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): May 2, 2014

Axcelis Technologies, Inc.

(Exact name of registrant as specified in its charter)

Delaware000-3094134-1818596(State or other jurisdiction
of incorporation)(Commission
File Number)(IRS Employer
Identification No.)

108 Cherry Hill Drive, Beverly, Massachusetts

(Address of principal executive offices)

01915 (Zip Code)

Registrant's telephone number, including area code: (978) 787-4000

(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing 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)
- o 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))

Item 1.01 Amendment of a Material Definitive Agreement.

The Company has a Business Loan Agreement dated July 5, 2013 with Northern Bank & Trust Company (the "Bank") pursuant to which the Company borrowed \$15.0 million secured by the Company's real estate in Beverly, Massachusetts. All outstanding principal and interest on the term loan is due and payable on July 5, 2016. The Company's financial results for the quarter ended March 31, 2014 caused the Company not to meet the Debt Service Ratio covenant in the Business Loan Agreement, which covenant was waived by the Bank. The Company was in compliance with all other covenants associated with the term loan during the first quarter of 2014.

The Company and the Bank have entered into a letter agreement dated as of May 2, 2014, which amended the Debt Service Ratio covenant in the Business Loan Agreement to defer its effectiveness until September 30, 2014. Accordingly, commencing with the quarter ending September 30, 2014, the Company's quarterly net operating income multiplied by 4 must be not less than the actual annual debt service over the twelve months following the start of such quarter, multiplied by 1.45. All other terms of the Business Loan Agreement remain in effect.

Item 2.02 Results of Operations and Financial Condition

On May 6, 2014, Axcelis Technologies, Inc. (the "Company") issued a press release regarding its financial results for the quarter ended March 31, 2014. The Company's press release is attached as Exhibit 99.1 to this Current Report on Form 8-K and incorporated by reference herein.

Item 9.01 Financial Statements and Exhibits.

99.1

(d) Exhibits	
Exhibit No.	Description

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: May 6, 2014 Axcelis Technologies, Inc.

By: /s/ KEVIN J. BREWER

Kevin J. Brewer

Executive Vice President and Chief Financial Officer

News Release



AXCELIS ANNOUNCES FINANCIAL RESULTS FOR FIRST QUARTER 2014

System Revenues Increase by 27% Reflecting Continued Market Acceptance

BEVERLY, Mass. — May 6, 2014—Axcelis Technologies, Inc. (Nasdaq: ACLS) today announced financial results for the first quarter ended March 31, 2014. Highlights for the quarter were:

- · Net income of \$0.2 million or \$0.00 per share compared to net income of \$0.6 million or \$0.01 per share in the fourth quarter of 2013.
- · System sales of \$32.5 million, a 27% increase over the fourth quarter of 2013, reflecting market acceptance of the PurionTM platform.
- · Closed an order for the Company's innovative Purion MTM medium current implanter with a second leading chipmaker in Asia after a highly successful evaluation process in which the product exceeded goals in numerous performance categories.
- · Shipped multiple Purion XE^{TM} implanters for high volume production of advanced NAND devices.

The Company reported first quarter revenue of \$60.8 million, compared to \$58.6 million for the fourth quarter of 2013. Operating profit for the quarter was \$0.3 million, compared to \$1.04 million for the fourth quarter of 2013. Net income for the quarter was \$0.2 million, or \$0.00 per share. This compares to net income for the fourth quarter of 2013 of \$0.6 million, or \$0.01 per share. Cash and cash equivalents were \$43.0 million at March 31, 2014 compared with \$46.3 million at December 31, 2013.

Chairman and CEO Mary Puma said, "The Purion platform has been specifically designed to address our customers' most stringent requirements for advanced planar and 3D devices. As a result, the Purion products led a strong increase in system revenues during the first quarter, including multiple Purion XE shipments and a Purion M order from a second customer. In addition, the Purion H is generating significant interest from customers."

First Quarter 2014 Conference Call

The Company will host a conference call today at 5:00 pm ET to discuss results for the first quarter 2014. An audio webcast will be available on the Investor page of Axcelis' website at www.axcelis.com, or by dialing 1.888.679.8035 (1. 617.213.4848 outside North America). Participants calling into the conference call will be requested to provide the company name, Axcelis, and passcode: 36177541. Webcast replays will be available for 90 days following the conference call.

Safe Harbor Statement

The conference call will contain forward-looking statements under the SEC safe harbor provisions. These statements, which include our guidance for future financial performance, are based on management's current expectations and should be viewed with caution. They are subject to various risks and uncertainties, many of which are outside the control of the Company, including the timing of orders and shipments, the conversion of orders to revenue in any particular quarter, or at all, the continuing demand for semiconductor equipment, relative market growth, continuity of business relationships with and purchases by major customers, competitive pressure on sales and pricing, increases in material and other production costs that cannot be recouped in product pricing and global economic, political and financial conditions. These risks and other risk factors relating to Axcelis are described more fully in the most recent Form 10-K filed by Axcelis and in other documents filed from time to time with the Securities and Exchange Commission.

About Axcelis:

Axcelis (Nasdaq: ACLS), headquartered in Beverly, Mass., has been providing innovative, high-productivity solutions for the semiconductor industry for over 35 years. Axcelis is dedicated to developing enabling process applications through the design, manufacture and complete life cycle support of ion implantation systems, one of the most critical and enabling steps in the IC manufacturing process. Learn more about Axcelis at www.axcelis.com.

Company Contacts

Investor Relations: Doug Lawson 978.787.9552

Editorial/Media: Maureen Hart 978.787.4266

	Three months ended		
2014	waren 51,	2013	
		34,452	
		6,274	
60,8	40	40,726	
		22,181	
		5,602	
39,1	00	27,783	
21,7	40	12,943	
9,2	57	9,206	
5,4	76	5,201	
6,4	81	6,590	
	_	(368)	
2	00	1,801	
21,4	14	22,430	
3	26	(9,487)	
	2	3	
		_	
2	92	829	
	43	832	
3	69	(8,655)	
1	95	333	
\$ 1	74 \$	(8,988)	
		(0.08)	
\$ 0.	00 \$	(80.0)	
110 6	19	108,227	
110,0	7.2	100,227	
	\$ 55,0 5,8 60,8 33,8 5,2 39,1 21,7 9,2 5,4 6,4 2 21,4 3 (2 21,4 3 \$ 1 \$ 1 \$ 0.	\$ 55,015 \$ 5,825 60,840	

Consolidated Balance Sheets (In thousands, except per share amounts) (Unaudited)

Axcelis Technologies, Inc.

	March 31, 2014		December 31, 2013
ASSETS			
Current assets			
Cash and cash equivalents	\$ 43,039	\$	46,290
Accounts receivable, net	38,121		36,587
Inventories, net	95,533		95,789
Prepaid expenses and other current assets	7,476		6,242
Total current assets	184,169		184,908
Property, plant and equipment, net	31,605		32,006
Restricted cash, long-term	825		825
Other assets	16,104		15,810
Total assets	\$ 232,703	\$	233,549
		_	
LIABILITIES AND STOCKHOLDERS' EQUITY			
Current liabilities			
Accounts payable	\$ 17,865	\$	19,451
Accrued compensation	4,692		4,845
Warranty	1,496		1,316
Income taxes	474		417

3,836

762

4,387

471

Deferred revenue

Current portion of long-term debt

Other current liabilities		4,100	4,573
Total current liabilities		33,225	35,460
Long-tem debt		14,238	14,529
Long-term deferred revenue		257	322
Other long-term liabilities		7,058	7,236
Total liabilities		54,778	 57,547
Commitments and contingencies			
Stockholders' equity			
Preferred stock, \$0.001 par value, 30,000 shares authorized; none issued or outstanding		_	_
Common stock, \$0.001 par value, 300,000 shares authorized; 111,269 shares issued and 111,149 shares			
outstanding at March 31, 2014;110,225 shares issued and 110,105 shares outstanding at December 31,			
2013		111	110
Additional paid-in capital	5	13,411	510,992
Treasury stock, at cost, 120 shares at March 31, 2014 and December 31, 2013		(1,218)	(1,218)
Accumulated deficit	(3	39,447)	(339,621)
Accumulated other comprehensive income		5,068	5,739
Total stockholders' equity	1	77,925	 176,002
Total liabilities and stockholders' equity	\$ 2	32,703	\$ 233,549

Axcelis Technologies, Inc. Consolidated Statements of Cash Flows (In thousands) (Unaudited)

		Three months ended March 31,		
Code floor of any consultance of the		2014		2013
Cash flows from operating activities Net income (loss)	\$	174	\$	(8,988)
Adjustments to reconcile net income (loss) to net cash used for operating activities:	J.	1/4	Ф	(0,900)
Depreciation and amortization		1,140		1,394
Gain on sale of dry strip assets and intellectual property		1,140		(368)
Deferred taxes		312		56
Stock-based compensation expense		1.172		839
Provision for excess inventory		59		2,211
Changes in operating assets & liabilities		33		2,211
Accounts receivable		(1,634)		1,458
Inventories		(52)		(1,672)
Prepaid expenses and other current assets		(1,252)		(544)
Accounts payable and other current liabilities		(2,025)		5,043
Deferred revenue		(614)		(843)
Income taxes		61		84
Other assets and liabilities		(1,304)		(549)
Net cash used for operating activities		(3,963)		(1,879)
Cash flows from investing activities				
Proceeds from sale of dry strip assets and intellectual property		_		400
Expenditures for property, plant, and equipment		(227)		(150)
Decrease in restricted cash		_		3
Net cash (used for) provided by investing activities		(227)		253
Cash flows from financing activities				
Proceeds from exercise of stock options		1,277		49
Net cash provided by financing activities		1,277		49
Effect of exchange rate changes on cash		(338)		(968)
Net decrease in cash and cash equivalents		(3,251)		(2,545)
Cash and cash equivalents at beginning of period		46,290		44,986
Cash and cash equivalents at end of period	\$	43,039	\$	42,441