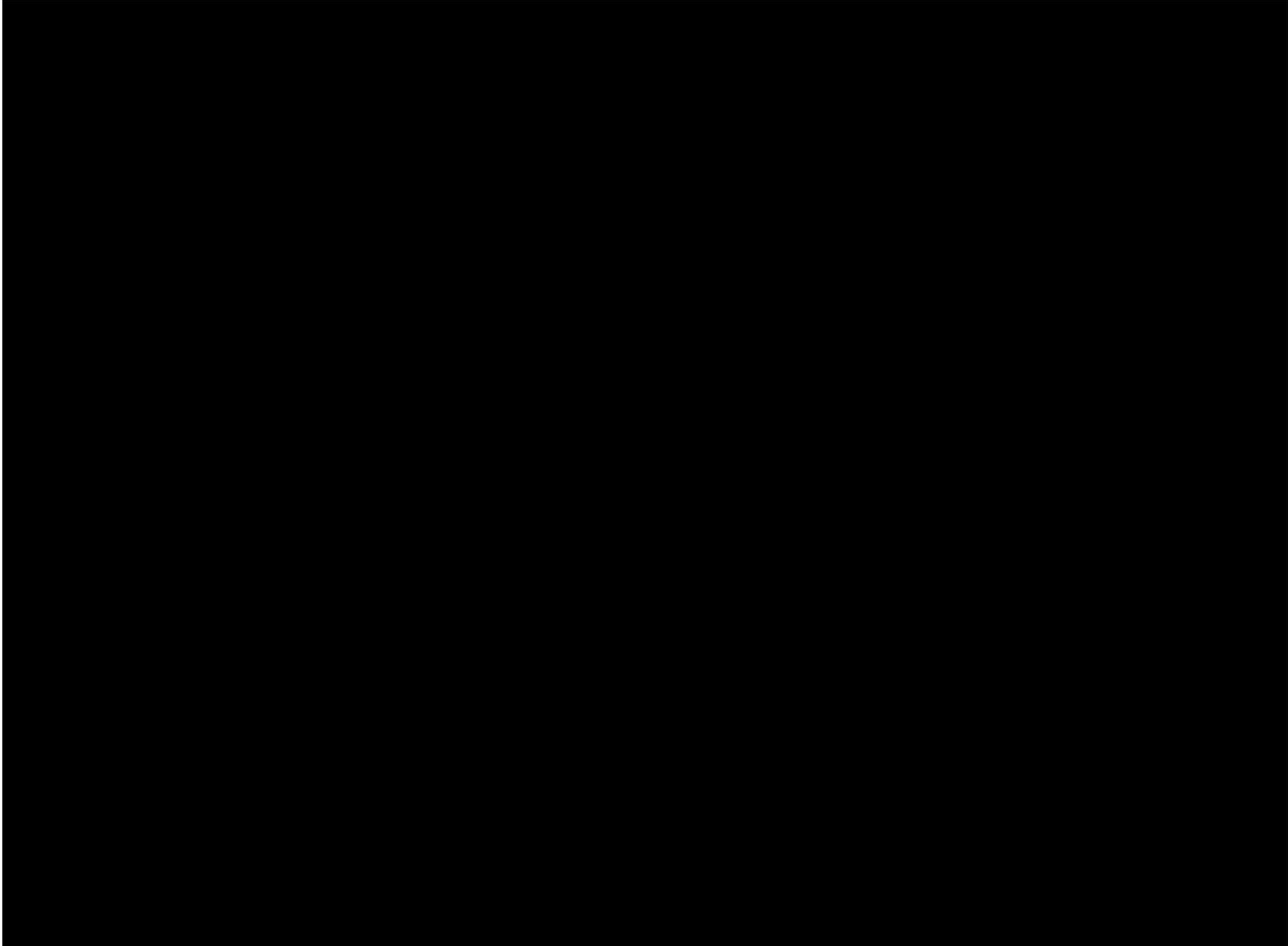


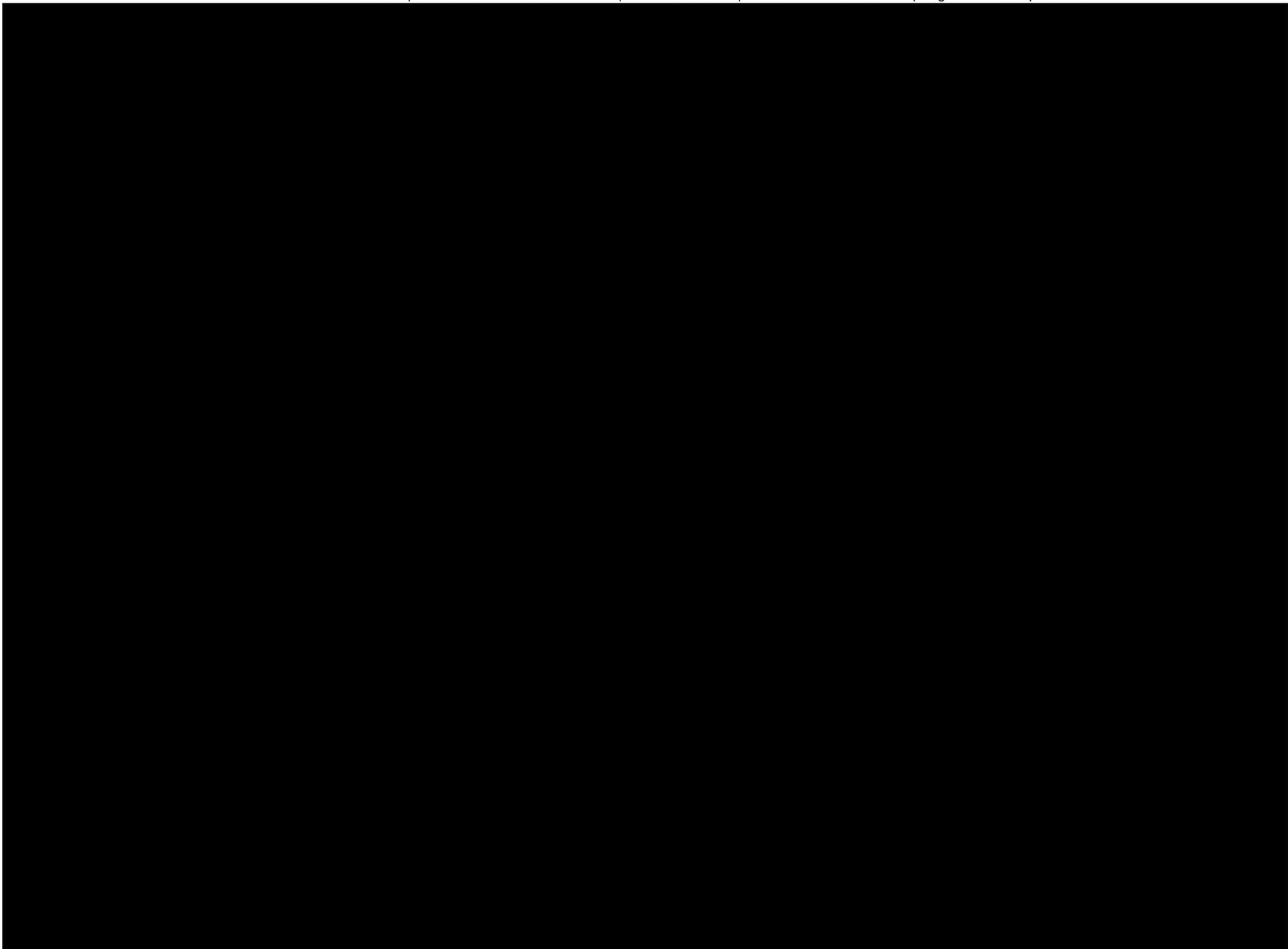


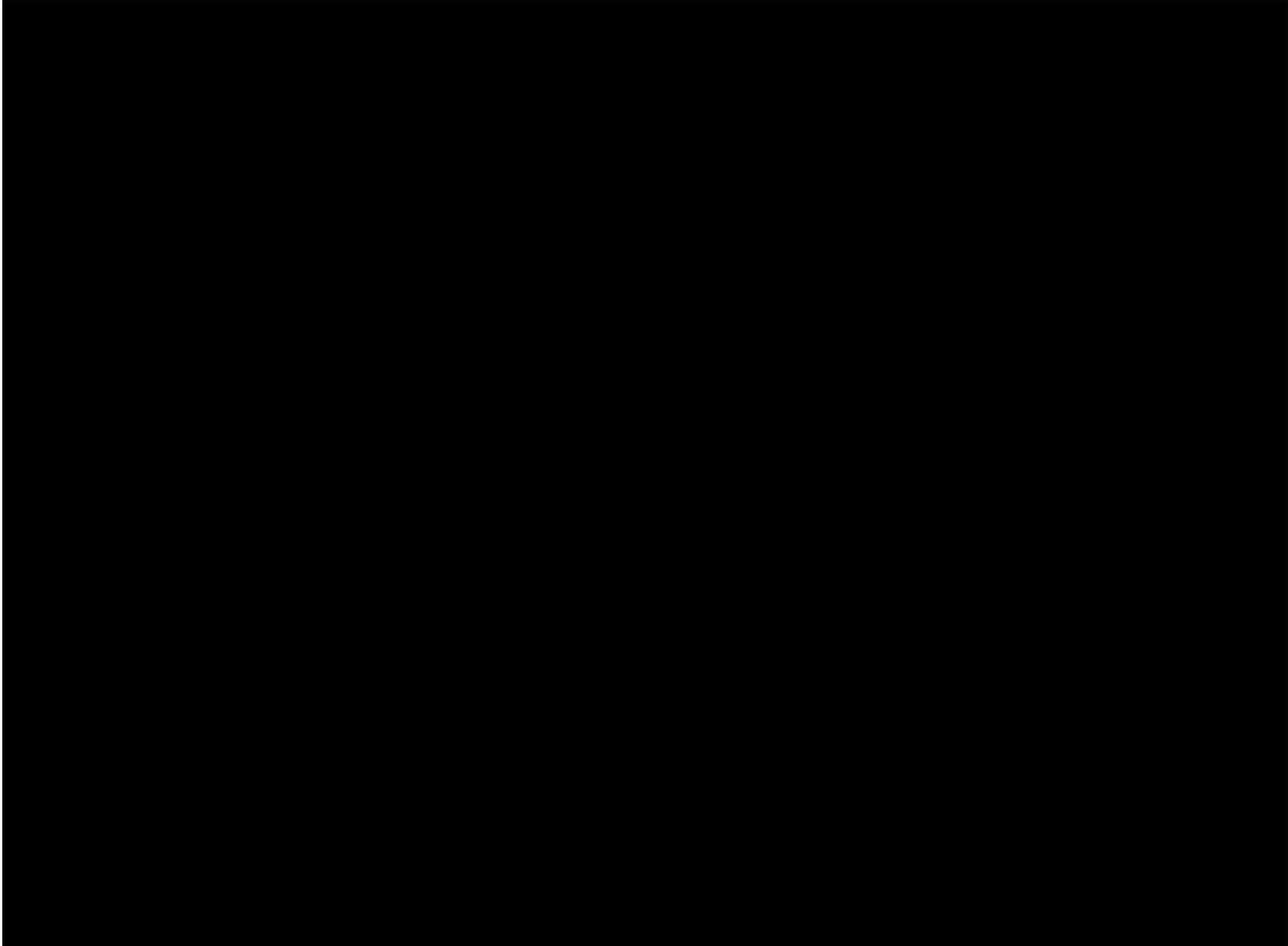


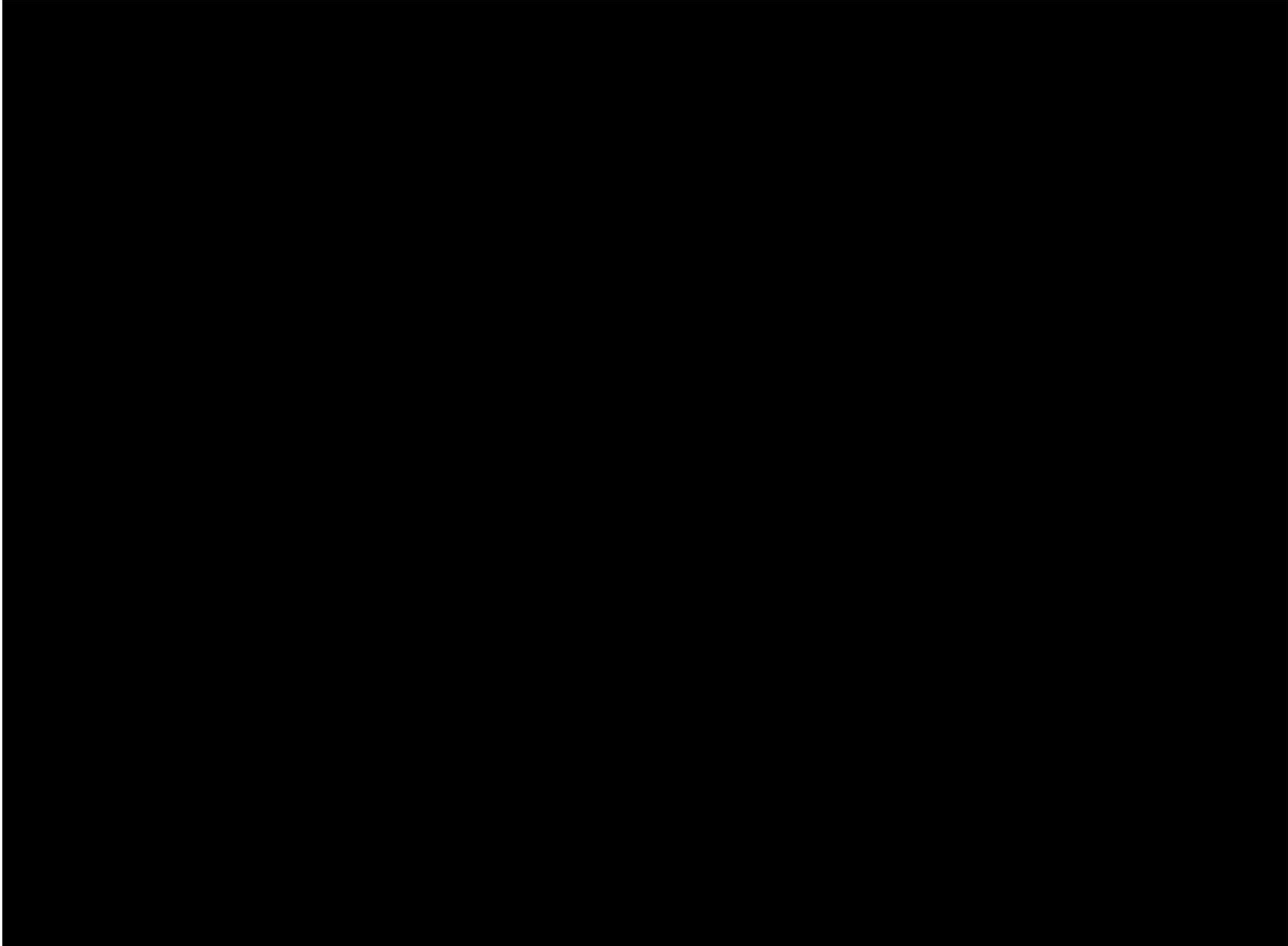


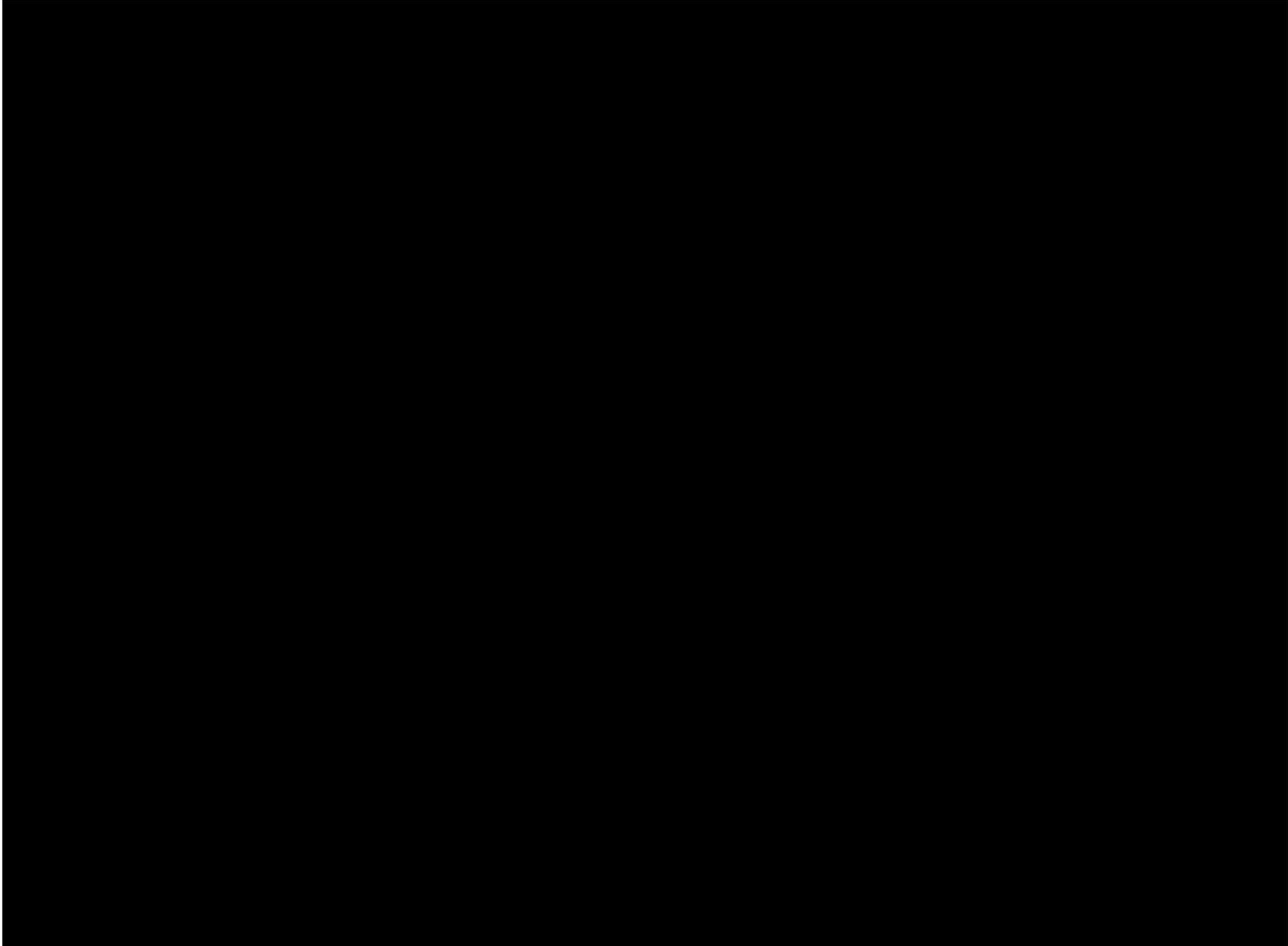


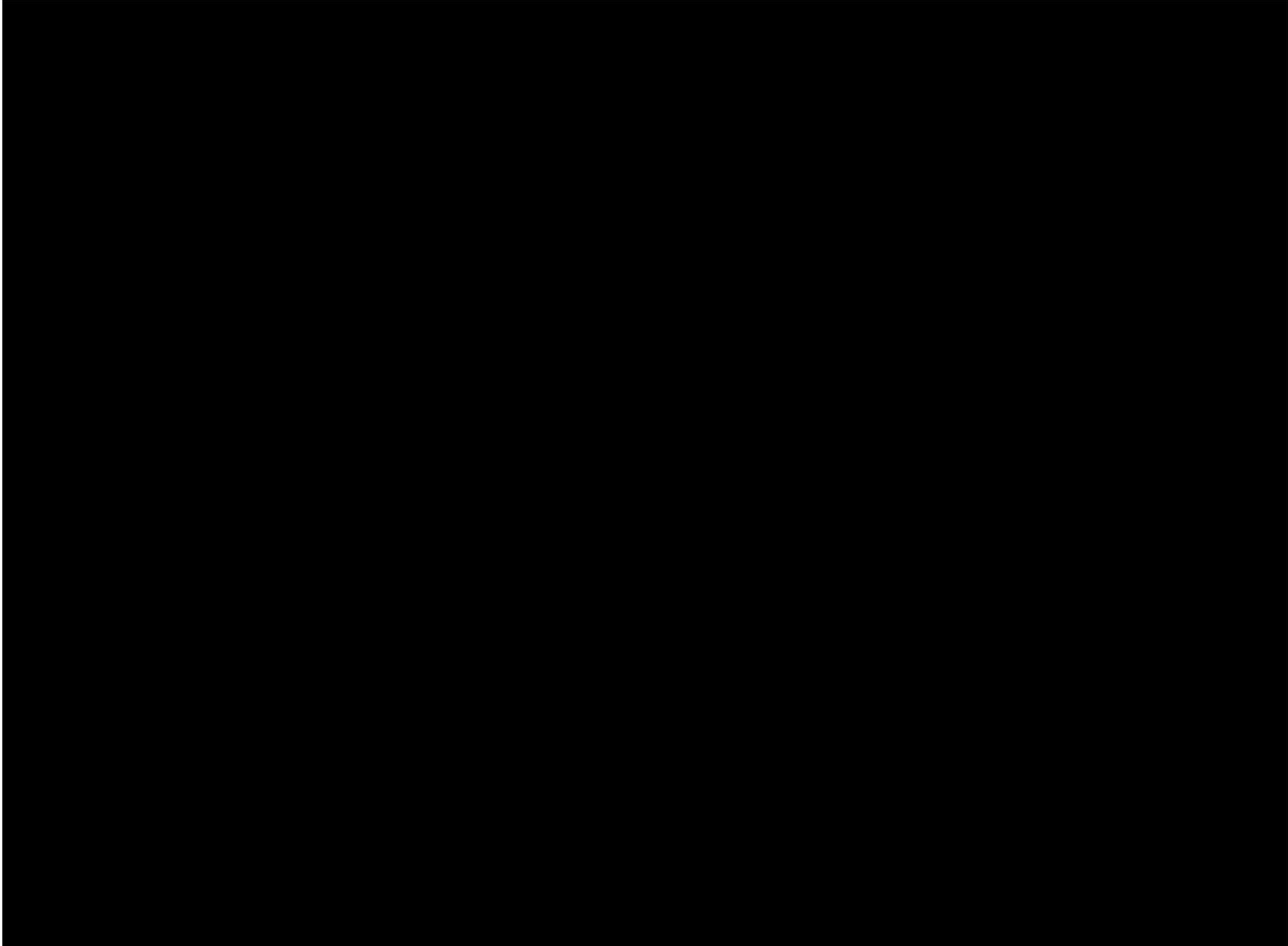


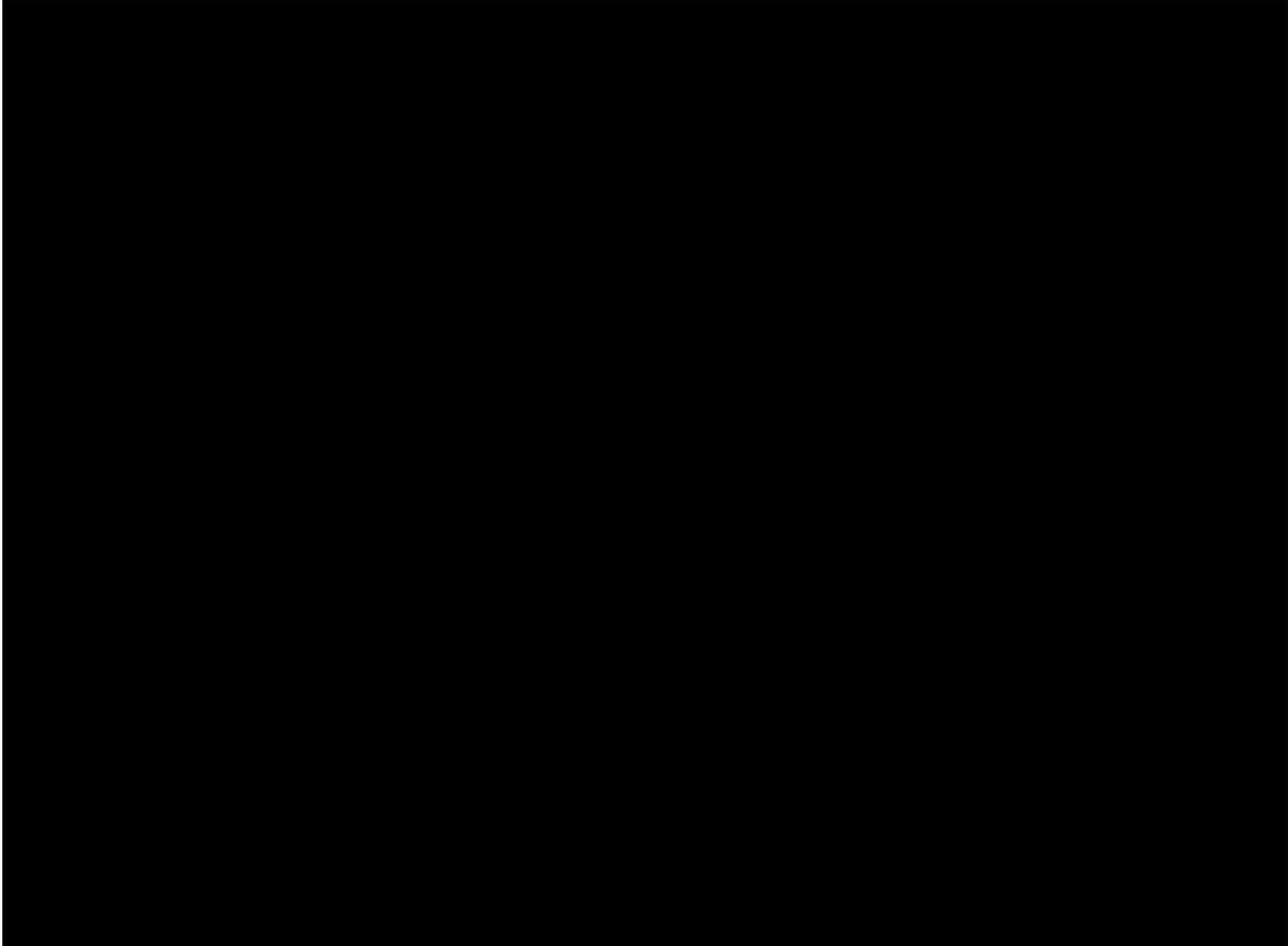


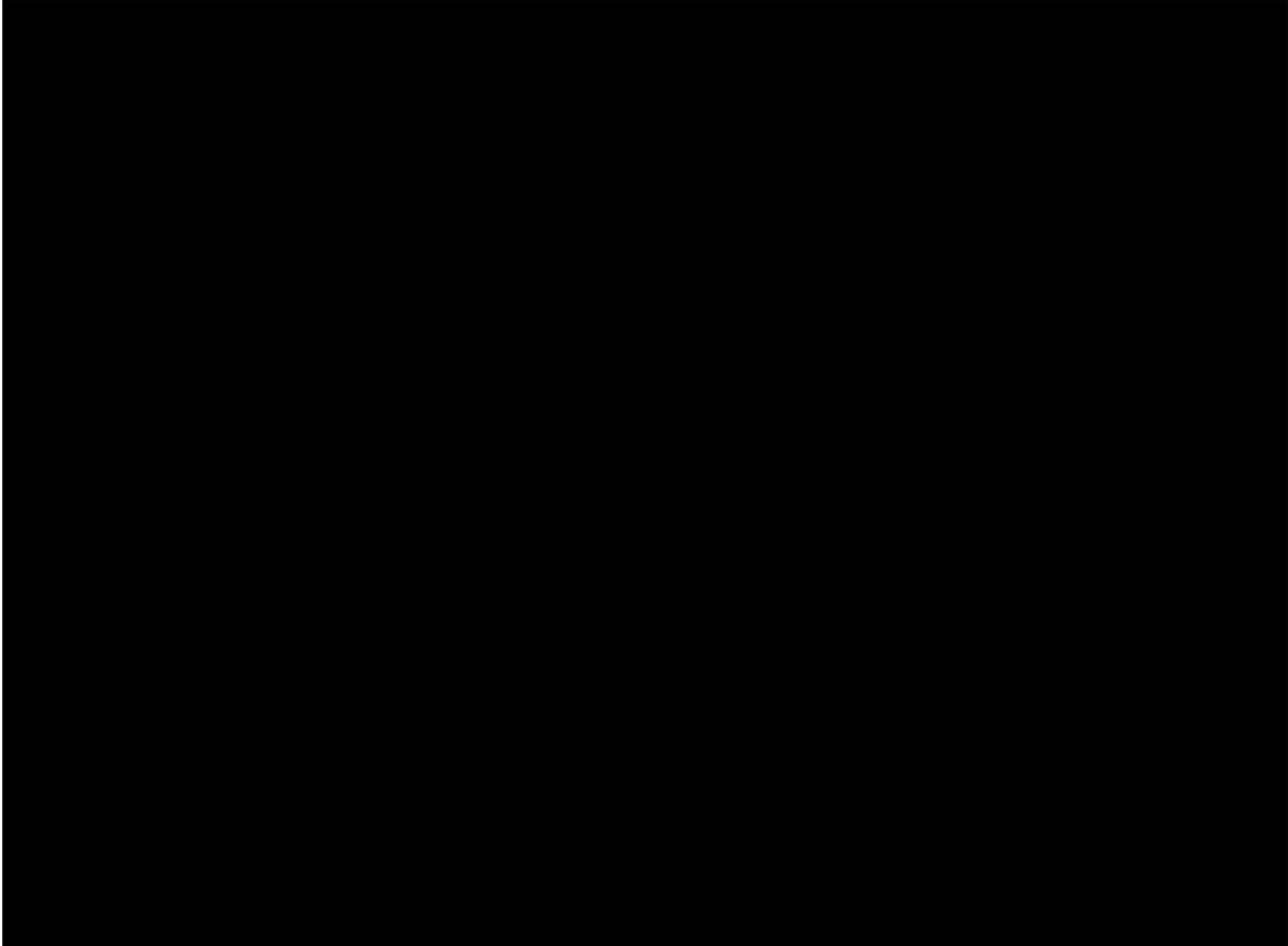


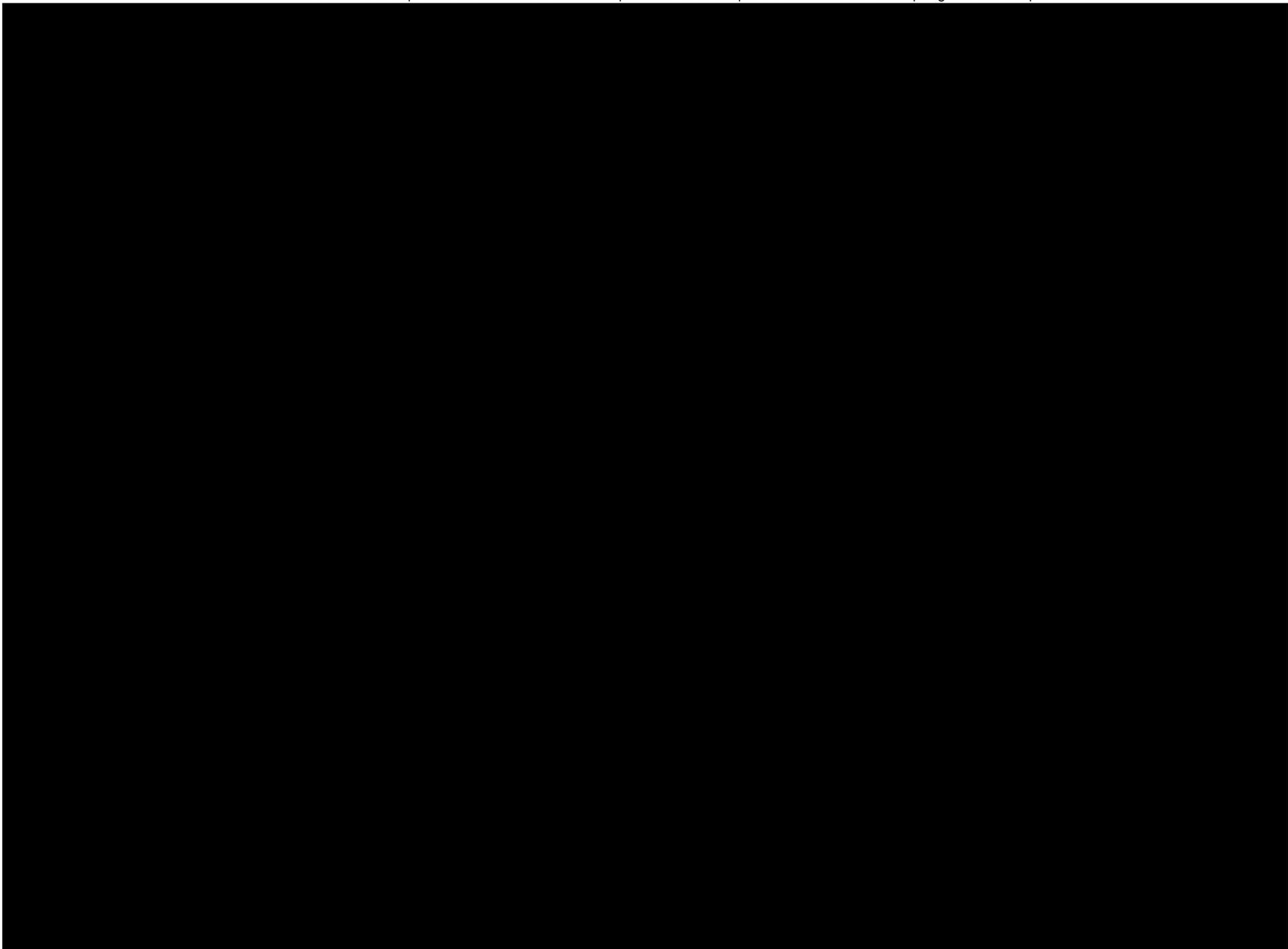


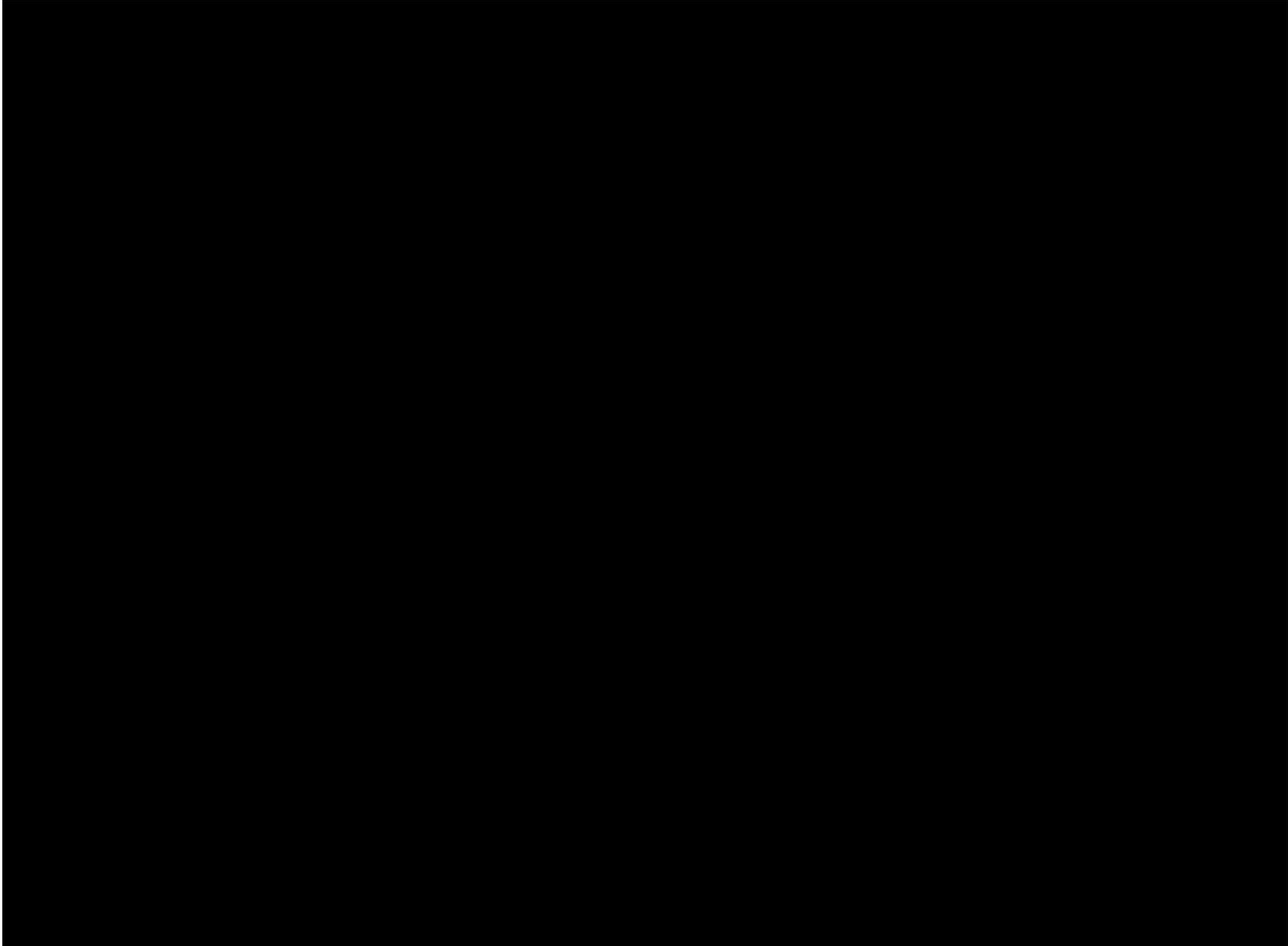


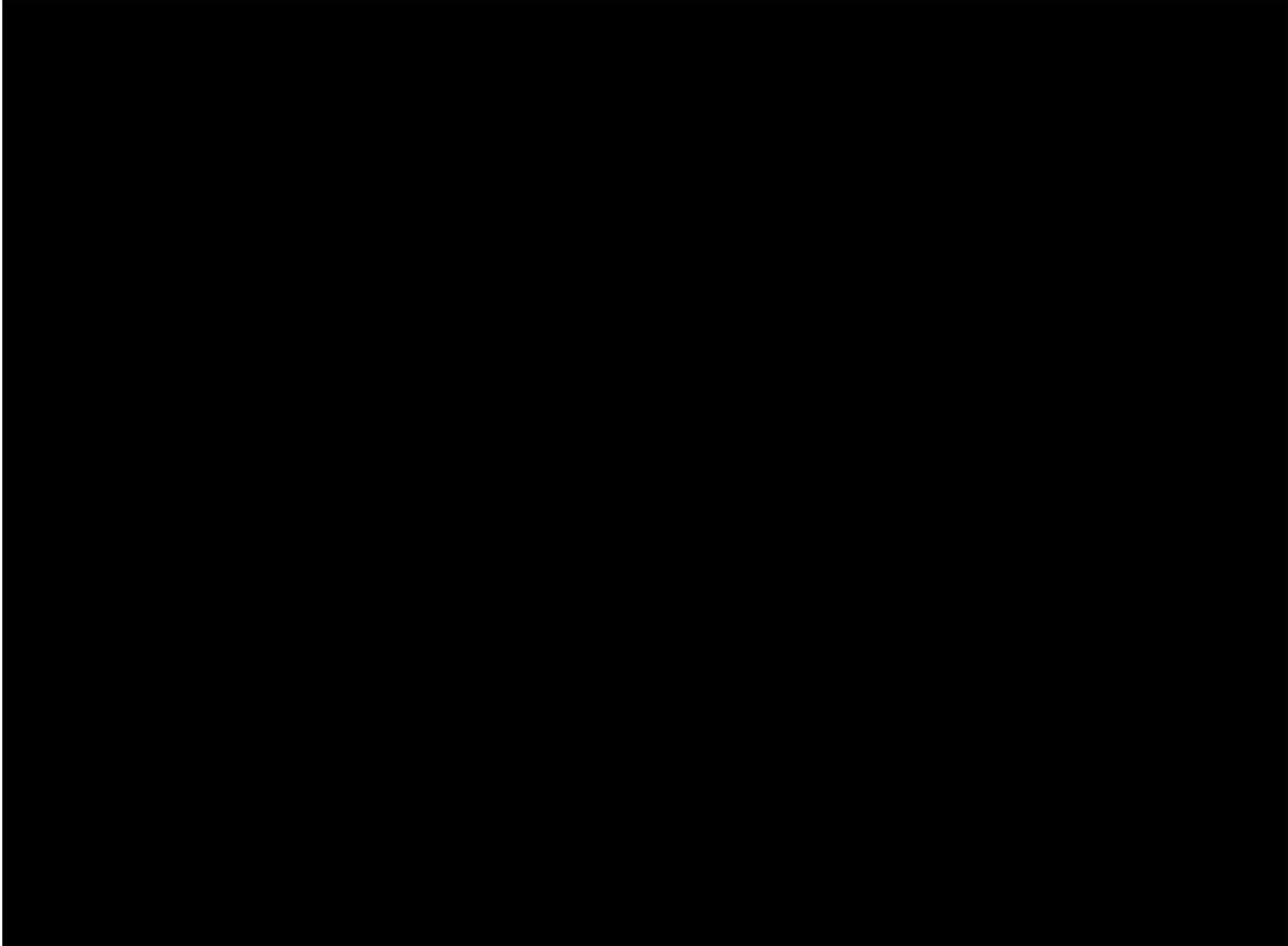


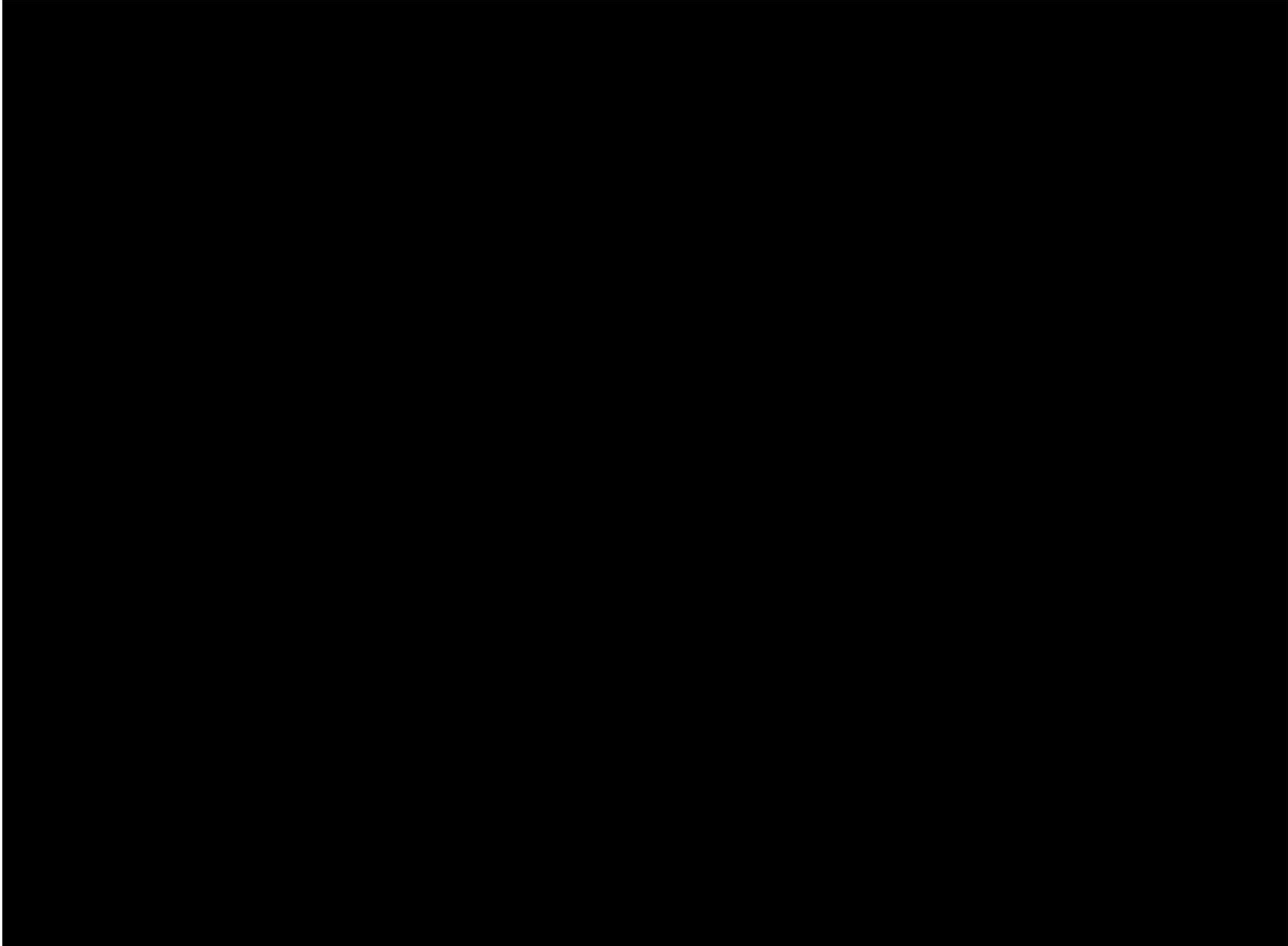


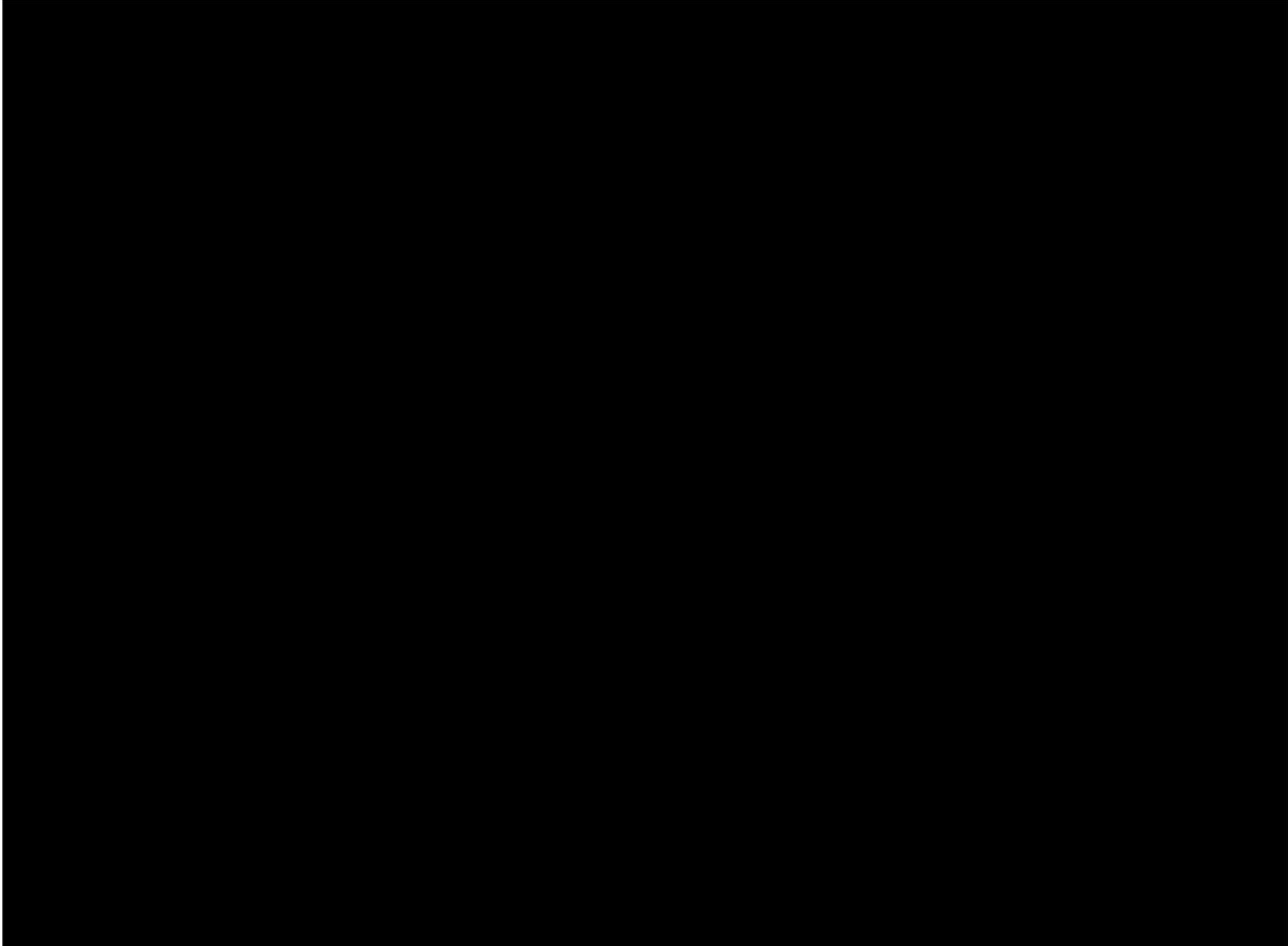


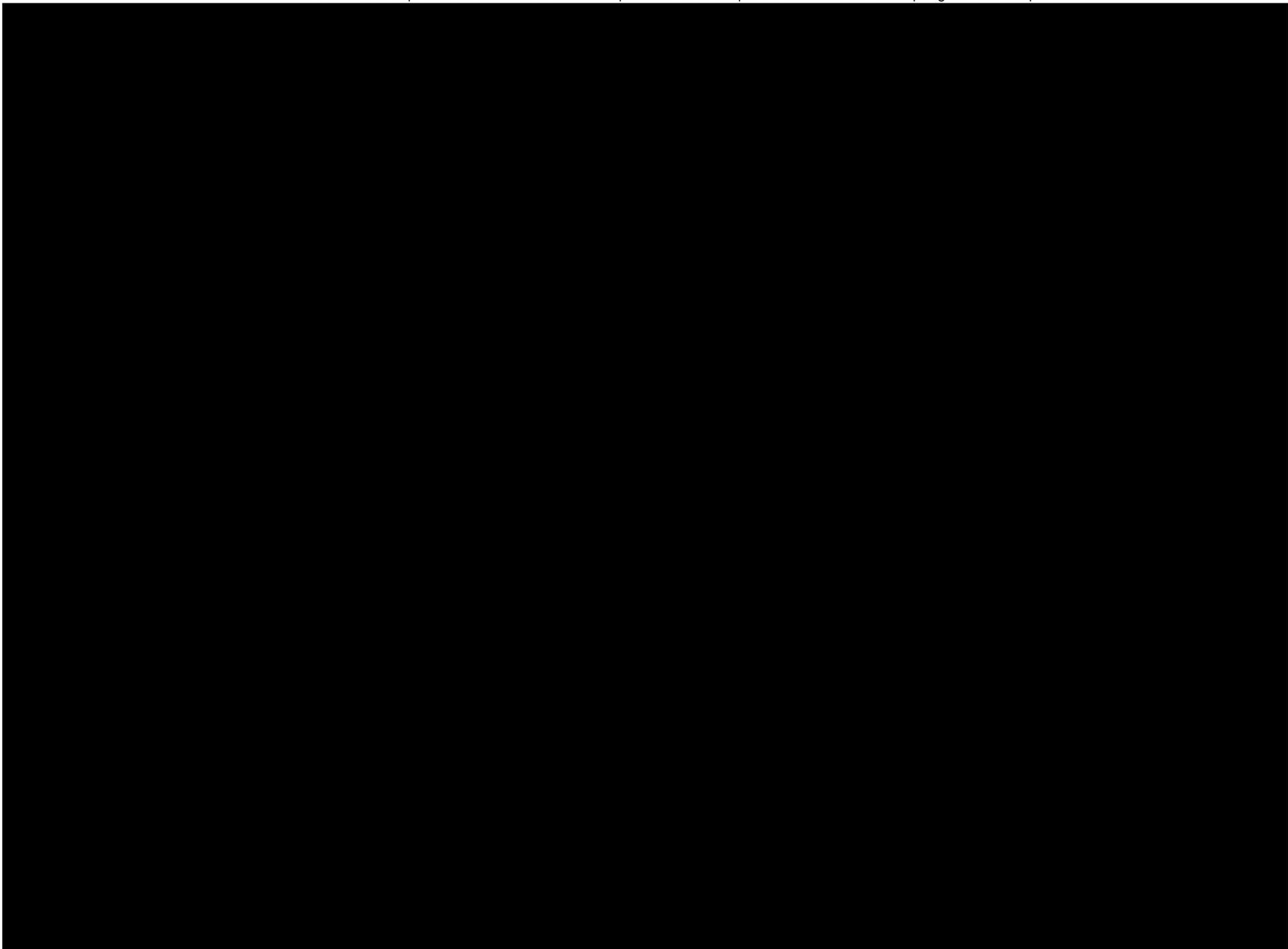


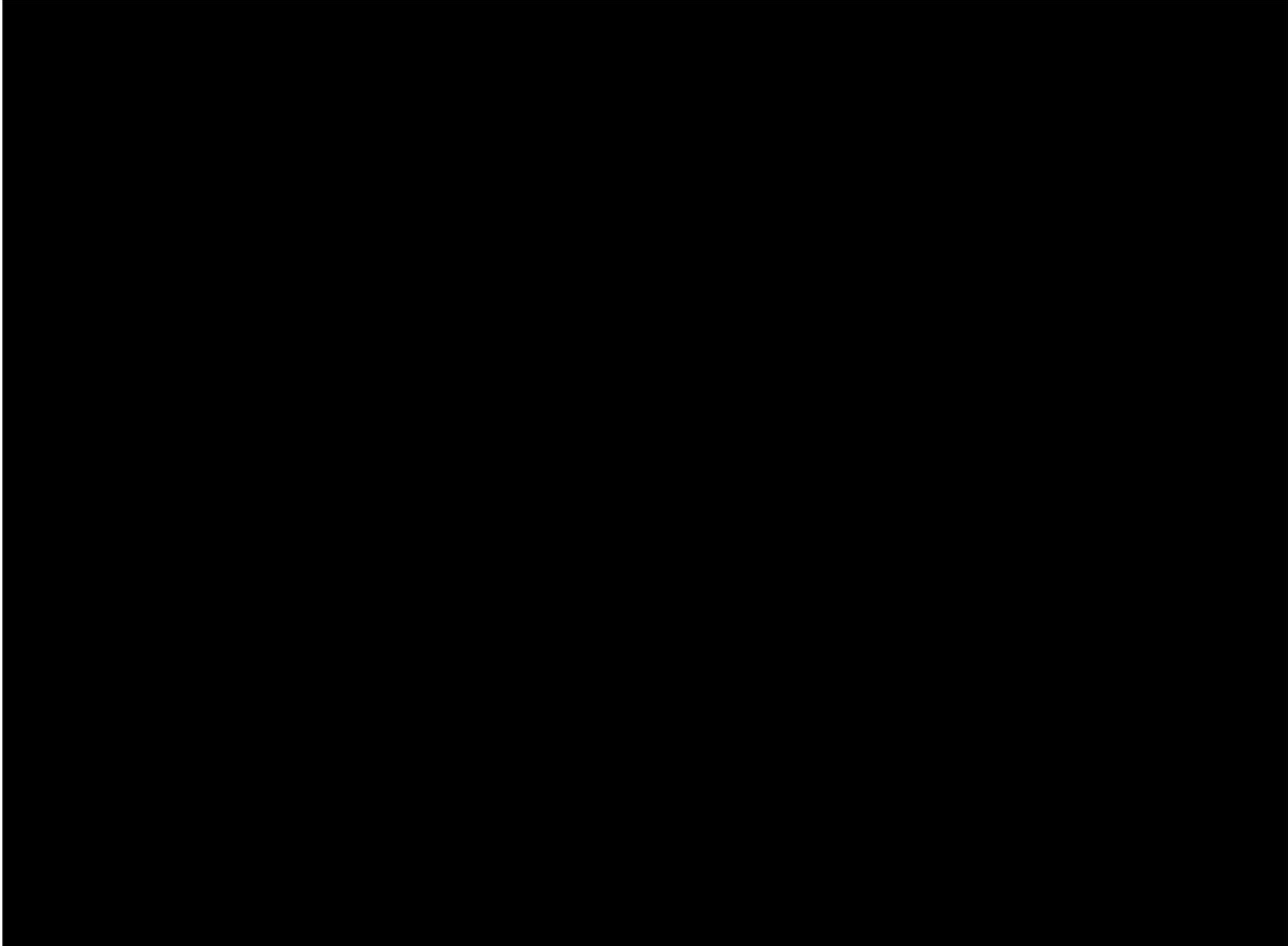


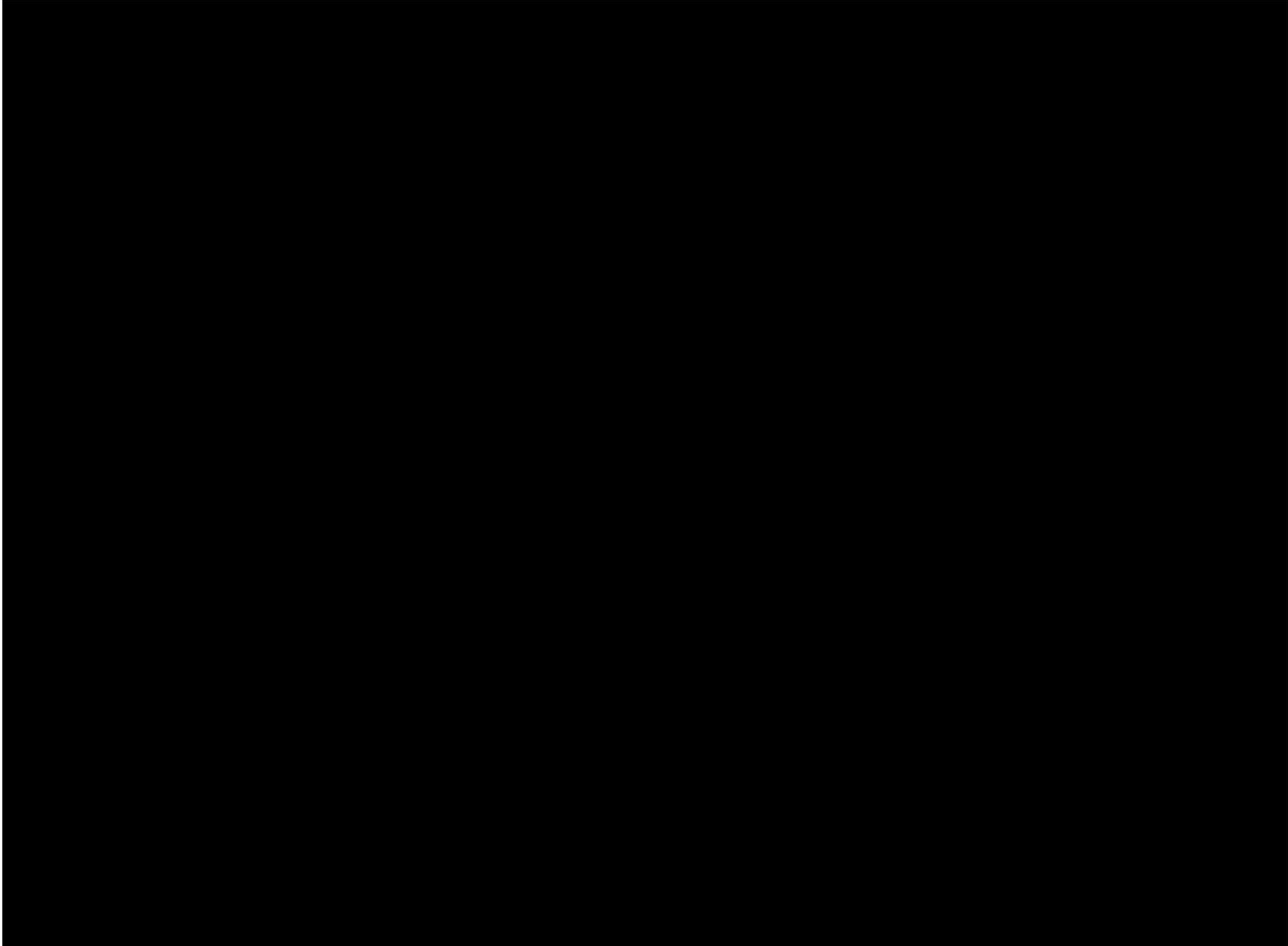


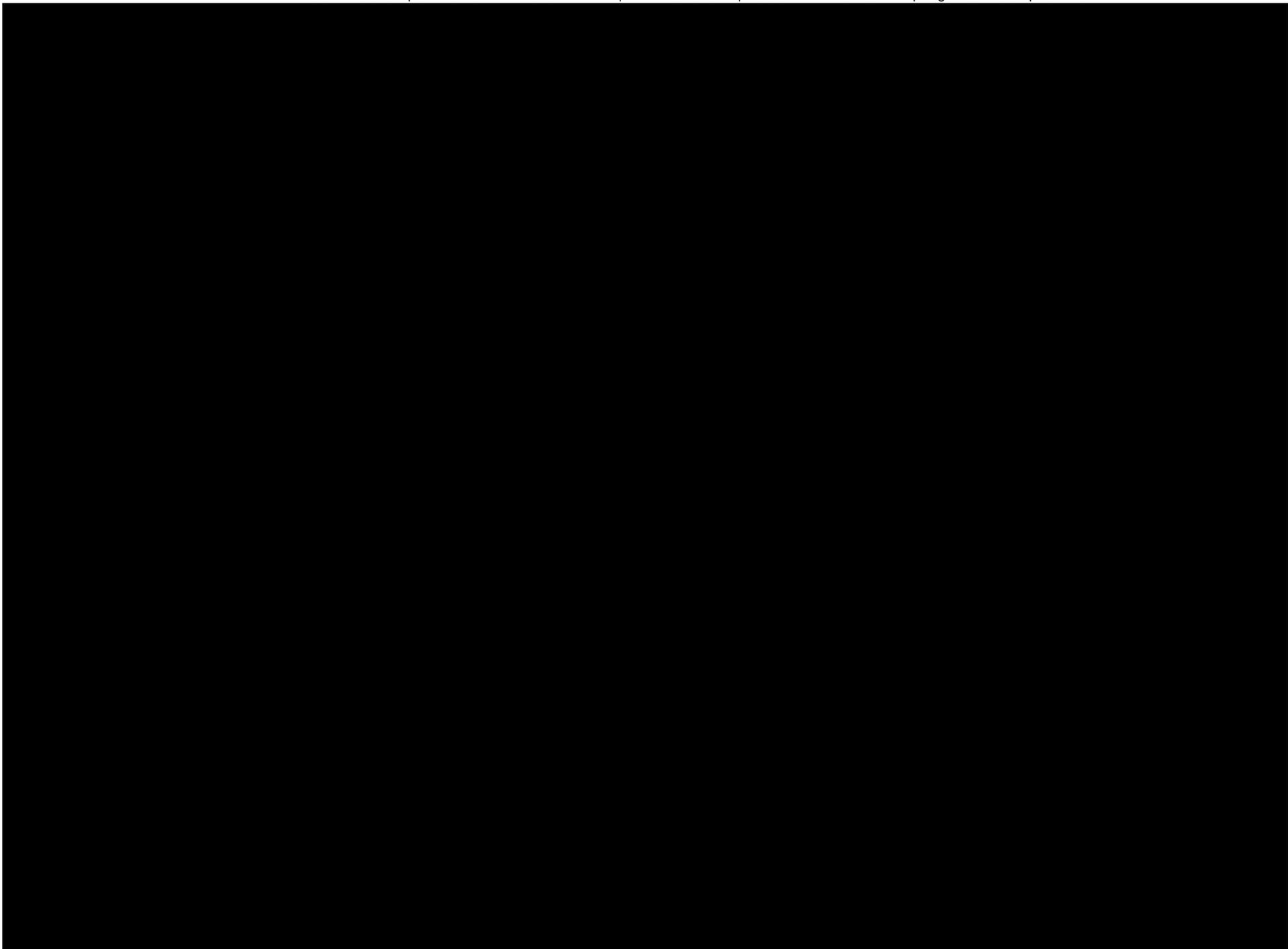


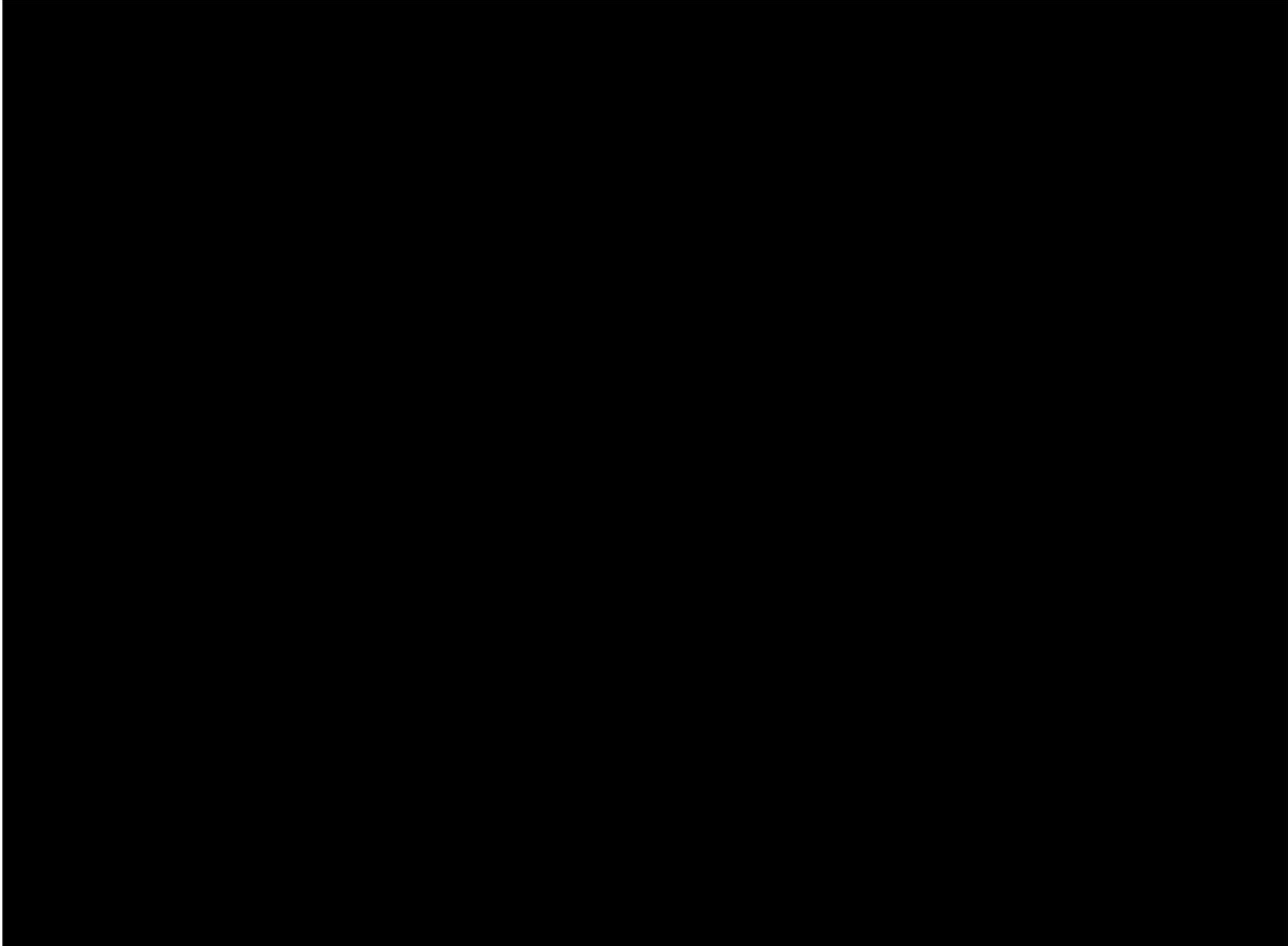


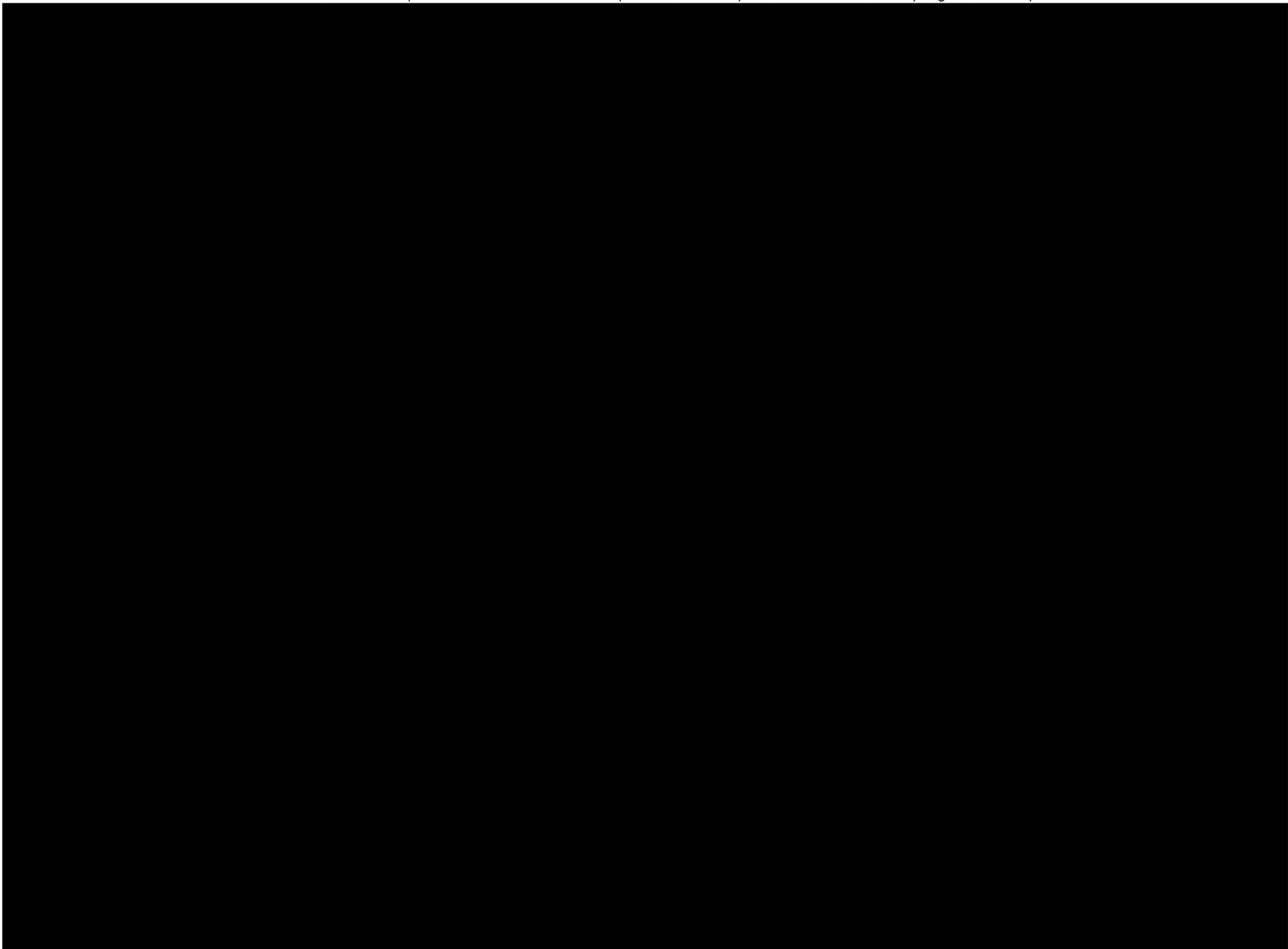


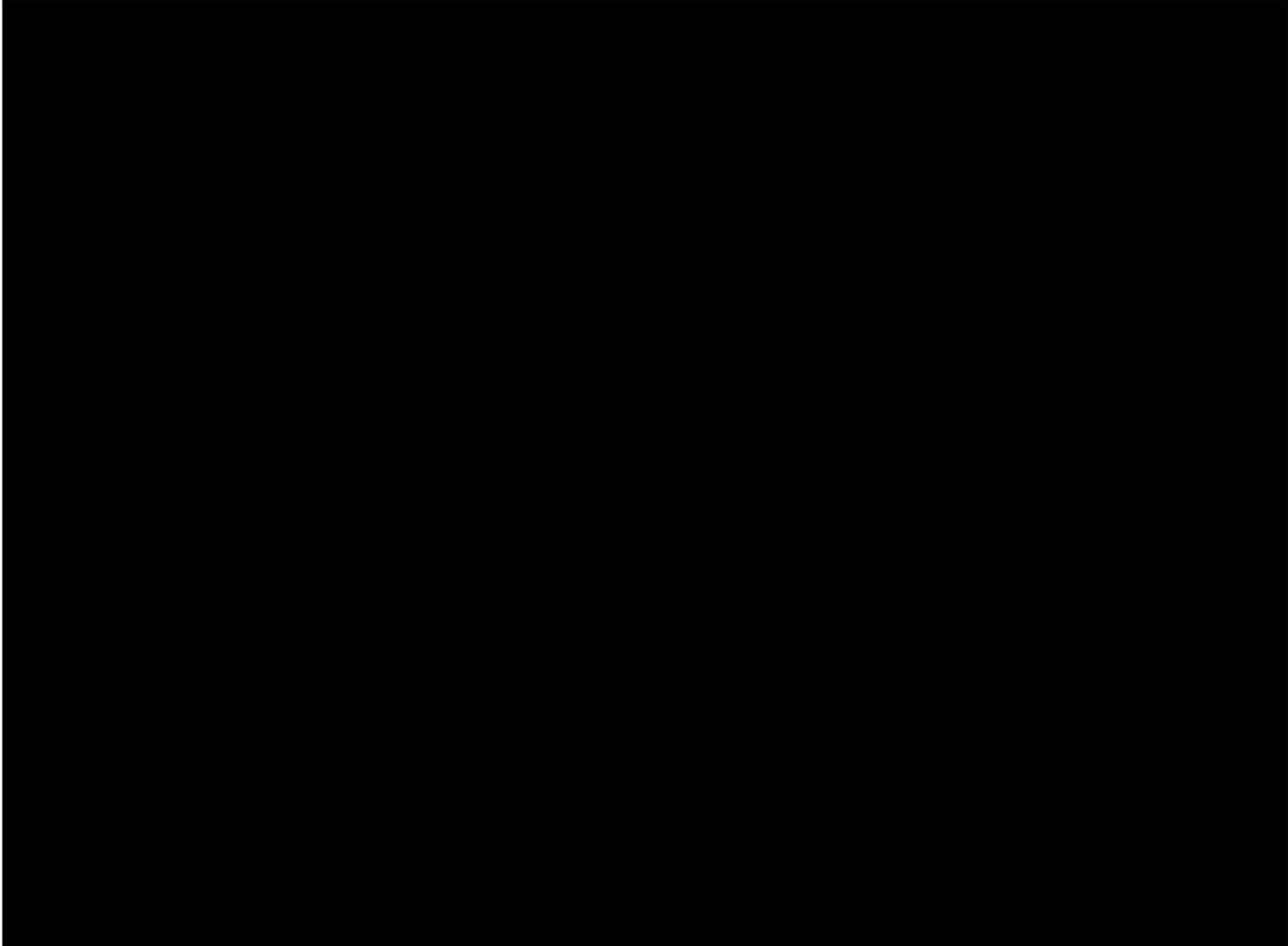


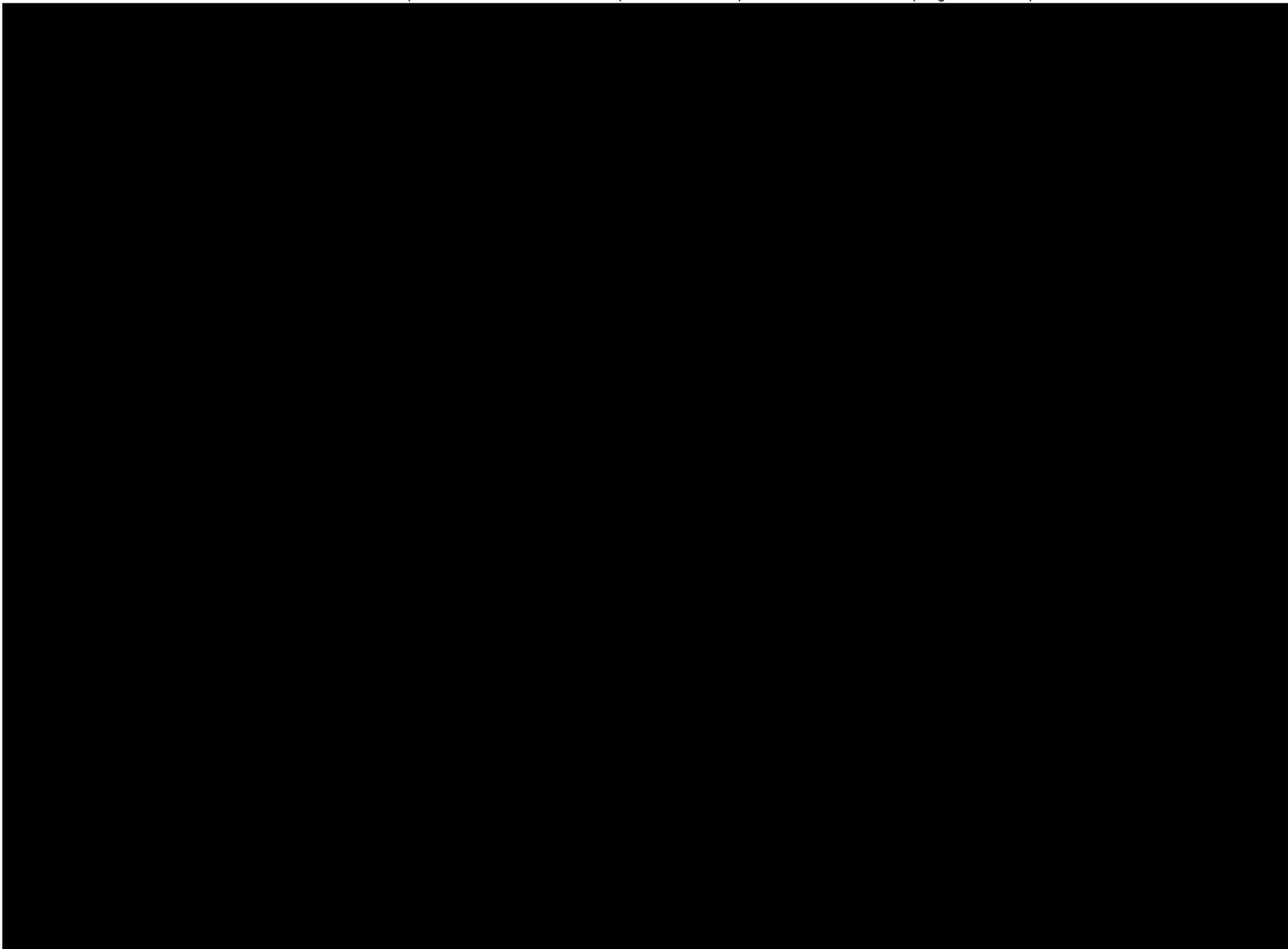


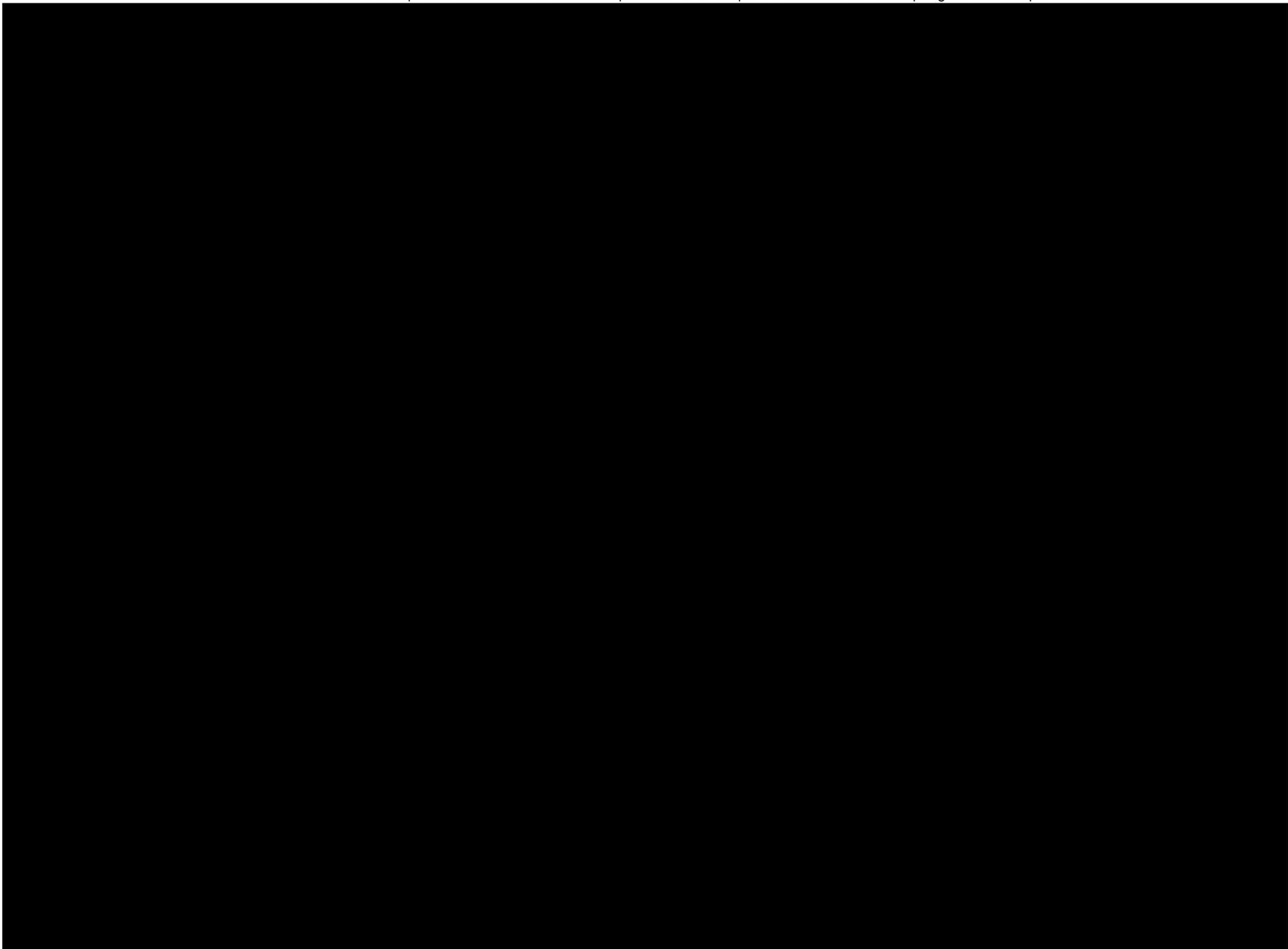


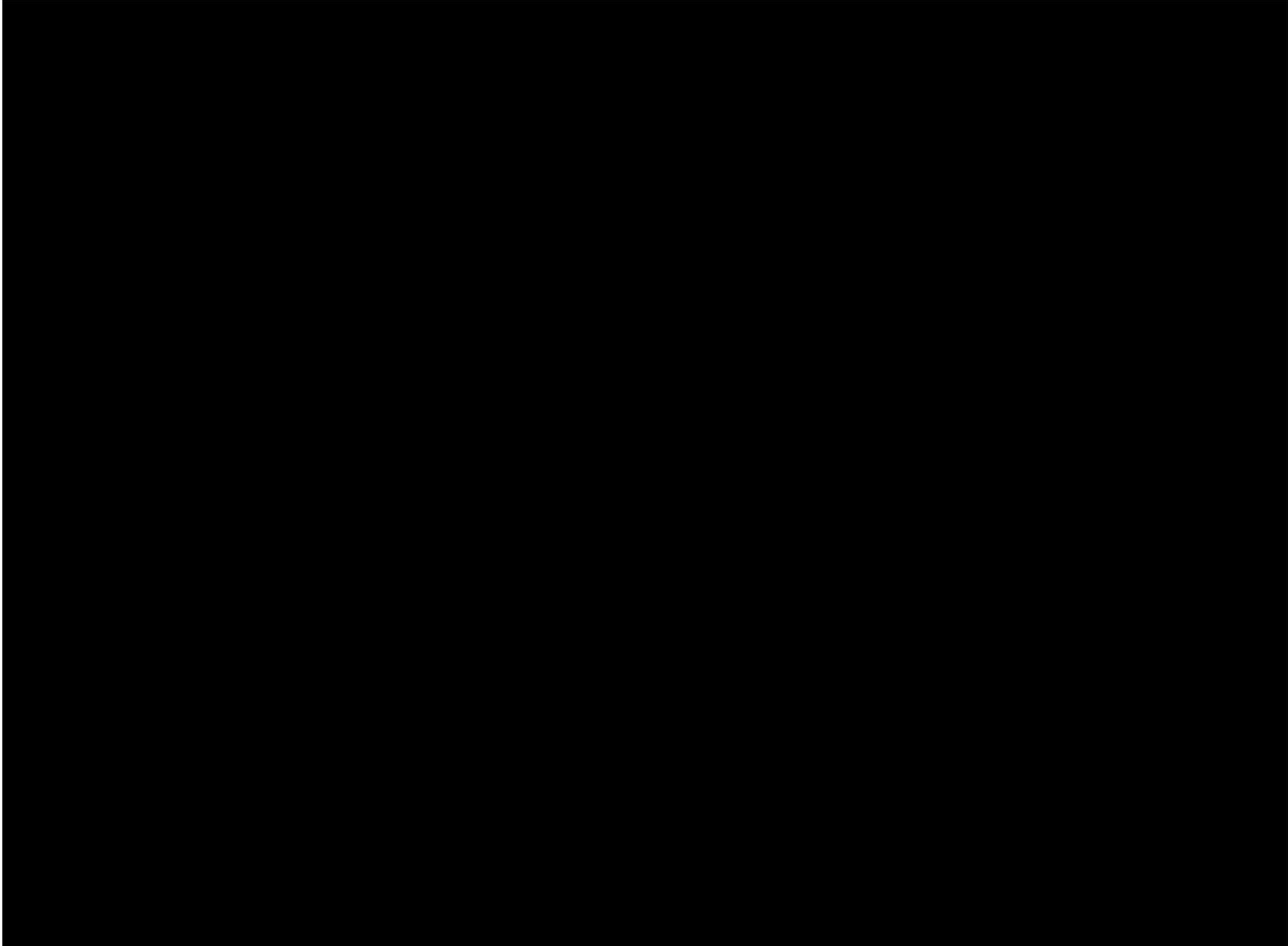


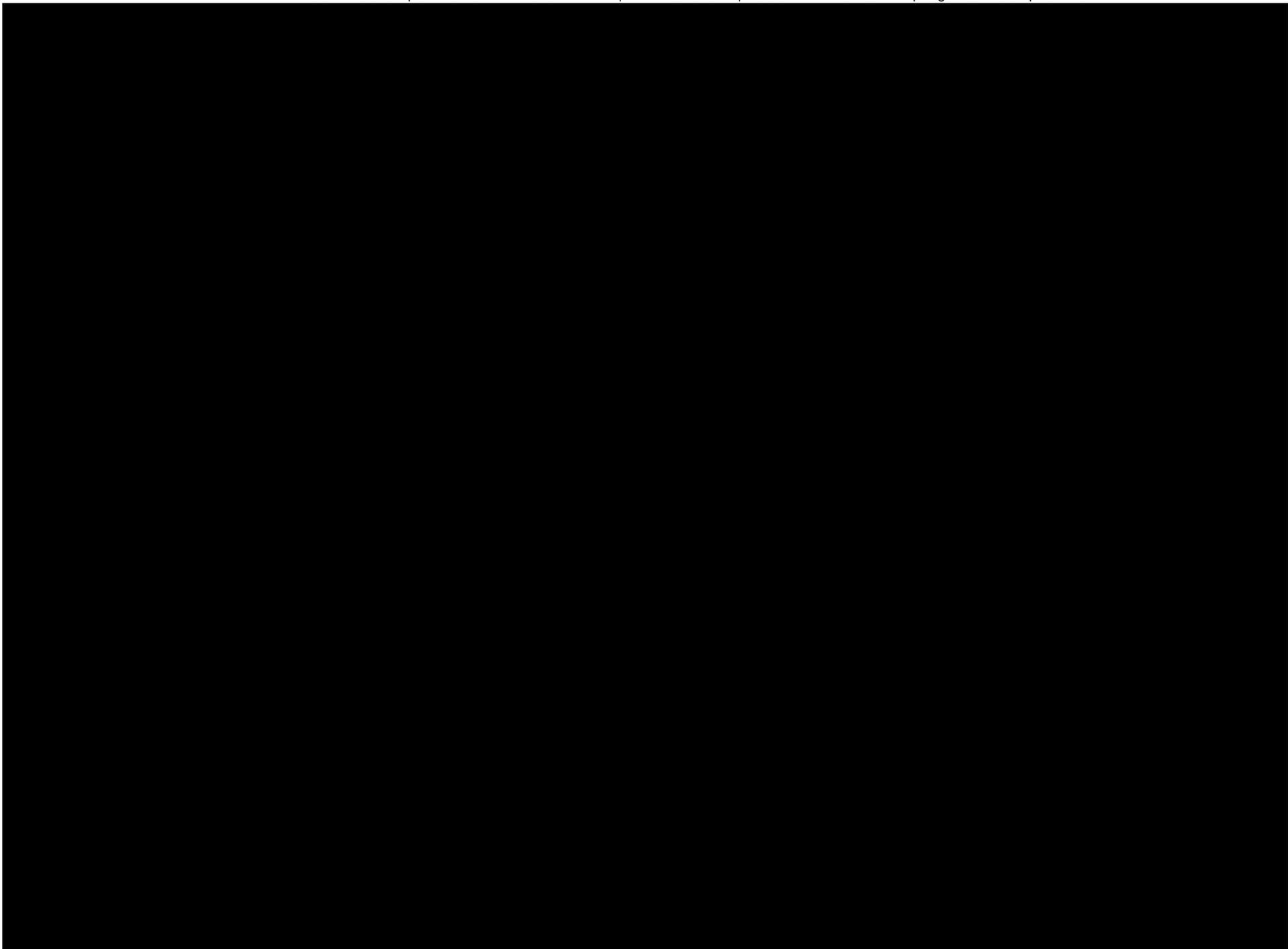


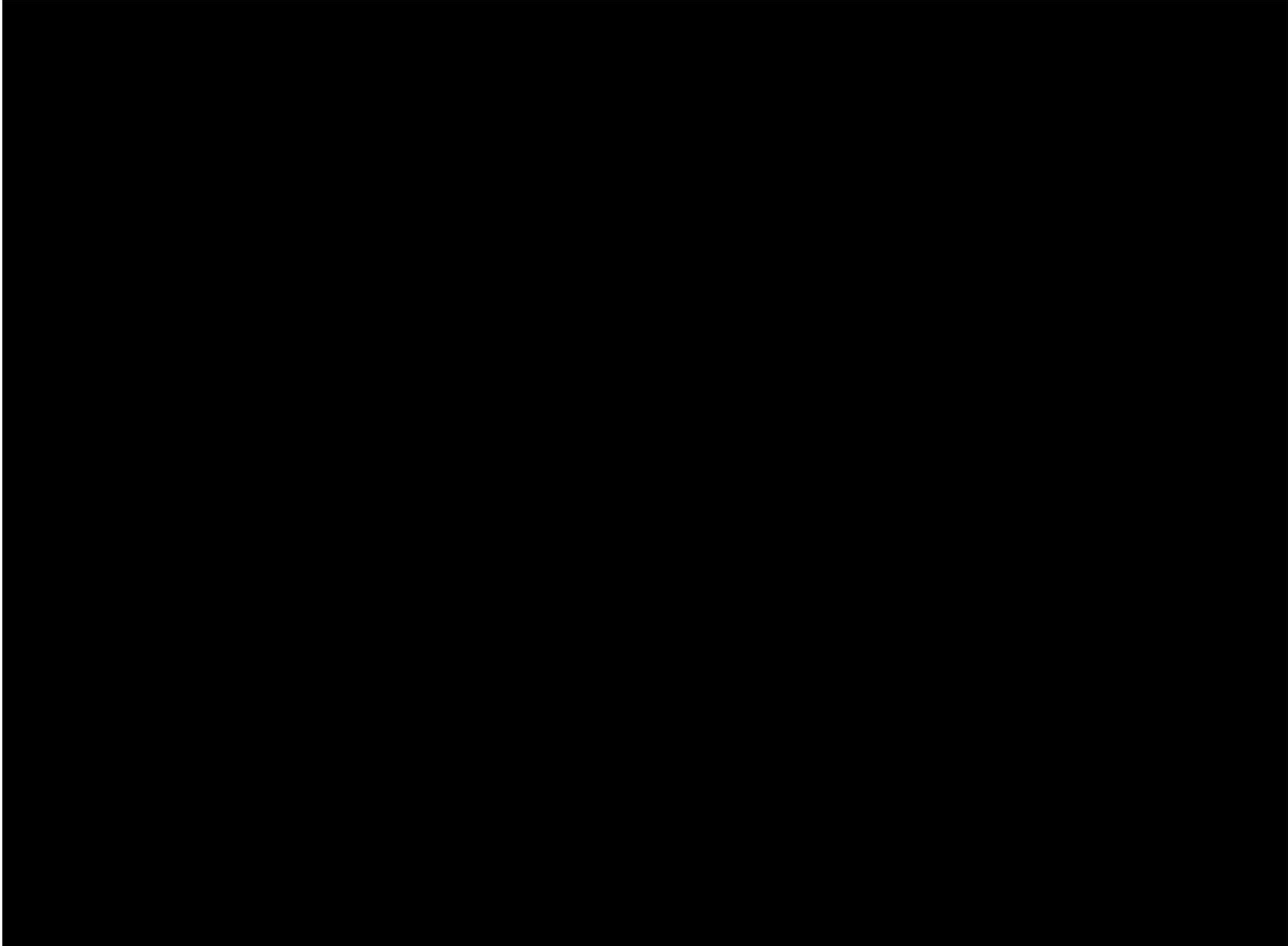


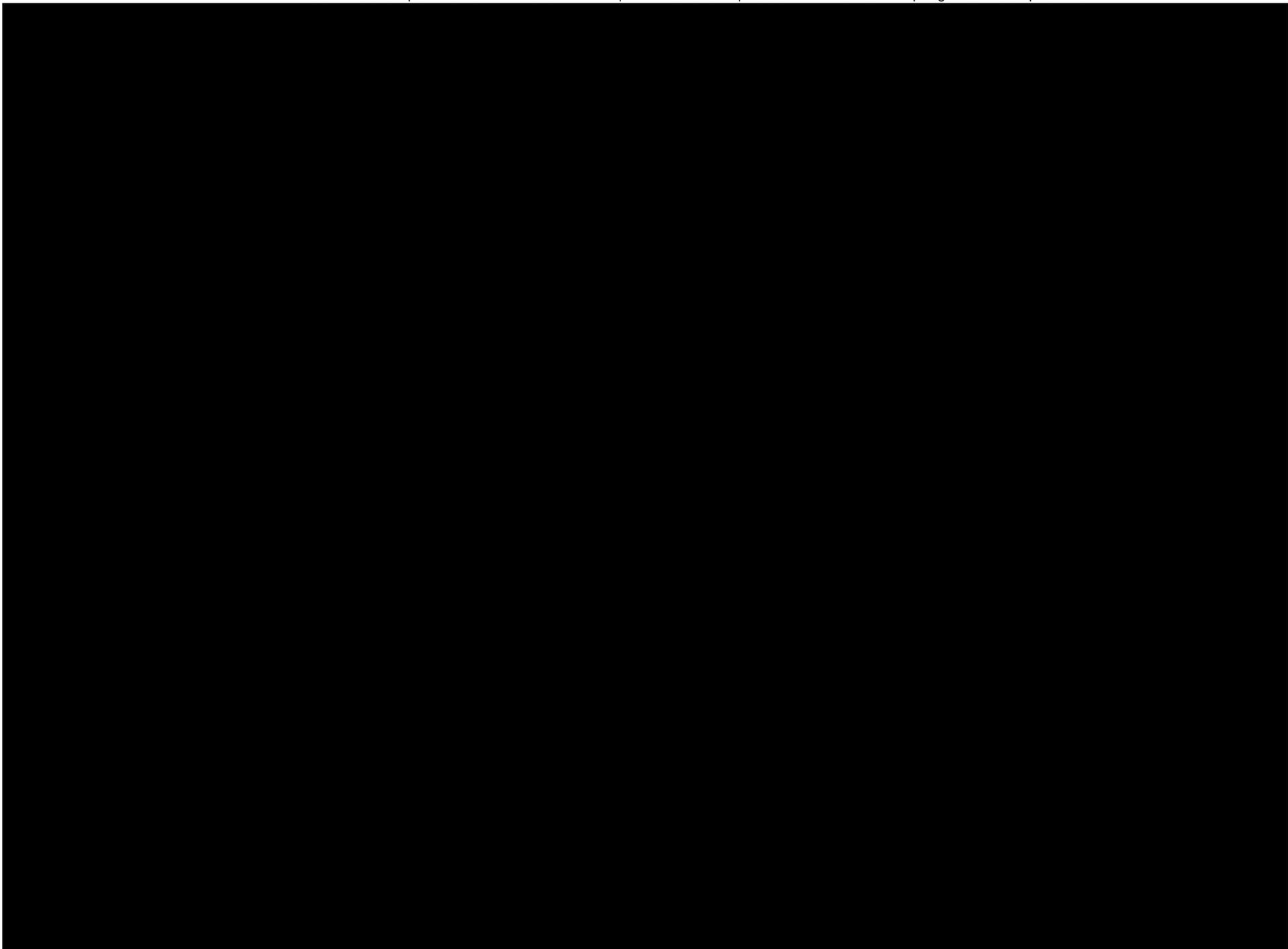


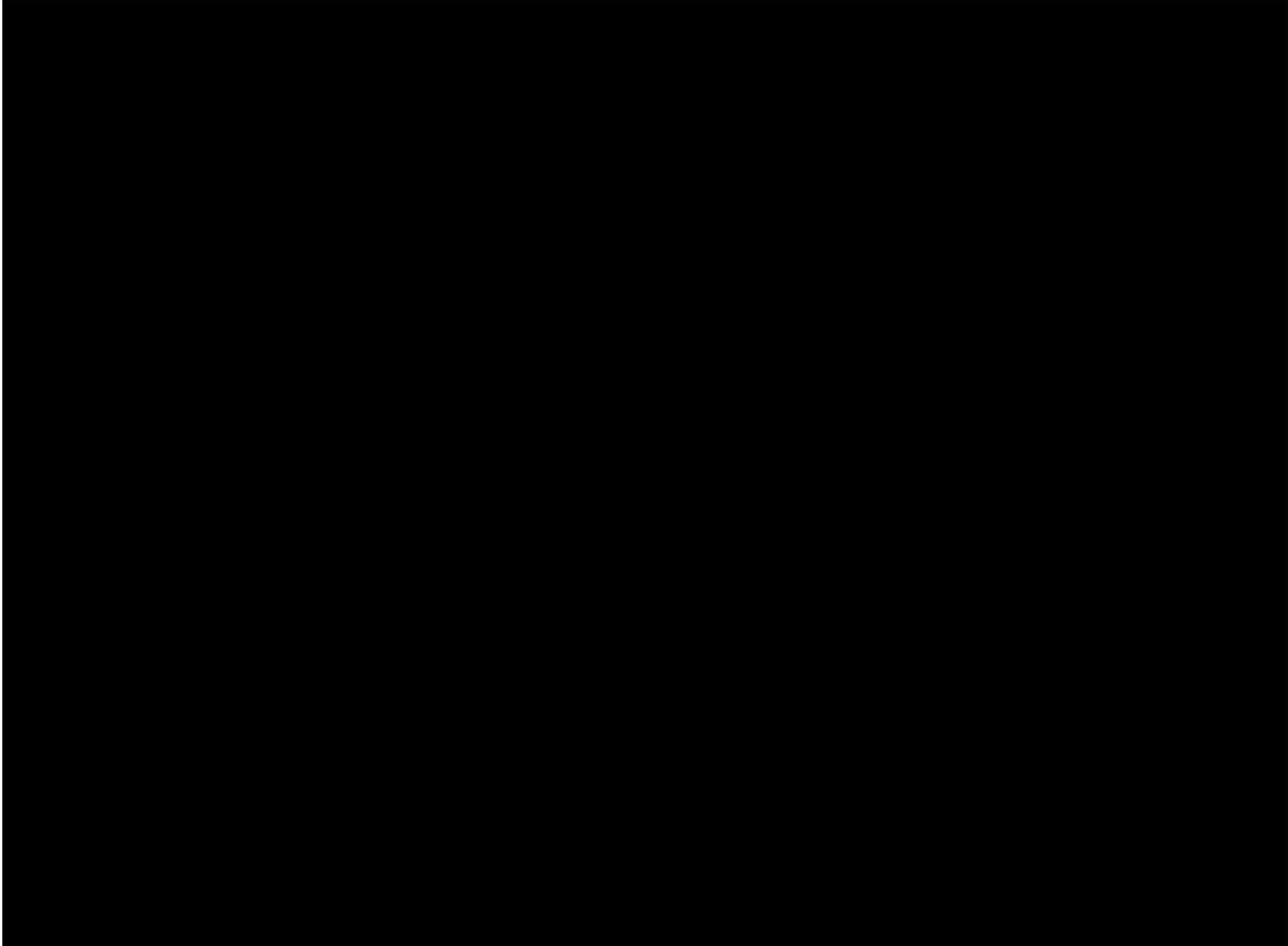


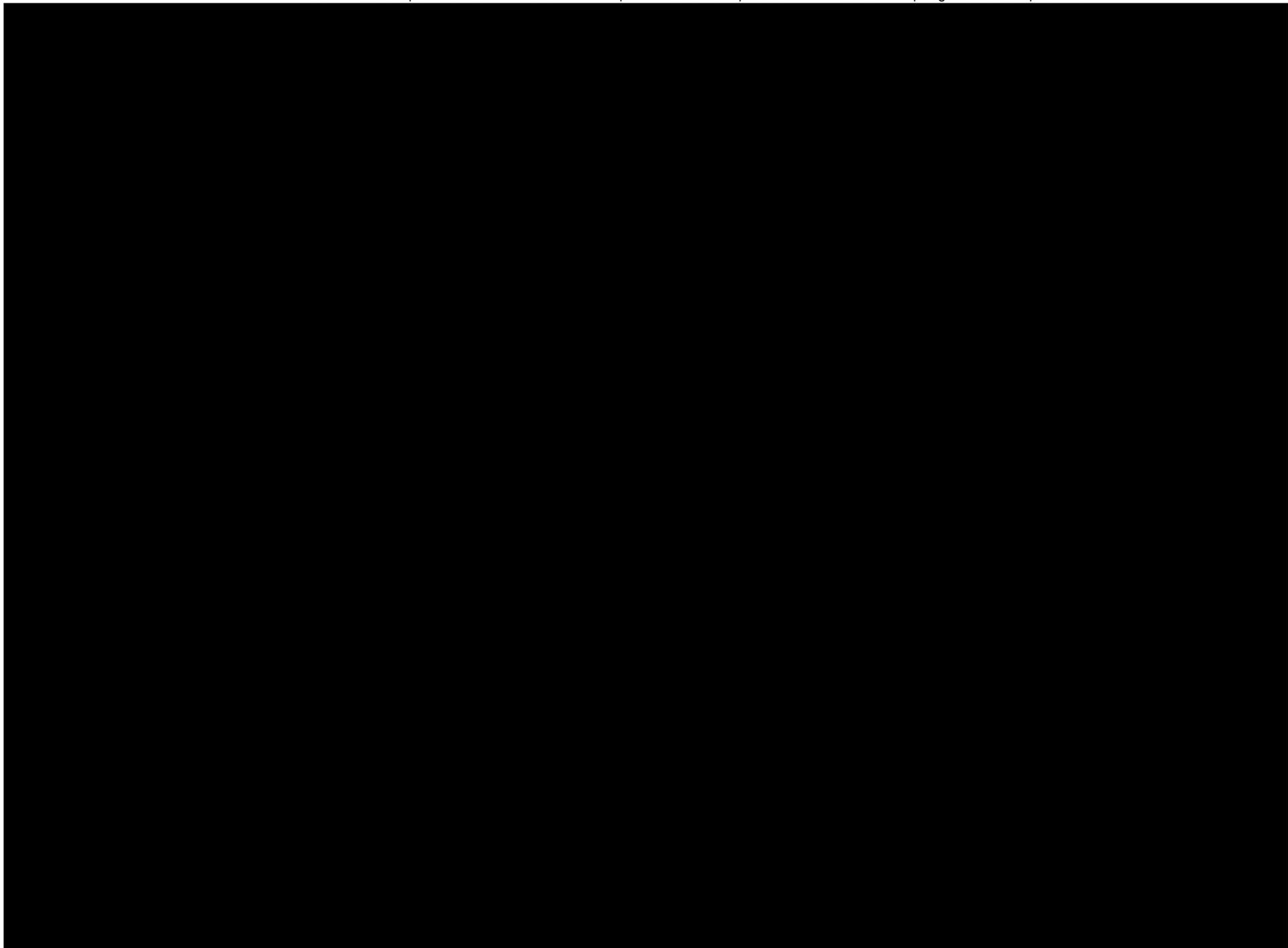


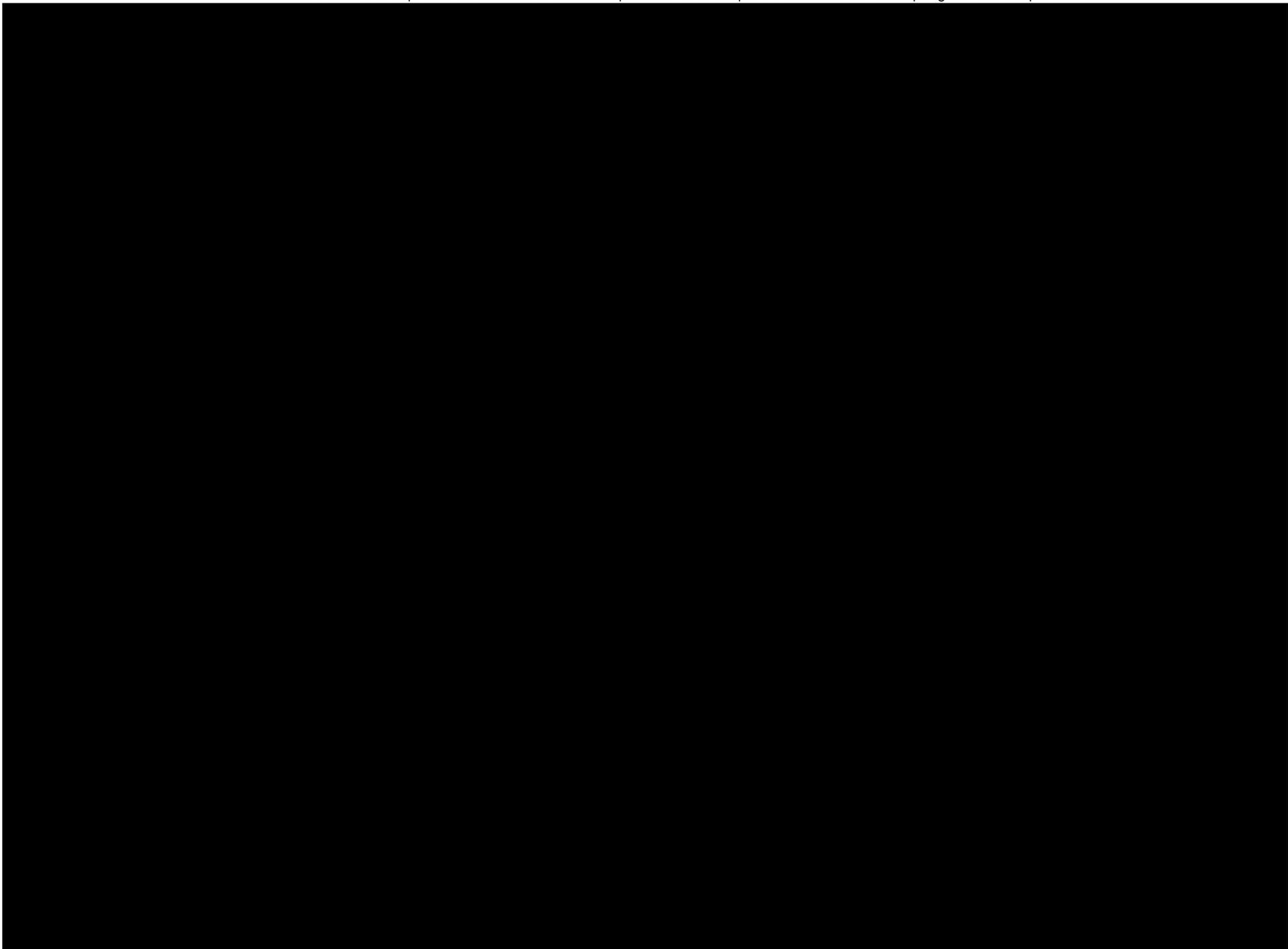


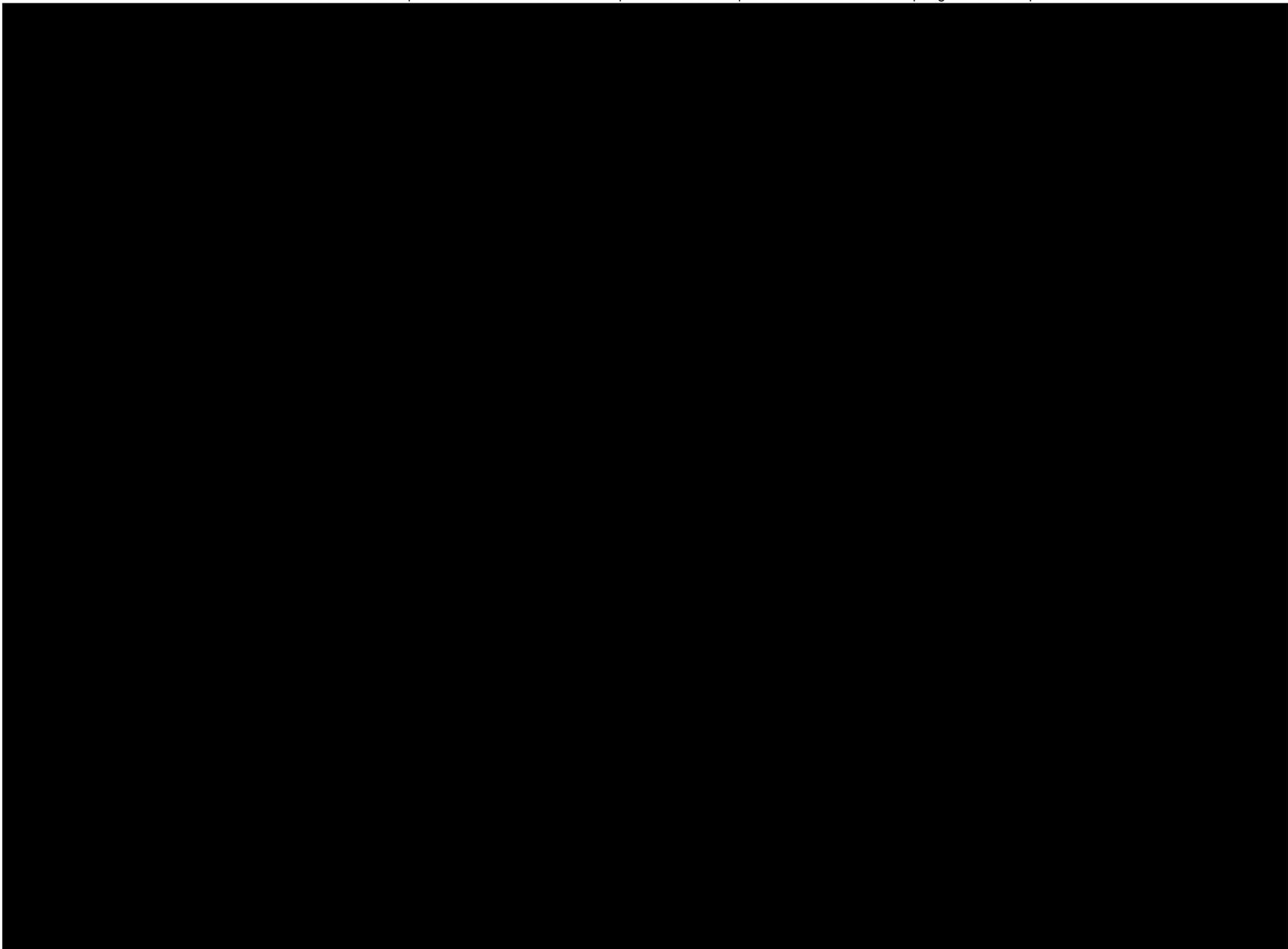


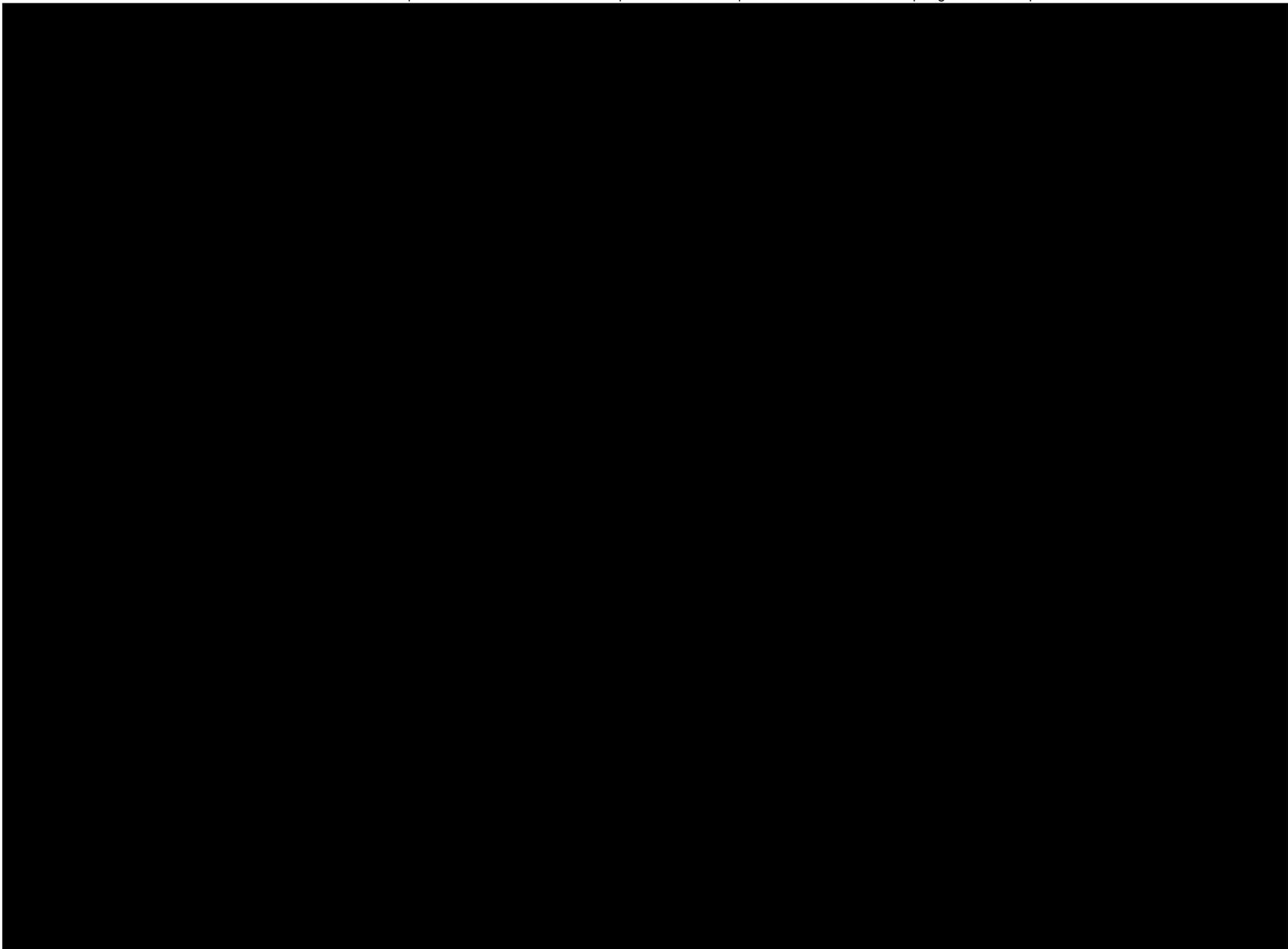


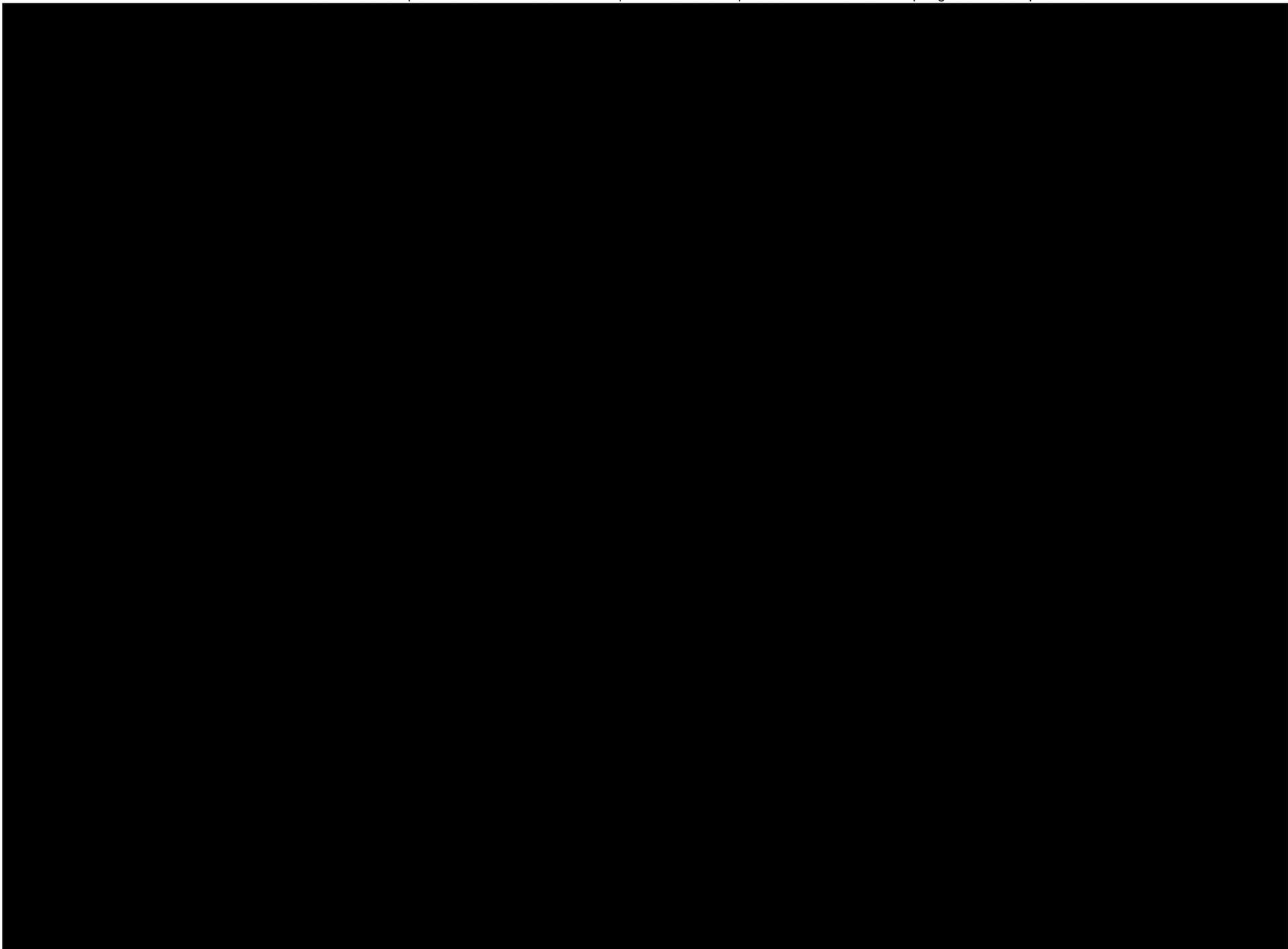


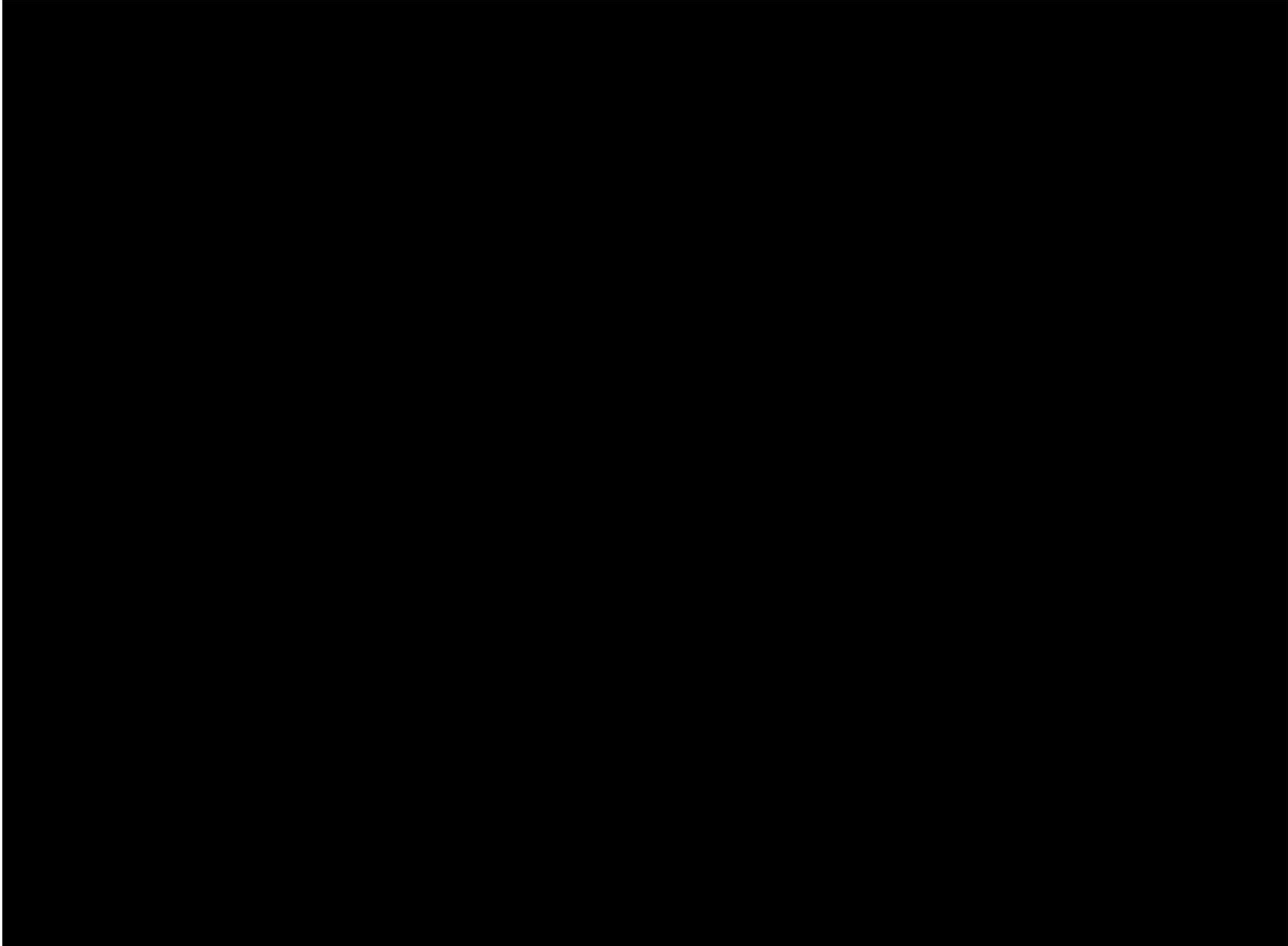


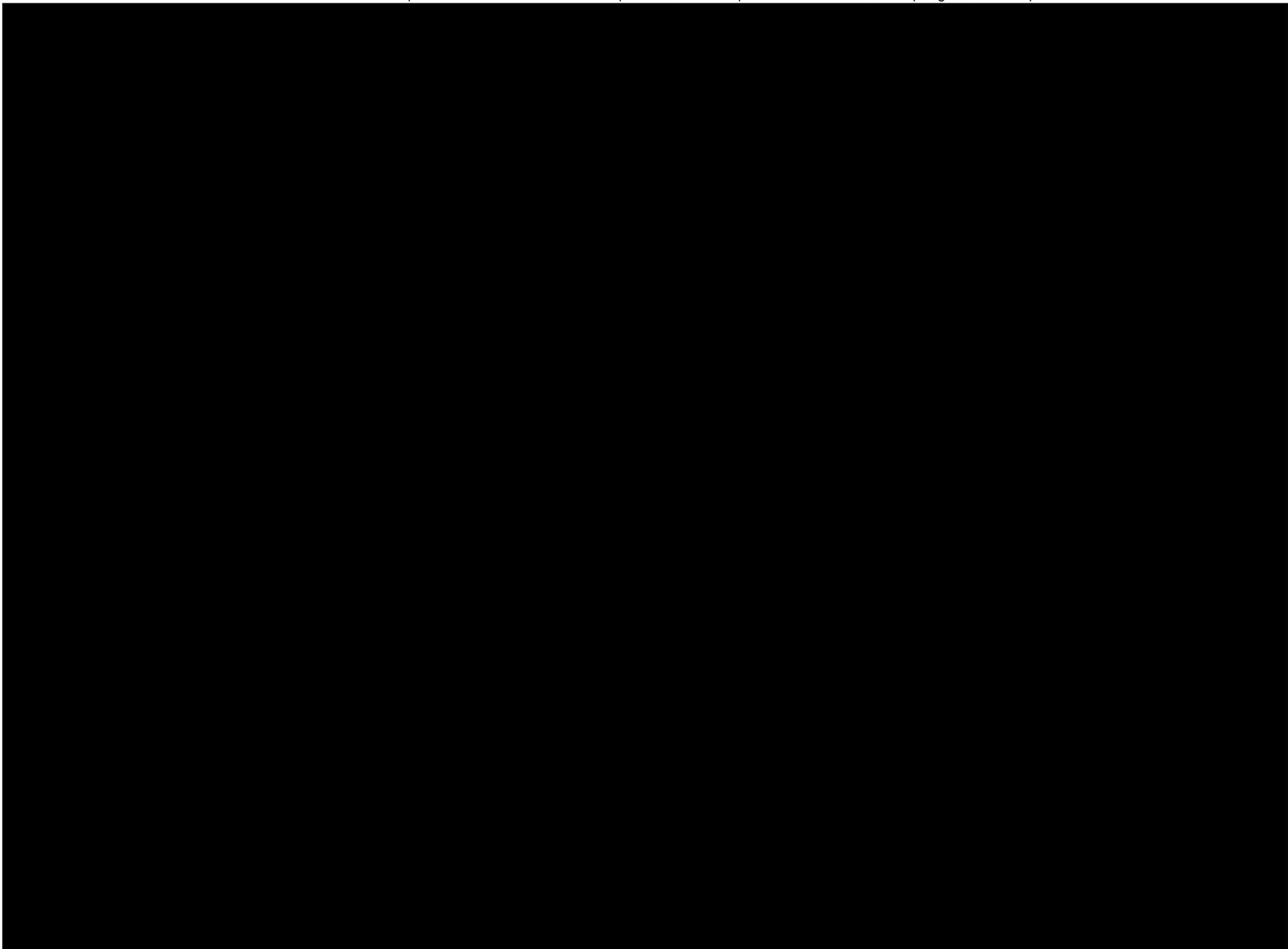


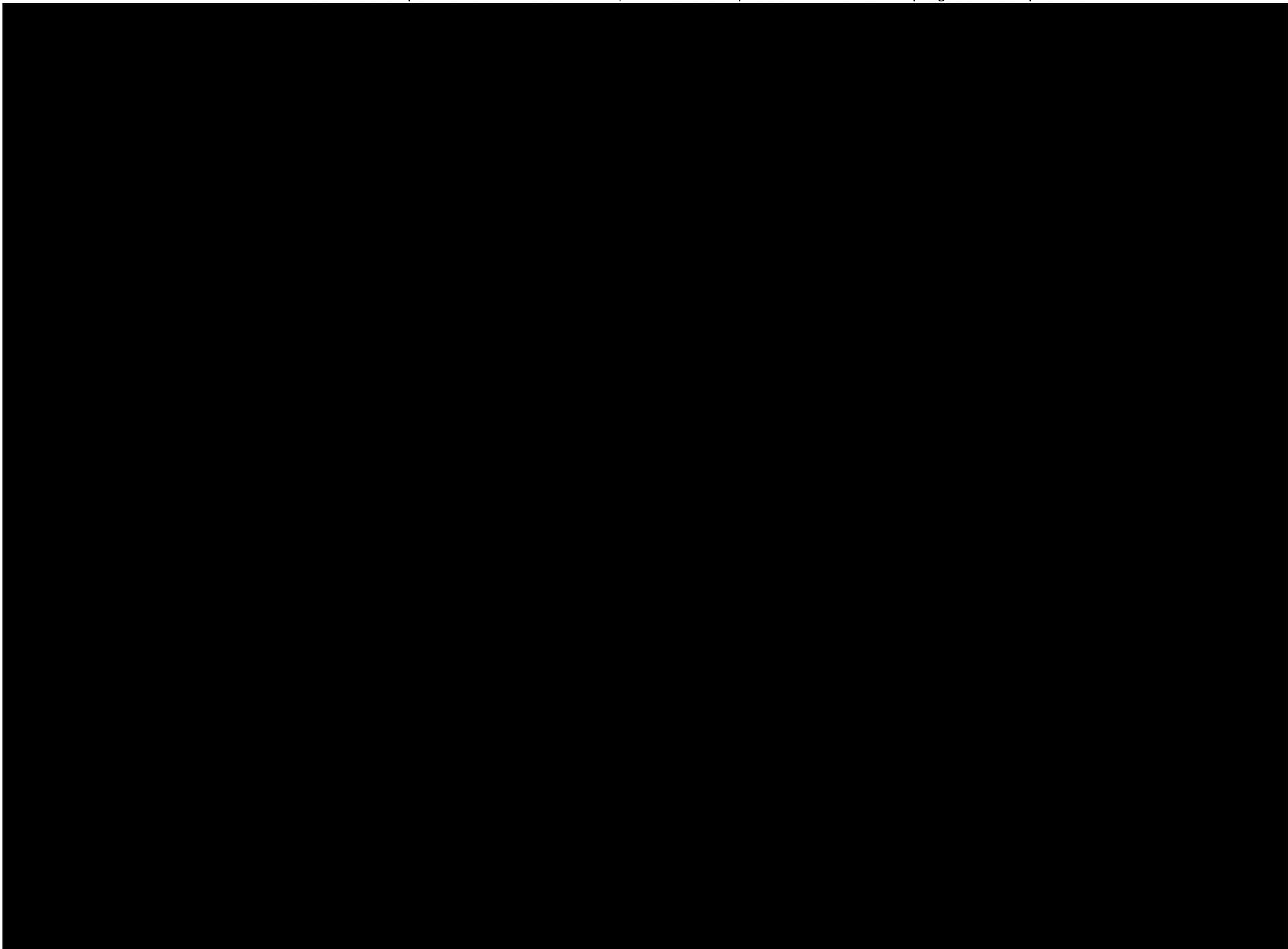


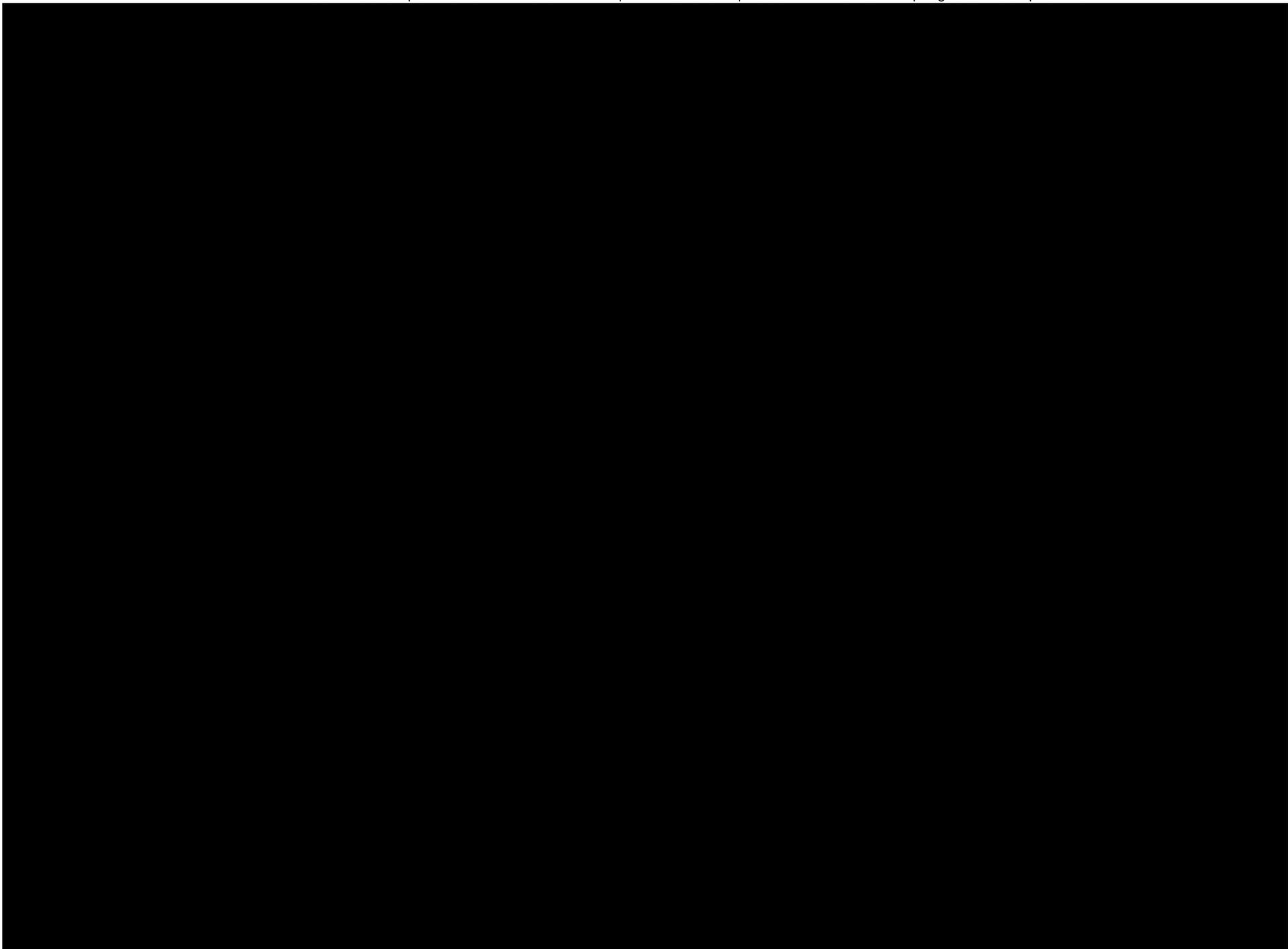












CERTIFICATE OF SERVICE

I hereby certify that on September 28, 2021, I caused a true and correct copy of the foregoing to be filed electronically using the FTC's E-Filing System, which will send notification of such filing to:

April Tabor
Acting Secretary
Federal Trade Commission
600 Pennsylvania Ave., NW, Rm. H-113
Washington, DC 20580
ElectronicFilings@ftc.gov

The Honorable D. Michael Chappell
Administrative Law Judge
Federal Trade Commission
600 Pennsylvania Ave., NW, Rm. H-110
Washington, DC 20580

I also certify that I caused the foregoing document to be served via email to:

Stephen Rodger (srodger@ftc.gov)
Jennifer Milici (jmilici@ftc.gov)
James Abell (jabell@ftc.gov)
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Complaint Counsel

s/ Beth Wilkinson

Beth Wilkinson

Counsel for Altria Group, Inc.

CERTIFICATE OF ELECTRONIC FILING

I hereby certify that the electronic copy sent to the Secretary of the Commission is a true and correct copy of the paper original and that I possess a paper original of the signed document that is available for review by the parties and the adjudicator.

Dated: September 28, 2021

s/ Beth Wilkinson

Beth Wilkinson
Counsel for Altria Group, Inc.