IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH CAROLINA

IN RE: AQUEOUS FILM-FORMING FOAMS PRODUCTS LIABILITY LITIGATION	MDL No. 2:18-mn-2873-RMG
MIKE JACKSON, individually and on behalf of all others similarly situated, *Plaintiff,* *-vs -* THE 3M COMPANY, f/k/a Minnesota Mining and Manufacturing Co., AGC, INC., f/k/a Asahi Glass Co. Ltd., AGC CHEMICALS AMERICAS INC., AMEREX CORPORATION, ANGUS FIRE ARMOUR CORPORATION, ANGUS INTERNATIONAL SAFETY GROUP, LTD., ARKEMA FRANCE, S.A., ARKEMA INC., ARCHROMA U.S., INC., BASF CORPORATION, individually and as successor in interest to Ciba Inc., BUCKEYE FIRE EQUIPMENT COMPANY, CARRIER GLOBAL CORPORATION, individually and as successor in interest to Kidde-Fenwal, Inc., CHEMDESIGN PRODUCTS INC., CHEMGUARD INC. CHEMICALS, INC., CHUBB FIRE LTD., CLARIANT CORPORATION, individually and as successor in interest to Sandoz Chemical Corporation, CORTEVA, INC., individually and as successor in interest to DuPont Chemical Solutions Enterprise, DAIKIN AMERICA, INC., DAIKIN INDUSTRIES LTD., DEEPWATER CHEMICALS, INC., DUPONT DE NEMOURS INC., individually and as successor in interest to DuPont Chemical Solutions Enterprise, DYNAX CORPORATION, DYNEON, LLC, E. I. DUPONT DE NEMOURS AND COMPANY, individually and as successor in interest to DuPont Chemical Solutions Enterprise, FIRE SERVICES PLUS, INC., KIDDE, P.L.C., KIDDE-FENWAL, INC., individually and as successor in interest to Kidde Fire Fighting, Inc., NARCHEM CORPORATION, NATION FORD CHEMICAL COMPANY, NATIONAL FOAM, INC., RAYTHEON TECHONOLOGIES CORPORATION, individually and as successor in interest to United Technologies Corporation, SOLVAY SPECIALTY POLYMERS, USA, LLC., THE CHEMOURS COMPANY, individually and as successor in interest to DuPont Chemical Solutions Enterprise, THE CHEMOURS COMPANY FC,	C/A No: 2:21-cv-162-RMG **CLASS ACTION COMPLAINT** **Jury Trial Demanded**

LLC, individually and as successor in interest to DuPont Chemical Solutions Enterprise, THE ELE CORPORATION, TYCO FIRE PRODUCTS, LP, individually and as successor in interest to The Ansul Company, and UTC FIRE & SECURITY AMERICAS CORPORATION, INC., *Defendants.*	)

CLASS ACTION COMPLAINT AND DEMAND FOR JURY TRIAL

Plaintiff Mike Jackson ("Plaintiff"), by and through his undersigned counsel, hereby files this Class Action Complaint, individually, and on behalf of all others similarly situated, against Defendants, 3M COMPANY, f/k/a Minnesota Mining and Manufacturing Co., AGC, INC., f/k/a Asahi Glass Co. Ltd., AGC CHEMICALS AMERICAS INC., AMEREX CORPORATION, ANGUS FIRE ARMOUR CORPORATION, ANGUS INTERNATIONAL SAFETY GROUP, LTD., ARKEMA FRANCE, S.A., ARKEMA INC., ARCHROMA U.S., INC., BASF CORPORATION, BUCKEYE FIRE EQUIPMENT COMPANY, CARRIER GLOBAL CORPORATION, CHEMDESIGN PRODUCTS INC., CHEMGUARD INC. CHEMICALS, INC., CHUBB FIRE LTD., CLARIANT CORPORATION, CORTEVA, INC., DAIKIN AMERICA, INC., DAIKIN INDUSTRIES LTD., DEEPWATER CHEMICALS, INC., DUPONT DE NEMOURS INC., DYNAX CORPORATION, DYNEON, LLC, E. I. DUPONT DE NEMOURS AND COMPANY, FIRE SERVICES PLUS, INC., KIDDE, P.L.C., KIDDE-FENWAL, INC., NARCHEM CORPORATION, NATION FORD CHEMICAL COMPANY, NATIONAL FOAM, INC., RAYTHEON TECHNOLOGIES CORPORATION, SOLVAY SPECIALTY POLYMERS, USA, LLC., THE CHEMOURS COMPANY, THE CHEMOURS COMPANY FC, LLC, THE ELE CORPORATION, and UTC FIRE & SECURITY AMERICAS CORPORATION, INC. (collectively "Defendants") and alleges, upon information and belief, as follows:

INTRODUCTION

1. This action arises from the foreseeable contamination of groundwater by the use of aqueous film-forming foam ("AFFF") products that contained per- and poly-fluoroalkyl substances ("PFAS"), including but not limited to perfluorooctane sulfonate ("PFOS") and perfluorooctanoic acid ("PFOA").

2. PFOS and PFOA are fluorosurfactants that repel oil, grease, and water. PFOS, PFOA, and/or their chemical precursors, are or were components of AFFF products, which are firefighting suppressant agents used in training and firefighting activities for fighting Class B fires. Class B fires include fires involving hydrocarbon fuels such as petroleum or other flammable liquids.

3. PFOS and PFOA are mobile, persist indefinitely in the environment, bioaccumulate in individual organisms and humans, and biomagnify up the food chain. PFOS and PFOA are also associated with multiple and significant adverse health effects in humans, including but not limited to kidney cancer, testicular cancer, high cholesterol, thyroid disease, ulcerative colitis, and pregnancy-induced hypertension.

4. At various times from the 1960s through today, Defendants designed, manufactured, marketed, distributed, and/or sold AFFF products containing PFOS, PFOA, and/or their chemical precursors, and/or designed, manufactured, marketed, distributed, and/or sold the fluorosurfactants and/or perfluorinated chemicals ("PFCs") contained in AFFF (collectively, "AFFF/Component Products").

5. Defendants designed, manufactured, marketed, distributed, and/or sold AFFF/Component Products with the knowledge that these toxic compounds would be released into the environment during fire protection, training, and response activities, even when used as directed and intended by Defendants.

6. Since its creation in the 1960s, AFFF designed, manufactured, marketed, distributed, and/or sold by Defendants, and/or that contained fluorosurfactants and/or PFCs designed, manufactured, marketed, distributed, and/or sold by Defendants, used as directed and

intended by Defendants, and subsequently released into the environment during fire protection, training, and response activities, resulting in widespread PFAS contamination.

7. In November 2017, the Air Force began sampling private wells and community water systems within one mile downgradient from former Reese Air Force Base. To date, over 500 private drinking water wells have been sampled for PFAS, and the Air Force has installed 220 whole-house filters. Testing data has revealed elevated levels of PFAS in dozens of private wells exceeding the USEPA health advisory levels for PFOA and/or additional PFAS for which the TCEQ has published protective concentration levels (PCLs).

8. Due to this contamination, Plaintiff and the Class have suffered real personal injuries, bioaccumulation of PFOA in their bodies, property damage and the diminution in value of their properties as a result of the release of PFOA to their private wells and water supplies.

9. Plaintiff and the Class have suffered a significant amount of crop losses due to contaminated irrigation water from their private wells.

10. Plaintiff and the Class have suffered an assortment of diseases and medical conditions as a direct result of their exposure to PFOA contamination of their private wells as a source of irrigation and water supply.

11. Plaintiff and the Class, as residents and those who visited, worked, or otherwise dwelled in the Lubbock area, have been unknowingly exposed for many years to PFOA, including at concentrations hazardous to their health.

12. Plaintiff's and the Class' unsuspecting exposure to PFOA in their private wells and water supply as a result of the Defendants' conduct, is the direct and proximate cause of Plaintiff's injuries.

13. Plaintiff's property has been damaged as a result of the presence of the PFOA in his private well and water supply.

14. Plaintiff's and the Class seek recovery from Defendants for injuries, damages, and losses suffered by the Plaintiff as a result of exposure to the introduction of PFOA and other toxic substance into their private wells in the Lubbock area, and then into their properties and bodies, in an amount to be determined at trial, exclusive of interest, costs, and attorneys' fees.

JURISDICTION AND VENUE

15. Pursuant to this Court's Case Management Order No. 3, this Complaint is filed as an original action in the United States District Court for the District of South Carolina.

16. This Court has subject matter jurisdiction under the Class Action Fairness Act of 2005 ("CAFA"), 28 U.S.C. § 1332(d) because members of the proposed Plaintiff Class are citizens of states different from at least some of Defendant's home states, and the aggregate amount in controversy exceeds $5,000,000, exclusive of interest and costs.

17. Pursuant to 28 U.S.C. § 1391, Plaintiff's Home Venue is the United States District Court for the Northern District of Texas.

18. This Court has personal jurisdiction over Defendants by virtue of each Defendants' regular and systematic contacts with Texas, including, among other things, purposefully marketing, selling and/or distributing their AFFF/Component Products to and within Texas, and because they have the requisite minimum contacts with Texas necessary to constitutionally permit the Court to exercise jurisdiction over them consistent with traditional notions of fair play and substantial justice.

PARTIES

A. Plaintiff

19. Proposed class representative Plaintiff Mike Jackson resides at 910 N CR-1460 Lubbock, TX, 79416. At all times relevant herein, his 3 acres farm situated in 910 N CR-1460 Lubbock, TX, 79416, received its water from his private well, which was contaminated by AFFF containing PFAS used in the nearby Reese Air Force Base during firefighting training and practices.

20. Personnel at Reese Air Force Base stored, handled, used, trained with, tested equipment with, otherwise discharged AFFF products in their facility, therefore contaminating groundwater supplies in the vicinity of the base.

21. Plaintiff first became aware that his property may have been contaminated in 2019 when the Department of the Air Force contacted him regarding the possible presence of PFAS in well JS-16-DW196 located in his property.

22. Samples taken on 6/7/2019 and 6/21/2019 by the Government from the private water well, JS-16-DW196 at 910 N CR 1460, Lubbock, TX 79416, disclosed one or more perfluorinated compounds (PFAS) above the lifetime health advisory level established by the Environmental Protection Agency and/or the protective concentration limits established by the Texas Commission on Environmental Quality for PFAS.

23. As a result of PFOA contamination in his private well, Mike Jackson, and other similarly situated, were forced to install a government paid whole-home drinking water system and have suffered a diminution in value of their property.

24. Additionally, as a result of the contamination, Plaintiff's and the Class' crops and soil have been contaminated with PFOA.

25. Plaintiff has been exposed to PFAS, including but not limited to PFOS and PFOA, through irrigation of groundwater to his crops for years and through his drinking water, both extracted from his private well.

26. Plaintiff, and other similarly situated, have been exposed to PFAS, including but not limited to PFOS and PFOA, have elevated levels of these contaminants in their blood, and are at an increased risk of health effects, changes in thyroid hormone, kidney cancer, and other autoimmune diseases.

27. Plaintiff in particular has suffered testicular pain, kidney cysts, neck tumor and diminished eyesight resulting in loss of vision.

28. Plaintiff has a legitimate fear of developing additional injuries as a result of his exposure to PFOA, including but not limited to effects on the liver and immune system, high cholesterol levels, changes in thyroid hormone, kidney cancer and other autoimmune diseases.

29. PFAS has entered to 910 N CR 1460, Lubbock, TX 79416, including but not limited to the accumulations of PFAS in the irrigation system, pipes, faucets, showerheads, and appliances.

B. Defendants

30. The term "Defendants" refers to all Defendants named herein jointly and severally.

i. The AFFF Defendants

31. The term **"AFFF Defendants"** refers collectively to Defendants 3M Company, Buckeye Fire Equipment Company, Carrier Global Corporation, Chemguard Inc., Tyco Fire Products L.P., National Foam, Inc., Angus International Safety Group, Ltd., Angus Fire Armour Corporation, Amerex Corporation, Kidde-Fenwal, Inc., Kidde P.L.C., Inc., UTC Fire & Security Americas Corporation, Inc., United Technologies Corporation, Chubb Fire Ltd., and Fire Service Plus, Inc.

32. **Defendant The 3M Company f/k/a Minnesota Mining and Manufacturing Co. ("3M")** is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business located at 3M Center, St. Paul, Minnesota 55144-1000.

33. Beginning before 1970 and until at least 2002, 3M designed, manufactured, marketed, distributed, and sold AFFF containing PFAS, including but not limited to PFOA and PFOS.

34. **Defendant Amerex Corporation ("Amerex")** is a corporation organized and existing under the laws of the State of Alabama, with its principal place of business located at 7595 Gadsden Highway, Trussville, AL 35173.

35. Amerex is a manufacturer of firefighting products. Beginning in 1971, it was a manufacturer of hand portable and wheeled extinguishers for commercial and industrial applications.

36. In 2011, Amerex acquired Solberg Scandinavian AS, one of the largest manufacturers of AFFF products in Europe.

37. On information and belief, beginning in 2011, Amerex designed, manufactured, marketed distributed, and sold AFFF containing PFAS, including but not limited to PFOA and PFOS.

38. **Defendant Tyco Fire Products LP ("Tyco")** is a limited partnership organized under the laws of the State of Delaware, with its principal place of business located at One Stanton Street, Marinette, Wisconsin 54143-2542.

39. On information and belief, Tyco is a subsidiary of Johnson Controls International PLC, an Irish public limited company listed on the New York Stock Exchange.

40. Tyco is the successor in interest of The Ansul Company ("Ansul"), having acquired Ansul in 1990.

41. Beginning in or around 1975, Ansul designed, manufactured, marketed, distributed, and sold AFFF containing PFAS, including but not limited to PFOA and PFOS.

42. After Tyco acquired Ansul in 1990, Tyco/Ansul continued to design, manufacture, market, distribute, and sell AFFF products containing PFAS, including but not limited to PFOA and PFOS.

43. **Defendant Chemguard, Inc. ("Chemguard")** is a corporation organized under the laws of the State of Texas, with its principal place of business located at One Stanton Street, Marinette, Wisconsin 54143.

44. On information and belief, Chemguard is a subsidiary of Johnson Controls International PLC, an Irish public limited company listed on the New York Stock Exchange.

45. On information and belief, Chemguard designed, manufactured, marketed, distributed, and sold AFFF products containing PFAS, including but not limited to PFOA and PFOS.

46. **Defendant Buckeye Fire Equipment Company ("Buckeye")** is a corporation organized under the laws of the State of Ohio, with its principal place of business located at 110 Kings Road, Kings Mountain, North Carolina 28086.

47. On information and belief, Buckeye designed, manufactured, marketed, distributed, and sold AFFF products containing PFAS, including but not limited to PFOA and PFOS.

48. **Defendant National Foam, Inc. ("National Foam")** is a corporation organized under the laws of the State of Delaware, with its principal place of business located at 141 Junny Road, Angier, North Carolina 27501.

49. Beginning in or around 1973, National Foam designed, manufactured, marketed, distributed, and sold AFFF containing PFAS, including but not limited to PFOA and PFOS.

50. On information and belief, National Foam currently manufactures the Angus brand of AFFF products and is a subsidiary of Angus International Safety Group.

51. **Defendant Carrier Global Corporation ("Carrier")** is a corporation organized under the laws of the State of Delaware, with its principal place of business at 13995 Pasteur Boulevard, Palm Beach Gardens, Florida 33418.

52. On information and belief, Carrier was formed in March 2020 when United Technologies Corporation spun off its fire and security business prior to merging with Raytheon Company a month later. On information and belief, Carrier became successor in interest to Kidde-Fenwal as part of the spin off and is legally responsible for the liabilities arising from Kidde-Fenwal's design, manufacture, marketing, distribution, and sale of AFFF.

53. **Chubb Fire, Ltd. ("Chubb")** is a foreign private limited company, with offices at Littleton Road, Ashford, Middlesex, United Kingdom TW15 1TZ. On information and belief, Chubb is registered in the United Kingdom with a registered number of 134210.

54. On information and belief, Chubb merged with National Foam to form Chubb National Foam, Inc. in or around 1988.

55. On information and belief, Chubb is or has been composed of different subsidiaries and/or divisions, including but not limited to, Chubb Fire & Security Ltd., Chubb Security, PLC, Red Hawk Fire & Security, LLC, and/or Chubb National Foam, Inc.

56. On information and belief, Chubb was acquired by Williams Holdings in 1997.

57. **Defendant Angus Fire Armour Corporation ("Angus Fire")** is a corporation organized and existing under the laws of Delaware, with its principal place of business at 141 Junny Road, Angier, North Carolina 27501.

58. On information and belief, Angus Fire was acquired by Williams Holdings in 1994.

59. On information and belief, Angus Fire is currently a subsidiary of Angus International Safety Group, Ltd.

60. **Defendant Kidde P.L.C., Inc. ("Kidde P.L.C.")** is a foreign corporation organized and existing under the laws of Delaware, with its principal place of business at One Carrier Place, Farmington, Connecticut 06034.

61. On information and belief, Williams Holdings was demerged into Chubb and Kidde P.L.C. in or around 2000.

62. **Defendant Kidde-Fenwal, Inc. ("Kidde-Fenwal")** is a corporation organized under the laws of the State of Delaware, with its principal place of business at One Financial Plaza, Hartford, Connecticut 06101.

63. On information and belief, Kidde-Fenwal is the successor-in-interest to Kidde Fire Fighting, Inc. (f/k/a Chubb National Foam, Inc. f/k/a National Foam System, Inc.) (collectively, "Kidde/Kidde Fire").

64. **Defendant Raytheon Technologies Corporation ("Raytheon Technologies")** is a foreign corporation organized and existing under the laws of Delaware, with its principal place of business at 10 Farm Springs Road, Farmington, Connecticut 06032.

65. On information and belief, Kidde P.L.C. was acquired by United Technologies Corporation in or around 2005.

66. On information and belief, Kidde-Fenwal, Inc. became part of the UTC Control & Security unit of United Technologies Corporation.

67. On information and belief, United Technologies Corporation merged with Raytheon Company to form Raytheon Technologies in or around April 2020.

68. **Defendant UTC Fire & Security Americas Corporation, Inc. ("UTC Fire")** is a corporation organized and existing under the laws of North Carolina, with its principal place of business at 3211 Progress Drive, Lincolnton, North Carolina 28092.

69. On information and belief, UTC Fire was created when United Technologies Corporation acquired Kidde P.L.C. and combined it with Chubb in or around 2005.

70. On information and belief, UTC Fire became a subsidiary of Raytheon Technologies when United Technologies Corporation merged with Raytheon Company in April 2020.

71. **Defendant Angus International Safety Group, Ltd.** is a foreign private limited company, with offices at Station Road, High Bentham, Near Lancanster, United Kingdom LA2 7NA. On information and belief, Angus International is registered in the United Kingdom with a registered number of 8441763.

72. On information and belief, Angus International Safety Group was formed when Angus Fire and National Foam separated from United Technologies in or around 2013.

73. **Defendant Fire Service Plus, Inc. ("Fire Service Plus")** is a corporation organized under the laws of the State of Georgia, with its principal place of business located at 180 Etowah Trace, Fayetteville, GA 30214.

74. On information and belief, Fire Service Plus designed, manufactured, marketed, distributed, and sold AFFF containing PFAS, including but not limited to PFOA and PFOS.

75. On information and belief, the AFFF Defendants designed, manufactured, marketed, distributed, and sold AFFF products containing PFOS, PFOA, and/or their chemical precursors that were stored, handled, used, trained with, tested equipment with, otherwise discharged, and/or disposed at Reese Airforce Base, affecting groundwater sources within the vicinity of the base in the Lubbock County area. Specifically, private water well, JS-16-DW196 located in 910 N CR 1460, Lubbock, TX 79416.

ii. The Fluorosurfactant Defendants

76. The term **"Fluorosurfactant Defendants"** refers collectively to Defendants 3M, Arkema France, S.A., Arkema Inc., BASF Corporation, ChemDesign Products Incorporated, Chemguard Inc., Deepwater Chemicals, Inc., E.I. DuPont de Nemours and Company, The Chemours Company, The Chemours Company FC, LLC, DuPont de Nemours Inc., Dynax Corporation, and Dyneon LLC.

77. **Arkema Inc.** is a corporation organized and existing under the laws of Pennsylvania, with its principal place of business at 900 First Avenue, King of Prussia, PA 19406.

78. Arkema Inc. develops specialty chemicals and polymers.

79. Arkema, Inc. is an operating subsidiary of Defendant Arkema France, S.A.

80. **Arkema France S.A. ("Arkema France")** is a publicly-traded foreign corporation with its principal place of business in Colombes, France. Arkema France S.A. is the parent corporation of Arkema Inc.

81. Arkema France and Arkema Inc. are collectively referred to as "Arkema."

82. On information and belief, Arkema designed, manufactured, marketed, distributed, and sold fluorosurfactants containing PFOS, PFOA, and/or their chemical precursors for use in AFFF products.

83. **Defendant BASF Corporation ("BASF")** is a corporation organized under the laws of the State of Delaware, with its principal place of business located at 100 Park Avenue, Florham Park, New Jersey 07932.

84. On information and belief, BASF is the successor-in-interest to Ciba. Inc. (f/k/a Ciba Specialty Chemicals Corporation).

85. On information and belief, Ciba Inc. designed, manufactured, marketed, distributed, and sold fluorosurfactants containing PFOS, PFOA, and/or their chemical precursors for use in AFFF products.

86. **Defendant ChemDesign Products Inc. ("ChemDesign")** is a corporation organized under the laws of Delaware, with its principal place of business located at 2 Stanton Street, Marinette, WI, 54143.

87. On information and belief, ChemDesign designed, manufactured, marketed, distributed, and sold fluorosurfactants containing PFOS, PFOA, and/or their chemical precursors for use in AFFF products

88. **Defendant Deepwater Chemicals, Inc. ("Deepwater")** is a corporation organized under the laws of Delaware, with its principal place of business located at 196122 E County Road 40, Woodward, OK, 73801.

89. On information and belief, Deepwater Chemicals designed, manufactured, marketed, distributed, and sold fluorosurfactants containing PFOS, PFOA, and/or their chemical precursors for use in AFFF products

90. **Defendant Dynax Corporation ("Dynax")** is a corporation organized under the laws of the State of Delaware, with its principal place of business located at 103 Fairview Park Drive, Elmsford, New York 10523.

91. On information and belief, Dynax entered into the AFFF market on or about 1991 and quickly became a leading global producer of fluorosurfactants and fluorochemical stabilizers containing PFOS, PFOA, and/or their chemical precursors.

92. On information and belief, Dynax designed, manufactured, marketed, distributed, and sold fluorosurfactants and fluorochemical stabilizers containing PFOS, PFOA, and/or their chemical precursors for use in AFFF products.

93. **Defendant Dyneon, LLC ("Dyneon")** is a corporation organized and existing under the laws of the State of Pennsylvania, with its principal place of business at 6744 33rd Street N, Oakdale, Minnesota 55128.

94. On information and belief, Dyneon was created in 1996 by 3M and Hoechst AG as a joint venture fluoropolymer business.

95. On information and belief, Dyneon became a wholly-owned subsidiary of 3M after the latter agreed to buy out Hoechst AG's minority stake in 1999.

96. On information and belief, Dyneon designed, manufactured, marketed, distributed, and sold fluorosurfactants containing PFOS, PFOA, and/or their chemical precursors for use in AFFF products.

97. **Defendant E.I. du Pont de Nemours & Company ("DuPont")** is a corporation organized under the laws of the State of Delaware, with its principal place of business located at 974 Centre Road, Wilmington, Delaware 19805.

98. **Defendant The Chemours Company ("Chemours Co.")** is a limited liability company organized under the laws of the State of Delaware, with its principal place of business located at 1007 Market Street, P.O. Box 2047, Wilmington, Delaware, 19899.

99. In 2015, DuPont spun off its performance chemicals business to Chemours Co., along with vast environmental liabilities which Chemours Co. assumed, including those related to PFOS and PFOA and fluorosurfactants. On information and belief, Chemours Co. has supplied fluorosurfactants containing PFOS and PFOA, and/or their chemical precursors to manufacturers of AFFF products.

100. On information and belief, Chemours Co. was incorporated as a subsidiary of DuPont as of April 30, 2015. From that time until July 2015, Chemours Co. was a wholly-owned subsidiary of DuPont.

101. In July 2015, DuPont spun off Chemours Co. and transferred to Chemours Co. its "performance chemicals" business line, which includes its fluoroproducts business, distributing shares of Chemours Co. stock to DuPont stockholders, and Chemours Co. has since been an independent, publicly-traded company.

102. **Defendant The Chemours Company FC, LLC ("Chemours FC")** is a limited liability company organized under the laws of the State of Delaware, with its principal place of business located at 1007 Market Street, Wilmington, Delaware, 19899.

103. **Defendant Corteva, Inc. ("Corteva")** is a corporation organized and existing under the laws of Delaware, with its principal place of business at 974 Centre Rd., Wilmington, Delaware 19805.

104. **Defendant Dupont de Nemours Inc. f/k/a DowDuPont, Inc. ("Dupont de Nemours Inc.")** is a corporation organized and existing under the laws of Delaware, with its principal place of business at 974 Centre Road, Wilmington, Delaware 19805 and 2211 H.H. Dow Way, Midland, Michigan 48674.

105. On June 1, 2019, DowDuPont separated its agriculture business through the spin-off of Corteva.

106. Corteva was initially formed in February 2018. From that time until June 1, 2019, Corteva was a wholly-owned subsidiary of DowDuPont.

107. On June 1, 2019, DowDuPont distributed to DowDuPont stockholders all issued and outstanding shares of Corteva common stock by way of a pro-rata dividend. Following that distribution, Corteva became the direct parent of E. I. Du Pont de Nemours & Co.

108. Corteva holds certain DowDuPont assets and liabilities, including DowDuPont's agriculture and nutritional businesses.

109. On June 1, 2019, DowDuPont, the surviving entity after the spin-off of Corteva and of another entity known as Dow, Inc., changed its name to DuPont de Nemours, Inc., to be known as DuPont ("New DuPont"). New DuPont retained assets in the specialty products business lines following the above-described spin-offs, as well as the balance of the financial assets and liabilities of E.I DuPont not assumed by Corteva.

110. Defendants E. I. Du Pont de Nemours and Company; The Chemours Company; The Chemours Company FC, LLC; Corteva, Inc.; and DuPont de Nemours, Inc. are collectively referred to as "DuPont" throughout this Complaint.

111. On information and belief, DuPont designed, manufactured, marketed, distributed, and sold fluorosurfactants containing PFOS, PFOA, and/or their chemical precursors for use in AFFF products.

112. On information and belief, 3M and Chemguard also designed, manufactured, marketed, distributed, and sold fluorosurfactants containing PFOS, PFOA, and/or their chemical precursors for use in AFFF products.

113. On information and belief, the Fluorosurfactant Defendants designed, manufactured, marketed, distributed, and sold fluorosurfactants containing PFOS, PFOA, and/or their chemical precursors for use in AFFF products that were stored, handled, used, trained with, tested equipment with, otherwise discharged, and/or disposed at Reese Airforce Base, affecting groundwater sources within the vicinity of the base in the Lubbock County area. Specifically, private water well, JS-16-DW196 located in 910 N CR 1460, Lubbock, TX 79416.

114. The PFC Defendants

115. The term **"PFC Defendants"** refers collectively to 3M, AGC, Inc., AGC Chemicals Americas Inc., Archroma U.S., Inc., ChemDesign Products Inc., Chemicals, Inc., Clariant Corporation, Daikin America, Inc., Daikin Industries Ltd., Deepwater Chemicals, Inc., E. I. DuPont de Nemours and Company, The Chemours Company, The Chemours Company FC, LLC, Corteva, Inc., DuPont de Nemours Inc., The Ele Corporation, Narchem Corporation, Nation Ford Chemical Company, and Solvay Special Polymers USA LLC.

116. **Defendant AGC, Inc. f/k/a Asahi Glass Co. Ltd.** is a foreign corporation organized under the laws of Japan, with its a principal place of business in Tokyo, Japan.

117. **Defendant AGC Chemicals Americas, Inc.** is a corporation organized and existing under the laws of Delaware, having its principal place of business at 55 East Uwchlan Avenue, Suite 201, Exton, PA 19341.

118. On information and belief, AGC Chemicals Americas, Inc. was formed in 2004 and is a subsidiary of AGC Inc.

119. AGC, Inc. and AGC Chemicals Americas, Inc. are collectively referred to herein as "AGC."

120. AGC manufactures specialty chemicals. It offers glass, electronic displays, and chemical products, including resins, water and oil repellants, greenhouse films, silica additives, and various fluorointermediates.

121. On information and belief, AGC designed, manufactured, marketed, distributed, and sold PFCs containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used in AFFF products.

122. **Defendant Archroma U.S., Inc. ("Archroma")** is a corporation organized and existing under the laws of Delaware, with its a principal place of business at 543577 Center Drive., Ste. 10, Charlotte, NC 28217-0750.

123. On information and belief, Archroma U.S., Inc. is a subsidiary of Archroma Management LLC, a foreign corporation based in Reinach, Switzerland. Archroma U.S., Inc. and Archroma Management LLC are collectively referred to as "Archroma" throughout this Complaint.

124. On information and belief, Archroma was formed in 2013 when Clariant Corporation divested its textile chemicals, paper specialties, and emulsions business to SK Capital Partners.

125. On information and belief, Archroma designed, manufactured, marketed, distributed, and sold PFCs containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used in AFFF products.

126. **Defendant Chemicals, Inc. ("Chemicals, Inc.")** is a corporation organized and existing under the laws of Texas, with its principal place of business located at 12321 Hatcherville, Baytown, TX 77520.

127. On information and belief, Chemicals, Inc. supplied PFCs containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used in AFFF products.

128. **Defendant Clariant Corporation ("Clariant")** is a corporation organized and existing under the laws of New York, with its principal place of business at 4000 Monroe Road, Charlotte, North Carolina 28205.

129. On information and belief, Clariant is the successor in interest to the specialty chemicals business of Sandoz Chemical Corporation ("Sandoz"). On information and belief, Sandoz spun off its specialty chemicals business to form Clariant in 1995.

130. On information and belief, Clariant supplied PFCs containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used in AFFF products.

131. **Defendant Daikin Industries, Ltd.** is a corporation organized under the laws of Japan, having its principal place of business in Osaka, Japan.

132. **Defendant Daikin America, Inc.** is a corporation organized and existing under the laws of Delaware, having its principal place of business at 20 Olympic Drive, Orangeburg, New York 10962.

133. On information and belief, Daikin America, Inc. was established in 1991 and is a subsidiary of Daikin Industries Ltd.

134. Daikin Industries, Ltd. and Daikin America, Inc. are collectively referred to herein as "Daikin."

135. Daikin is a developer and manufacturer of fluorochemical products, including fluoropolymers, fluoroelastomers, and fluorocarbon gas.

136. On information and belief, Daikin supplied PFCs containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used in AFFF products.

137. **Defendant Elé Corporation ("Elé Corporation")** is a corporation organized and existing under the laws of Illinois, with its principal place of business located at 7847 West 47th Street, McCook, Illinois 60525.

138. On information and belief, Elé Corporation supplied PFCs containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used in AFFF products.

139. **Defendant Narchem Corporation ("Narchem")** is a corporation organized and existing under the laws of Illinois, with its principal place of business located at 2519 Pan AM Blvd, Elk Grove Village, IL 60007.

140. On information and belief, Narchem supplied PFCs containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used in AFFF products.

141. **Defendant Nation Ford Chemical Co. ("Nation Ford")** is a corporation organized and existing under the laws of South Carolina, with its principal place of business located at 2300 Banks Street, Fort Mill, SC 29715.

142. On information and belief, Nation Ford supplied PFCs containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used in AFFF products.

143. **Defendant Solvay Specialty Polymers, USA, LLC ("Solvay")** is a corporation organized and existing under the laws of Delaware, having a principal place of business at 4500 McGinnis Ferry Road, Alpharetta, GA 30005.

144. On information and belief, Solvay supplied PFCs containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used in AFFF products.

145. On information and belief, 3M, ChemDesign, Deepwater Chemicals, and DuPont also supplied PFCs containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used in AFFF products.

146. On information and belief, the Fluorochemical Defendants supplied PFCs containing PFOS, PFOA, and/or their chemical precursors for use in manufacturing the fluorosurfactants used in AFFF products that were stored, handled, used, trained with, tested equipment with, otherwise discharged, and/or disposed at Reese Airforce Base, affecting groundwater sources within the vicinity of the base in the Lubbock County area. Specifically, private water well, JS-16-DW196 located in 910 N CR 1460, Lubbock, TX 79416.

147. Defendants represent all or substantially all of the market for AFFF/Component Products at Reese Airforce Base, affecting groundwater sources within the vicinity of the base in the Lubbock County area. Specifically, private water well, JS-16-DW196 located in 910 N CR 1460, Lubbock, TX 79416.

FACTUAL ALLEGATIONS RELEVANT TO ALL CAUSES OF ACTION

A. PFOA and PFOS and Their Risk to Public Health

148. PFAS are chemical compounds containing fluorine and carbon. These substances have been used for decades in the manufacture of, among other things, household and commercial products that resist heat, stains, oil, and water. These substances are not naturally occurring and must be manufactured.

149. The two most widely studied types of these substances are PFOA and PFOS.

150. PFOA and PFOS have unique properties that cause them to be: (i) mobile and persistent, meaning that they readily spread into the environment where they break down very

slowly; (ii) bioaccumulative and biomagnifying, meaning that they tend to accumulate in organisms and up the food chain; and (iii) toxic, meaning that they pose serious health risks to humans and animals.

151. PFOA and PFOS easily dissolve in water, and thus they are mobile and easily spread in the environment. PFOA and PFOS also readily contaminate soils and leach from the soil into groundwater, where they can travel significant distances.

152. PFOA and PFOS are characterized by the presence of multiple carbon-fluorine bonds, which are exceptionally strong and stable. As a result, PFOA and PFOS are thermally, chemically, and biologically stable. They resist degradation due to light, water, and biological processes.

153. Bioaccumulation occurs when an organism absorbs a substance at a rate faster than the rate at which the substance is lost by metabolism and excretion. Biomagnification occurs when the concentration of a substance in the tissues of organisms increases as the substance travels up the food chain.

154. PFOA and PFOS bioaccumulate/biomagnify in numerous ways. First, they are relatively stable once ingested, so that they bioaccumulate in individual organisms for significant periods of time. Because of this stability, any newly ingested PFOA and PFOS will be added to any PFOA and PFOS already present. In humans, PFOA and PFOS remain in the body for years.

155. PFOA and PFOS biomagnify up the food chain. This occurs, for example, when humans eat fish that have ingested PFOA and/or PFOS.

156. The chemical structure of PFOA and PFOS makes them resistant to breakdown or environmental degradation. As a result, they are persistent when released into the environment.

157. Exposure to PFAS is toxic and poses serious health risks to humans and animals.

158. PFAS are readily absorbed after consumption or inhalation and accumulate primarily in the bloodstream, kidney, and liver.

B. Defendants' Manufacture and Sale of AFFF/Component Products

159. AFFF is a type of water-based foam that was first developed in the 1960s to extinguish hydrocarbon fuel-based fires.

160. AFFF is a Class-B firefighting foam. It is mixed with water and used to extinguish fires that are difficult to fight, particularly those that involve petroleum or other flammable liquids.

161. AFFF is synthetically formed by combining fluorine-free hydrocarbon foaming agents with fluorosurfactants. When mixed with water, the resulting solution produces an aqueous film that spreads across the surface of hydrocarbon fuel. This film provides fire extinguishment and is the source of the designation aqueous film-forming foam.

162. Beginning in the 1960s, the AFFF Defendants designed, manufactured, marketed, distributed, and/or sold AFFF products that used fluorosurfactants containing either PFOS, PFOA, or the chemical precursors that degrade into PFOS and PFOA.

163. AFFF can be made without the fluorosurfactants that contain PFOA, PFOS, and/or their precursor chemicals. Fluorine-free firefighting foams, for instance, do not release PFOA, PFOS, and/or their precursor chemicals into the environment.

164. AFFF that contains fluorosurfactants, however, is better at extinguishing hydrocarbon fuel-based fires due to their surface-tension lowering properties, essentially smothering the fire and starving it of oxygen.

165. The fluorosurfactants used in 3M's AFFF products were manufactured by 3M's patented process of electrochemical fluorination ("ECF").

166. The fluorosurfactants used in other AFFF products sold by the AFFF Defendants were manufactured by the Fluorosurfactant Defendants through the process of telomerization.

167. The PFCs the Fluorosurfactant Defendants needed to manufacture those fluorosurfactants contained PFOS, PFOA, and/or their chemical precursors and were designed, manufactured, marketed, distributed and/or sold by the PFC Defendants.

168. On information and belief, the PFC and Fluorosurfactant Defendants were aware that the PFCs and fluorosurfactants they designed, manufactured, marketed, distributed, and/or sold would be used in the AFFF products designed, manufactured, marketed, distributed, and/or sold by the AFFF Defendants.

169. On information and belief, the PFC and Fluorosurfactant Defendants designed, manufactured, marketed, distributed, and/or sold the PFC and/or fluorosurfactants contained in the AFFF products discharged into the environment at Reese Airforce Base during fire protection, training, and response activities, resulting in widespread PFAS contamination.

170. On information and belief, the AFFF Defendants designed, manufactured, marketed, distributed, and/or sold the AFFF products discharged into the environment at Reese Airforce Base during fire protection, training, and response activities, resulting in widespread PFAS contamination.

C. Defendants' Knowledge of the Threats to Public Health and the Environment Posed by PFOS and PFOA

171. On information and belief, by at least the 1970s 3M and DuPont knew or should have known that PFOA and PFOS are mobile and persistent, bioaccumulative and biomagnifying, and toxic.

172. On information and belief, 3M and DuPont concealed from the public and government agencies its knowledge of the threats to public health and the environment posed by PFOA and PFOS.

173. Some or all of the Defendants understood how stable the fluorinated surfactants used in AFFF are when released into the environment from their first sale to a customer, yet they failed to warn their customers or provide reasonable instruction on how to manage wastes generated from their products.

i. 1940s and 1950s: Early Warnings About the Persistence of AFFF

174. In 1947, 3M started its fluorochemical program, and within four years, it began selling its PFOA to DuPont. The persistence and contaminating nature of the fluorosurfactants contained in AFFF products were understood prior to their commercial application at 3M's Cottage Grove facility in Minnesota.

175. The inventor of 3M's ECF process was J.H. Simons. Simons' 1948 patent for the ECF process reported that PFCs are "non-corrosive, and of little chemical reactivity," and "do not react with any of the metals at ordinary temperatures and react only with the more chemically reactive metals such as sodium, at elevated temperatures."[1]

176. Simons further reported that fluorosurfactants produced by the ECF process do not react with other compounds or reagents due to the blanket of fluorine atoms surrounding the carbon skeleton of the molecule. 3M understood that the stability of the carbon-to-fluorine bonds prevented its fluorosurfactants from undergoing further chemical reactions or degrading under natural processes in the environment.[2]

177. The thermal stability of 3M's fluorosurfactants was also understood prior to commercial production. Simons' patent application further discloses that the fluorosurfactants

[1] Simons, J. H., Fluorination of Organic Compounds, U.S. Patent No. 2,447,717. August 24, 1948, *available at* https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1005.pdf.

[2] Simons, J. H., 1950. Fluorocarbons and Their Production. Fluorine Chemistry, 1(12): 401-422, *available* at https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX3008.pdf.

produced by the ECF process were thermally stable at temperatures up to 750° C (1382º F). Additional research by 3M expanded the understanding of the thermal stability of perfluorocarbon compounds.[3]

178. Nowhere in any Material Safety Data Sheet for any of Defendants' AFFF/Component Products is information on the thermal stability of those products disclosed. Failure to disclose knowledge of the stability of the PFCs and fluorosurfactants used in AFFF products to customers is a failure to warn just how indestructible the AFFF's ingredients are when released to unprotected water sources and even treatment plants.

ii. 1960s: AFFF's Environmental Hazards Come Into Focus

179. By at least the end of the 1960s, additional research and testing performed by 3M and DuPont indicated that fluorosurfactants, including at least PFOA, because of their unique chemical structure, were resistant to environmental degradation and would persist in the environment essentially unaltered if allowed to enter the environment.

180. One 3M employee wrote in 1964: "This chemical stability also extends itself to all types of biological processes; there are no known biological organisms that are able to attack the carbon-fluorine bond in a fluorocarbon."[4] Thus, 3M knew by the mid-1960s that its surfactants were immune to chemical and biological degradation in soils and groundwater.

181. 3M also knew by 1964 that when dissolved, fluorocarbon carboxylic acids and fluorocarbon sulfonic acids dissociated to form highly stable perfluorocarboxylate and perfluorosulfonate ions. Later studies by 3M on the adsorption and mobility of FC-95 and FC-143

[3] Bryce, T. J., 1950. Fluorocarbons - Their Properties and Wartime Development. Fluorine Chemistry, 1(13): 423-462.

[4] Bryce, H.G., Industrial and Utilitarian Aspects of Fluorine Chemistry (1964), *available* at https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX3022.pdf.

(the ammonium salt of PFOA) in soils indicated very high solubility and very high mobility in soils for both compounds.[5]

iii. 1970s: Internal Studies Provide Evidence of Environmental and Health Risks

182. By 1950, 3M knew that the fluorosurfactants used in its AFFF product(s) would not degrade when released to the environment, but would remain intact and persist. Two decades later—and after the establishment of a robust market of AFFFs using fluorosurfactants—3M finally got around to looking at the environmental risks that fluorosurfactants posed.

183. An internal memo from 3M in 1971 states that "the thesis that there is 'no natural sink' for fluorocarbons obviously demands some attention."[6] Hence, 3M understood at the very least that the fluorosurfactant used in its AFFF products would, in essence, never degrade once it was released into the environment.

184. By the mid-1970s, 3M and Ansul (and possibly other Defendants) had an intimate understanding of the persistent nature of PFCs. A 1976 study, for example, observed no biodegradation of FC-95, the potassium salt of PFOS; a result 3M characterized as "unsurprising" in light of the fact that "[b]iodegradation of FC 95 is improbable because it is completely fluorinated."[7]

185. In 1977, Ansul authored a report titled "Environmentally Improved AFFF," which acknowledged that releasing AFFF into the environment could pose potential negative impacts to groundwater quality.[8] Ansul wrote: "The purpose of this work is to explore the development of

[5] Technical Report Summary re : Adsorption of FC 95 and FC143 on Soil, Feb. 27, 1978, *available at* https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1158.pdf.

[6] Memorandum from H.G. Bryce to R.M. Adams re : Ecological Aspects of Fluorocarbons, Sept. 13, 1971, *available at* https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1088.pdf.

[7] Technical Report Summary, August 12, 1976 [3MA01252037].

[8] Ansul Co., Final Report: Environmentally Improved AFFF, N00173-76-C-0295, Marinette, WI, Dec. 13,

experimental AFFF formulations that would exhibit reduced impact on the environment while retaining certain fire suppression characteristic . . . improvements [to AFFF formulations] are desired in the environmental area, i.e., development of compositions that have a reduced impact on the environment without loss of fire suppression effectiveness." Thus, Ansul knew by the mid-1970s that the environmental impact of AFFF needed to be reduced, yet there is no evidence that Ansul (or any other Defendant) ever pursued initiatives to do so.

186. A 1978 3M biodegradation study likewise reported that an "extensive study strongly suggest[ed]" one of its PFCs is "likely to persist in the environment for extended period unaltered by metabolic attack."[9] A year later, a 3M study reported that one of its fluorosurfactants "was found to be completely resistant to biological test conditions," and that it appeared waterways were the fluorosurfactant's "environmental sink."[10]

187. In 1979, 3M also completed a comprehensive biodegradation and toxicity study covering investigations between 1975 and 1978.[11] More than a decade after 3M began selling AFFF containing fluorosurfactants it wrote: "there has been a general lack of knowledge relative to the environmental impact of these chemicals." The report ominously asked, "If these materials are not biodegradable, what is their fate in the environment?"

1977, *available at* https://apps.dtic.mil/dtic/tr/fulltext/u2/a050508.pdf.

[9] Technical Report Summary re : Fate of Fluorochemicals in the Environment, Biodegradation Studies of Fluorocarbons - II, Jan. 1, 1978, *available at* https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1153.pdf.

[10] Technical Report Summary re : Fate of Fluorochemicals in the Environment, Biodegradation Studies of Fluorocarbons - III, July 19, 1978, *available at* https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1179.pdf.

[11] Technical Report Summary, Final Comprehensive Report on FM 3422, Feb. 2, 1979, *available at* https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX2563.pdf.

188. During the 1970s, 3M also learned that the fluorosurfactants used in AFFF accumulated in the human body and were "even more toxic" than previously believed.

189. In 1975, 3M learns that PFAS was present in the blood of the general population.[12] Since PFOA and PFOS are not naturally occurring, this finding should have alerted 3M to the possibility that their products were a source of this PFOS. The finding also should have alerted 3M to the possibility that PFOS might be mobile, persistent, bioaccumulative, and biomagnifying, as those characteristics could explain how PFOS from 3M's products ended up in human blood.

190. In 1976, 3M found PFAS in the blood of its workers at levels "up to 1000 times 'normal' amounts of organically bound fluorine in their blood."[13] This finding should have alerted 3M to the same issues raised by the prior year's findings.

191. Studies by 3M in 1978 showed that PFOA reduced the survival rate of fathead minnow fish eggs,[14] that PFOS was toxic to monkeys,[15] and that PFOS and PFOA were toxic to rats.[16] In the study involving monkeys and PFOS, all of the monkeys died within days of ingesting food contaminated with PFOS.

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[12] Memorandum from G.H. Crawford to L.C. Krogh et al. re: Fluorocarbons in Human Blood Plasma, Aug. 20, 1975, *available at* https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1118.pdf.

[13] 3M Chronology – Fluorochemicals in Blood, Aug. 26, 1977, *available at* https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1144.pdf.

[14] The Effects of Continuous Aqueous Exposure to 78.03 on Hatchability of Eggs and Growth and Survival of Fry of Fathead Minnow, June 1978, *available at* https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1176.pdf.

[15] Ninety-Day Subacute Rhesus Monkey Toxicity Study, Dec. 18, 1978, *available at* https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1191.pdf; Aborted FC95 Monkey Study, Jan. 2, 1979, *available at* https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1193.pdf.

[16] Acute Oral Toxicity (LD_{50}) Study in Rats (FC-143), May 5, 1978, *available at* https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1170.pdf; FC-95, FC-143 and FM-3422 – 90 Day Subacute Toxicity Studies Conducted at IRDC – Review of Final Reports and Summary, Mar. 20, 1979, *available at* https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1199.pdf.

192. In 1979, 3M and DuPont discussed 3M's discovery of PFOA in the blood of its workers and came to the same conclusion that there was "no reason" to notify the EPA of the finding.[17]

iv. 1980s and 1990s: Evidence of AFFF's Health Risks Continues to Mount

193. By at least the end of the 1980s, additional research and testing performed by Defendants, including at least 3M and DuPont, indicated that elevated incidence of certain cancers and other adverse health effects, including elevated liver enzymes and birth defects, had been observed among workers exposed to such materials, including at least PFOA, but such data was not published, provided to governmental entities as required by law, or otherwise publicly disclosed at the time.

194. In 1981, DuPont tested for and found PFOA in the blood of female plant workers Parkersburg, West Virginia. DuPont observed and documented pregnancy outcomes in exposed workers, finding two of seven children born to female plant workers between 1979 and 1981 had birth defects—one an "unconfirmed" eye and tear duct defect, and one a nostril and eye defect.[18]

195. In 1983, 3M researchers concluded that concerns about PFAS "give rise to concern for environmental safety," including "legitimate questions about the persistence, accumulation potential, and ecotoxicity of fluorochemicals in the environment."[19] That same year, 3M completed a study finding that PFOS caused the growth of cancerous tumors in rats.[20] This finding was later

[17] Memorandum from R.A. Prokop to J.D. Lazerte re: Disclosure of Information on Levels of Fluorochemicals in Blood, July 26, 1979, *available at* https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX2723.pdf.

[18] C-8 Blood Sampling Results, *available at* http://tiny.cc/v8z1mz.

[19] 3M Environmental Laboratory (EE & PC), Fate of Fluorochemicals - Phase II, May 20, 1983, *available at* https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1284.pdf.

[20] Two Year Oral (Diet) Toxicity/Carcinogenicity Study of Fluorochemical FC-143 in Rats, Volume 1 of 4, Aug. 29, 1987, *available at* https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1337.pdf.

shared with DuPont and led them to consider whether "they may be obliged under their policy to call FC-143 a carcinogen in animals."[21]

196. In 1984, 3M documented a trend of increasing levels of PFOS in the bodies of 3M workers, leading one of the company's medical officers to warn in an internal memo: "we must view this present trend with serious concern. It is certainly possible that . . . exposure opportunities are providing a potential uptake of fluorochemicals that exceeds excretion capabilities of the body."[22]

197. A 1997 material safety data sheet ("MSDS") for a non-AFFF product made by 3M listed its only ingredients as water, PFOA, and other perfluoroalkyl substances and warned that the product includes "a chemical which can cause cancer." The MSDS cited "1983 and 1993 studies conducted jointly by 3M and DuPont" as support for this statement. On information and belief, the MSDS for 3M's AFFF products did not provide similar warnings or information.

v. Defendants Hid What They Knew from the Government and the Public.

198. Federal law requires chemical manufacturers and distributors to immediately notify the EPA if they have information that "reasonably supports the conclusion that such substance or mixture presents a substantial risk of injury to health or the environment." Toxic Substances Control Act ("TSCA") § 8(e), 15 U.S.C. § 2607(e)

199. In April 2006, 3M agreed to pay EPA a penalty of more than $1.5 million after being cited for 244 violations of the TSCA, which included violations for failing to disclose studies regarding PFOS, PFOA, and other PFCs dating back decades.

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[21] Memorandum from R.G. Perkins to F.D. Griffith re: Summary of the Review of the FC-143 Two-Year Feeder Study Report to be presented at the January 7, 1988 meeting with DuPont, January 5, 1988, *available at* https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1343.pdf.

[22] Memorandum from D.E. Roach to P.F. Riehle re: Organic Fluorine Levels, Aug. 31, 1984, *available at* https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1313.pdf.

200. Likewise, in December 2005, the EPA announced it was imposing the "Largest Environmental Administrative Penalty in Agency History" against DuPont based on evidence that it violated the TSCA by concealing the environmental and health effects of PFOA.

201. On information and belief, Defendants knew or should have known that AFFF containing PFOA or PFOS would very likely injure and/or threaten public health and the environment, even when used as intended or directed.

202. Defendants failed to warn of these risks to the environment and public health, including the impact of their AFFF/Component Products on the quality of unprotected water sources.

203. Defendants were all sophisticated and knowledgeable in the art and science of designing, formulating, and manufacturing AFFF/Component Products. They understood far more about the properties of their AFFF/Component Products—including the potential hazards they posed to human health and the environment—than any of their customers. Still, Defendants declined to use their sophistication and knowledge to design safer products.

D. The Impact of PFOS and PFOA on the Environment and Human Health Is Finally Revealed

204. As discussed above, neither 3M, DuPont, nor, on information and belief, any other Defendant complied with their obligations to notify EPA about the "substantial risk of injury to health or the environment" posed by their AFFF/Component Products. *See* TSCA § 8(e).

205. Despite decades of research, 3M first shared its concerns with EPA in the late 1990s. In a May 1998 report submitted to EPA, "3M chose to report simply that PFOS had been found in the blood of animals, which is true but omits the most significant information," according to a former 3M employee.[23]

[23] Letter from R. Purdy, Mar. 28, 1999, *available at*

206. On information and belief, 3M began in 2000 to phase out its production of products that contained PFOS and PFOA in response to pressure from the EPA.

207. Once the truth about PFOS and PFOA was revealed, researchers began to study the environmental and health effects associated with them, including a "C8 Science Panel" formed out of a class action settlement arising from contamination from DuPont's Washington Works located in Wood County, West Virginia.

208. The C8 panel consisted of three epidemiologists specifically tasked with determining whether there was a probable link between PFOA exposure and human diseases. In 2012, the panel found probable links between PFOA and kidney cancer, testicular cancer, ulcerative colitis, thyroid disease, pregnancy-induced hypertension (including preeclampsia), and hypercholesterolemia.

209. Human health effects associated with PFOS exposure include immune system effects, changes in liver enzymes and thyroid hormones, low birth weight, high uric acid, and high cholesterol. In laboratory testing on animals, PFOA and PFOS have caused the growth of tumors, changed hormone levels, and affected the function of the liver, thyroid, pancreas, and immune system.

210. The injuries caused by PFAS can arise months or years after exposure.

211. Even after the C8 Science Panel publicly announced that human exposure to 50 parts per trillion, or more, of PFOA in drinking water for one year or longer had "probable links" with certain human diseases, including kidney cancer, testicular cancer, ulcerative colitis, thyroid disease, preeclampsia, and medically-diagnosed high cholesterol, Defendants repeatedly assured and represented to governmental entities, their customers, and the public (and continue to do so)

https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1001.pdf.

that the presence of PFOA in human blood at the levels found within the United States presents no risk of harm and is of no legal, toxicological, or medical significance of any kind.

212. Furthermore, Defendants have represented to and assured such governmental entities, their customers, and the public (and continue to do so) that the work of the independent C8 Science Panel was inadequate to satisfy the standards of Defendants to prove such adverse effects upon and/or any risk to humans with respect to PFOA in human blood.

213. At all relevant times, Defendants, through their acts and/or omissions, controlled, minimized, trivialized, manipulated, and/or otherwise influenced the information that was published in peer-review journals, released by any governmental entity, and/or otherwise made available to the public relating to PFAS in human blood and any alleged adverse impacts and/or risks associated therewith, effectively preventing the public from discovering the existence and extent of any injuries/harm as alleged herein.

214. On May 2, 2012, the EPA published its Third Unregulated Contaminant Monitoring Rule ("UCMR3"), requiring public water systems nationwide to monitor for thirty contaminants of concern between 2013 and 2015, including PFOS and PFOA.[24]

215. In the May 2015 "Madrid Statement on Poly- and Perfluoroalkyl Substances (PFAS's)," scientists and other professionals from a variety of disciplines, concerned about the production and release into the environment of PFOA, called for greater regulation, restrictions, limits on the manufacture and handling of any PFOA containing product, and to develop safe non-fluorinated alternatives to these products to avoid long-term harm to human health and the environment.[25]

[24] *Revisions to the Unregulated Contaminant Monitoring Regulation (UCMR 3) for Public Water Systems*, 77 Fed. Reg: 26072 (May 2, 2012).

[25] Blum A, Balan SA, Scheringer M, Trier X, Goldenman G, Cousins IT, Diamond M, Fletcher T, Higgins

216. On May 25, 2016, the EPA released a lifetime health advisory (HAs) and health effects support documents for PFOS and PFOA.[26] *See* Fed. Register, Vol. 81, No. 101, May 25, 2016. The EPA developed the HAs to assist governmental officials in protecting public health when PFOS and PFOA are present in drinking water. The EPA HAs identified the concentration of PFOS and PFOA in drinking water at or below which adverse health effects are not anticipated to occur over a lifetime of exposure at 0.07 ppb or 70 ppt. The HAs were based on peer-reviewed studies of the effects of PFOS and PFOA on laboratory animals (rats and mice) and were also informed by epidemiological studies of human populations exposed to PFOS. These studies indicate that exposure to PFOS and PFOA over these levels may result in adverse health effects, including:

a. Developmental effects to fetuses during pregnancy or to breastfed infants (e.g., low birth weight, accelerated puberty, skeletal variations);

b. Cancer (testicular and kidney);

c. Liver effects (tissue damage);

d. Immune effects (e.g., antibody production and immunity);

e. Thyroid disease and other effects (e.g., cholesterol changes).

217. In addition, PFOS and PFOA are hazardous materials because they pose a "present or potential threat to human health."[27]

C, Lindeman AE, Peaslee G, de Voogt P, Wang Z, Weber R. 2015. The Madrid statement on poly- and perfluoroalkyl substances (PFASs). Environ Health Perspect 123:A107–A111; http://dx.doi.org/10.1289/ehp.1509934.

[26] *See* Fed. Register, Vol. 81, No. 101, May 25, 2016, Lifetime Health Advisories and Health Effects Support Documents for Perfluorooctanoic Acid and Perfluorooctane Sulfonate.

[27] *Id.*; *see also National Ass'n for Surface Finishing v. EPA*, 795 F.3d 1, 3, 6 (D.C. Cir. 2015) (referring to PFOS as a "toxic compound" and a "hazardous chemical.").

218. In 2016, the National Toxicology Program of the United States Department of Health and Human Services ("NTP") and the International Agency for Research on Cancer ("IARC") both released extensive analyses of the expanding body of research regarding the adverse effects of PFCs. The NTP concluded that both PFOA and PFOS are "presumed to be an immune hazard to humans" based on a "consistent pattern of findings" of adverse immune effects in human (epidemiology) studies and "high confidence" that PFOA and PFOS exposure was associated with suppression of immune responses in animal (toxicology) studies.[28]

219. IARC similarly concluded that there is "evidence" of "the carcinogenicity of . . . PFOA" in humans and in experimental animals, meaning that "[a] positive association has been observed between exposure to the agent and cancer for which a causal interpretation is . . . credible."[29]

220. California has listed PFOA and PFOS to its Proposition 65 list as a chemical known to cause reproductive toxicity under the Safe Drinking Water and Toxic Enforcement Act of 1986.[30]

221. The United States Senate and House of Representatives passed the National Defense Authorization Act in November 2017, which included $42 Million to remediate PFC

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[28] *See* U.S. Dep't of Health and Human Services, Nat'l Toxicology Program, *NTP Monograph: Immunotoxicity Associated with Exposure to Perfluorooctanoic Acid or Perfluorooctane Sulfonate* (Sept. 2016), at 1, 17, 19, *available at* https://ntp.niehs.nih.gov/ntp/ohat/pfoa_pfos/pfoa_pfosmonograph_508.pdf

[29] *See* Int'l Agency for Research on Cancer, IARC Monographs: *Some Chemicals Used as Solvents and in Polymer Manufacture* (Dec. 2016), at 27, 97, *available at* http://monographs.iarc.fr/ENG/Monographs/vol110/mono110.pdf.

[30] California Office of Environmental Health Hazard Assessment, *Chemicals Listed Effective Nov. 10, 2017 as Known to the State of California to Cause Reproductive Toxicity: Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS)*, Nov. 9, 2017, *available at* https://oehha.ca.gov/proposition-65/crnr/chemicals-listed-effective-november-10-2017-known-state-california-cause.

contamination from military bases, as well as devoting $7 Million toward the Investing in Testing Act, which authorizes the Center for Disease Control and Prevention ("CDC") to conduct a study into the long-term health effects of PFOA and PFOS exposure.[31] The legislation also required that the Department of Defense submit a report on the status of developing a new military specification for AFFF that did not contain PFOS or PFOA.[32]

222. In June 2018, the Agency for Toxic Substances and Disease Registry ("ATSDR") and EPA released a draft toxicological profile for PFOS and PFOA and recommended the drinking water advisory levels be lowered to 11 ppt for PFOA and 7 ppt for PFOS.[33]

223. On February 20, 2020, the EPA announced a proposed decision to regulate PFOA and PFOS under the Safe Drinking Water Act, which the agency characterized as a "key milestone" in its efforts to "help communities address per- and polyfluoroalkyl substances (PFAS) nationwide."[34] Following a public comment period on its proposed decision, the EPA will decide whether to move forward with the process of establishing a national primary drinking water regulation for PFOA and PFOS.

[31] National Defense Authorization Act for Fiscal Year 2018, H.R. 2810, 115th Congress (2017), *available at* https://www.congress.gov/115/plaws/publ91/PLAW-115publ91.pdf.

[32] *Id.*; *see also* U.S. Department of Defense, *Alternatives to Aqueous Film Forming Foam Report to Congress*, June 2018, *available at* https://www.denix.osd.mil/derp/home/documents/alternatives-to-aqueous-film-forming-foam-report-to-congress/.

[33] ATSDR, *Toxicological Profile for Perfluoroalkyls: Draft for Public Comment* (June 2018), *available at* https://www.atsdr.cdc.gov/toxprofiles/tp200.pdf.

[34] Press Release, *EPA Announces Proposed Decision to Regulate PFOA and PFOS in Drinking Water*, Feb. 20, 2020, *available at* https://www.epa.gov/newsreleases/epa-announces-proposed-decision-regulate-pfoa-and-pfos-drinking-water.

E. AFFF Containing PFOS and PFOA Is Fungible and Commingled in the Groundwater

224. AFFF containing PFOS and/or PFOA, once it has been released to the environment, lacks characteristics that would enable identification of the company that manufactured that particular batch of AFFF or chemical feedstock.

225. A subsurface plume, even if it comes from a single location, such as a retention pond or fire training area, originates from mixed batches of AFFF and chemical feedstock coming from different manufacturers.

226. Because precise identification of the specific manufacturer of any given AFFF/Component Product that was a source of the PFAS found at Reese Air Force Base, during fire protection, training, and response activities, resulting in widespread PFAS contamination is nearly impossible, given certain exceptions, Plaintiff must pursue all Defendants, jointly and severally.

227. Defendants are also jointly and severally liable because they conspired to conceal the true toxic nature of PFOS and PFOA, to profit from the use of AFFF/Component Products containing PFOS and PFOA, at Plaintiff's expense, and to attempt to avoid liability.

CLASS ACTION ALLEGATIONS

228. Plaintiff seek to certify and maintain this action under Federal Rule of Civil Procedure 23(a), (b)(1) and/or (b)(2), and (b)(3) on behalf of a class (the "Class") comprised of themselves and other similarly situated current and former residents of Lubbock County, Texas (the "Class Members"), subject to amendment and additional discovery, as follows:

a. All residents of the Lubbock area who have ingested PFAS contaminated water from a private well in or around Lubbock and who have suffered accumulation of PFAS, including but not limited to PFOS and PFOA in their bodies demonstrated by (i) blood

serum tests disclosing PFAS levels in their blood above the recognized background levels, or (ii) documentation of an increased opportunity for exposure, as defined in ATSDR's Final Criteria for Determining the Appropriateness of a Medical Monitoring Program under CERCLA (the "Medical Monitoring for Private Water Well Owners Class").

229. The Class has more than 100 members, as required under the Class Action Fairness Act, 28 U.S.C. § 1332(d).

230. Plaintiff is a member of the proposed Class they seek to represent. This action satisfies the numerosity, commonality, typicality, adequacy, predominance, and superiority requirements of Federal Rule of Civil Procedure 23.

231. Excluded from the Class are:

a. Defendants, including any entity or division in which Defendants have a controlling interest, along with their legal representative, employees, officers, directors, assigns, heirs, successors, and wholly or partly owned subsidiaries or affiliates;

b. the Judge to whom this case is assigned, the Judge's staff, and the Judge's immediate family;

c. any class counsel or their immediate family members; and

d. all governmental entities.

232. Plaintiff reserves the right to amend the Class definition if discovery and further investigation reveal that any Class should be expanded, divided into additional subclasses, or modified in any other way.

A. Numerosity and Ascertainability

233. This action meets the numerosity requirement of Fed. R. Civ. P. 23(a)(1), given that the number of impacted individuals, upon information and belief, is in the thousands, making

individual joinder of Class Members' respective claims impracticable. While the exact number of Class Members is not yet known, a precise number can be ascertained from U.S. Federal Census Records, the State of Texas, and the public records of the municipal entities in the Lubbock County area and through other appropriate discovery.

234. The resolution of the claims of the Class Members in a single action will provide substantial benefits to all parties and the Court. It is expected that the Class Members will number in the thousands.

235. Finally, Class Members can be notified of the pendency of this action by Court-approved notice methods.

B. Typicality

236. Pursuant to Federal Rule of Civil Procedure 23(a)(3), Plaintiff's claims are typical of the claims of Class Members and arise from the same course of conduct by Defendants.

237. Plaintiff's person and real property, like all Class Members, have been damaged by Defendants' misconduct in that they have incurred damages and losses related to the introduction of PFOS, PFOA, and other toxic substances into their water supplies in the Lubbock area, causing personal injury and property damage.

238. Furthermore, the facts and circumstances surrounding Defendants' actions and misconduct are common to all Class Members and represent a common thread of misconduct resulting in common injury to all Class Members. The relief Plaintiff seeks is typical of the relief sought for absent Class Members.

239. While the degree of exposure may differ across Class Members, factual inconsistences between the class members are not enough to defeat typicality. Since the named Plaintiff asserts reflective of those of Class Members, the factor of typicality is satisfied.

C. Adequacy of Representation

240. Plaintiff will serve as a fair and adequate class representative because his interests, as well as the interests of his counsel, do not conflict with the interests of other members of the class he seeks to represent.

241. Plaintiff has retained counsel competent and well experienced in class action and environmental tort litigation.

242. Plaintiff and his counsel are committed to vigorously prosecuting this action on behalf of the Class and have the financial resources to do so. Neither Plaintiff nor his counsel have interests adverse to the Class.

D. Predominance of Common Issues

243. There are numerous questions of law and fact common to Plaintiff and Class Members that predominate over any question affecting only individual Class Members, making it appropriate to bring this action under Rule 23(b)(3).

244. The basis for all of Class Members' claims is Defendants' course of conduct and knowledge of the potential hazards of AFFF containing PFOS, PFOA, and/or their precursors. All Class Members suffered a common injury: Bodily Injury, Personal Injury and Property Damage. Further, the method of contamination that led to this common injury is uniform: The use of AFFF during firefighting practices at Reese Airforce Base that contaminated groundwater supplies and water supplies in the Lubbock, TX area. Thus, each of the Class Members' injuries was caused by a common course of conduct undertaken by Defendants.

245. Plaintiff's claims arise from the same course of conduct giving rise to the claims of the Class Members, meaning the entire matter of Defendants' liability in this case can be adjudicated on a class basis to avoid a waste of judicial resources and inconsistent judgements.

246. The answers to these common questions will advance resolution of the litigation as to all Class Members. Common legal and factual issues include:

a. Whether Defendants engaged in the conduct alleged herein;

b. Whether Defendants knew or should have known that exposure to PFOS, PFOA, and/or their chemical precursors could increase health risks;

c. Whether Defendants knew or should have known that their manufacture of AFFF/Component Products containing PFOS, PFOA, and/or their chemical precursors was unreasonably dangerous;

d. Whether Defendants knew or should have known that their AFFF/Component Products contained persistent, stable, and mobile chemicals that were likely cause contamination;

e. Whether Defendants failed to sufficiently warn users of the potential for harm that resulted from use of their AFFF/Component Products;

f. Whether Defendants became aware of health and environmental harm caused by their AFFF/Component Products containing PFOS, PFOA, and/or their chemical precursors, and failed to warn users, Plaintiffs, and the Class Members;

g. The extent to which Defendants knew about PFAS contamination at Reese Airforce Base, affecting groundwater sources within the vicinity of the base in the Lubbock County area. Specifically, private water well, JS-16-DW196 located in 910 N CR 1460, Lubbock, TX 79416;

h. Whether the Defendants owed Plaintiff and the Class Members a duty to refrain from the actions that caused the PFAS contamination at Reese Airforce Base, affecting groundwater sources within the vicinity of the base in the Lubbock County area.

Specifically, private water well, JS-16-DW196 located in 910 N CR 1460, Lubbock, TX 79416;

i. Whether Defendants made unlawful and misleading representations or material omissions with respect to the health impacts of PFAS;

j. Whether Plaintiff's and the Class Members' risk of any health issue or bodily injury is attributable to their exposure to PFAS as a result of the use of AFFF during firefighting practices in Reese Airforce Base that contaminated groundwater supplies in neighboring wells in the Lubbock, TX area;

k. Whether Plaintiff and the Class Members have suffered personal injuries caused by the use of AFFF during firefighting practices in Reese Airforce Base that contaminated groundwater supplies and neighboring wells in the Lubbock, TX area;

l. Whether Plaintiff and the Class Members have suffered property damage caused by the use of AFFF during firefighting practices in Reese Airforce Base that contaminated underground water supplies and neighboring wells in the Lubbock, TX area;

m. Whether Plaintiff and the Class Members are entitled to damages and other monetary relief and other equitable relief, including but not limited to punitive damages, and if so, in what amount;

n. Whether Plaintiff and the Class Members have sustained damages and the proper measure of damages;

o. Whether Defendants are strictly liable to Plaintiff and the Class Members for their actions; and

p. Whether Defendants were unjustly enriched by their actions at the expense of Plaintiff and the Class Members.

247. While damages may vary amongst Class Members, individualized damages inquiries do not obviate the utility of the class mechanism for this action, given the predominant common issues of injury, causation, and liability.

E. Superiority

248. The class action mechanism is superior to any other available means of the fair and efficient adjudication of this case. Further, no unusual difficulties are likely to be encountered in the management of this class action. Given the great number of current and former residents of the Lubbock, TX area who were impacted by Defendants' AFFF/Component Products, it is impracticable for Plaintiff and the Class Members to individually litigate their respective claims, as doing so would risk inconsistent judgments and the potential for increased delays and expense for the parties and the court system. Therefore, the class action mechanism presents considerably less management challenges and provides the efficiency of a single adjudication overseen by a single court.

MARKET SHARE LIABILITY, ALTERNATIVE LIABILITY, CONCERT OF ACTION, AND ENTERPRISE LIABILITY

249. Defendants in this action are manufacturers that control a substantial share of the market for AFFF/Component Products containing PFOS, PFOA, and/or their chemical precursors in the United States and are jointly responsible for the contamination of the groundwater at Reese Air Force Base, affecting groundwater sources within the vicinity of the base in the Lubbock County area. Specifically, private water well, JS-16-DW196 located in 910 N CR 1460, Lubbock, TX 79416. Market share liability attaches to all Defendants and the liability of each should be

assigned according to its percentage of the market for AFFF/Component Products at issue in this Complaint.

250. Because PFAS is fungible, it is impossible to identify the exact Defendant who manufactured any given AFFF/Component Product containing PFOS, PFOA, and/or their chemical precursors found free in the air, soil or groundwater, and each of these Defendants participated in a territory-wide and U.S. national market for AFFF/Component Products during the relevant time.

251. Concert of action liability attaches to all Defendants, each of which participated in a common plan to commit the torts alleged herein and each of which acted tortuously in pursuance of the common plan to knowingly manufacture and sell inherently dangerous AFFF/Component Products containing PFOS, PFOA, and/or their chemical precursors.

252. Enterprise liability attaches to all the named Defendants for casting defective products into the stream of commerce.

CONSPIRACY

253. Defendants actually knew of the health and environmental hazards which PFOA and PFOS posed to Plaintiffs.

254. Beginning in the 1970s and continuing through the date of this Complaint, Defendants formed joint task forces, committees and otherwise colluded for the avowed purpose of providing information about AFFF/Component Products containing PFOA and/or PFOS to the public and to government agencies with the unlawful purpose of:

a. Creating a market for AFFF/Component Products containing PFOA and/or PFOS despite knowledge of the hazards which PFOA and PFOS posed to the groundwater in Colorado and the residents who depend on such water;

b. Concealing the environmental properties and toxic nature of PFOA and PFOS, and its impact on Plaintiffs and the environment; and

c. Maximizing profits in a way Defendants knew or should have known would result in the contamination of Plaintiffs' drinking water.

255. Defendants carried out their conspiracy by one or more of the following overt acts or omissions:

a. Intentionally representing to the DOD, USAF, USEPA and the public that AFFF/Component Products containing PFOA and PFOS were safe and did not pose an environmental or human health risk;

b. Concealing the dangers of PFOA and PFOS (including toxicological information on the dangers of the chemicals to living organisms, adverse fate and transport characteristics, and the propensity of PFOA and PFOS to contaminate groundwater) from the government and the public by, among other means, repeatedly requesting that information about the dangers and health effects of PFOA and PFOS be suppressed and not otherwise published, and by downplaying any adverse findings relating to PFOA and PFOS;

c. Concealing the dangers of AFFF/Component Products containing PFOA and PFOS from end users, sensitive receptors, public water suppliers, and the users and consumers of groundwater;

d. Using their considerable resources to fight PFOA and PFOS regulation; and

e. Collectively deciding to use PFOA and/or PFOS rather than other, safer surfactants because AFFF/Component Products containing PFOA and/or PFOS were the most profitable surfactant for Defendants to use.

256. As a direct and proximate result of the Defendants' above described conspiracy, PFOA and PFOS, at all times relevant to this litigation has:

a. Posed and continues to pose a health threat to Plaintiffs because it has bioaccumulated in their bodies;

b. Contaminated Plaintiffs' property, soil, and groundwater, for those with private water wells;

c. Created the need for remediation of PFOA- and PFOS- contaminated groundwater for those property owners who utilize private water wells, or, where remediation of the groundwater is impractical, installation of a system to filter out PFOA and PFOS or procurement of water from alternative sources;

CAUSES OF ACTION

COUNT 1:
DEFECTIVE DESIGN

257. Plaintiff adopts, realleges, and incorporates the allegations in the preceding paragraphs and further alleges the following:

258. As manufacturers of AFFF/Component Products containing PFOS, PFOA, and/or their chemical precursors, Defendants owed a duty to all persons whom its products might foreseeably harm, including Plaintiff, and not to market any product which is unreasonably dangerous in design for its reasonably anticipated use.

259. Defendants' AFFF/Component Products were unreasonably dangerous for its reasonably anticipated uses for the following reasons:

a. PFAS causes extensive groundwater contamination, even when used in its foreseeable and intended manner;

b. Even at extremely low levels, PFAS render drinking water unfit for consumption;

c. PFAS poses significant threats to public health; and

d. PFAS create real and potential environmental damage.

260. Defendants knew of these risks and failed to use reasonable care in the design of their AFFF/Component Products.

261. AFFF containing PFOS, PFOA, and/or their chemical precursors poses a greater danger to the environment and to human health than would be expected by ordinary persons such as Plaintiff and the general public.

262. At all times, Defendants were capable of making AFFF/Component Products that did not contain PFOS, PFOA, and/or their chemical precursors. Thus, reasonable alternative designs existed which were capable of preventing Plaintiff's injuries.

263. The risks posed by AFFF containing PFOS, PFOA, and/or their chemical precursors far outweigh the products' utility as a flame-control product.

264. The likelihood that Defendants' AFFF/Component Products would be spilled, discharged, disposed of, or released into the environment and Plaintiff's water well has been, and continues to be, contaminated with PFOA in varying amounts over time, causing Plaintiff significant injury and damage that far outweighed any burden on Defendants to adopt an alternative design, and outweighed the adverse effect, if any, of such alternative design on the utility of the product.

265. As a direct and proximate result of Defendants' unreasonably dangerous design, manufacture, and sale of AFFF/Component Products containing PFOS, PFOA, and/or their chemical precursors, Plaintiff's water well has been, and continues to be, contaminated with PFOA in varying amounts over time, causing Plaintiff significant injury and damage.

266. Defendants knew that it was substantially certain that their acts and omissions described above would contaminate Plaintiff's water well with PFOA in varying amounts over time, causing Plaintiff significant injury and damage. Contamination that led to the exposure of Plaintiff's and the Class to toxins and increased their risk of numerous diseases. Defendants committed each of the above-described acts and omissions knowingly, willfully, and/or with fraud, oppression, or malice, and with conscious and/or reckless disregard for Plaintiff's health and safety, and/or property rights.

COUNT 2:
FAILURE TO WARN

267. Plaintiff adopts, realleges, and incorporates the allegations in the preceding paragraphs and further alleges the following:

268. As manufacturers of AFFF/Component Products containing PFOS, PFOA, and/or their chemical precursors, Defendants had a duty to provide adequate warnings of the risks of these products to all persons whom its product might foreseeably harm, including Plaintiff and the public.

269. Defendants' AFFF/Component Products were unreasonably dangerous for its reasonably anticipated uses for the following reasons:

a. PFAS causes extensive groundwater contamination, even when used in its foreseeable and intended manner;

b. Even at extremely low levels, PFAS render drinking water unfit for consumption;

c. PFAS poses significant threats to public health; and

d. PFAS create real and potential environmental damage.

270. Defendants knew of the health and environmental risks associated with their AFFF/Component Products and failed to provide a warning that would lead an ordinary reasonable

user or handler of a product to contemplate the dangers associated with their products or an instruction that would have avoided Plaintiff's injuries.

271. Despite Defendants' knowledge of the environmental and human health hazards associated with the use and/or disposal of their AFFF/Component Products in the vicinity of drinking water supplies, including PFAS contamination of public drinking supplies and private wells, Defendants failed to issue any warnings, instructions, recalls, or advice regarding their AFFF/Component Products to Plaintiff, governmental agencies or the public.

272. As a direct and proximate result of Defendants' failure to warn, Plaintiff's water well has been, and continues to be, contaminated with PFOA in varying amounts over time, causing Plaintiff significant injury and damage. Further, this contamination led to the exposure of Plaintiff's and the Class to toxins and increased their probabilities of numerous diseases as more fully set forth above.

273. Defendants knew that it was substantially certain that their acts and omissions described above would contaminate Plaintiff's water well with PFAS in varying amount, causing Plaintiff significant injury and damage. Defendants committed each of the above-described acts and omissions knowingly, willfully, and/or with fraud, oppression, or malice, and with conscious and/or reckless disregard for Plaintiff's health and safety, and/or property rights.

COUNT 3:
NEGLIGENCE

274. Plaintiff adopts, realleges, and incorporates the allegations in the preceding paragraphs and further alleges the following:

275. As manufacturers of AFFF/Component Products containing PFOS, PFOA, and/or their chemical precursors, Defendants owed a duty to Plaintiff and to all persons whom its products

might foreseeably harm and to exercise due care in the formulation, manufacture, sale, labeling, warning, and use of PFAS-containing AFFF.

276. Defendants owed a duty to Plaintiff to act reasonably and not place inherently dangerous AFFF/Component Products into the marketplace when its release into the air, soil, and water was imminent and certain.

277. Defendants knew or should have known that PFAS were leaching from AFFF used for fire protection, training, and response activities.

278. Defendants knew or should have known that PFAS are highly soluble in water, highly mobile, extremely persistent in the environment, and high likely to contaminate water supplies if released into the environment.

279. Defendants knew or should have known that the manner in which they were designing, manufacturing, marketing, distributing, and selling their AFFF/Component Products would result in contamination of Plaintiff's water well with PFOA in varying amounts over time, causing Plaintiff significant injury and damage.

280. Despite the fact that Defendants knew or should have known that PFAS are toxic, can contaminate water resources and are carcinogenic, Defendants negligently:

a. designed, manufactured, formulated, handled, labeled, instructed, controlled, marketed, promoted, and/or sold AFFF/Component Products containing PFOS, PFOA, and/or their chemical precursors;

b. issued deficient instructions on how their AFFF/Component Products should be used and disposed of, thereby permitting PFAS to contaminate the groundwater in and around Reese Air Force Base;

c. failed to recall and/or warn the users of their AFFF/Component Products of the dangers of groundwater contamination as a result of standard use and disposal of their products;

d. failed and refused to issue the appropriate warning and/or recalls to the users of their AFFF/Component Products; and

e. failing to take reasonable, adequate, and sufficient steps or actions to eliminate, correct, or remedy any contamination after it occurred.

281. The magnitude of the burden on the Defendants to guard against this foreseeable harm to Plaintiff was minimal, as the practical consequences of placing this burden on the Defendants amounted to a burden to provide adequate instructions, proper labeling, and sufficient warnings about their AFFF/Component Products.

282. As manufacturers, Defendants were in the best position to provide adequate instructions, proper labeling, and sufficient warnings about their AFFF/Component Products, and to take steps to eliminate, correct, or remedy any contamination they caused.

283. As a direct and proximate result of Defendants' negligence, Plaintiff has his private wells contaminated with PFOA, in varying amounts over time, causing Plaintiff significant injury and damage.

284. Defendants knew that it was substantially certain that their acts and omissions described above would cause Plaintiff's water well to be contaminated with PFOA in varying amounts over time, causing Plaintiff significant injury and damage. Defendants committed each of the above-described acts and omissions knowingly, willfully, and/or with fraud, oppression, or malice, and with conscious and/or reckless disregard for Plaintiff's health and safety, and/or property rights.

COUNT 4:
TRESPASS

285. Plaintiff adopts, realleges, and incorporates the allegations in the preceding paragraphs and further alleges the following:

286. Plaintiff is the owner, operator, and actual possessor of real property and improvements used for collecting drinking water.

287. Defendants designed, manufactured, distributed, marketed, and sold AFFF/Component Products with the actual knowledge and/or substantial certainty that AFFF containing PFOS, PFOA, and/or their chemical precursors would, through normal use, release PFAS that would migrate into groundwater, causing contamination.

288. Defendants negligently, recklessly, and/or intentionally designed, manufactured, distributed, marketed, and sold AFFF/Component Products in a manner that caused PFAS to contaminate Plaintiff's property.

289. As a direct and proximate result of Defendants' trespass, Plaintiff has suffered and continues to suffer property damage requiring investigation, remediation, and monitoring costs.

290. Defendants knew that it was substantially certain that their acts and omissions described above would threaten public health and cause extensive contamination of property, including groundwater collected for drinking. Defendants committed each of the above-described acts and omissions knowingly, willfully, and/or with fraud, oppression, or malice, and with conscious and/or reckless disregard for the health and safety of others, and for Plaintiff's property rights.

COUNT 5:
ACTUAL FRAUDULENT TRANSFER (DuPont and Chemours Co.)

291. Plaintiff adopts, realleges, and incorporates the allegations in the preceding paragraphs and further alleges the following:

292. Through their effectuation of the Spinoff, Chemours Co. and DuPont (the "Fraudulent Transfer Defendants") caused Chemours Co. to transfer valuable assets to DuPont, including but not limited to the $3.9 billion dividend (the "Transfers"), while simultaneously assuming significant liabilities (the "Assumed Liabilities").

293. The Transfers and Assumed Liabilities were made for the benefit of DuPont.

294. At the time that the Transfers were made and the Liabilities were assumed, and until the Spinoff was complete, DuPont was in a position to, and in fact did, control and dominate Chemours Co.

295. The Fraudulent Transfer Defendants made the Transfers and incurred the Assumed Liabilities with the actual intent to hinder, delay, and defraud the creditors or future creditors of Chemours Co.

296. Plaintiff has been harmed as a result of the conduct of the Fraudulent Transfer Defendants.

297. Plaintiff is entitled to avoid the Transfers and to recover property or value transferred to DuPont.

COUNT 6:
CONSTRUCTIVE FRAUDULENT TRANSFER (DuPont and Chemours Co.)

298. Plaintiff adopts, realleges, and incorporates the allegations in the preceding paragraphs and further alleges the following:

299. Chemours Co. did not receive reasonably equivalent value from DuPont in exchange for the Transfers and Assumed Liabilities.

300. Each of the Transfers and the assumption of the Assumed Liabilities by Chemours Co. was made to or for the benefit of DuPont.

301. At the time that the Transfers were made and the Assumed Liabilities were assumed, and until the Spinoff was complete, DuPont was in a position to, and in fact did, control and dominate Chemours Co.

302. The Fraudulent Transfer Defendants made the Transfers and assumed the Assumed Liabilities when Chemours Co. was engaged or about to be engaged in a business for which its remaining assets were unreasonably small in relation to its business.

303. Chemours Co. was insolvent or in contemplation of insolvency at the time of the Transfers, or became insolvent as a result of the Transfers and its assumption of the Assumed Liabilities.

304. At the time that the Transfers were made and Chemours Co. assumed the Assumed Liabilities, the Fraudulent Transfer Defendants intended to incur, or believed or reasonably should have believed, that Chemours Co. would incur debts beyond its ability to pay as they became due.

305. Plaintiff been harmed as a result of the Transfers.

306. Plaintiff is entitled to avoid the Transfers and to recover property or value transferred to DuPont.

COUNT 7:
MEDICAL MONITORING

307. Plaintiff adopts, realleges, and incorporates the allegations in the preceding paragraphs and further alleges the following:

308. Medical monitoring is available to Plaintiff and the Class Members, all of whom have yet to sustain a present injury as a stand-alone cause of action, because the increased risk of developing the diseases and conditions discussed herein constitute an injury-in-fact.

309. Plaintiff and the Class Members seek consequential damages sufficient to fund a medical monitoring program that is reasonably tailored to the exposure risks of the contaminants

released by Defendants' AFFF/Component Products, including but not limited to PFOS, PFOA, and/or their chemical precursors.

310. Defendants knew or should have known that exposure to PFAS was hazardous to human health.

311. Defendants knew or should have known that the manner in which they were manufacturing, marketing, and selling their AFFF/Component Products containing PFOS, PFOA, and/or their chemical precursors would result in Plaintiff and the Class Members being exposed to increased levels of PFAS.

312. Defendants continued negligent acts and omissions in manufacturing, marketing, and selling their AFFF/Component Products were the proximate cause of excessive exposure to PFAS on behalf of Plaintiff and the Class Members.

313. The resulting exposure significantly increased the risk of Plaintiff and the Class Members contracting serious health conditions, including but not limited to kidney cancer, testicular cancer, ulcerative colitis, thyroid disease, pregnancy induced hypertension (including preeclampsia), hypercholesterolemia, and autoimmune diseases such as sarcoidosis.

314. Plaintiff has also experienced fear and anxiety as a result of his increased risk of contracting the aforementioned conditions, including but not limited to kidney cancer, testicular cancer, ulcerative colitis, thyroid disease, pregnancy induced hypertension (including preeclampsia), hypercholesterolemia, and autoimmune diseases such as sarcoidosis.

315. The significantly increased health risks associated with exposure to PFOS, PFOA, and/or their chemical precursors make periodic diagnostic medical examinations reasonable and necessary.

316. Plaintiff and the Class Members will incur future expenses for medical monitoring and, as a result, seek payment of their related medical expenses as an element of the damages they are entitled to from Defendants.

317. In order to compensate Plaintiff and the Class Members for damages suffered due to Defendants' acts, they require, among other things, that Defendants collectively pay the past and future costs of obtaining necessary medical care, toxicological examinations and diagnoses, and any other medical monitoring necessary to ascertain and treat any current or future injuries suffered as a result of their exposure to PFAS, with Plaintiff and the Class Members retaining the freedom to choose their medical providers. Many of these costs would not be covered by health care insurers, and if covered, may unfairly result in increased premiums.

318. The increased susceptibility to certain injuries and irreparable threat to future health and well-being Plaintiff and the Class Members face as a result of their exposure to increased levels of PFAS can only be mitigated and/or addressed by the creation of a medical monitoring program (the "Monitoring Program") that includes but is not limited to:

a. Establishing a program that provides education and outreach on the existence and availability of the services established under the Monitoring Program, including but not limited to the establishment of a public website with information about the Monitoring Program, meetings with potentially eligible members, development and dissemination of outreach materials informing current and former residents of Lubbock, Texas about the program, and the establishment of phone information services;

b. Funding additional studies of the long-term effects of exposure to PFOS, PFOA, and/or their chemical precursors;

c. Funding medical surveillance for current and former residents of Lubbock, Texas;

d. Funding research into possible treatments for the detrimental effects of PFAS exposure suffered by Plaintiffs' and the Monitoring Class Members' as a result of the acts and omissions alleged here;

e. Gathering and forwarding to the treating physician of Plaintiffs and each Monitoring Class Member information related to the diagnosis and treatment of injuries resulting from their exposure to PFAS; and

f. Assisting in the early diagnosis and treatment of injuries resulting from exposure to PFAS through ongoing testing and monitoring of Plaintiffs and each Monitoring Class Member.

319. Prescribed monitoring procedures exist that make the early detection of these diseases possible.

320. These monitoring procedures or regimes are different from normally recommended procedures that would be used in the absence of the exposure.

321. The prescribed medical surveillance is reasonably necessary according to contemporary scientific principles for persons such as Plaintiffs and the Monitoring Class Members who have been exposed and continue to be exposed to excessive levels of PFAS.

322. Plaintiffs and the Monitoring Class Members will suffer irreparable harm if the Monitoring Program is not implemented because they are in danger of suffering serious health conditions as a result of their prolonged exposure to the contaminants described herein.

323. Detection of these diseases and early treatment is medically reasonable and necessary to prevent additional injury and/or injury progression.

324. It is also medically reasonable and necessary to collect data and coordinate study efforts for persons exposed to such substances in order to effectively treat Plaintiffs and the Monitoring Class Members.

325. Establishment of the Monitoring Program is an essential part of the consequential damages for Plaintiffs' and the Monitoring Class Members' exposure to PFAS because without said program, they will be subjected to additional injury and/or injury progression.

326. Plaintiffs request that the Court appoint a plan administrator, require the Defendants to fund the medical monitoring plan, and reserve jurisdiction to enforce the terms and conditions of the Monitoring Program.

327. Accordingly, Plaintiffs and the Medical Monitoring Class Members are entitled to a medical monitoring program that provides for medical testing, surveillance, monitoring, and study of Plaintiffs and the Medical Monitoring Class Members for conditions associated with exposure to the contaminants described herein, as well as payment of their attorney's fees and expenses, and any other relief this court deems just and proper.

COUNT 7:
PUNITIVE DAMAGES

328. Plaintiff adopts, realleges, and incorporates the allegations in the preceding paragraphs and further alleges the following:

329. Defendants engaged in willful, wanton, malicious, and/or reckless conduct that caused the foregoing damage upon Plaintiff, disregarding their protected rights.

330. Defendants' willful, wanton, malicious, and/or reckless conduct includes but is not limited to Defendants' failure to take all reasonable measures to ensure PFAS would not be released into the environment and inevitably to Plaintiff's private well which was contaminated

and continues to be contaminated with PFOA in varying amounts over time, causing Plaintiff significant injury and damage.

331. Defendants have caused great harm to Plaintiff, acting with implied malice and an outrageously conscious disregard for Plaintiff's rights and safety, such that the imposition of punitive damages is warranted.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff, Mike Jackson, individually and on behalf of all others similarly situated, demands judgment against Defendants, and each of them, jointly and severally, and request the following relief from the Court:

a. Certification of the proposed Class;

b. a declaration that Defendants acted with negligence, gross negligence, and/or willful, wanton, and careless disregard for the health, safety of Plaintiffs and members of the Class;

c. an award to Plaintiff and the Class Members of general, compensatory, exemplary, consequential, nominal, and punitive damages;

d. an order for an award of attorney fees and costs, as provided by law;

e. pre-judgment and post-judgment interest as provided by law;

f. equitable or injunctive relief, including, but not limited to, an order requiring that Defendants:

    i. establish and implement a medical monitoring program for Plaintiff and the Class Members; and

    ii. an order requiring that Defendants fund a trust that will cover a prospective medical monitoring program.

g. compensatory damages according to proof including, but not limited to:

i. costs and expenses related to the past, present, and future investigation, sampling, testing, and assessment of the extent of PFAS contamination at Plaintiff's and the Class water source and water production wells;

ii. costs and expenses related to past, present, and future treatment and remediation of PFAS contamination at Plaintiff's and the Class water source and water production wells; and

iii. costs and expenses related to past, present, and future installation and maintenance of filtration systems to assess and evaluate PFAS at Plaintiff's and the Class water source and water production wells;

h. an order barring the transfer of DuPont's liabilities for the claims brought in this Complaint;

i. an award of punitive damages in an amount sufficient to deter Defendants' similar wrongful conduct in the future;

j. an award of consequential damages;

k. an order for an award of attorney fees and costs, as provided by law;

l. an award of pre-judgment and post-judgment interest as provided by law; and

m. an order for all such other relief the Court deems just and proper.

DEMAND FOR JURY TRIAL

Plaintiff, individually and on behalf of all others similarly situated, demands a trial by jury of all issues so triable as a matter of right.

DATED this 15th day of January 2020.

Respectfully submitted,

NAPOLI SHKOLNIK, PLLC

By: /s/ Paul J. Napoli
Paul J. Napoli
270 Munoz Rivera Avenue, Suite 201, Hato Rey,
Puerto Rico 00918
(212) 397-1000
pnapoli@nsprlaw.com

Andrew W. Croner
Patrick J. Lanciotti
360 Lexington Avenue, 11th Fl.
New York, New York 10017
(212) 397-1000
acroner@napolilaw.com
planciotti@napolilaw.com