

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

October 26, 2009

Via Facsimile and U.S. Mail

Kevin M. King Director, President and Chief Executive Officer Affymetrix, Inc. 3420 Central Expressway Santa Clara, California 95051

Re: Affymetrix, Inc.

Form 10-K for the Fiscal Year Ended December 31, 2008

Filed March 2, 2009

Form 10-K/A for the Fiscal Year Ended December 31, 2008

Filed April 30, 2009 File No. 000-28218

Dear Mr. King:

We have completed our review of your Form 10-K for the fiscal year ended December 31, 2008 and related filings and do not, at this time, have any further comments.

Please contact Joe McCann at (202) 551-6262 or me at (202) 551-3625 with any questions.

Sincerely,

Mary Beth Breslin Senior Attorney