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 4, 2017

Axcelis Technologies, Inc.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation) **000-30941** (Commission File Number) **34-1818596** (IRS Employer Identification No.)

01915

(Zip Code)

108 Cherry Hill Drive, Beverly, Massachusetts

(Address of principal executive offices)

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:

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

o 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))

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

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2).

Emerging growth company o

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. o

Item 2.02 Results of Operations and Financial Condition

On May 4, 2017, Axcelis Technologies, Inc. (the "Company") issued a press release regarding its financial results for the quarter ended March 31, 2017. 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.

Exhibit No.	Description
99.1	Press Release dated May 4, 2017. Filed herewith.
	2

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 4, 2017

Axcelis Technologies, Inc.

By: /s/ KEVIN J. BREWER

Kevin J. Brewer Executive Vice President and Chief Financial Officer

AXCELIS ANNOUNCES FINANCIAL RESULTS FOR FIRST QUARTER 2017

Company Reports Significant Increases in Revenue & Operating Profit; Ships 100th Purion System

BEVERLY, Mass. — May 4, 2017—Axcelis Technologies, Inc. (Nasdaq: ACLS) today announced financial results for the first quarter ended March 31, 2017.

The Company reported first quarter revenue of \$86.9 million, compared to \$69.4 million for the fourth quarter of 2016. Operating profit for the quarter was \$10.7 million, compared to \$5.9 million for the fourth quarter. Net income for the quarter was \$9.5 million, or \$0.29 per share. Net income for the fourth quarter of 2016 was \$4.0 million, or \$0.13 per share. Total cash was \$76.2 million at March 31, 2017, compared to \$77.7 million on December 31, 2016.

President and CEO Mary Puma commented, "The industry is in a period of strong growth, driven by the thriving IoT and data storage markets. Today we shipped our 100th Purion system, demonstrating the continuing adoption of Purion products based on the innovative technology differentiation they offer customers. The Purion platform is well positioned to capitalize on the strength of this market."

"I am very pleased with our financial performance in the first quarter. We exceeded guidance and consensus estimates across the board," said Chief Financial Officer and Executive Vice President Kevin Brewer. "Our gross margin initiatives continue to deliver results and this quarter we demonstrated that Axcelis can generate 40% gross margins."

Business Outlook

For the second quarter ending June 30, 2017, Axcelis expects revenues of approximately \$100 million. Gross margin in the second quarter is expected to be approximately 38%. Second quarter operating profit is forecasted to be approximately \$12-13 million with earnings per share of \$0.30-0.35. Total cash for the quarter is also expected to be around \$100 million.

First Quarter 2017 Conference Call

The Company will host a conference call today at 5:00 pm ET to discuss the Company's results for the first quarter of 2017. The call will be available to interested listeners via an audio webcast on the Investors page of Axcelis' website at www.axcelis.com, or by dialing 866.588.8911 (707.294.1561 outside North America). Participants calling into the conference call will be requested to provide the company name, Axcelis Technologies, and pass code: 97405648. Webcast replays will be available for 30 days following the call.

Safe Harbor Statement

This press release and the conference call contain forward-looking statements under the SEC safe harbor provisions. These statements, which include our expectations for increased spending in our industry and 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

> Axcelis Technologies, Inc. Consolidated Statements of Operations (In thousands, except per share amounts) (Unaudited)

	Three month	s ended N	
	2017		2016
D			
Revenue:	¢ 01.07	о <i>ф</i>	CD 175
Product	\$ 81,978		62,175
Services	4,915		5,346
Total revenue	86,893	<u> </u>	67,521
Cost of Revenue:		-	
Product	46,793		40,263
Services	5,382		3,842
Total cost of revenue	52,179		44,105
Gross profit	34,714	I	23,416
	54,714	ŀ	25,410
Operating expenses:			
Research and development	9,895	5	8,636
Sales and marketing	7,049)	5,960
General and administrative	7,052	,	6,042
Restructuring charges	_	-	282
Total operating expenses	24,00	_	20,920
Income from operations	10,713	}	2,496
Other (expense) income:			
Interest income	69)	54
Interest expense	(1,11)		(1,047
Other, net	(154		(59
Total other expense	(1,190		(1,052
r r	(1)101		(1,001
Income before income taxes	9,512	7	1,444
Income tax provision (benefit)	1		(504
			(00
Net income	\$ 9,500	5 \$	1,948
Net income per share:			
Basic	\$ 0.32	2 \$	0.07
Diluted	\$ 0.29		0.06
Shares used in computing net income per share:			
Basic weighted average common shares	29,772	,	29,038
Diluted weighted average common shares		-	
Dunien weignien average common sligtes	32,255		30,520

Axcelis Technologies, Inc. Consolidated Balance Sheets (In thousands, except per share amounts) (Unaudited)

		March 31, 2017	D	ecember 31, 2016
ASSETS				
Cash and cash equivalents		69,429	\$	70,791
Accounts receivable, net		67,083		50,573
Inventories, net		115,635		113,853
Prepaid expenses and other assets		32,182		29,310
Property, plant and equipment, net		31,486		30,840
Restricted cash		6,792		6,864
Total assets	\$	322,607	\$	302,231
LIABILITIES AND STOCKHOLDERS' EQUITY				
Accounts payable	\$	26,426	\$	24,996
Accrued compensation		5,920		5,142
Warranty		3,124		2,668
Income taxes		252		240
Deferred revenue		13,121		11,009
Sale leaseback obligation		47,681		47,586
Other liabilities		9,840		9,135
Total liabilities		106,364		100,776

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, 75,000 shares authorized; 29,995 shares issued and outstanding at		
March 31, 2017; 29,518 shares issued and outstanding at December 31, 2016	30	30
Additional paid-in capital	538,747	535,408
Accumulated deficit	(322,198)	(331,704)
Accumulated other comprehensive loss	(336)	(2,279)
Total stockholders' equity	216,243	201,455
Total liabilities and stockholders' equity	\$ 322,607	\$ 302,231