SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE TO

Tender Offer Statement Under Section 14(d)(1) or Section 13(e)(1)

of the Securities Exchange Act of 1934

(Amendment No. 1)

CYTYC CORPORATION

(Name of Subject Company (issuer))

CYTYC CORPORATION

(Issuer)

HOLOGIC, INC.

(Affiliate of Issuer)

(Name of Filing Person (identifying status as offeror, issuer or other person))

2.25% Senior Convertible Notes due 2024

(Title of Class of Securities)

CUSIP Numbers 232946AA1 and 232946AB9

(CUSIP Number of Class of Securities)

Glenn P. Muir

Executive Vice President

Finance and Administration

35 Crosby Drive, Bedford, Massachusetts 01730

(781) 999-7300

(Name, address and telephone number of person authorized to receive notices and communications on behalf of filing persons)

With a Copy to:

Philip J. Flink, Esq.

Edwin C. Pease, Esq.

Brown Rudnick Berlack Israels LLP

One Financial Center

Boston, MA 02111

(617) 856-8200

Calculation of Filing Fee

Transaction valuation¹ \$69,548,018

Amount of filing fee² \$2,135.12

- Calculated solely for purposes of determining the filing fee. Based upon the maximum aggregate purchase price payable for the Cytyc Corporation 2.25% Senior Convertible Notes due 2024 in connection with a designated event repurchase offer pursuant to the applicable indenture, calculated as the sum of (a) \$69,258,000, representing 100% of the principal amount of the notes outstanding, plus (b) \$290,017, representing accrued and unpaid interest on the notes through November 20, 2007, the day prior to the currently anticipated payment date.
- The amount of the filing fee, calculated in accordance with Section 13(e)(3) of the Securities Exchange Act of 1934, as amended, equals \$30.70 per \$1,000,000 of the value of securities proposed to be purchased.
- x Check box if any part of the fee is offset as provided by Rule 0-11(a)(2) and identify the filing with which the offsetting fee was previously paid. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

 Amount Previously Paid: \$2,135.12 Filing Party: Hologic, Inc.

Form or Registration No.: 005-48-429 Date Filed: October 22, 2007

- " Check the box if the filing relates solely to preliminary communications made before the commencement of a tender offer. Check the appropriate boxes below to designate any transactions to which the statement relates:
- " third-party tender offer subject to Rule 14d-1.
- x issuer tender offer subject to Rule 13e-4.
- " going private transaction subject to Rule 13e-3.
- " amendment to Schedule 13D under Rule 13d-2. Check the following box if the filing is a final amendment reporting the results of the tender offer: x

INTRODUCTION

This Amendment No. 1 (Amendment No. 1) amends the Tender Offer Statement on Schedule TO (the Schedule TO) originally filed by Hologic, Inc. (HOLOGIC) and Cytyc Corporation (CYTYC), formerly known as Nor easter Corp. (NOR EASTER), on October 22, 2007, as required by the Indenture, dated as of March 22, 2004, between CYTYC and U.S. Bank Trust National Association, as Trustee (the Trustee), as amended by that First Supplemental Indenture, dated as of October 22, 2007, between HOLOGIC and CYTYC, governing the 2.25% Senior Convertible Notes due 2024 (the Notes).

This Amendment No. 1 and the Schedule TO relate to HOLOGIC and CYTYC s offer to purchase the Notes pursuant to the terms and conditions of the notice of designated event and offer to purchase dated October 22, 2007, as may be amended and supplemented from time to time, attached to the Schedule TO as Exhibit (a)(1)(i) (the Offer).

The Offer expired at 11:59 p.m., Eastern time, on November 21, 2007.

This Amendment No. 1 is intended to satisfy the reporting requirements of Rule 13e-4(c)(4) under the Securities Exchange Act of 1934.

Item 11. Additional Information

Item 11 of the Schedule TO is hereby amended and supplemented by adding the following language:

The Offer expired at 11:59 p.m. Eastern time, on Wednesday, November 21, 2007. As no notes were tendered, CYTYC was not required to and did not accept any Notes for payment.

SIGNATURE

After due inquiry and to the best of my knowledge and belief, I certify that the information set forth in this Amendment No. 1 to Schedule TO is true, complete and correct.

Dated: November 21, 2007

HOLOGIC, INC.

By: /s/ Glenn P. Muir

Name: Glenn P. Muir

Title: Chief Financial Officer

Executive Vice President, Finance and Treasurer Duly Authorized Officer on behalf of the Registrant

CYTYC CORPORATION

By: /s/ Glenn P. Muir Name: Glenn P. Muir

Title: Treasurer

ITEM 12. EXHIBITS.

- (a)(1) Notice of Designated Event and Offer to Purchase dated October 22, 2007.*
- (a)(5) Press Release dated October 22, 2007.*
- (d)(1) Indenture dated as of March 22, 2004, by and between Cytyc Corporation and U.S. Bank Trust National Association, as Trustee (Incorporated by reference to Cytyc Corporation s Registration Statement on Form S-3 filed with the Securities and Exchange Commission on June 7, 2004).*
- (d)(2) First Supplemental Indenture dated as of October 22, 2007, by and among Hologic, Inc., Cytyc Corporation and U.S. Bank Trust National Association, as Trustee, relating to Cytyc Corporation s 2.25% Senior Convertible Notes due 2024 (Incorporated by reference to Hologic, Inc. s Current Report on Form 8-K filed with the Securities and Exchange Commission on October 22, 2007).*

ITEM 13. INFORMATION REQUIRED BY SCHEDULE 13E-3.

Not applicable.

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^{*} Previously filed