MFIC CORP Form 10-K/A April 29, 2005

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K/A

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

(Amendment No. 1)

For the fiscal year ended December 31, 2004

Commission File Number: 0-11625

MFIC CORPORATION

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

04-2793022

(I.R.S. Employer Identification No.)

30 Ossipee Road, P.O. Box 9101 Newton, Massachusetts

(Address of principal executive offices)

02464-9101

(Zip Code)

Registrant s telephone number, including area code: (617) 969-5452

Securities registered pursuant to Section 12(b) of the Act: None

Securities registered pursuant to Section 12(g) of the Act: Common Stock, \$.01 par value

Indicate by check mark whether the registrant; (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ý No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. o

Indicate by check mark whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the Act) Yes o No ý

The aggregate market value of Common Stock held by non-affiliates of the registrant (without admitting that any person whose shares are not included in determining such value is an affiliate), based upon the closing sale price of the Common Stock on June 30, 2004 and on April 26, 2005 respectively as reported on the NASDAQ Over-the-Counter Bulletin Board was approximately \$14,034,000 and \$13,559,610.

The number of shares outstanding of the registrant s Common Stock as of April 26, 2005 was 9,679,209 shares.

MFIC Corporation

Amendment No. 1 to the 2004 Form 10-K Annual Report

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This Report contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such statements are subject to certain risks and uncertainties, and MFIC cautions investors that there can be no assurance that its actual results or that business conditions will not differ materially from the Company's current expectations. Such differences could result from various factors including, but not limited to, the following risks and uncertainties: (i) whether the performance advantages of the Microfluidizer® materials processing equipment are realized by customers and that a commercial market for that equipment continues to develop, (ii) whether the performance advantages of the Company's MMR nanoparticle production systems will be realized commercially, (iii) whether MFIC will be able to increase its market penetration and market share, (iv) whether MFIC s expectation that the benefits of nanotechnology will, in part, be realized by the ability of the MMR to produce innovative materials in large quantities, (v) whether MFIC is able to increase the number of prototype MMR placements and then manufacture and introduce commercial production MMR equipment, (vi) whether MFIC will be able to increase its market penetration and market share, (vii) whether the timing of orders will cause volatility in quarterly revenues and net income which could result in large swings in MFIC s stock price, and (viii) whether MFIC will have access to sufficient working capital to weather periods of reduced revenues while implementing its business plan. Such forward-looking statements speak only as of the date on which they are made, and the Company cautions readers not to place undue reliance on such statements.

Microfluidizer® is a trademark of the Company, which has been registered with the United States Patent and Trademark Office. All other trademarks or trade names referred to herein are the property of their respective owners.

EXPLANATORY NOTE

This Amendment No. 1 to the Annual Report on Form 10-K of MFIC Corporation (the Company) amends the Company s Annual Report on Form 10-K for the fiscal year ended December 31, 2004, originally filed on March 18, 2005 (the Original Filing). The Company is filing this Amendment No. 1 to: (i) add the information required by Part III of Form 10-K, which was cross-referenced in the Original Filing to the Company s Proxy Statement for the 2005 Annual Meeting of Stockholders; and (ii) delete the incorporation by reference of the Company s Proxy Statement for the 2005 Annual Meeting of Stockholders from the cover page. In addition, in connection with the filing of this Amendment No. 1 and pursuant to the rules of the Securities and Exchange Commission, the Company is including currently dated certifications as Exhibits 31.1, 31.2, 32.1, and 32.2.

Except as described above, no other changes have been made to the Original Filing. This Amendment No. 1 does not amend or update any other information set forth in the Original Filing, and does not reflect any events that occurred at a date subsequent to the filing of the Original Filing except as indicated in this Amendment No. 1 or by the rules and regulations promulgated by the Securities and Exchange Commission. This Amendment should be read in conjunction with the Company s other filings made with the Securities and Exchange Commission subsequent to the filing of the Original Filing, including any amendments to those filings.

Part III, Items 10 through 13, and Part IV, Item 15(c) are hereby amended and restated in their entirety as follows:

Item 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

Directors and Executive Officers

Each director of the Company is elected annually and holds office for the ensuing year and until his successor has been elected and qualified. The names of the Company's current directors, executive officers, directors-elect and certain information about them are set forth below:

Name	Age	Title
Irwin J. Gruverman	71	Chief Executive Officer, Chairman of the Board, Treasurer and Secretary
Robert P. Bruno	67	President, Chief Operating Officer, and Vice-President Sales/Marketing
Jack M. Swig	56	Vice President-Corporate Development and General Counsel
Dennis P. Riordan	58	Controller
James N. Little	64	Director
Vincent B. Cortina	67	Director
Edward T. Paslawski	54	Director
Leo Pierre Roy	47	Director

IRWIN J. GRUVERMAN has served as the Chief Executive Officer, Chairman of the Board of Directors and Secretary of the Company since its inception in 1983. He also currently serves as the Company s Treasurer. From the Company s inception in 1983 to June 1993, and from November 21, 2000 until May 17, 2001, Mr. Gruverman served as its President. In addition, Mr. Gruverman currently serves on the Board of Directors of North American Scientific, Inc., a publicly held company. Mr. Gruverman is a member of the Nominating Committee of the Board of Directors.

ROBERT P. BRUNO joined the Company on April 8, 1996 as Vice-President of Sales/Marketing. Mr. Bruno was appointed as Chief Operating Officer on November 30, 2000. Mr. Bruno was appointed as President on May 17, 2001 with such appointment becoming effective on May 21, 2001.

JACK M. SWIG joined the Company as a full time employee in January 1996 and was appointed in January 1999 as the Vice President Corporate Development and General Counsel. He has served as the Company s General Counsel and Investor Relations Manager since 1993. Mr. Swig has 25 years venture capital, corporate finance and merchant/investment banking experience.

DENNIS P. RIORDAN joined the Company on February 12, 1996 as the Controller. Mr. Riordan previously served as Controller Residential Group for Winthrop Management from May 1989 to May 1994. From June 1986 to May 1989, he served in various positions as an assistant controller at Krupp Management, a real estate concern. Prior to that, Mr. Riordan spent twelve years in public accounting, primarily as an audit manager.

JAMES N. LITTLE has served as a director of the Company since December 1995. Since December 2001, Dr. Little has served as President of Cetek Corporation, a biotechnology drug discovery company. From August 1998 until December 2001, Dr. Little served as Senior Vice President of Cetek. Prior to that, from 1981 to August 1998, Dr. Little served as a Senior Vice President of Sales, Marketing and Business Development for Zymark Corporation (which was later acquired by Caliper Life Sciences), a manufacturer of scientific instrumentation. Dr. Little is a member of the Nominating, Audit and Compensation Committees of the Board of Directors.

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VINCENT B. CORTINA has served as a director of the Company since May 1997. Since June 2001, Mr. Cortina has served as a principal of Corvis Associates, a management consulting firm. He is also a vice-president of Hamilton-Chase & Associates, Inc., an executive search firm. From March 1999 until May 2001, Mr. Cortina served as Director of Operations for Advanced Instruments Group, a manufacturer of laboratory and clinical instruments. Prior to that, he served as a self-employed business consultant. From 1990 to 1996 he served as President of Advanced Monitors, Inc., a company that develops and manufactures industrial and commercial instruments. Mr. Cortina is a member of the Nominating and Compensation Committees of the Board of Directors.

EDWARD T. PASLAWSKI has a thirty year career in structured finance, equity and mezzanine investing and investment banking. Mr. Paslawski is an investment banker with First Dunbar Securities Corporation, a licensed broker/dealer, and he holds the NASD Series 62, 63 and 24 licenses. His investment banking practice specializes in structuring management buy-outs, troubled debt and equity restructuring, recapitalizations, roll-ups, forming businesses around exceptional, seasoned managers and buy/sell M&A representation. Mr. Paslawski is the President of Snap Productions, LLC, a Maine-based film production company that develops animated and live programming for television and theaters. Mr. Paslawski also serves as President and CEO of Royalty Capital Management, LLC. For the past ten years he has served as a Director and Chairman of CEI Ventures, the managing partner of Coastal Ventures LP and Coastal Ventures LLC. He also is an investor in a number of operating companies. His past experience includes subordinated debt financing with Meridian Capital Corp SBIC and senior level positions in leveraged/structured finance for major United States and international banks including Meridian Bank, Bank of Boston, Banknorth, National Bank of Canada, Industrial Bank of Japan and ABN AMRO. He holds a BS in Accounting and Finance from Drexel University. Mr. Paslawski is a member of the Nominating, Audit and Compensation Committees of the Board of Directors and is the financial expert on the Audit Committee.

LEO PIERRE ROY has served as a director of the Company since June 2000. Mr. Roy has more than 20 years of experience as a senior manager and consultant. Mr. Roy currently serves as director of environmental services at Vanasse Hangen & Brustlin, Inc. (VHB), a recognized leader in providing transportation, land development, and environmental services. Prior to joining VHB in September 2003, Mr. Roy was the Vice President and Chief Operating Officer of The Bioengineering Group, Inc., a firm engaged in consulting in the areas of erosion control, water quality, ecological restoration and bioremediation from September 2000 to September 2003. Between 1998 and 2000 he served as the President of Houqua & Company, Inc., a consulting firm specializing in strategic planning and development services. From 1997 to 1998, Mr. Roy served as President and Chief Operating Officer of Energy Answers Corporation, a designer, developer and owner of resource recovery, power, recycling and solid waste management companies. From 1992 to 1996, Mr. Roy served first as Director of Waste Policy and Planning and later as Undersecretary of the Executive Office of Environmental Affairs for the Commonwealth of Massachusetts. From 1990 to 1991, Mr. Roy was the Regional Manager of Special Projects for Waste Management, Inc. From 1985 to 1989, he was the Vice President and Chief Operating Officer of Orne Enterprises, Inc., a venture capital, environmental technology holding company. Mr. Roy is a member of the Nominating, Audit and Compensation Committees of the Board of the Directors.

Section 16(a) Beneficial Ownership Reporting Compliance

Based solely on a review of Forms 3, 4 and 5 and amendments thereto furnished to the Company by its reporting persons, each of Robert P. Bruno, Vincent B. Cortina, Irwin J. Gruverman, James N. Little, Edward T. Paslawski, Dennis P. Riordan, Leo Pierre Roy and Jack M. Swig filed on a Form 5 information that should have been filed on a Form 4. Each filing related to a grant of options exempt from Rule 16b-3 on January 2, 2004. The Company has reviewed its procedures for making appropriate filings with each of its reporting persons.

Code of Ethics

The Company has adopted a Code of Ethics that applies to all of the Company s employees, officers and directors, and which is attached to this Report as Exhibit 14. Any person may receive a copy, without charge, of the Company s Code of Ethics by sending a request for the Code of

Ethics to MFIC Corp., 30 Ossipee Road, Newton, MA 02464-9101, ATTN: Investor Relations. The Code of Ethics is also viewable on the Company s website at the following URL: http://www.mficcorp.com/nethics.html

Item 11. EXECUTIVE COMPENSATION

Compensation of Executive Officers

The table below included compensation information for each of the Company s named executive officers.

		Ani Compe	Long-Term Compensation Securities			
Name and Principal Position	Year	Salary	Bonus	Underlying Stock Options (#)		Other pensation
Irwin J. Gruverman	2004	\$ 97,000	\$ 6,912	50,000	\$	0
Chief Executive Officer, Chairman of the	2003	\$ 95,000	\$ 0	50,000	\$	0
Board of Directors, Treasurer and Secretary	2002	\$ 59,025	\$ 0	150,000	\$	0
Robert P. Bruno	2004	\$ 153,000	\$ 6,912	50,000	\$	0
President, Chief Operating Officer, and Vice	2003	\$ 150,000	\$ 0	50,000	\$	0
President Sales/Marketing	2002	\$ 138,902	\$ 0	50,000	\$	0
Jack M. Swig	2004	\$ 107,000	\$ 4,608	15,000	\$	0
Vice President, Corporate Development and	2003	\$ 105,000	\$ 0	30,000	\$	0
General Counsel	2002	\$ 102,000	\$ 0	30,000	\$	0
Dennis P. Riordan	2004	\$ 100,000	\$ 4,608	15,000	\$	0
Controller	2003	\$ 98,000	\$ 0	15,000	\$	0
	2002	\$ 94,000	\$ 0	25,000	\$	0

Option/SARGrants in Last Fiscal Year

	Individual Grants					
	Number of Securities Underlying	Percent of Total Options/SARs granted to		Exercise of Base	T	Grant Date Value Grant Date
	Options/SARs	Employees in		Price	Expiration	Present
Name	Granted (#)	Fiscal Year		(\$ /Sh)	Date	Value \$
Irwin J. Gruverman	50,000	13.8%	\$	2.48	1/2/14	\$ 97,000
Robert P. Bruno	50,000	13.8%	\$	2.25	1/2/14	\$ 88,000
Dennis P. Riordan	15,000	4.1%	\$	2.25	1/2/14	\$ 26,400
Jack M. Swig	15,000	4.1%	\$	2.25	1/2/14	\$ 26,400

Aggregated Option/SAR Exercises in Last Fiscal Year and Fiscal Year End Options/SAR Values

Name	Shares Acquired on Exercise	Value Realized (\$)	Numbe Securi Underl Unexer Options/S Fiscal Year Exercis Unexerc	ties ying cised ARS at -End (#) able/	Value of Unexercised ii Money Options/SAR Fiscal Year-Ei Exercisabl Unexercisal	S at ad (\$)
		1.7				
Irwin J. Gruverman	120,000	\$ 113,400	263,700/	181,250	\$ 238,786/\$	197,179
Robert P. Bruno	0	\$ 0	278,750/	143,750	\$ 241,255/\$	169,282
Dennis P. Riordan	6,000	\$ 6,750	97,750/	41,250	\$ 70,943/\$	46,457
Jack M. Swig	0	\$ 0	98,250/	58,750	\$ 67,366/\$	54,922

Compensation Committee Report on Executive Compensation

The Compensation Committee reviews and determines on both an annual and an as-needed basis the compensation of the Company s executive officers. The Company determines all elements of an executive officer s compensation, including salary, bonus, options, benefits and all other aspects of the total compensation package. Executive officers are those officers designated by the Board of Directors to have the broadest responsibility and policy-making authority in the Company. The Company currently has four executive officers, including Irwin J. Gruverman, the Company s Chief Executive Officer, Robert P. Bruno, the Company s President, Dennis Riordan, the Company s Controller, and Jack M. Swig, the Company s General Counsel and Vice-President Corporate Development.

The Company s executive officer compensation program is designed to attract, motivate and retain talented management through a combination of base salary, bonuses, equity compensation such as options, and employee benefits. The Compensation Committee determines the level of compensation for each executive officer after reviewing the officer s responsibilities and past performance of the executive officer, the expectations for such officer s performance in the upcoming year and relevant data points for comparable companies.

Compensation Committee:

Vincent B. Cortina James N. Little Edward T. Paslawski Leo Pierre Roy

Employment Agreements

The Company does not have employment agreements with any of its executive officers.

Compensation of Directors

The Company strives to provide adequate and competitive compensation to its Directors to encourage qualified directors to remain with the Company. The Company provides an annual cash stipend of \$12,000 to the Company s non-employee directors, and also provides option grants to them. Employee directors are not given compensation in addition to their employment compensation. Generally, directors are paid \$3,000 per quarter to attend all meetings of both the Board and its committees.

Non-employee directors are granted an option to purchase 25,000 shares upon joining the Board of Directors and 7,500 shares on the first business day after January 1 of each calendar year if the non-employee director remains a director through that date. The option grants are generally exercisable in four equal installments after the date of grant. All shares are granted automatically pursuant to the terms of the Company s 1989 Stock Plan, as amended.

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Non-employee directors do not currently participate in the Company s employee benefit plans. The Company does pay the premiums for the Company s directors and office liability insurance, which covers each of the Company s officers and directors.

The Company s Board of Directors occasionally reviews the compensation received by the non-employee directors to determine if it is adequate and competitive, as compared to similar companies of comparable size.

Item 12. MANAGEMENT

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND

Beneficial Ownership of Directors and Executive Officers and Principal Holders of Voting Securities

The Company s Common Stock is the only class of securities entitled to vote at the Meeting. As of April 26, 2005, 9,679,209 shares were issued and outstanding and entitled to vote at the Meeting. Each share is entitled to one vote. The following table sets forth information regarding ownership of the Company s Common Stock as of April 26, 2005 for each of (i) each executive officer and director of the Company, (ii) holders of more than 5% of our Common Stock, and (iii) all officers and directors as a whole. For executive officers and directors, this table also includes the position held by each such person.

	Positions and Offices with the Company, if any (1)	Amount and Nature of Beneficial Ownership (2)	Percent of Class
Irwin J. Gruverman	Chief Executive Officer, Chairman of the Board of Directors, Secretary, and Treasurer	2,017,805(4)	20.8%
Robert P. Bruno	President, Chief Operating Officer, and Vice President Sales/Marketing	354,300(5)	3.7%
Dennis P. Riordan	Controller	124,323(6)	1.3%
Jack M. Swig	Vice President Corporate Development and General Counsel	124,290(7)	1.3%
Edward T. Paslawski	Director	49,375(8)	*
Leo Pierre Roy	Director	50,375(9)	*
James N. Little	Director	31,875(10)	*
Vincent B. Cortina	Director	31,875(11)	*
Husic Capital Management 555 California Street		1,605,136(12)	16.6%

San Francisco, CA 94104			
Pfizer, Inc. 235 E. 42 nd Street New York, NY 10017		600,000(13)	6.2%
All current directors and executive officers as a group (8 persons)		2,784,218(14)	28.8%
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* Less th	an 1%
(1) All add	resses are c/o MFIC Corporation, 30 Ossipee Road, Newton, MA 02464, unless otherwise indicated.
(2) the shares.	Unless otherwise indicated, each person possesses sole voting and investment power with respect to
deemed to be deemed to be in the table. Tadmission of b	Shares of Common Stock that a person has the right to acquire within 60 days of April 26, 2005, Registrar & Transfer Company, the Company s transfer agent, pursuant to the exercise of options are outstanding for the purpose of computing the percentage ownership of such person or entity, but are not outstanding for the purpose of computing the percentage ownership of any other person or entity shown the inclusion herein of any shares of Common Stock deemed beneficially owned does not constitute an openeficial ownership of those shares. Percentage ownership is based on 9,679,209 shares of Common and outstanding on April 26, 2005.
(iv) 100,000 s	Consists of (i) 419,300 shares of Common Stock, (ii) 345,000 shares of Common Stock subject to cisable options, (iii) 153,505 shares of Common Stock owned jointly by Mr. Gruverman and his wife, hares of Common Stock owned by his wife, and (v) 1,000,000 shares of restricted Common Stock. In disclaims beneficial ownership of the 100,000 shares of Common Stock owned by his wife.
(5) shares of Com	Consists of 347,500 shares of Common Stock subject to currently exercisable options, and 6,800 mmon Stock.
(6) shares of Com	Consists of 114,000 shares of Common Stock subject to currently exercisable options and 10,323 amon Stock owned jointly by Mr. Riordan and his wife.
(7) shares of Com	Consists of 123,250 shares of Common Stock subject to currently exercisable options and 1,040 amon Stock owned by Mr. Swig.
(8) Consist	s of 49,375 shares of Common Stock subject to currently exercisable options.

(9) Consists of 1,000 shares of Common Stock and 49,375 shares of Common Stock subject to currently exercisable options.
(10) Consists of 7,500 shares of Common Stock and 24,375 shares of Common Stock subject to currently exercisable options.
(11) Consists of 7,500 shares of Common Stock and 24,375 shares of Common Stock subject to currently exercisable options.
Information with respect to beneficial ownership is based upon information furnished by Husic Capital Management, Frank J. Husic and Co. and Frank J. Husic, an individual, on Schedule 13G/A filed with the Securities and Exchange Commission on January 21, 2005. Husic Capital Management has direct beneficial ownership and sole voting and dispositive power over the shares.
Information with respect to beneficial ownership is based upon information furnished by Pfizer, Inc. and G.D. Searle LLC on Schedule 13-D/A filed with the Securities and Exchange Commission on February 2, 2005. G.D. Searle LLC has sole voting and dispositive power over the shares.
Includes 1,077,250 shares of Common Stock subject to currently exercisable options. See footnotes 4 through 11 above.
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Securities Authorized For Issuance Under Equity Compensation Plans

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)		Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by				
security holders	1,788,213	\$	1.13	907,815
Equity compensation plans not approved by				
security holders	958,970	\$	3.09	N/A
Total				

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

During the fiscal year ended December 31, 2004, the Company made principal and interest payments totaling \$11,007 to Messrs. Jennings and Lewis, former principal holders of the Company s common stock, in connection with subordinated debt owed them.

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K

(c) Exhibits

Exhibit Number	Description of Exhibit
3(a)	Certificate of Incorporation for the Company, as amended (filed as Exhibit 2A to Registration Statement No. 0-11625 on Form 8-A and as Exhibit 3.1(a) to the Company s Report on Form 10-Q for the quarterly period ended September 30, 1999 and incorporated herein by reference).
3(b)	Amended and Restated By-Laws for the Company (filed as Exhibit 3.3(b) to the Company s Annual Report on Form 10-K for the fiscal year ended December 31, 1996 and incorporated herein by reference).
4.2	Form of Warrant issued to placement agent under the Placement Agent Agreement attached as Exhibit 10.62
4.3	Form of Warrant issued to investors in the private placement described in the Placement Agency Agreement attached as Exhibit 10.62
10.1 10.2	1987 Stock Plan (filed as Exhibit 10(g) to the Company s Annual Report on Form 10-K for the fiscal year ended December 31, 1987 and incorporated herein by reference). 1988 Stock Plan (filed as Exhibit 10(g) to the Company s Annual Report on Form 10-K for the fiscal year ended December 31, 1988 and incorporated herein by reference).
10.3	1989 Non-Employee Directors Stock Option Plan (filed as Exhibit 10.1 to the Company s registration statement on Form S-8 filed October 22, 1996 and incorporated herein by reference).
10.4	Lease for 30 Ossipee Road, Newton, Massachusetts dated May 23, 1997 between Microfluidics International Corporation and J. Frank Gerrity, Trustee of 1238 Chestnut Street Trust under Declaration of Trust dated May 23, 1969, recorded with Middlesex South Registry of Deeds in Book 11682, Page 384 (filed as Exhibit 3.10(a) to the Company s form 10-Q for the quarterly period ended June 30, 1997 and incorporated herein by reference).
10.5	Letter of Understanding between Microfluidics International Corporation and Worcester Polytechnic Institute dated as of April 3, 1992 (filed as Exhibit 3.10(f) to the Company s Form 10-K for the fiscal year ended December 31, 1993 and incorporated herein by reference).
10.6	Agreement between Microfluidics International Corporation and Catalytica, Inc. dated as of October 18, 1993 (filed as Exhibit 3.10(g) to the Company s Form 10-K for the fiscal year ended December 31, 1993 and incorporated herein by reference) with amendments dated September 1, 1994 and March 31, 1995.
10.7	Amendment to agreement dated September 1, 1994 between Microfluidics International Corporation and Catalytica, Inc. dated as of October 18, 1993 (filed as Exhibit 3.10(g) to the Company s Form 10-K for the fiscal year ended December 31, 1993, and incorporated herein by reference).
10.8	Amendment to agreement dated March 31, 1995 between Microfluidics International Corporation and Catalytica, Inc. dated as of October 18, 1993 (filed as Exhibit 3.10(g) to the Company s Form 10-K for the fiscal year ended December 31, 1993, and incorporated herein by reference)
10.9	License Agreement among Microfluidics International Corporation, Worcester Polytechnic Institute and Catalytica, Inc. dated as of October 18, 1993 (filed as Exhibit 3.10(h) to the Company s Form 10-K for the fiscal year ended December 31, 1993 and incorporated herein by reference).
10.10	Amendment to agreement dated September 1, 1994 between Microfluidics International Corporation and Catalytica, Inc. dated as of October 18, 1993 (filed as Exhibit 3.10(g) to the Company s Form 10-K for the

	fiscal year ended December 31, 1993, and incorporated herein by reference).
10.11	Letter, dated August 15, 1995, from Microfluidics International Corporation to Michael T. Rumley. (filed as Exhibit 3.10(j) to the Company s Form 10-K for fiscal year ended December 31, 1995 and incorporated herein by reference).
10.12	Letter, dated December 31, 1995 from Microfluidics International Corporation to Irwin J. Gruverman. (filed as Exhibit 3.10(k) to the Company s Form 10-K for fiscal year ended December 31, 1996 and incorporated herein by reference).
10.13	Warrant for the Purchase of Shares of Common Stock, dated July 14, 1993, in favor of Ladenburg, Thalmann & Co. Inc. (filed as Exhibit 3.10(1) to the Company s Form 10-K or fiscal year ended December 31, 1996 and incorporated herein by reference).
10.14	Letter, dated December 31, 1996, from Microfluidics International Corporation to Irwin J. Gruverman. (filed as Exhibit 3.10(o) to the Company s Form 10-K for fiscal year ended December 31, 1996 and incorporated herein by reference).
10.15	Agreement between Microfluidics International Corporation and Catalytica, Inc. dated January 1, 1995 regarding participation in and management of the Advanced Technology Program (ATP). (filed as Exhibit 3.10(p) to the Company s Form 10-K for fiscal year ended December 31, 1996 and incorporated herein by reference).
10.16	Consulting Agreement with James Little. (filed as Exhibit 3.10(q) to the Company s Form 10-K for fiscal year ended December 31, 1996 and incorporated herein by reference).
10.17	Supplemental Agreement between Catalytica Advanced Technologies, Inc. and Microfluidics International Corporation dated December 31, 1997. (filed as Exhibit 3.10(r) to the Company s 10-K for the fiscal year ended December 31, 1997, and incorporated herein by reference)
10.19	1988 Stock Plan as amended (filed as Exhibit 10(a) to the Company s Form 10-Q for the quarterly period ended March 31, 1997 and incorporated herein by reference)
10.20	Asset Purchase Agreement, dated as of June 19, 1998, by and among the Company, Epworth Manufacturing Company and Morehouse-COWLES, Inc. (filed as Exhibit 2.1 to Schedule 13D of Bret A. Lewis, File No. 005-35850, and incorporated herein by Reference).
10.21	Stockholders Agreement, dated August 14, 1998, by and among the Company and J.B. Jennings and Bret A. Lewis (filed as Exhibit 2.2 to Schedule 13D of Bret A. Lewis, File No. 005-35850, and incorporated herein by reference).
10.22	\$500,000 Subordinated Promissory Note issued by the Company to Epworth Manufacturing Company (filed as Exhibit 99.2 to the Company s Form 8-K on August 27, 1998, File No. 000-11625, and incorporated herein by reference).
10.23	\$300,000 Subordinated Promissory Note issued by the Company to Epworth Manufacturing Company (filed as Exhibit 99.2 to the Company s Form 8-K on August 27, 1998, File No. 000-11625, and incorporated herein by reference).
10.26	Revolving Credit and Term Loan Agreement among MFIC Corporation and National Bank of Canada dated February 28, 2000. (Filed as Exhibit 10.26 to the Company s Annual Report on Form 10-K for fiscal year ended December 31, 2000, and incorporated herein by reference.)
10.27	Revolving Credit Note of the Company in favor of National Bank of Canada in the amount of \$4,000,000.00 dated February 28, 2000. (Filed as Exhibit 10.27 to the Company s Annual Report on Form 10-K for fiscal year ended December 31, 2000, and incorporated herein by reference.)
10.28	Term Note of the Company in favor of National Bank of Canada in the amount of \$475,000.00 dated

	February 28, 2000. (Filed as Exhibit 10.28 to the Company s Annual Report on Form 10-K for fiscal year ended December 31, 2000, and incorporated herein by reference.)
10.29	Security Agreement of the Company in favor of National Bank of Canada dated February 28, 2000. (Filed as Exhibit 10.29 to the Company s Annual Report on Form 10-K for fiscal year ended December 31, 2000, and incorporated herein by reference.)
10.30	Trademark and Trademark Applications Security Agreement of the Company in favor of National Bank of Canada, dated February 28, 2000. (Filed as Exhibit 10.30 to the Company s Annual Report on Form 10-K for fiscal year ended December 31, 2000, and incorporated herein by reference.)
10.31	Patent and Patent Applications Security Agreement of the Company in favor of National Bank of Canada, dated February 28, 2000. (Filed as Exhibit 10.31 to the Company s Annual Report on Form 10-K for fiscal year ended December 31, 2000, and incorporated herein by reference.)
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14.	Code of Ethics, as adopted by the Company (Filed as Exhibit 14 to the Company s Form 10-K dated December 31, 2003, and incorporated herein by reference.)
21.	Subsidiary of the Company, Microfluidics Corporation, a Delaware corporation
*31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
*31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
*32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
*32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

*Filed herewith

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized, in the city of Newton, Commonwealth of Massachusetts, on the 29th day of April 2005.

By: /s/ Irwin J. Gruverman Irwin J. Gruverman Chief Executive Officer

Pursuant to the requirements of the Securities and Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Title	Date	
/s/ Irwin J. Gruverman Irwin J. Gruverman	Chief Executive Officer (Principal Executive Officer), Chairman of the Board of Directors and Secretary	April 29, 2005	
/s/ Dennis P. Riordan Dennis P. Riordan	Controller (Principal Financial and Accounting Officer)	April 29, 2005	
/s/ James N. Little James N. Little	Director	April 29, 2005	
/s/ Vincent Cortina Vincent Cortina	Director	April 29, 2005	
Leo Pierre Roy	Director	April 29, 2005	
Edward T. Paslawski	Director	April 29, 2005	
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Exhibit Index

Exhibit Number	Description of Exhibit
3(a)	Certificate of Incorporation for the Company, as amended (filed as Exhibit 2A to Registration Statement No. 0-11625 on Form 8-A and as Exhibit 3.1(a) to the Company s Report on Form 10-Q for the quarterly period ended September 30, 1999 and incorporated herein by reference).
3(b)	Amended and Restated By-Laws for the Company (filed as Exhibit 3.3(b) to the Company s Annual Report on Form 10-K for the fiscal year ended December 31, 1996 and incorporated herein by reference).
4.2	Form of Warrant issued to placement agent under the Placement Agent Agreement attached as Exhibit 10.62
4.3	Form of Warrant issued to investors in the private placement described in the Placement Agency Agreement attached as Exhibit 10.62
10.1	1987 Stock Plan (filed as Exhibit 10(g) to the Company s Annual Report on Form 10-K for the fiscal year ended December 31, 1987 and incorporated herein by reference).
10.2	1988 Stock Plan (filed as Exhibit 10(g) to the Company s Annual Report on Form 10-K for the fiscal year ended December 31, 1988 and incorporated herein by reference).
10.3	1989 Non-Employee Directors Stock Option Plan (filed as Exhibit 10.1 to the Company s registration statement on Form S-8 filed October 22, 1996 and incorporated herein by reference).
10.4	Lease for 30 Ossipee Road, Newton, Massachusetts dated May 23, 1997 between Microfluidics International Corporation and J. Frank Gerrity, Trustee of 1238 Chestnut Street Trust under Declaration of Trust dated May 23, 1969, recorded with Middlesex South Registry of Deeds in Book 11682, Page 384 (filed as Exhibit 3.10(a) to the Company s form 10-Q for the quarterly period ended June 30, 1997 and incorporated herein by reference).
10.5	Letter of Understanding between Microfluidics International Corporation and Worcester Polytechnic Institute dated as of April 3, 1992 (filed as Exhibit 3.10(f) to the Company s Form 10-K for the fiscal year ended December 31, 1993 and incorporated herein by reference).
10.6	Agreement between Microfluidics International Corporation and Catalytica, Inc. dated as of October 18, 1993 (filed as Exhibit 3.10(g) to the Company s Form 10-K for the fiscal year ended December 31, 1993 and incorporated herein by reference) with amendments dated September 1, 1994 and March 31, 1995.
10.7	Amendment to agreement dated September 1, 1994 between Microfluidics International Corporation and Catalytica, Inc. dated as of October 18, 1993 (filed as Exhibit 3.10(g) to the Company s Form 10-K for the fiscal year ended December 31, 1993, and incorporated herein by reference).
10.8	Amendment to agreement dated March 31, 1995 between Microfluidics International Corporation and Catalytica, Inc. dated as of October 18, 1993 (filed as Exhibit 3.10(g) to the Company s Form 10-K for the fiscal year ended December 31, 1993, and incorporated herein by reference)
10.9	License Agreement among Microfluidics International Corporation, Worcester Polytechnic Institute and Catalytica, Inc. dated as of October 18, 1993 (filed as Exhibit 3.10(h) to the Company s Form 10-K for the fiscal year ended December 31, 1993 and incorporated herein by reference).
10.10	Amendment to agreement dated September 1, 1994 between Microfluidics International Corporation and Catalytica, Inc. dated as of October 18, 1993 (filed as Exhibit 3.10(g) to the Company s Form 10-K for the fiscal year ended December 31, 1993, and incorporated herein by reference).

10.11	Letter, dated August 15, 1995, from Microfluidics International Corporation to Michael T. Rumley. (filed as Exhibit 3.10(j) to the Company s Form 10-K for fiscal year ended December 31, 1995 and incorporated herein by reference).
10.12	Letter, dated December 31, 1995 from Microfluidics International Corporation to Irwin J. Gruverman. (filed as Exhibit 3.10(k) to the Company s Form 10-K for fiscal year ended December 31, 1996 and incorporated herein by reference).
10.13	Warrant for the Purchase of Shares of Common Stock, dated July 14, 1993, in favor of Ladenburg, Thalmann & Co. Inc. (filed as Exhibit 3.10(1) to the Company s Form 10-K or fiscal year ended December 31, 1996 and incorporated herein by reference).
10.14	Letter, dated December 31, 1996, from Microfluidics International Corporation to Irwin J. Gruverman. (filed as Exhibit 3.10(o) to the Company s Form 10-K for fiscal year ended December 31, 1996 and incorporated herein by reference).
10.15	Agreement between Microfluidics International Corporation and Catalytica, Inc. dated January 1, 1995 regarding participation in and management of the Advanced Technology Program (ATP). (filed as Exhibit 3.10(p) to the Company s Form 10-K for fiscal year ended December 31, 1996 and incorporated herein by reference).
10.16	Consulting Agreement with James Little. (filed as Exhibit 3.10(q) to the Company s Form 10-K for fiscal year ended December 31, 1996 and incorporated herein by reference).
10.17	Supplemental Agreement between Catalytica Advanced Technologies, Inc. and Microfluidics International Corporation dated December 31, 1997. (filed as Exhibit 3.10(r) to the Company s 10-K for the fiscal year ended December 31, 1997, and incorporated herein by reference)
10.19	1988 Stock Plan as amended (filed as Exhibit 10(a) to the Company s Form 10-Q for the quarterly period ended March 31, 1997 and incorporated herein by reference)
10.20	Asset Purchase Agreement, dated as of June 19, 1998, by and among the Company, Epworth Manufacturing Company and Morehouse-COWLES, Inc. (filed as Exhibit 2.1 to Schedule 13D of Bret A. Lewis, File No. 005-35850, and incorporated herein by Reference).
10.21	Stockholders Agreement, dated August 14, 1998, by and among the Company and J.B. Jennings and Bret A. Lewis (filed as Exhibit 2.2 to Schedule 13D of Bret A. Lewis, File No. 005-35850, and incorporated herein by reference).
10.22	\$500,000 Subordinated Promissory Note issued by the Company to Epworth Manufacturing Company (filed as Exhibit 99.2 to the Company s Form 8-K on August 27, 1998, File No. 000-11625, and incorporated herein by reference).
10.23	\$300,000 Subordinated Promissory Note issued by the Company to Epworth Manufacturing Company (filed as Exhibit 99.2 to the Company s Form 8-K on August 27, 1998, File No. 000-11625, and incorporated herein by reference).
10.26	Revolving Credit and Term Loan Agreement among MFIC Corporation and National Bank of Canada dated February 28, 2000. (Filed as Exhibit 10.26 to the Company s Annual Report on Form 10-K for fiscal year ended December 31, 2000, and incorporated herein by reference.)
10.27	Revolving Credit Note of the Company in favor of National Bank of Canada in the amount of \$4,000,000.00 dated February 28, 2000. (Filed as Exhibit 10.27 to the Company s Annual Report on Form 10-K for fiscal year ended December 31, 2000, and incorporated herein by reference.)
10.28	Term Note of the Company in favor of National Bank of Canada in the amount of \$475,000.00 dated February 28, 2000. (Filed as Exhibit 10.28 to the Company s Annual Report on Form 10-K for fiscal year ended December 31, 2000, and incorporated herein by reference.)

10.29	Security Agreement of the Company in favor of National Bank of Canada dated February 28, 2000. (Filed as Exhibit 10.29 to the Company s Annual Report on Form 10-K for fiscal year ended December 31, 2000, and incorporated herein by reference.)
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