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

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): April 4, 2014

HORIZON TECHNOLOGY FINANCE CORPORATION

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation)

814-00802 (Commission File Number)

27-2114934 (I.R.S. Employer Identification No.)

312 Farmington Avenue Farmington, CT 06032

(Address of principal executive offices and zip code)

Registrant's telephone number, including area code: (860) 676-8654

Check the appropriate box below if the Form 8-K is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

| Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

| Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

| Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

| Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Section 2 Financial Information

Item 2.02 Results of Operations and Financial Condition

On April 3, 2014, Horizon Technology Finance Corporation (the "Company") issued a press release announcing its investment portfolio update for the three months ended March 31, 2014. A copy of this press release is attached hereto as Exhibit 99.1.

The information in Item 2.02 of this Current Report on Form 8-K, including Exhibit 99.1 furnished herewith, is being furnished and shall not be deemed "filed" for any purpose of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to liabilities of such Section. The information in this Current Report on Form 8-K shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

Section 9 Financial Statements and Exhibits Item 9.01 Financial Statements and Exhibits

(d) Exhibits.

99.1 Press release of the Company dated April 3, 2014.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: April 4, 2014 HORIZON TECHNOLOGY FINANCE CORPORATION

By: /s/ Robert D. Pomeroy, Jr. Robert D. Pomeroy, Jr. Chief Executive Officer

Exhibit Index

Exhibit No. Description

99.1 Press release of the Company dated April 3, 2014



Horizon Technology Finance Provides Investment Portfolio Update for First Quarter 2014

FARMINGTON, Conn., April 3, 2014 – Horizon Technology Finance Corporation (NASDAQ: HRZN) ("Horizon"), a leading specialty finance company that provides secured loans to venture capital and private equity backed development-stage companies in the technology, life science, healthcare information and services, and cleantech industries, today provided a portfolio update for the first quarter of 2014.

"During the first quarter, we maintained our focus on deploying capital into high yielding assets while actively managing our existing portfolio, including settling one of our cleantech accounts that had been on non-accrual," said Gerald A. Michaud, President of Horizon. "We ended the first quarter with a loan portfolio balance of approximately \$225 million at cost. This balance reflects a combination of a lower portfolio to start the quarter resulting from the high level of prepayment activity in the fourth quarter as well as loans on non-accrual and no loan prepayments in the first quarter. With total warrant and equity positions in 77 portfolio companies, including 13 that are publicly traded, Horizon is in a strong position to realize gains in the future as we capitalize on the high-quality investments Horizon has made."

New Loans Funded

New loans funded during the first quarter of 2014 totaled \$15.0 million. During the first quarter of 2014, Horizon provided funding to the following new and existing portfolio companies:

- \$10.0 million to a new portfolio company, Soraa, Inc., a developer of solid-state lighting technology built on pure gallium nitride substrates.
- \$4.0 million to a new portfolio company, AccuVein Inc., a developer of vein illumination technology.
- \$1.0 million to an existing portfolio company, Rypos, Inc., a provider of emissions reduction solutions built on patented electrically self-regenerating filters and proprietary catalytic technologies.

Liquidity Events

During the quarter ended March 31, 2014, Horizon experienced liquidity events from two portfolio companies. Liquidity events for Horizon may consist of the exercise of warrants in portfolio companies, loan prepayments or receipt of success fees.

In January, Horizon settled its outstanding loan to SolarBridge Technologies, Inc. ("SolarBridge"), which was on non-accrual as of December 31, 2013, following the recapitalization of SolarBridge by existing and new strategic investors. In full settlement of the outstanding Solarbridge loan, which was fair valued at \$5.0 million as of December 31, 2013, Horizon received a cash payment of \$2.7 million and \$2.3 million in newly issued preferred stock of Solarbridge.

In addition, Revance Therapeutics, Inc. ("Revance") successfully completed an initial public offering ("IPO") in January and raised approximately \$110 million. At the time of the IPO, Horizon exercised a put option with respect to a warrant it held in Revance, which resulted in Horizon's receipt of \$720,000 in cash proceeds. The cash proceeds equaled the fair value of the warrant reported as of December 31, 2013. Horizon continues to hold additional warrants to purchase common stock of Revance.

Refinanced Principal Balances, Early Principal Payoffs, and Principal Payments Received

During the quarter ended March 31, 2014, Horizon did not refinance any principal balances. Horizon experienced no early pay-offs during the first quarter, compared to early pay-offs of principal totaling \$19.6 million during the fourth quarter of 2013. During the quarter ended March 31, 2014, Horizon received regularly scheduled principal payments on investments totaling \$11.6 million compared to the quarter ended December 31, 2013, wherein Horizon received regularly scheduled principal payments on investments totaling \$12 million.

Commitments

During the quarter ended March 31, 2014, Horizon closed new loan commitments totaling \$14.0 million to two companies, compared to the quarter ended December 31, 2013, wherein Horizon closed new loan commitments totaling \$21.0 million to six companies.

Pipeline

As of March 31, 2014, Horizon's unfunded loan approvals and commitments ("Committed Backlog") were \$11.0 million to three companies, compared to a Committed Backlog of \$19.0 million to five companies as of December 31, 2013. While Horizon's portfolio companies have discretion whether to draw down such commitments, in some cases, the right of a company to draw down its commitment is subject to the portfolio company achieving specific milestones.

About Horizon Technology Finance

Horizon Technology Finance Corporation is a business development company that provides secured loans to development-stage companies backed by established venture capital and private equity firms within the technology, life science, healthcare information and services, and cleantech industries. The investment objective of Horizon is to maximize total returns by generating current income from a portfolio of directly originated secured loans as well as capital appreciation from warrants that it receives when making such loans. Headquartered in Farmington, Connecticut, with regional offices in Walnut Creek, California and Reston, Virginia, Horizon is externally managed by its investment advisor, Horizon Technology Finance Management LLC. Horizon's common stock trades on the NASDAQ Global Select Market under the ticker symbol "HRZN". In addition, Horizon's 7.375% Senior Notes due 2019 trade on the New York Stock Exchange under the ticker symbol "HTF." To learn more, please visit www.horizontechnologyfinancecorp.com.

Forward-Looking Statements

Statements included herein may constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Statements other than statements of historical facts included in this press release may constitute forward-looking statements and are not guarantees of future performance, condition or results and involve a number of risks and uncertainties. Actual results may differ materially from those in the forward-looking statements as a result of a number of factors, including those described from time to time in our filings with the Securities and Exchange Commission. Horizon undertakes no duty to update any forward-looking statement made herein. All forward-looking statements speak only as of the date of this press release.

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