SCHEDULE 13G Amendment No. Name of Issuer: Fluidigm Corporation Title of Class of Securities: Common Stock CUSIP Number: 34385P108 Item 1: Reporting Person: Wasatch Advisors, Inc. 87-0319391 Item 2: Check Box If Member of Group: Not Applicable Item 3: SEC Use Item 4: Place of Organization: Utah Items 5-8: Number of Shares Owned With: Item 5: Sole Voting Power: 1,691,961 Item 6: Shared Voting Power: 0 Item 7: Sole Dispositive Power: 1,691,961 Item 8: Shared Dispositive Power: 0 Item 9: Aggregate Amount Owned: 1,691,961 Item 10: Check Box If Aggregate Amount Excludes Certain Shares: N/A Item 11: Percent of Class Owned: 8.4% Item 12: Type of Reporting Person: IA Item 1(a): Name of Issuer: Fluidigm Corporation Item 1(b): Address of Issuer: 7000 Shoreline Court, Suite 100, South San Francisco, CA 94080 Item 2(a): Name of Person Filing: Wasatch Advisors, Inc. Item 2(b): Address: 150 Social Hall Avenue, Salt Lake City, UT 84111 Item 2(c): Citizenship: Not Applicable Item 2(d): Title of Class of Securities: Common Stock Item 2(e): CUSIP Number: 34385P108 Item 3(e): Investment Adviser registered under section 203 of the Investment Advisers Act of 1940 Item 4(a): Amount Owned: 1,691,961 Item 4(b): Percent of Class Owned: 8.4% Item 4(c)(i): Sole Voting Power: 1,691,961 Item 4(c)(ii): Shared Voting Power: 0 Item 4(c)(iii): Sole Dispositive Power: 1,691,961 Item 4(c)(iv): Shared Dispositive Power: 0 Item 5: Check Box If Ownership Is 5% or Less of Class: [] Item 6. Ownership of More Than 5% on Behalf of Another Person: N/A Item 7: Identification of Subsidiary: Not Applicable Item 8: Identification of Members of Group: Not Applicable Item 9: Notice of Dissolution of Group: Not Applicable Item 10: Certification: By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired in the ordinary course of business and were not acquired for the purpose of and do not have the effect

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct as of December 31, 2011.

of changing or influencing the control of the issuer of such securities and were not acquired in connection with or as a participant in any transaction

Date: 02/14/12

Signature: /s/Jeff S. Cardon Name/Title: Jeff S. Cardon/CEO

having such purpose or effect.