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

FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended June 30, 2024
OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
Commission file number 0-16244

VEECO INSTRUMENTS INC.
(Exact Name of Registrant as Specified in Its Charter)

Delaware	**11-2989601**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
Terminal Drive **Plainview, New York**	**11803**
(Address of Principal Executive Offices)	(Zip Code)

Registrant's telephone number, including area code:
(516) 677-0200

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.01 per share	VECO	The NASDAQ Global Select Market

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒	Accelerated filer ☐
Non-accelerated filer ☐	Smaller reporting company ☐
	Emerging growth company ☐

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. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of July 30, 2024, there were 56,784,837 shares of the registrant's common stock outstanding.

VEECO INSTRUMENTS INC.

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Safe Harbor Statement

This quarterly report on Form 10-Q (the "Report") contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Discussions containing such forward-looking statements may be found in Part I - Items 1, 2, and 3 hereof, as well as within this Report generally. In addition, when used in this Report, the words "believes," "anticipates," "expects," "estimates," "targets," "plans," "intends," "will," and similar expressions related to the future are intended to identify forward-looking statements. All forward-looking statements are subject to a number of risks and uncertainties that could cause actual results to differ materially from projected results.

In addition, the preparation of financial statements in conformity with U.S. Generally Accepted Accounting Principles ("U.S. GAAP") requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Although these estimates and assumptions are based on knowledge of current events and planned actions to be undertaken in the future, they may ultimately differ from actual results. Operating results for the three and six months ended June 30, 2024 are not necessarily indicative of the results that may be expected for the year ending December 31, 2024. All estimates and assumptions are subject to a number of risks and uncertainties that could cause actual results to differ materially from these estimates and assumptions.

The risks and uncertainties of Veeco Instruments Inc. (together with its consolidated subsidiaries, "Veeco," the "Company," "we," "us," and "our," unless the context indicates otherwise) include, without limitation, those set forth under the heading "Risk Factors" in Part 1, Item 1A of our 2023 Form 10-K, and the following:

Risks Associated with Operating a Global Business

- We are exposed to risks of operating businesses outside the United States;
- Changes in U.S. trade policy and export controls and ongoing trade disputes between the U.S. and China have adversely affected, and may continue to adversely affect, our business, results of operations, and financial conditions;
- We may be unable to obtain required export licenses for the sale of our products;
- We are exposed to various risks associated with global regulatory requirements;

Risks Related to Our Business and Industry

- Unfavorable market conditions have adversely affected, and may continue to adversely affect, our operating results;
- We face significant competition;
- We operate in industries characterized by rapid technological change;
- Certain of our sales are dependent on the demand for consumer electronic products and automobiles, which can experience significant volatility;

- We have a concentrated customer base, located primarily in a limited number of regions, which operates in highly concentrated industries;
- The cyclicality of the industries we serve directly affects our business;
- Our failure to estimate customer demand accurately could result in inventory obsolescence, liabilities to our suppliers for products no longer needed, and manufacturing interruptions or delays which could affect our ability to meet customer demand;
- We rely on a limited number of suppliers, some of whom are our sole source for particular components;
- Our failure to successfully manage our outsourcing activities or failure of our outsourcing partners to perform as anticipated could adversely affect our results of operations;
- The timing of our orders, shipments, and revenue recognition may cause our quarterly operating results to fluctuate significantly;
- Our sales cycle is long and unpredictable;
- Our backlog is subject to customer cancellation or modification which could result in decreased sales, increased inventory obsolescence, and liabilities to our suppliers for products no longer needed;
- We are exposed to risks associated with business combinations, acquisitions, strategic investments and divestitures;

Risks Related to Intellectual Property and Cybersecurity

- Disruptions in our information technology systems or data security incidents could result in significant financial, legal, regulatory, business, and reputational harm to us;
- We may be unable to effectively enforce and protect our intellectual property rights;
- We may be subject to claims of intellectual property infringement by others;

Financial, Accounting, and Capital Markets Risks

- Our operating results may be adversely affected by tightening credit markets;
- We are subject to foreign currency exchange risks;
- We may be required to take impairment charges on assets;
- Changes in accounting pronouncements or taxation rules, practices, or rates may adversely affect our financial results;
- Our current debt facilities contain certain restrictions, covenants and repurchase provisions that may limit our ability to raise the funds necessary to meet our working capital needs, which may include the cash conversion of the Notes or repurchase of the Notes for cash upon a fundamental change;
- Issuance of our common stock, if any, upon conversion of the Notes, as well as the capped call transactions and the hedging activities of the option counterparties, may impair or reduce our ability to utilize our research and development credits carryforwards in the future;

- The capped call transactions may affect the value of the 2027 Notes and our common stock;

General Risk Factors

- The price of our common shares is volatile and could decrease;
- Our inability to attract, retain, and motivate employees could have a material adverse effect on our business;
- We are subject to risks of non-compliance with environmental, health, and safety regulations;
- We are exposed to risks associated with the increased attention by our stakeholders to environmental, social and governance ("ESG") matters; and
- We have adopted certain measures that may have anti-takeover effects, which may make an acquisition of our Company by another company more difficult.

Consequently, such forward looking statements and estimates should be regarded solely as the current plans and beliefs of Veeco. We do not undertake any obligation to update any forward-looking statements to reflect future events or circumstances after the date of such statements.

PART I—FINANCIAL INFORMATION

Item 1. Financial Statements

Veeco Instruments Inc. and Subsidiaries
Consolidated Balance Sheets
(in thousands, except share amounts)

	June 30, 2024	December 31, 2023
Assets	(unaudited)	
Current assets:		
Cash and cash equivalents	$ 174,164	$ 158,781
Restricted cash	289	339
Short-term investments	130,696	146,664
Accounts receivable, net	92,397	103,018
Contract assets	39,436	24,370
Inventories	245,108	237,635
Prepaid expenses and other current assets	36,105	35,471
Total current assets	718,195	706,278
Property, plant, and equipment, net	113,461	118,459
Operating lease right-of-use assets	27,332	24,377
Intangible assets, net	40,229	43,945
Goodwill	214,964	214,964
Deferred income taxes	117,901	117,901
Other assets	3,033	3,117
Total assets	$ 1,235,115	$ 1,229,041
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 46,850	$ 42,383
Accrued expenses and other current liabilities	50,119	57,624
Contract liabilities	80,556	118,026
Current portion of long-term debt	26,448	—
Total current liabilities	203,973	218,033
Deferred income taxes	6,445	6,552
Long-term debt	249,105	274,941
Long-term operating lease liabilities	34,938	31,529
Other liabilities	25,641	25,544
Total liabilities	520,102	556,599
Stockholders' equity:		
Preferred stock, $0.01 par value; 500,000 shares authorized; no shares issued and outstanding.	—	—
Common stock, $0.01 par value; 120,000,000 shares authorized; 56,773,294 shares issued and outstanding at June 30, 2024 and 56,364,131 shares issued and outstanding at December 31, 2023	569	564
Additional paid-in capital	1,208,348	1,202,440
Accumulated deficit	(495,371)	(532,169)
Accumulated other comprehensive income	1,467	1,607
Total stockholders' equity	715,013	672,442
Total liabilities and stockholders' equity	$ 1,235,115	$ 1,229,041

See accompanying Notes to the Consolidated Financial Statements .

Veeco Instruments Inc. and Subsidiaries
Consolidated Statements of Operations
(in thousands, except per share amounts)
(unaudited)

	Three months ended June 30,		Six months ended June 30,	
	2024	2023	2024	2023
Net sales	$ 175,879	$ 161,641	$ 350,363	$ 315,145
Cost of sales	100,489	94,131	199,554	185,618
Gross profit	75,390	67,510	150,809	129,527
Operating expenses, net:				
Research and development	31,696	27,384	61,338	54,945
Selling, general, and administrative	24,595	23,822	49,295	46,449
Amortization of intangible assets	1,825	2,123	3,716	4,235
Other operating expense (income), net	552	493	(2,307)	404
Total operating expenses, net	58,668	53,822	112,042	106,033
Operating income	16,722	13,688	38,767	23,494
Interest income	3,115	2,420	6,439	4,494
Interest expense	(2,766)	(3,052)	(5,385)	(5,928)
Other income (expense), net	—	(97,091)	—	(97,091)
Income (loss) before income taxes	17,071	(84,035)	39,821	(75,031)
Income tax expense	2,127	1,285	3,023	1,548
Net income (loss)	$ 14,944	$ (85,320)	$ 36,798	$ (76,579)
Income (loss) per common share:				
Basic	$ 0.27	$ (1.61)	$ 0.66	$ (1.48)
Diluted	$ 0.25	$ (1.61)	$ 0.61	$ (1.48)
Weighted average number of shares:				
Basic	56,277	52,861	56,160	51,764
Diluted	62,535	52,861	61,733	51,764

See accompanying Notes to the Consolidated Financial Statements .

Veeco Instruments Inc. and Subsidiaries
Consolidated Statements of Comprehensive Income
(in thousands)
(unaudited)

	Three months ended June 30,		Six months ended June 30,	
	2024	2023	2024	2023
Net income (loss)	$ 14,944	$ (85,320)	$ 36,798	$ (76,579)
Other comprehensive income (loss), net of tax:				
Unrealized gain (loss) on available-for-sale securities	(10)	—	(105)	470
Change in currency translation adjustments	(2)	(39)	(35)	(33)
Total other comprehensive income (loss), net of tax	(12)	(39)	(140)	437
Total comprehensive income (loss)	$ 14,932	$ (85,359)	$ 36,658	$ (76,142)

See accompanying Notes to the Consolidated Financial Statements .

Veeco Instruments Inc. and Subsidiaries
Consolidated Statements of Cash Flows
(in thousands)
(unaudited)

	Six months ended June 30, 2024	Six months ended June 30, 2023
Cash Flows from Operating Activities		
Net income (loss)	$ 36,798	$ (76,579)
Adjustments to reconcile net income to net cash provided by (used in) operating activities:		
Depreciation and amortization	13,008	12,435
Non-cash interest expense	613	514
Deferred income taxes	(67)	778
Share-based compensation expense	17,315	14,959
Loss on extinguishment of debt	—	97,091
Provision for bad debts	—	490
Change in contingent consideration	(131)	—
Changes in operating assets and liabilities:		
Accounts receivable and contract assets	(4,445)	(10,145)
Inventories	(6,680)	(44,540)
Prepaid expenses and other current assets	(1,160)	(5,633)
Accounts payable and accrued expenses	2,946	7,230
Contract liabilities	(37,470)	29,048
Other, net	(2,911)	(513)
Net cash provided by (used in) operating activities	17,816	25,135
Cash Flows from Investing Activities		
Capital expenditures	(8,943)	(10,836)
Acquisition of businesses, net of cash acquired	—	(30,373)
Proceeds from the sale of investments	81,695	112,895
Payments for purchases of investments	(64,004)	(69,320)
Proceeds from sale of productive assets	2,033	—
Net cash provided by (used in) investing activities	10,781	2,366
Cash Flows from Financing Activities		
Restricted stock tax withholdings	(14,588)	(8,801)
Contingent consideration payment	(1,818)	—
Proceeds (net of tax withholdings) from option exercises and employee stock purchase plan	3,186	2,619
Proceeds from issuance of 2029 Notes, net of issuance costs	—	223,202
Extinguishment of convertible notes	—	(218,991)
Net cash provided by (used in) financing activities	(13,220)	(1,971)
Effect of exchange rate changes on cash and cash equivalents	(44)	(41)
Net increase (decrease) in cash, cash equivalents, and restricted cash	15,333	25,489
Cash, cash equivalents, and restricted cash - beginning of period	159,120	155,472
Cash, cash equivalents, and restricted cash - end of period	$ 174,453	$ 180,961
Supplemental Disclosure of Cash Flow Information		
Interest paid	$ 4,679	$ 6,628
Income taxes paid, net of refunds received	2,531	2,983
Non-cash activities		
Capital expenditures included in accounts payable and accrued expenses	590	3,938
Net transfer of inventory to property, plant and equipment	—	4,328
Right-of-use assets obtained in exchange for lease obligations	4,695	630

See accompanying Notes to the Consolidated Financial Statements .

Veeco Instruments Inc. and Subsidiaries
Notes to the Consolidated Financial Statements
(unaudited)

Note 1 — Basis of Presentation

The accompanying unaudited Consolidated Financial Statements of Veeco have been prepared in accordance with U.S. GAAP as defined in Financial Accounting Standards Board ("FASB") Accounting Standards Codification 270 for interim financial information and with the instructions to Rule 10-01 of Securities and Exchange Commission Regulation S-X. Accordingly, they do not include all of the information and footnotes required by U.S. GAAP for complete financial statements as the interim information is an update of the information that was presented in Veeco's most recent annual financial statements. For further information, refer to Veeco's Consolidated Financial Statements and Notes thereto included in the Annual Report on Form 10-K for the year ended December 31, 2023 ("2023 Form 10-K"). In the opinion of management, all adjustments considered necessary for a fair presentation have been included. All such adjustments are of a normal, recurring nature.

Veeco reports interim quarters on a 13-week basis ending on the last Sunday of each quarter. The fourth quarter always ends on the last day of the calendar year, December 31. The 2024 interim quarters end on March 31, June 30, and September 29, and the 2023 interim quarters ended on April 2, July 2, and October 1. These interim quarters are reported as March 31, June 30, and September 30 in Veeco's interim consolidated financial statements.

The preparation of financial statements in conformity with U.S. GAAP requires the Company's management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Although these estimates are based on management's knowledge of current events and actions it may undertake in the future, actual results may differ from these estimates.

Revenue Recognition

Revenue is recognized upon the transfer of control of the promised product or service to the customer in an amount that reflects the consideration the Company expects to receive in exchange for such product or service. The Company's contracts with customers generally do not contain variable consideration. In the rare instances where variable consideration is included, the Company estimates the amount of variable consideration and determines what portion of that, if any, has a high probability of significant subsequent revenue reversal, and if so, that amount is excluded from the transaction price. The Company's contracts with customers frequently contain multiple deliverables, such as systems, upgrades, components, spare parts, installation, maintenance, and service plans. Judgment is required to properly identify the performance obligations within a contract and to determine how the revenue should be allocated among the performance obligations. The Company also evaluates whether multiple transactions with the same customer or related parties should be considered part of a single contract based on an assessment of whether the contracts or agreements are negotiated or executed within a short time frame of each other or if there are indicators that the contracts are negotiated in contemplation of one another.

When there are separate units of accounting, the Company allocates revenue to each performance obligation on a relative stand-alone selling price basis. The stand-alone selling prices are determined based on the prices at which the Company separately sells the systems, upgrades, components, spare parts, installation, maintenance, and service plans. For items that are not sold separately, the Company estimates stand-alone selling prices generally using an expected cost plus margin approach.

Most of the Company's revenue is recognized at a point in time when the performance obligation is satisfied. The Company considers many facts when evaluating each of its sales arrangements to determine the timing of revenue recognition, including its contractual obligations and the nature of the customer's post-delivery acceptance provisions. The Company's system sales arrangements, including certain upgrades, generally include field acceptance provisions that may include functional or mechanical test procedures. For many of these arrangements, a customer source inspection of the system is performed in the Company's facility, test data is sent to the customer documenting that the system is functioning to the agreed upon specifications prior to delivery, or other quality assurance testing is performed internally to ensure system functionality prior to shipment. Historically, such source inspection or test data replicates the field acceptance provisions that are performed at the customer's site prior to final acceptance of the system. When the Company objectively demonstrates that the criteria specified in the contractual acceptance provisions are achieved prior to delivery either through customer testing or the Company's historical experience of its tools meeting specifications, transfer of control of the product to the customer is considered to have occurred and revenue is recognized upon system delivery since there is no substantive contingency remaining related to the acceptance provisions at that date. For new products, new applications of existing products, or for products with substantive customer acceptance provisions where the Company cannot objectively demonstrate that the criteria specified in the contractual acceptance provisions have been achieved prior to delivery, revenue and the associated costs are deferred. The Company recognizes such revenue and costs upon obtaining objective evidence that the acceptance provisions can be achieved, assuming all other revenue recognition criteria have been met.

In certain cases the Company's contracts with customers contain a billing retention, which is billed by the Company and payable by the customer when field acceptance provisions are completed. Revenue recognized in advance of the amount that has been billed is recorded as a contract asset on the Consolidated Balance Sheets.

The Company recognizes revenue related to maintenance and service contracts over time based upon the respective contract term. Installation revenue is recognized over time as the installation services are performed. The Company recognizes revenue from the sales of components, spare parts, and specified service engagements at a point in time, which is typically consistent with the time of delivery in accordance with the terms of the applicable sales arrangement.

The Company may receive advanced payments on system transactions. The timing of the transfer of goods or services related to the advanced payments is either at the discretion of the customer or generally expected to be within one year from the advanced receipt. As such, the Company does not adjust transaction prices for the time value of money. Incremental direct costs incurred related to the acquisition of a customer contract, such as sales commissions, are expensed as incurred since the expected amortization period is one year or less.

The Company has elected to treat shipping and handling costs as a fulfillment activity, and the Company includes such costs in cost of sales when the Company recognizes revenue for the related goods. Taxes assessed by governmental authorities that are collected by the Company from a customer are excluded from revenue.

Inventories

Inventories are stated at the lower of cost or net realizable value, with cost determined on a first-in, first-out basis. Each quarter the Company assesses the valuation and recoverability of all inventories: materials (raw materials, spare parts, and service inventory); work-in-process; finished goods; and evaluation inventory at customer facilities. Obsolete inventory or inventory in excess of management's estimated usage requirement is written down to its estimated net realizable value if less than cost. The Company evaluates usage requirements by analyzing historical usage, anticipated demand, alternative uses of materials, and other qualitative factors. Unanticipated changes in demand for the Company's products may require a write down of inventory, which would be reflected in cost of sales in the period the revision is made. Inventory acquired as part of a business combination is recorded at fair value on the date of acquisition.

Recent Accounting Standards Not Yet Adopted

In November 2023, the FASB issued ASU 2023-07: *Segment Reporting (Topic 280) – Improvements to Reportable Segment Disclosures*. This standard primarily enhances disclosures about significant segment expenses. The standard requires interim and annual disclosure of significant segment expenses that are regularly provided to the chief operating decision-maker ("CODM") and included within the reported measure of a segment's profit or loss, requires interim disclosures about a reportable segment's profit and loss and assets that are currently required annually, requires disclosure of the position and title of the CODM, clarifies circumstances in which an entity can disclose multiple segment measures of profit or loss and contains other disclosure requirements. This authoritative guidance is effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024, with early adoption permitted. The Company is evaluating the effect of this new guidance on its consolidated financial statements.

In December 2023, the FASB issued ASU 2023-09: *Improvements to Income Tax Disclosures (Topic 740)* . This amendment requires public entities to disclose consistent categories and greater disaggregation of information in the rate reconciliation and for income taxes paid. It also includes certain other amendments to improve the effectiveness of income tax disclosures. This authoritative guidance will be effective for fiscal years beginning after December 15, 2024, with early adoption permitted. The Company is evaluating the effect of this new guidance on its consolidated financial statements.

Note 2 — Income Per Common Share

Basic income per share is calculated by dividing net income by the weighted average number of shares outstanding during the period. Diluted income per share is calculated by dividing net income available to common shareholders by the weighted average number of shares used to calculate basic income per share plus the weighted average number of common share equivalents outstanding during the period. The dilutive effect of outstanding options to purchase common stock and share-based awards is considered in diluted income per share by application of the treasury stock method. The dilutive effect of performance share units is included in diluted income per common share if the performance targets have been achieved, or would have been achieved if the reporting date was the end of the contingency period. Finally, the Company includes the dilutive effect of shares issuable upon conversion of its Notes in the calculation of diluted income per share using the if-converted method. The Company has the option for the 2025 and 2027 Notes to settle the conversion value in any combination of cash or shares, and as such, the maximum number of shares issuable are included in the dilutive share count if the effect would be dilutive. The Company must settle the principal amount of the 2029 Notes in cash, and has the option to settle any excess of the conversion value over the principal amount in any combination of cash or shares. As such, the Company only includes the excess shares that may be issuable above the principal amount of the 2029 Notes in the dilutive share count, if the effect would be dilutive.

Veeco Instruments Inc. and Subsidiaries
Notes to the Consolidated Financial Statements - continued
(unaudited)

The computations of basic and diluted income per share for the three and six months ended June 30, 2024 and 2023 are as follows:

	Three months ended June 30,		Six months ended June 30,	
	2024	2023	2024	2023
	(in thousands, except per share amounts)			
Numerator:				
Net income (loss)	$ 14,944	$ (85,320)	$ 36,798	$ (76,579)
Interest expense associated with convertible notes	512	—	1,026	—
Net income (loss) available to common shareholders	$ 15,456	$ (85,320)	$ 37,824	$ (76,579)
Denominator:				
Basic weighted average shares outstanding	56,277	52,861	56,160	51,764
Effect of potentially dilutive share-based awards	1,316	—	1,118	—
Dilutive effect of convertible notes	4,942	—	4,455	—
Diluted weighted average shares outstanding	62,535	52,861	61,733	51,764
Net income per common share:				
Basic	$ 0.27	$ (1.61)	$ 0.66	$ (1.48)
Diluted	$ 0.25	$ (1.61)	$ 0.61	$ (1.48)
Common share equivalents excluded from the diluted weighted average shares outstanding since the Company incurred a net loss and their effect would be antidilutive	N/A	838	N/A	674
Potentially dilutive shares excluded from the diluted calculation as their effect would be antidilutive	226	743	26	763
Potential shares to be issued for settlement of the convertible notes excluded from the diluted calculation as their effect would be antidilutive	N/A	8,868	N/A	11,722

Note 3 — Business Combination

Epiluvac

On January 31, 2023, the Company acquired Epiluvac AB, a privately held manufacturer of chemical vapor deposition (CVD) epitaxy systems that enable silicon carbide (SiC) applications in the electric vehicle market. This acquisition is expected to accelerate penetration into the emerging, high-growth SiC equipment market. The results of Epiluvac's operations have been included in the consolidated financial statements since the date of acquisition. Acquisition date fair value totaled $56.4 million, which included $30.4 million of cash and $ 26.1 million of contingent consideration.

The purchase agreement included performance milestones that, if achieved, could trigger additional payments to the original selling shareholders. The contingent arrangements include payments up to $15.0 million based on the timely completion of certain defined milestones tied to strategic targets, and up to $20.0 million based on the percentage of orders received during the defined Earn-out period. The Earn-out period is four years after the closing date of the acquisition, or earlier if certain conditions are met.

The Company estimated the fair value of the contingent consideration by assigning probabilities and discount factors to each of the various defined performance milestones, while using a Monte-Carlo simulation model to determine the most likely outcome for payments to be based on value of orders received. These fair value measurements are based on significant inputs not observable in the market and thus represent a Level 3 measurement as defined in ASC 820. The discount rate used was 5.54% for the strategic target and order value related contingent payments. The rate was determined based on the nature of the milestone, the risks and uncertainties involved and the time period until the milestone was measured. The determination of the various probabilities and discount factors is highly subjective, requires significant judgment and is influenced by a number of factors, including the adoption of SiC technology. The aggregate fair value of the contingent consideration arrangement at the acquisition date was $26.1 million. While the use of SiC is expected to grow in the near future, it is difficult to predict the rate at which SiC will be adopted by the market and thus would impact the sales of our equipment.

The Company updates its estimate of fair value of the contingent consideration each reporting period, utilizing the same methodologies described above. The discount rate used was 5.9% at June 30, 2024 for the strategic target and order value related contingent payments. During the three months ended June 30, 2024, the Company recognized approximately $0.5 million of additional contingent consideration, included within “Other operating expense (income) net” in the Consolidated Statement of Operations. During the six months ended June 30, 2024, the Company recognized approximately $0.1 million reduction to contingent consideration, included within “Other operating expense (income) net” in the Consolidated Statement of Operations. Additionally, during the six months ended June 30, 2024, the Company paid $1.8 million to the original selling shareholders associated with the settlement of a strategic target milestone. Total contingent consideration liability as of June 30, 2024 was $22.3 million, included within “Other liabilities” on the Consolidated Balance Sheet.

Note 4 — Assets

Investments

Short-term investments are generally classified as available-for-sale and reported at fair value, with unrealized gains and losses, net of tax, presented as a separate component of stockholders’ equity under the caption “Accumulated other comprehensive income” in the Consolidated Balance Sheets. These securities may include U.S. treasuries, government agency securities, corporate debt, and commercial paper, all with maturities of greater than three months when purchased. All realized gains and losses and unrealized losses resulting from declines in fair value that are other than temporary are included in “Other operating expense (income), net” in the Consolidated Statements of Operations.

Fair value is the price that would be received for an asset or the amount paid to transfer a liability in an orderly transaction between market participants. Veeco classifies certain assets based on the following fair value hierarchy:

Level 1: Quoted prices in active markets that are unadjusted and accessible at the measurement date for identical, unrestricted assets or liabilities;

Level 2: Quoted prices for identical assets and liabilities in markets that are not active, quoted prices for similar assets and liabilities in active markets or financial instruments for which significant inputs are observable, either directly or indirectly; and

Level 3: Prices or valuations that require inputs that are both significant to the fair value measurement and unobservable.

A financial instrument’s level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Veeco has evaluated the estimated fair value of financial instruments using available market information and valuations as provided by third-party sources. The use of different market assumptions or estimation methodologies could have a significant effect on the estimated fair value amounts.

Veeco Instruments Inc. and Subsidiaries
Notes to the Consolidated Financial Statements - continued
(unaudited)

The following table presents the portion of Veeco's assets that were measured at fair value on a recurring basis at June 30, 2024 and December 31, 2023:

	Level 1	Level 2	Level 3	Total
		(in thousands)		
June 30, 2024				
Cash equivalents				
Certificate of deposits and time deposits	$ 80,127	$ —	$ —	$ 80,127
U.S. treasuries	19,971	—	—	19,971
Money market cash	18,148	—	—	18,148
Total	$ 118,246	$ —	$ —	$ 118,246
Short-term investments				
U.S. treasuries	$ 58,438	$ —	$ —	$ 58,438
Government agency securities	—	18,068	—	18,068
Corporate debt	—	54,190	—	54,190
Total	$ 58,438	$ 72,258	$ —	$ 130,696
December 31, 2023				
Cash equivalents				
Certificate of deposits and time deposits	$ 74,262	$ —	$ —	$ 74,262
Corporate debt	—	1,988	—	1,988
Money market cash	21,587	—	—	21,587
Total	$ 95,849	$ 1,988	$ —	$ 97,837
Short-term investments				
U.S. treasuries	$ 59,493	$ —	$ —	$ 59,493
Government agency securities	—	41,818	—	41,818
Corporate debt	—	35,409	—	35,409
Commercial paper	—	9,944	—	9,944
Total	$ 59,493	$ 87,171	$ —	$ 146,664

There were no transfers between fair value measurement levels during the three and six months ended June 30, 2024.

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At June 30, 2024 and December 31, 2023, the amortized cost and fair value of available-for-sale securities consist of:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
		(in thousands)		
June 30, 2024				
U.S. treasuries	$ 58,541	$ —	$ (103)	$ 58,438
Government agency securities	18,095	—	(27)	18,068
Corporate debt	54,307	—	(117)	54,190
Total	$ 130,943	$ —	$ (247)	$ 130,696
December 31, 2023				
U.S. treasuries	$ 59,541	$ 3	$ (51)	$ 59,493
Government agency securities	41,843	6	(31)	41,818
Corporate debt	35,447	9	(47)	35,409
Commercial paper	9,944	—	—	9,944
Total	$ 146,775	$ 18	$ (129)	$ 146,664

Available-for-sale securities in a loss position at June 30, 2024 and December 31, 2023 consist of:

	Continuous Loss Position for Less than 12 Months		Continuous Loss Position for 12 Months or More	
	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses
		(in thousands)		
June 30, 2024				
U.S. treasuries	$ 58,438	$ (103)	$ —	$ —
Government agency securities	11,345	(23)	6,723	(4)
Corporate debt	53,604	(117)	—	—
Total	$ 123,387	$ (243)	$ 6,723	$ (4)
December 31, 2023				
U.S. treasuries	$ 43,118	$ (50)	$ —	$ —
Government agency securities	34,885	(31)	—	—
Corporate debt	23,262	(33)	2,618	(15)
Total	$ 101,265	$ (114)	$ 2,618	$ (15)

The contractual maturities of securities classified as available-for-sale at June 30, 2024 were as follows:

	June 30, 2024	
	Amortized Cost	Estimated Fair Value
	(in thousands)	
Due in one year or less	$ 129,427	$ 129,190
Due after one year through two years	1,516	1,506
Total	$ 130,943	$ 130,696

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Actual maturities may differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties. There were no realized gains or losses, or unrealized losses from declines in fair value that are other than temporary, for the six months ended June 30, 2024 and 2023.

Accounts Receivable

Accounts receivable is presented net of an allowance for doubtful accounts of $ 1.0 million at June 30, 2024 and December 31, 2023. The Company considers its current expectations of future economic conditions when estimating its allowance for doubtful accounts.

Inventories

Inventories at June 30, 2024 and December 31, 2023 consist of the following:

	June 30, 2024	December 31, 2023
	(in thousands)	
Materials	$ 140,977	$ 139,884
Work-in-process	76,481	71,278
Finished goods	4,844	6,183
Evaluation inventory	22,806	20,290
Total	$ 245,108	$ 237,635

Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets primarily consist of supplier deposits, prepaid value-added tax, lease deposits, prepaid insurance, prepaid software and maintenance, and other receivables. The Company had deposits with its suppliers of $17.3 million and $19.4 million at June 30, 2024 and December 31, 2023, respectively.

Property, Plant, and Equipment

Property, plant, and equipment at June 30, 2024 and December 31, 2023 consist of the following:

	June 30, 2024	December 31, 2023
	(in thousands)	
Land	$ 5,061	$ 5,061
Building and improvements	61,431	61,679
Machinery and equipment (1)	184,009	181,180
Leasehold improvements	53,009	52,913
Gross property, plant, and equipment	303,510	300,833
Less: accumulated depreciation and amortization	190,049	182,374
Net property, plant, and equipment	$ 113,461	$ 118,459

(1) Machinery and equipment also includes software, furniture and fixtures

For the three and six months ended June 30, 2024, depreciation expense was $ 4.8 million and $9.3 million, respectively and $4.0 million and $8.2 million, respectively, for the comparable 2023 period.

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Goodwill

Goodwill represents the future economic benefits arising from assets acquired in a business combination that are not individually identified and separately recognized. There were no changes to goodwill during the six months ended June 30, 2024.

Intangible Assets

Intangible assets consist of purchased technology, customer relationships, patents, trademarks and tradenames, licenses, and backlog, and are initially recorded at fair value. Long-lived intangible assets are amortized over their estimated useful lives in a method reflecting the pattern in which the economic benefits are consumed or amortized on a straight-line basis if such pattern cannot be reliably determined.

The components of purchased intangible assets were as follows:

	June 30, 2024			December 31, 2023		
	Gross Carrying Amount	Accumulated Amortization and Impairment	Net Amount	Gross Carrying Amount	Accumulated Amortization and Impairment	Net Amount
			(in thousands)			
Technology	$ 355,928	$ 324,071	$ 31,857	$ 355,928	$ 321,923	$ 34,005
Customer relationships	146,925	138,660	8,265	146,925	137,649	9,276
Trademarks and tradenames	30,910	30,806	104	30,910	30,269	641
Other	3,746	3,743	3	3,746	3,723	23
Total	$ 537,509	$ 497,280	$ 40,229	$ 537,509	$ 493,564	$ 43,945

Other intangible assets primarily consist of patents, licenses, and backlog.

Note 5 — Liabilities

Accrued Expenses and Other Current Liabilities

The components of accrued expenses and other current liabilities at June 30, 2024 and December 31, 2023 consist of:

	June 30, 2024	December 31, 2023
	(in thousands)	
Payroll and related benefits	$ 23,810	$ 28,321
Warranty	8,954	8,864
Operating lease liabilities	3,656	4,025
Interest	1,149	1,149
Professional fees	2,434	1,834
Income, sales, use, and other taxes	4,872	1,825
Contingent consideration	—	1,814
Other	5,244	9,792
Total	$ 50,119	$ 57,624

Warranty

Warranties are typically valid for one year from the date of system final acceptance. The Company estimates the costs that may be incurred under the warranty which are determined by analyzing specific product and historical configuration statistics and regional warranty support costs and are affected by product failure rates, material usage, and labor costs incurred in correcting product failures during the warranty period. Unforeseen component failures or exceptional component performance can also result in changes to warranty costs. Changes in product warranty reserves for the six months ended June 30, 2024 include:

		(in thousands)
Balance - December 31, 2023	$	8,864
Warranties issued		3,127
Consumption of reserves		(3,065)
Changes in estimate		28
Balance - June 30, 2024	$	8,954

Contract Liabilities and Performance Obligations

Contract liabilities consist of unsatisfied performance obligations related to advanced payments received and billing in excess of revenue recognized. The contract liability balance as of December 31, 2023 was approximately $118.0 million, of which the Company recognized approximately $66.2 million in revenue during the six months ended June 30, 2024.

This reduction in contract liabilities was offset in part by new billings for products and services which were unsatisfied performance obligations to customers and revenue had not yet been recognized as of June 30, 2024.

As of June 30, 2024, the Company has approximately $ 98.2 million of remaining performance obligations on contracts with an original estimated duration of one year or more, of which approximately 77% is expected to be recognized within one year, with the remaining amounts expected to be recognized between one to three years. The Company has elected to exclude disclosures regarding remaining performance obligations that have an original expected duration of one year or less.

Convertible Senior Notes

2023 Notes

On January 10, 2017, the Company issued $ 345.0 million of 2.70% convertible senior unsecured notes due 2023 (the "2023 Notes"). The 2023 Notes had a maturity date of January 15, 2023, unless earlier purchased by the Company, redeemed, or converted. The Company repurchased and retired approximately $111.5 million and $ 213.3 million of aggregate principal amount of its outstanding 2023 Notes during the years ended December 31, 2021 and December 31, 2020, respectively.

The 2023 notes that remained outstanding matured on January 15, 2023 and were paid in cash and settled by the Company at that time.

2025 Notes

On November 17, 2020, as part of the privately negotiated exchange agreement, the Company issued $ 132.5 million of 3.50% convertible senior notes due 2025 (the "2025 Notes"). The 2025 Notes bear interest at a rate of 3.50% per year, payable semiannually in arrears on January 15 and July 15 of each year, commencing on July 15, 2021. The 2025 Notes mature on January 15, 2025, unless earlier purchased by the Company, redeemed, or converted.

On May 19, 2023, in connection with the completion of a private offering of $ 230.0 million aggregate principal amount of 2.875% convertible senior notes due 2029 described below, the Company repurchased and retired approximately $ 106.0 million in aggregate principal amount of its outstanding 2025 Notes, with a carrying amount of $105.4 million,

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for approximately $106.0 million of cash and 0.7 million shares of the Company's common stock. The Company accounted for the partial settlement of the 2025 Notes as an extinguishment, and as such, recorded a loss on extinguishment of approximately $16.5 million for the year ended December 31, 2023.

2027 Notes

On May 18, 2020, the Company completed a private offering of $ 125.0 million of 3.75% convertible senior notes due 2027 (the "2027 Notes"). The Company received net proceeds of approximately $121.9 million, after deducting underwriting discounts and fees and expenses payable by the Company. Additionally, the Company used approximately $10.3 million of cash to purchase capped calls, discussed below. The 2027 Notes bear interest at a rate of 3.75% per year, payable semiannually in arrears on June 1 and December 1 of each year, commencing on December 1, 2020. The 2027 Notes mature on June 1, 2027, unless earlier purchased by the Company, redeemed, or converted.

On May 19, 2023, in connection with the completion of a private offering of $ 230.0 million aggregate principal amount of 2.875% convertible senior notes due 2029 described below, the Company repurchased and retired approximately $ 100.0 million in aggregate principal amount of its outstanding 2027 Notes, with a carrying amount of $98.5 million, for approximately $92.8 million of cash and 3.8 million shares of the Company's common stock. The Company accounted for the partial settlement of the 2027 Notes as an extinguishment, and as such, recorded a loss on extinguishment of approximately $80.6 million for the year ended December 31, 2023.

2029 Notes

On May 19, 2023, the Company completed a private offering of $ 230.0 million of 2.875% convertible senior notes due 2029 (the "2029 Notes"). The Company received net proceeds of approximately $223.2 million, after deducting underwriting discounts and fees and expenses payable by the Company. Additionally, the Company used approximately $198.8 million of net proceeds from the offering to fund the cash portion of the 2025 Notes and 2027 Notes extinguishments described above and the remainder for general corporate purposes. The 2029 Notes bear interest at a rate of 2.875% per year, payable semiannually in arrears on June 1 and December 1 of each year, commencing on December 1, 2023. The 2029 Notes mature on June 1, 2029, unless earlier purchased by the Company, redeemed, or converted. The Company will settle any conversions of the 2029 Notes by paying cash up to the aggregate principal amount of the 2029 Notes to be converted, and paying or delivering either cash, shares of Company's common stock, or a combination of cash and shares of common stock at the Company's election, in respect of the remainder, if any, of the conversion obligation in excess of the aggregate principal amount of the 2029 Notes being converted.

The 2025 Notes, 2027 Notes, and 2029 Notes (collectively, the "Notes") are unsecured senior obligations of Veeco and rank senior in right of payment to any of Veeco's subordinated indebtedness; equal in right of payment to all of Veeco's unsecured indebtedness that is not subordinated; effectively subordinated in right of payment to any of Veeco's secured indebtedness to the extent of the value of the assets securing such indebtedness; and structurally subordinated to all indebtedness and other liabilities (including trade payables) of Veeco's subsidiaries.

The Company may redeem for cash, at its option, all or any portion of (i) the outstanding 2025 Notes at any time on or after January 15, 2023, (ii) the outstanding 2027 Notes at any time on or after June 6, 2024 and/or (iii) the outstanding 2029 Notes at any time on or after June 8, 2026, in each case, at a redemption price equal to 100% of the principal amount of such Notes to be redeemed plus accrued and unpaid interest to, but excluding, the redemption date, if the last reported sale price of the common stock has been at least 130% of the conversion price for the applicable series of Notes then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which the Company provides the redemption notice. Upon the Company's notice of redemption, holders may elect to convert their Notes based on the conversion rates and criteria outlined below.

The Notes are convertible at the option of the holders upon the satisfaction of specified conditions and during certain periods as described below. The initial conversion rates are 41.6667, 71.5372, and 34.21852 shares of the Company's common stock per $1,000 principal amount of the 2025 Notes, 2027 Notes, and 2029 Notes, respectively, representing initial effective conversion prices of $24.00, $13.98, and $29.22 per share of common stock, respectively. The conversion rates may be subject to adjustment upon the occurrence of certain specified events.

Holders may convert all or any portion of their Notes, in multiples of one thousand dollar principal amount, at their option at any time prior to the close of business on the business day immediately preceding October 15, 2024, with respect to the 2025 Notes, October 1, 2026, with respect to the 2027 Notes, and February 1, 2029 with respect to the 2029 Notes, only under the following circumstances:

(i) During any calendar quarter (and only during such calendar quarter), if the last reported sale price of the common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day;

(ii) During the five consecutive business day period after any five consecutive trading day period (the "measurement period") in which the trading price per one thousand dollar principal amount of Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of Veeco's common stock and the conversion rate on each such trading day;

(iii) If the Company calls any or all of applicable series of the Notes for redemption at any time prior to the close of business on the scheduled trading day immediately preceding the redemption date; or

(iv) Upon the occurrence of specified corporate events.

For the calendar quarter ended June 30, 2024, the last reported sales price of the common stock during the 30 consecutive trading days, based on the criteria outlined in (i) above, was greater than 130% of the conversion price of the 2025 Notes, 2027 Notes, and 2029 Notes, and as such are convertible by the holders until September 30, 2024. The 2025 and 2027 Notes are convertible into cash, shares of the Company's common stock, or a combination thereof, at the Company's election, and therefore remain classified as long-term debt on the Consolidated Balance Sheet as of June 30, 2024. The Company is required to pay the aggregate principal amount of the 2029 Notes in cash upon settlement. However, the Company has the ability and intent to refinance the 2029 Notes on a long-term basis through available capacity under its Revolving Credit Facility, and as such, the 2029 Notes will remain classified as long-term debt on the Consolidated Balance Sheet as of June 30, 2024.

Holders may convert their Notes at any time, regardless of the foregoing circumstances, on October 15, 2024 with respect to the 2025 Notes, October 1, 2026 with respect to the 2027 Notes, and February 1, 2029 with respect to the 2029 Notes, until the close of business on the business day immediately preceding the respective maturity date.

The Notes are recorded as a single unit within liabilities in the consolidated balance sheets as the conversion features within the Notes are not derivatives that require bifurcation and the Notes do not involve a substantial premium. Transaction costs of $1.9 million, $3.1 million, and $6.8 million incurred in connection with the issuance of the 2025 Notes, 2027 Notes, and 2029 Notes, respectively, were recorded as direct deductions from the related debt liabilities and recognized as non-cash interest expense using the effective interest method over the expected terms of the Notes.

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The carrying value of the 2025 Notes, 2027 Notes, and 2029 Notes are as follows:

	June 30, 2024			December 31, 2023		
	Principal Amount	Unamortized transaction costs	Net carrying value	Principal Amount	Unamortized transaction costs	Net carrying value
	(in thousands)					
2025 Notes	$ 26,500	$ (52)	$ 26,448	$ 26,500	$ (102)	$ 26,398
2027 Notes	25,000	(270)	24,730	25,000	(313)	24,687
2029 Notes	230,000	(5,625)	224,375	230,000	(6,144)	223,856
Net carrying value	$ 281,500	$ (5,947)	$ 275,553	$ 281,500	$ (6,559)	$ 274,941

Total interest expense related to the 2023 Notes, 2025 Notes, 2027 Notes, and 2029 Notes is as follows:

	Three months ended June 30,		Six months ended June 30,	
	2024	2023	2024	2023
	(in thousands)			
Cash Interest Expense				
Coupon interest expense - 2023 Notes	$ —	$ —	$ —	$ 23
Coupon interest expense - 2025 Notes	232	737	464	1,896
Coupon interest expense - 2027 Notes	234	745	468	1,917
Coupon interest expense - 2029 Notes	1,653	753	3,306	753
Non-cash Interest Expense				
Amortization of debt discount/transaction costs- 2023 Notes	—	—	—	4
Amortization of debt discount/transaction costs- 2025 Notes	22	77	50	194
Amortization of debt discount/transaction costs- 2027 Notes	23	70	43	175
Amortization of debt discount/transaction costs- 2029 Notes	271	141	519	141
Total Interest Expense	$ 2,435	$ 2,523	$ 4,850	$ 5,103

The Company determined the 2025 Notes, 2027 Notes, and 2029 Notes are Level 2 liabilities in the fair value hierarchy and had an estimated fair value at June 30, 2024 of $51.5 million, $83.9 million, and $398.5 million, respectively.

Capped Call Transactions

In connection with the offering of the 2027 Notes, on May 13, 2020, the Company entered into privately negotiated capped call transactions (the "Capped Call Transactions"), pursuant to capped call confirmations, covering the total principal amount of the 2027 Notes for an aggregate premium of $10.3 million. The Capped Call Transactions are expected generally to reduce the potential dilution to the Company's common stock upon any conversion of the 2027 Notes and/or offset any cash payments the Company is required to make in excess of the aggregate principal amount of converted 2027 Notes, as the case may be, with such reduction and/or offset subject to a cap based on the capped price of the Capped Call Transactions. The Capped Call Transactions exercise price is equal to the initial conversion price of the 2027 Notes, and the capped price of the Capped Call Transactions is approximately $18.46 per share and is subject to certain adjustments under the terms of the capped call confirmations.

The Capped Call Transactions are separate transactions entered into by the Company with the capped call counterparties, are not part of the terms of the 2027 Notes and do not change the holders' rights under the 2027 Notes. Holders of the 2027 Notes do not have any rights with respect to the Capped Call Transactions. The cost of the Capped Call Transactions is not expected to be tax-deductible as the Company did not elect to integrate the Capped Call Transactions into the 2027 Notes for tax purposes. The Company used a portion of the net proceeds from the offering of the 2027 Notes to pay for the Capped Call Transactions, and the cost of the Capped Call Transactions was recorded as a reduction of the Company's additional paid-in capital in the accompanying consolidated financial statements.

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Revolving Credit Facility

On December 16, 2021, the Company entered into a loan and security agreement providing for a senior secured revolving credit facility in an aggregate principal amount of $150 million (the “Credit Facility”), including a $15 million letter of credit sublimit. The Credit Facility is guaranteed by the Company’s direct material U.S. subsidiaries, subject to customary exceptions. Borrowings under the Credit Facility are secured by a first-priority lien on substantially all of the assets of the Company, subject to customary exceptions. The Credit Facility has a term of five years, maturing on December 16, 2026, or earlier if certain liquidity measures are not met prior to the 2025 Notes maturing. Subject to certain conditions and the receipt of commitments from the lenders, the Loan and Security Agreement allows for revolving commitments under the Credit Facility to be increased by up to $75 million. The existing lenders under the Credit Facility are entitled, but not obligated, to provide such incremental commitments. On August 2, 2024, the Company obtained commitments from lenders to increase the Credit Facility by $75 million, and as such the total available under the revised Credit Facility is $225 million. This provides the Company the ability to refinance the 2029 Notes on a long-term basis if necessary.

Borrowings will bear interest at a floating rate which can be, at the Company’s option, either (a) an alternate base rate plus an applicable rate ranging from 0.50% to 1.25% or (b) a Secured Overnight Financing Rate (“SOFR”) (with a floor of 0.00%) for the specified interest period plus an applicable rate ranging from 1.50% to 2.25%, in each case, depending on the Company’s Secured Net Leverage Ratio (as defined in the Loan and Security Agreement). The Company will pay an unused commitment fee ranging from 0.25% to 0.35% based on unused capacity under the Credit Facility and the Company’s Secured Net Leverage Ratio. The Company may use the proceeds of borrowings under the Credit Facility to pay transaction fees and expenses, provide for its working capital needs and reimburse drawings under letters of credit and for other general corporate purposes.

The Loan and Security Agreement contains customary affirmative covenants for transactions of this type, including, among others, the provision of financial and other information to the administrative agent, notice to the administrative agent upon the occurrence of certain material events, preservation of existence, maintenance of properties and insurance, compliance with laws, including environmental laws, the provision of additional guarantees, and an affiliate transactions covenant, subject to certain exceptions. The Loan and Security Agreement contains customary negative covenants, including, among others, restrictions on the ability to merge and consolidate with other companies, incur indebtedness, refinance our existing convertible notes, grant liens or security interests on assets, make investments, acquisitions, loans, or advances, pay dividends, and sell or otherwise transfer assets.

The Loan and Security Agreement contains financial maintenance covenants that require the Borrower to maintain an Interest Coverage Ratio (as defined in the Loan and Security Agreement) of not less than 3.00 to 1.00, a Total Net Leverage Ratio (as defined in the Loan and Security Agreement) of not more than 4.50 to 1.00, and a Secured Net Leverage Ratio (as defined in the Loan and Security Agreement) of not more than 2.50 to 1.00, in each case, tested at the end of each fiscal quarter commencing with the fiscal quarter ending September 30, 2022. The Loan and Security Agreement also provides for a number of customary events of default, including, among others: payment defaults to the lenders; voluntary and involuntary bankruptcy proceedings; covenant defaults; material inaccuracies of representations and warranties; certain change of control events; material money judgments; and other customary events of default. The occurrence of an event of default could result in the acceleration of obligations and the termination of lending commitments under the Loan and Security Agreement.

No amounts were outstanding under the Credit Facility as of June 30, 2024 or December 31, 2023.

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Other Liabilities

Other liabilities at June 30, 2024 and December 31, 2023 were approximately $ 25.6 million and $25.5 million, respectively; which primarily included contingent consideration of $22.3 million and $22.4 million, respectively; medical and dental benefits from former executives of $1.9 million; and asset retirement obligations of $0.9 million.

Note 6 — Commitments and Contingencies

Leases

The Company's operating leases primarily include real estate leases for properties used for manufacturing, R&D activities, sales and service, and administration, as well as certain equipment leases. Some leases may include options to renew for a period of up to 5 years, while others may include options to terminate the lease. The weighted average remaining lease term of the Company's operating leases as of June 30, 2024 was 11 years, and the weighted average discount rate used in determining the present value of future lease payments was 5.7%.

The following table provides the maturities of lease liabilities at June 30, 2024:

	Operating Leases
	(in thousands)
Payments due by period:	
2024	$ 1,374
2025	4,236
2026	4,524
2027	4,370
2028	4,170
Thereafter	34,911
Total future minimum lease payments	53,585
Less: Imputed interest	(14,991)
Total	$ 38,594
Reported as of June 30, 2024	
Accrued expenses and other current liabilities	$ 3,656
Long-term operating lease liabilities	34,938
Total	$ 38,594

Operating lease costs for the three and six months ended June 30, 2024 were $ 1.2 million and $2.4 million , respectively, and $1.2 million and $2.6 million, respectively for the comparable 2023 period. Variable lease costs for the three and six months ended June 30, 2024 were $0.3 million and $0.7 million, respectively, and $0.2 million and $0.5 million, respectively for the comparable 2023 period. Additionally, the Company has an immaterial amount of short-term leases. Cash outflows from operating leases for the six months ended June 30, 2024 and 2023 were $3.4 million and $3.0 million, respectively.

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Receivable Purchase Agreement

The Company entered into a receivable purchase agreement with a financial institution to sell certain of its trade receivables from customers without recourse, up to $30.0 million at any point in time. Pursuant to this agreement, the Company sold $8.0 million of receivables for the three and six months ended June 30, 2024, and $ 22.0 million was available under the agreement for additional sales of receivables as of June 30, 2024. The Company sold $9.9 million and $18.2 million, respectively, of receivables under this agreement for the three and six months ended June 30, 2023. The net sale of accounts receivable under the agreement is reflected as a reduction of accounts receivable in the Company's Consolidated Balance Sheet at the time of sale and any fees for the sale of trade receivables were not material for the periods presented.

Purchase Commitments

Veeco has purchase commitments of $175.3 million at June 30, 2024, substantially all of which become due within one year.

Bank Guarantees

Veeco has bank guarantees and letters of credit issued by a financial institution on its behalf as needed. At June 30, 2024, outstanding bank guarantees and standby letters of credit totaled $22.7 million, and unused bank guarantees and letters of credit of $17.8 million were available to be drawn upon.

Legal Proceedings

The Company is involved in various legal proceedings arising in the normal course of business. The Company does not believe that the ultimate resolution of these matters will have a material adverse effect on its consolidated financial position, results of operations, or cash flows.

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Note 7 — Equity

Statement of Stockholders' Equity

The following tables present the changes in Stockholders' Equity:

	Common Stock			Additional Paid-in		Accumulated		Accumulated Other Comprehensive	
	Shares		Amount	Capital		Deficit		Income	Total
				(in thousands)					
Balance at December 31, 2023	56,364	$	564	$1,202,440	$	(532,169)	$	1,607	$672,442
Net income	—		—	—		21,854		—	21,854
Other comprehensive income (loss), net of tax	—		—	—		—		(128)	(128)
Share-based compensation expense	—		—	8,082		—		—	8,082
Net issuance under employee stock plans	273		2	(14,342)		—		—	(14,340)
Balance at March 31, 2024	56,637	$	566	$1,196,180	$	(510,315)	$	1,479	$687,910
Net income	—		—	—		14,944		—	14,944
Other comprehensive income (loss), net of tax	—		—	—		—		(12)	(12)
Share-based compensation expense	—		—	9,233		—		—	9,233
Net issuance under employee stock plans	136		3	2,935		—		—	2,938
Balance at June 30, 2024	56,773	$	569	$1,208,348	$	(495,371)	$	1,467	$715,013

	Common Stock			Additional Paid-in		Accumulated		Accumulated Other Comprehensive	
	Shares		Amount	Capital		Deficit		Income	Total
				(in thousands)					
Balance at December 31, 2022	51,660	$	517	$1,078,180	$	(501,801)	$	928	$577,824
Net income	—		—	—		8,741		—	8,741
Other comprehensive income (loss), net of tax	—		—	—		—		476	476
Share-based compensation expense	—		—	7,027		—		—	7,027
Net issuance under employee stock plans	33		—	(8,509)		—		—	(8,509)
Balance at March 31, 2023	51,693	$	517	$1,076,698	$	(493,060)	$	1,404	$585,559
Net income	—		—	—		(85,320)		—	(85,320)
Other comprehensive income (loss), net of tax	—		—	—		—		(39)	(39)
Share-based compensation expense	—		—	7,932		—		—	7,932
Partial Extinguishment of 2025 and 2027 Notes	4,460		45	102,095					102,140
Net issuance under employee stock plans	185		2	2,326		—		—	2,328
Balance at June 30, 2023	56,338	$	564	$1,189,051	$	(578,380)	$	1,365	$612,600

Accumulated Other Comprehensive Income ("AOCI")

The following table presents the changes in the balances of each component of AOCI, net of tax:

		Foreign Currency Translation		Unrealized Gains (Losses) on Available for Sale Securities		Total
				(in thousands)		
Balance - December 31, 2023	$	1,761	$	(154)	$	1,607
Other comprehensive income (loss)		(35)		(105)		(140)
Balance - June 30, 2024	$	1,726	$	(259)	$	1,467

Veeco Instruments Inc. and Subsidiaries
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There were immaterial reclassifications from AOCI into net income for the three and six months ended June 30, 2024 and 2023.

Note 8 — Share-based Compensation

Restricted share awards are issued to employees and to members of our board of directors that are subject to specified restrictions and a risk of forfeiture. The restrictions typically lapse over one to four years and may entitle holders to dividends and voting rights. Other types of share-based compensation include performance share awards, performance share units, and restricted share units (collectively with restricted share awards, “restricted shares”), as well as options to purchase common stock.

Share-based compensation expense was recognized in the following line items in the Consolidated Statements of Operations for the three and six months ended June 30, 2024 and 2023:

	Three months ended June 30,		Six months ended June 30,	
	2024	2023	2024	2023
	(in thousands)			
Cost of sales	$ 1,445	$ 1,572	$ 3,175	$ 3,023
Research and development	2,993	2,568	5,311	4,657
Selling, general, and administrative	4,795	3,792	8,829	7,279
Total	$ 9,233	$ 7,932	$ 17,315	$ 14,959

For the six months ended June 30, 2024, equity activity related to non-vested restricted shares and performance shares was as follows:

	Number of Shares	Weighted Average Grant Date Fair Value
	(in thousands)	
Balance - December 31, 2023	2,464	$ 26.19
Granted	1,169	38.01
Performance award adjustments	200	27.81
Vested	(1,111)	25.62
Forfeited	(58)	27.28
Balance - June 30, 2024	2,664	$ 31.92

Note 9 — Income Taxes

Income taxes are estimated for each of the jurisdictions in which the Company operates. Deferred income taxes reflect the net tax effect of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes, as well as the tax effect of carryforwards. Realization of net deferred tax assets is dependent on future taxable income.

At the end of each interim reporting period, the effective tax rate is aligned with expectations for the full year. This estimate is used to determine the income tax provision on a year-to-date basis and may change in subsequent interim periods.

Veeco Instruments Inc. and Subsidiaries
Notes to the Consolidated Financial Statements - continued
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Income before income taxes and income tax expense for the three and six months ended June 30, 2024 and 2023 were as follows:

	Three months ended June 30,		Six months ended June 30,	
	2024	2023	2024	2023
	(in thousands, except percentages)			
Income (loss) before income taxes	$ 17,071	$ (84,035)	$ 39,821	$ (75,031)
Income tax expense	$ 2,127	$ 1,285	$ 3,023	$ 1,548
Effective tax rate	12.46%	(1.53)%	7.59%	(2.06)%

The Company's income tax expense for the three and six months ended June 30, 2024 was $ 2.1 million and $3.0 million respectively, compared to $1.3 million and $1.5 million, respectively for the comparable prior period. For the three and six months ended June 30, 2024, the effective tax rate was favorably impacted by the tax benefits related to Foreign-Derived Intangible Income and research and development tax credits. Additionally, the effective tax rate was also lower than the U.S. statutory tax rate primarily relating to a discrete income tax benefit for share-based compensation windfall. For the three and six months ended June 30, 2023, the Company's income tax expense primarily related to pre-tax income from operations excluding the loss on extinguishment of the 2025 and 2027 Notes. Pursuant to the limitation on losses from extinguishment of convertible notes under Section 249 of the Internal Revenue Code of 1986, as amended (Section 249), the Company recognized a benefit of $0.9 million associated with this loss for the three and six months ended June 30, 2023. Additionally, the income tax expense for the three and six months ended June 30, 2023 was favorably impacted by the tax benefits related to Foreign-Derived Intangible Income and research and development tax credits, as well as discrete income tax benefit for share-based compensation windfall.

Note 10 — Segment Reporting and Geographic Information

Veeco operates and measures its results in one operating segment and therefore has one reportable segment: the development, manufacture, sales, and support of semiconductor and thin film process equipment primarily sold to make electronic devices.

Veeco serves the following four end-markets:

Semiconductor

The Semiconductor market refers to early process steps in logic and memory applications where silicon wafers are processed. There are many different process steps in forming patterned wafers, such as deposition, etching, masking, and doping, where the microchips are created but remain on the silicon wafer. This market includes mask blank production for extreme ultraviolet ("EUV") lithography, as well as Advanced Packaging, which refers to a portfolio of wafer-level assembly technologies that enable improved performance of electronic products, such as smartphones, high-end servers, and graphical processors.

Compound Semiconductor

The Compound Semiconductor market includes Photonics, Power Electronics, RF Filters and Amplifiers, and Solar applications. Photonics refers to light source technologies and laser-based solutions for 3D sensing, datacom and telecom applications. This includes micro-LED, laser diodes, edge emitting lasers and vertical cavity surface emitting lasers ("VCSELs"). Power Electronics refers to semiconductor devices such as rectifiers, inverters and converters for the control and conversion of electric power in applications such as fast or wireless charging of consumer electronics and automotive applications. RF power amplifiers and filters (including surface acoustic wave ("SAW") and bulk acoustic wave ("BAW") filters) are used in 5G communications infrastructure, smartphones, tablets, and mobile devices. They

Veeco Instruments Inc. and Subsidiaries
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make use of radio waves for wireless broadcasting and/or communications. Solar refers to power obtained by harnessing the energy of the sun through the use of compound semiconductor devices such as photovoltaics.

Data Storage

Data Storage refers to the Hard Disk Drive ("HDD") market, for which our systems enable customers to manufacture thin film magnetic heads for hard disk drives as part of large capacity storage applications.

Scientific & Other

Scientific & Other refers to advanced materials research and a range of manufacturing applications including optical coatings (laser mirrors, optical filters, and anti-reflective coatings).

Sales by end-market and geographic region for the three and six months ended June 30, 2024 and 2023 were as follows:

	Three months ended June 30,		Six months ended June 30,	
	2024	2023	2024	2023
	(in thousands)			
Sales by end-market				
Semiconductor	$ 109,936	$ 106,275	$ 230,320	$ 199,382
Compound Semiconductor	18,223	24,066	39,225	45,225
Data Storage	33,960	13,945	51,977	35,459
Scientific & Other	13,760	17,355	28,841	35,079
Total	$ 175,879	$ 161,641	$ 350,363	$ 315,145
Sales by geographic region				
United States	$ 42,744	$ 35,739	$ 70,612	$ 66,750
EMEA(1)	23,802	17,511	32,290	40,458
China	65,376	49,986	129,684	110,733
Rest of APAC	43,935	58,320	117,155	97,065
Rest of World	22	85	622	139
Total	$ 175,879	$ 161,641	$ 350,363	$ 315,145

(1) EMEA consists of Europe, the Middle East, and Africa
For geographic reporting, sales are attributed to the location in which the customer facility is located.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

Cautionary Statement Regarding Forward Looking Statements

Our discussion below constitutes "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. When used in this Report, the words "believes," "anticipates," "expects," "estimates," "targets," "plans," "intends," "will," and similar expressions related to the future are intended to identify forward-looking statements. All forward-looking statements are subject to a number of risks and uncertainties that could cause actual results to differ materially from projected results. You should not place undue reliance on any forward-looking statements, which speak only as of the dates they are made.

Executive Summary

We are an innovative manufacturer of semiconductor process equipment. Our proven ion beam, laser annealing, lithography, MOCVD, CVD, and single wafer wet processing technologies play an integral role in the fabrication and packaging of advanced semiconductor devices. With equipment designed to optimize performance, yield and cost of ownership, Veeco holds leading technology positions in the markets we serve. To learn more about Veeco's systems and service offerings, visit www.veeco.com.

Business Update

The Semiconductor industry has historically been cyclical based on fluctuations in global chip demand and production capacity. Sales in the Semiconductor industry declined in 2023 to approximately $550 billion dollars after several years of growth following the pandemic. Looking ahead, industry analysts are forecasting long-term growth of the industry, driven by secular growth trends such as artificial intelligence, high-performance computing, mobile connectivity, and the electrification of the automotive industry. Additionally, government investments in the Semiconductor industry are expected to accelerate spending globally in next-generation technologies.

Growth in the Semiconductor industry, coupled with increasing technological complexity of Semiconductor chips, are expected to drive long-term growth in Wafer Fab Equipment ("WFE") spending. In an effort to improve chip performance and reduce costs, today's most advanced Semiconductor manufacturers are shrinking device geometries, investing in more complex device designs such as Gate-All-Around and backside power delivery and exploring 3D architectures. As a result, growth of the WFE market is forecasted to keep pace with long-term growth of the Semiconductor industry, which we believe should benefit semiconductor capital equipment providers, including Veeco.

Our strategy of investing in advanced logic and memory has enabled our Semiconductor business to outperform WFE growth for 3 consecutive years. Veeco technologies are at the forefront of enabling new technical innovations in the manufacture of high performance AI chips and High-Bandwidth Memory ("HBM"). We continue to invest in new technologies to expand our Served Available Market ("SAM") to a broad range of new applications.

Semiconductor revenue increased by 3% in the second quarter 2024 from the comparable prior year period, comprising 63% of total revenue. This increase was led by record Laser Annealing revenue. Our laser annealing solutions continue to gain share in advanced nodes in logic, highlighted by recent wins at both new and existing customers. In 2023, we won business with a new Tier 1 logic customer for advanced anneal applications and shipped multiple systems to this customer. In the first quarter of 2024, we received a multi-tool laser annealing order from a leading edge logic foundry for their 2nm gate-all-around process. In the second quarter of 2024, we shipped and received Laser Spike Annealing ("LSA") orders for another leading logic customers' gate-all-around process. In the memory market, a Tier 1 memory customer placed several LSA orders for high volume production of HBM and advanced DRAM devices following a successful evaluation program, and we've shipped multiple systems to this customer. While our growth strategy is predominately focused on advanced node logic and memory, we continue to see strong demand for mature node applications predominantly in China driven by new greenfield fabs and capacity additions.

We achieved a significant milestone in the fourth quarter of 2023 when we shipped two next generation laser annealing systems to tier 1 foundry and logic customers for evaluation. This next generation system, the NSA500, covers the nano-second annealing regime and complements our Laser Spike Annealing product. This new system is part of our continued effort to enable our customer's product roadmap by providing innovative annealing solutions. Nanosecond annealing provides Veeco with an opportunity to expand our laser annealing SAM for new advanced node logic and memory applications, including Gate-All-Around, 3D devices, and backside power delivery.

The ongoing adoption of EUV Lithography for advanced node semiconductor manufacturing continues to drive demand for our Ion Beam deposition system for mask blanks - the IBD-LDD. Our product roadmap is well positioned as the industry adopts next-generation High-NA EUV lithography. We are also working toward expanding our EUV related business to new mask blank applications.

We achieved another significant milestone in the fourth quarter of 2023 upon shipment of our new Ion Beam Deposition "IBD300" system to two leading memory customers for evaluation. Our IBD300 system provides Veeco with another opportunity to expand our SAM to advanced node applications where low resistance films are critical. These initial systems are being evaluated for advanced memory applications such as DRAM bitline.

Additionally, our Wet Processing systems are used for Advanced Packaging applications, including 3D packaging technologies, and we continue to see strong demand for HBM. Our Advanced Packaging lithography systems are used for packaging approaches such as fan out wafer level packaging and other advanced packaging applications. Given our revenue to date, current backlog and visibility, we expect Semiconductor revenue to grow in 2024.

Veeco also serves customers in the Compound Semiconductor, Data Storage, and Scientific & Other markets.

We address the Compound Semiconductor market with a broad portfolio of technologies, including Wet Processing, MOCVD, MBE and Ion Beam, for Power Electronics, Photonics, and 5G RF applications. Sales in the Compound Semiconductor market declined in the second quarter 2024 from the comparable prior year period. Looking ahead, we're focused on long-term growth opportunities within Power Electronics and Photonics, and expect revenue in the Compound Semiconductor market to be flat to down in 2024. We address the Data Storage market with sales of our Ion Beam Deposition technology. Demand for our Ion Beam products is driven by demand for cloud-based storage, and sales increased in the second quarter 2024 from the comparable prior year period. We expect revenue in the Data Storage market to be flat to up in 2024. Sales in the Scientific & Other market are largely driven by sales to governments, universities, and research institutions. We address the Scientific & Other market with several technologies, including MBE, ALD, MOCVD, Wet Processing, and IBD/IBE, which support scientific, optical coating and other applications, and sales in this market declined in the second quarter 2024 from the comparable prior year period. We expect revenue in the Scientific and Other market to remain flat in 2024.

Results of Operations

For the three months ended June 30, 2024 and 2023

The following table presents revenue and expense line items reported in our Consolidated Statements of Operations for the indicated periods in 2024 and 2023 and the period-over-period dollar and percentage changes for those line items. Our results of operations are reported as one business segment, represented by our single operating segment.

	Three Months Ended June 30,				Change	
	2024		2023		Period to Period	
	(dollars in thousands)					
Net sales	$ 175,879	100%	$ 161,641	100%	$ 14,238	9%
Cost of sales	100,489	57%	94,131	58%	6,358	7%
Gross profit	75,390	43%	67,510	42%	7,880	12%
Operating expenses, net:						
Research and development	31,696	18%	27,384	17%	4,312	16%
Selling, general, and administrative	24,595	14%	23,822	15%	773	3%
Amortization of intangible assets	1,825	1%	2,123	1%	(298)	(14)%
Other operating expense (income), net	552	-	493	-	59	12%
Total operating expenses, net	58,668	33%	53,822	33%	4,846	9%
Operating income	16,722	10%	13,688	8%	3,034	22%
Interest income (expense), net	349	0%	(632)	(0)%	981	(155)%
Other income (expense), net	—	0%	(97,091)	(60)%	97,091	(100)%
Income (loss) before income taxes	17,071	10%	(84,035)	(52)%	101,106	(120)%
Income tax expense (benefit)	2,127	1%	1,285	1%	842	66%
Net income (loss)	$ 14,944	8%	$ (85,320)	(53)%	$ 100,264	(118)%

Net Sales

The following is an analysis of sales by market and by region:

	Three Months Ended June 30,				Change	
	2024		2023		Period to Period	
	(dollars in thousands)					
Sales by end-market						
Semiconductor	$ 109,936	63%	$ 106,275	65%	$ 3,661	3%
Compound Semiconductor	18,223	10%	24,066	15%	(5,843)	(24)%
Data Storage	33,960	19%	13,945	9%	20,015	144%
Scientific & Other	13,760	8%	17,355	11%	(3,595)	(21)%
Total	$ 175,879	100%	$ 161,641	100%	$ 14,238	9%
Sales by geographic region						
United States	$ 42,744	24%	$ 35,739	22%	$ 7,005	20%
EMEA	23,802	14%	17,511	11%	6,291	36%
China	65,376	37%	49,986	31%	15,390	31%
Rest of APAC	43,935	25%	58,320	36%	(14,385)	(25)%
Rest of World	22	-	85	-	(63)	*
Total	$ 175,879	100%	$ 161,641	100%	$ 14,238	9%

* Not meaningful

Sales increased for the three months ended June 30, 2024 against the comparable prior year period driven by sales in the Data Storage and Semiconductor markets, partially offset by decreases in sales in the Compound Semiconductor, and Scientific & Other markets. By geography, sales increased in the China, United States, and EMEA regions, partially offset by decreases in the Rest of APAC region. Sales in the Rest of APAC region for the three months ended June 30, 2024 included sales in Taiwan and Japan of $21.0 million, and $8.8 million respectively. Sales in the Rest of APAC region for the three months ended June 30, 2023 included sales in Singapore, Taiwan, and Japan of $22.9 million, $16.1 million, and $12.5 million respectively. We expect there will continue to be year-to-year variations in our future sales distribution across markets and geographies. In light of the global nature of our business, we are impacted by conditions in the various countries in which we and our customers operate.

Gross Profit

For the three months ended June 30, 2024, gross profit increased against the comparable prior period primarily due to an increase in sales volume and increased gross margins. Gross margin increased principally due to higher volume partially offset by higher service costs. We expect our gross margins to fluctuate each period due to product mix and other factors.

Research and Development

The markets we serve are characterized by continuous technological development and product innovation, and we invest in various research and development initiatives to maintain our competitive advantage and achieve our growth objectives. Research and development expenses increased for the three months ended June 30, 2024 against the comparable prior period primarily due to an increase in project materials and personnel-related expenses as we invest in new research and development and additional applications for our technology in order to be well-positioned to capitalize on emerging global megatrends and support longer term growth in Semiconductor and Compound Semiconductor markets.

Selling, General, and Administrative

Selling, general, and administrative expenses increased for the three months ended June 30, 2024 against the comparable prior period primarily due to higher variable expenses associated with the increase in revenue and profitability. However, expenses as a percentage of revenue are slightly down when compared to the comparable prior year period.

Amortization Expense

Amortization expense decreased compared to the comparable prior year period primarily due to changes in amortization expense to reflect expected cash flows of certain intangible assets.

Interest Income (Expense)

We recorded net interest income of $0.3 million for the three months ended June 30, 2024, compared to net interest expense of $0.6 million for the comparable prior year period. The increase in net interest income was primarily due to higher interest rates for the three months ended June 30, 2024, against the comparable prior year period.

Other Income (Expense)

On May 19, 2023, in connection with the completion of a private offering of $230.0 million aggregate principal amount of 2.875% convertible senior notes, we repurchased and retired approximately $106.0 million in aggregate principal amount of our outstanding 2025 Notes; with a carrying amount of $105.4 million, for approximately $106.0 million of cash and 0.7 million shares of our common stock for the 2025 Notes. Also, we repurchased and retired approximately $100.0 million in aggregate principal amount of our outstanding 2027 Notes; with a carrying amount of $98.5 million, for approximately $92.8 million of cash and 3.8 million shares of our common stock for the 2027 Notes. We accounted for the partial settlement of the 2025 Notes and 2027 Notes as an extinguishment, and recorded a loss on extinguishment of approximately $16.5 million and $80.6 million, respectively, for the three months ended June 30, 2023.

Income Taxes

At the end of each interim reporting period, we estimate the effective income tax rate expected to be applicable for the full year. This estimate is used to determine the income tax provision or benefit on a year-to-date basis and may change in subsequent interim periods.

Our income tax expense for the three months ended June 30, 2024 was $2.1 million, compared to $1.3 million for the comparable prior period. For the three months ended June 30, 2024, the effective tax rate was favorably impacted by the tax benefits related to Foreign-Derived Intangible Income and research and development tax credits. Additionally, the effective tax rate was also lower than the U.S. statutory tax rate primarily relating to a discrete income tax benefit for share-based compensation windfall. For the three months ended June 30, 2023, we incurred income tax expense primarily related to pre-tax income from operations excluding the loss on extinguishment of the 2025 and 2027 Notes. Pursuant to Section 249 limitation on losses from extinguishment of convertible notes, we recognized a benefit of $0.9 million associated with this loss for the three months ended June 30, 2023. Additionally, the $1.3 million of income tax expense for the three months ended June 30, 2023 was favorably impacted by the tax benefits related to Foreign-Derived Intangible Income and research and development tax credits.

For the six months ended June 30, 2024 and 2023

The following table presents revenue and expense line items reported in our Consolidated Statements of Operations for the indicated periods in 2024 and 2023 and the period-over-period dollar and percentage changes for those line items. Our results of operations are reported as one business segment, represented by our single operating segment.

	Six Months Ended June 30,				Change	
	2024		2023		Period to Period	
	(dollars in thousands)					
Net sales	$ 350,363	100%	$ 315,145	100%	$ 35,218	11%
Cost of sales	199,554	57%	185,618	59%	13,936	8%
Gross profit	150,809	43%	129,527	41%	21,282	16%
Operating expenses, net:						
Research and development	61,338	18%	54,945	17%	6,393	12%
Selling, general, and administrative	49,295	14%	46,449	15%	2,846	6%
Amortization of intangible assets	3,716	1%	4,235	1%	(519)	(12)%
Other operating expense (income), net	(2,307)	(1)%	404	0%	(2,711)	*
Total operating expenses, net	112,042	32%	106,033	34%	6,009	6%
Operating income (loss)	38,767	11%	23,494	7%	15,273	65%
Interest income (expense), net	1,054	0%	(1,434)	(0)%	2,488	(174)%
Other income (expense), net	—	0%	(97,091)	(31)%	97,091	*
Income (loss) before income taxes	39,821	11%	(75,031)	(24)%	114,852	*
Income tax expense (benefit)	3,023	1%	1,548	0%	1,475	95%
Net income (loss)	$ 36,798	11%	$ (76,579)	(24)%	$ 113,377	*

* Not meaningful

Net Sales

The following is an analysis of sales by market and by region:

	Six Months Ended June 30, 2024		2023		Change Period to Period	
			(dollars in thousands)			
Sales by end-market						
Semiconductor	$ 230,320	66%	$ 199,382	64%	$ 30,938	16%
Compound Semiconductor	39,225	11%	45,225	14%	(6,000)	(13)%
Data Storage	51,977	15%	35,459	11%	16,518	47%
Scientific & Other	28,841	8%	35,079	11%	(6,238)	(18)%
Total	$ 350,363	100%	$ 315,145	100%	$ 35,218	11%
Sales by geographic region						
United States	$ 70,612	20%	$ 66,750	21%	$ 3,862	6%
EMEA	32,290	9%	40,458	13%	(8,168)	(20)%
China	129,684	38%	110,733	35%	18,951	17%
Rest of APAC	117,155	33%	97,065	31%	20,090	21%
Rest of World	622	-	139	-	483	*
Total	$ 350,363	100%	$ 315,145	100%	$ 35,218	11%

* Not meaningful

Sales increased for the six months ended June 30, 2024 against the comparable prior year period in the Semiconductor and Data Storage markets, partially offset by an decrease in the Compound Semiconductor, and Scientific & Other markets. By geography, sales increased in the Rest of APAC, China, and United States regions, partially offset by an decrease in the EMEA region. Sales in the Rest of APAC region for the six months ended June 30, 2024 included sales in Japan and Taiwan of $41.8 million and $40.3 million respectively. Sales in the Rest of APAC region for the six months ended June 30, 2023 included sales in Taiwan, Singapore, Japan, and Thailand of $34.1 million, $25.8 million, $16.9 million, and $10.4 million respectively. We expect there will continue to be year-to-year variations in our future sales distribution across markets and geographies. In light of the global nature of our business, we are impacted by conditions in the various countries in which we and our customers operate.

Gross Profit

For the six months ended June 30, 2024, gross profit increased against the comparable prior period primarily due to an increase in sales volume and increased gross margins. Gross margin increased principally due to higher volume and favorable product mix of sales partially offset by higher service costs. We expect our gross margins to fluctuate each period due to product mix and other factors.

Research and Development

The markets we serve are characterized by continuous technological development and product innovation, and we invest in various research and development initiatives to maintain our competitive advantage and achieve our growth objectives. Research and development expenses increased for the six months ended June 30, 2024 against the comparable prior period primarily due to personnel-related expenses as we invest in new research and development and additional applications for our technology in order to be well-positioned to capitalize on emerging global megatrends and support longer term growth in Semiconductor and Compound Semiconductor markets.

Selling, General, and Administrative

Selling, general, and administrative expenses increased for the six months ended June 30, 2024 against the comparable prior period primarily due to higher variable expenses associated with the increase in revenue and profitability. However, expenses as a percentage of revenue are slightly down when compared to the comparable prior year period.

Amortization Expense

Amortization expense decreased compared to the comparable prior year period primarily due to changes in amortization expense to reflect expected cash flows of certain intangible assets.

Interest Income (Expense)

We recorded net interest income of $1.1 million for the six months ended June 30, 2024, compared to net interest expense of $1.4 million for the comparable prior year period. The increase in net interest income was primarily related to an increase of interest income of approximately $1.9 million due to a higher interest rate environment for the six months ended June 30, 2024, against the comparable prior year period.

Other Income (Expense)

On May 19, 2023, in connection with the completion of a private offering of $230.0 million aggregate principal amount of 2.875% convertible senior notes, we repurchased and retired approximately $106.0 million in aggregate principal amount of our outstanding 2025 Notes; with a carrying amount of $105.4 million, for approximately $106.0 million of cash and 0.7 million shares of our common stock for the 2025 Notes. Also, we repurchased and retired approximately $100.0 million in aggregate principal amount of our outstanding 2027 Notes; with a carrying amount of $98.5 million, for approximately $92.8 million of cash and 3.8 million shares of our common stock for the 2027 Notes. We accounted for the partial settlement of the 2025 Notes and 2027 Notes as an extinguishment, and as such, recorded a loss on extinguishment of approximately $16.5 million and $80.6 million, respectively, for the six months ended June 30, 2023.

Income Taxes

At the end of each interim reporting period, we estimate the effective income tax rate expected to be applicable for the full year. This estimate is used to determine the income tax provision or benefit on a year-to-date basis and may change in subsequent interim periods. Our tax expense for the six months ended June 30, 2024 was $3.0 million, compared to $1.5 million for the comparable prior period. For the six months ended June 30, 2024, the effective tax rate was favorably impacted by the tax benefits related to Foreign-Derived Intangible Income and research and development tax credits. Additionally, the effective tax rate was also lower than the U.S. statutory tax rate primarily relating to a discrete income tax benefit for share-based compensation windfall. For the six months ended June 30, 2023, we incurred income tax expense primarily related to pre-tax income from operations excluding the loss on extinguishment of the 2025 and 2027 Notes. Pursuant to Section 249 limitation on losses from extinguishment of convertible notes, we recognized a benefit of $0.9 million with this loss for the six months ended June 30, 2023.

Liquidity and Capital Resources

Our cash and cash equivalents, restricted cash, and short-term investments are as follows:

	June 30, 2024	December 31, 2023
	(in thousands)	
Cash and cash equivalents	$ 174,164	$ 158,781
Restricted cash	289	339
Short-term investments	130,696	146,664
Total	$ 305,149	$ 305,784

At June 30, 2024 and December 31, 2023, cash and cash equivalents of $49.5 million and $46.8 million, respectively, were held outside the United States. As of June 30, 2024, we had $25.1 million of accumulated undistributed earnings generated by our non-U.S. subsidiaries for which the U.S. tax has previously been provided. Approximately $8.9 million of undistributed earnings will be subject to foreign withholding taxes if distributed back to the United States and we accrued $0.9 million for foreign withholding taxes for the undistributed earnings.

We believe that our projected cash flow from operations, combined with our cash and short-term investments, will be sufficient to meet our projected working capital requirements, contractual obligations, and other cash flow needs for the next twelve months, including scheduled principal and interest payments on our convertible senior notes, purchase commitments, and payments required under our operating leases.

A summary of the cash flow activity for the six months ended June 30, 2024 and 2023 is as follows:

Cash Flows from Operating Activities

	Six Months Ended June 30,	
	2024	**2023**
	(in thousands)	
Net income (loss)	$ 36,798	$ (76,579)
Non-cash items:		
Depreciation and amortization	13,008	12,435
Non-cash interest expense	613	514
Deferred income taxes	(67)	778
Share-based compensation expense	17,315	14,959
Loss on extinguishment of debt	—	97,091
Provision for bad debts	—	490
Change in contingent consideration	(131)	—
Changes in operating assets and liabilities	(49,720)	(24,553)
Net cash provided by (used in) operating activities	$ 17,816	$ 25,135

Net cash provided by operating activities was $17.8 million for the six months ended June 30, 2024 and was due to net income of $36.8 million and adjustments for non-cash items of $30.7 million, partially offset by a decrease in cash flow from changes in operating assets and liabilities of $49.7 million. The changes in operating assets and liabilities were largely attributable to a decrease in contract liabilities and increases in inventories and contract assets, partially offset by a decrease in accounts receivables.

Cash Flows from Investing Activities

	Six Months Ended June 30,	
	2024	**2023**
	(in thousands)	
Capital expenditures	$ (8,943)	$ (10,836)
Changes in investments, net	17,691	43,575
Acquisitions of businesses, net of cash acquired	—	(30,373)
Proceeds from the sale of productive assets	2,033	—
Net cash provided by (used in) investing activities	$ 10,781	$ 2,366

The cash provided by investing activities during the six months ended June 30, 2024 was primarily attributable to net cash provided by net investment activity and proceeds from the sale of productive assets, partially offset by capital expenditures. The cash provided by investing activities during the six months ended June 30, 2023 was primarily attributable to net investment activity, partially offset by the net cash used in the acquisition of Epiluvac, and capital expenditures.

Cash Flows from Financing Activities

	Six Months Ended June 30,	
	2024	2023
	(in thousands)	
Settlement of equity awards, net of withholding taxes	$ (11,402)	$ (6,182)
Contingent consideration payment	(1,818)	—
Proceeds from issuance of 2029 Notes, net of issuance costs	—	223,202
Extinguishment of convertible notes	—	(218,991)
Net cash provided by (used in) financing activities	$ (13,220)	$ (1,971)

The cash used in financing activities for the six months ended June 30, 2024 was related to cash used to settle taxes related to employee equity programs and contingent consideration payment related to Epiluvac acquisition, partially offset by cash received under the Employee Stock Purchase Plan. The cash used in financing activities for the six months ended June 30, 2023 was related to the partial repurchase of the 2025 Notes and 2027 Notes, repayment of the 2023 Notes, as well as cash used to settle taxes related to employee equity programs, partially offset by proceeds from issuance of 2029 Notes.

Convertible Senior Notes

We have $26.5 million outstanding principal balance of 3.50% convertible senior notes that bear interest at a rate of 3.50% per year, payable semiannually in arrears on January 15 and July 15 of each year, and mature on January 15, 2025, unless earlier purchased by the Company, redeemed, or converted. In addition, we have $25.0 million outstanding principal balance of 3.75% convertible senior notes that bear interest at a rate of 3.75% per year, payable semiannually in arrears on June 1 and December 1 of each year, and mature on June 1, 2027, unless earlier purchased by the Company, redeemed, or converted. In addition, we have $230.0 million outstanding principal balance of 2.875% convertible senior notes that bear interest at a rate of 2.875% per year, payable semiannually in arrears on June 1 and December 1 of each year, and mature on June 1, 2029, unless earlier purchased by the Company, redeemed, or converted. The 2025, 2027, and 2029 Notes are all currently convertible by noteholders until September 30, 2024.

We believe that we have sufficient capital resources and cash flows from operations to support scheduled interest payments on this debt and the scheduled January 2025 principal payment due on the 2025 Notes. In addition, on August 2, 2024, we increased the total funds available to us through our revolving credit facility from $150 million to $225 million. This provides the Company with the ability to meet any cash requirements that may arise as a result of potential conversions of the 2029 Notes, which are convertible by noteholders until September 30, 2024, the principal of which is required to be settled in cash. The Company has no immediate plans to draw down on the facility, which expires in December of 2026. Interest under the facility is variable based on the Company’s secured net leverage ratio and is expected to bear interest based on SOFR plus a range of 150 to 225 basis points, if drawn. There is a yearly commitment fee of 25 to 35 basis points, based on the Company’s secured net leverage ratio, charged on the unused portion of the Facility.

Contractual Obligations and Commitments

We have commitments under certain contractual arrangements to make future payments for goods and services. These contractual arrangements secure the rights to various assets and services to be used in the future in the normal course of business. We expect to fund these contractual arrangements with cash generated from operations in the normal course of business.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

Interest Rate Risk

Our exposure to market rate risk for changes in interest rates primarily relates to our investment portfolio. We centrally manage our investment portfolios considering investment opportunities and risks, tax consequences, and overall financing strategies. Our investment portfolio includes fixed-income securities with a fair value of approximately $130.7 million at June 30, 2024. These securities are subject to interest rate risk and, based on our investment portfolio at June 30, 2024, a 100 basis point increase in interest rates would result in a decrease in the fair value of the portfolio of $0.7 million. While an increase in interest rates may reduce the fair value of the investment portfolio, we will not realize the losses in the Consolidated Statements of Operations unless the individual fixed-income securities are sold prior to recovery or the loss is determined to be other-than-temporary.

Currency Exchange Risk

We conduct business on a worldwide basis and, as such, a portion of our revenues, earnings, and net investments in foreign affiliates is exposed to changes in currency exchange rates. The economic impact of currency exchange rate movements is complex because such changes are often linked to variability in real growth, inflation, interest rates, governmental actions, and other factors. These changes, if material, could cause us to adjust our financing and operating strategies. Consequently, isolating the effect of changes in currency does not incorporate these other important economic factors.

Changes in currency exchange rates could affect our foreign currency denominated monetary assets and liabilities and forecasted cash flows. We may enter into monthly forward derivative contracts from time to time with the intent of mitigating a portion of this risk. We only use derivative financial instruments in the context of hedging and not for speculative purposes and have not historically designated our foreign exchange derivatives as hedges. Accordingly, changes in fair value from these contracts are recorded as “Other, net” in our Consolidated Statements of Operations. We execute derivative transactions with highly rated financial institutions to mitigate counterparty risk.

Our net sales to customers located outside of the United States represented approximately 76% and 80% of our total net sales for the three and six months ended June 30, 2024, respectively, 78% and 79% for the comparable 2023 periods. We expect that net sales to customers outside the United States will continue to represent a large percentage of our total net sales. Our sales denominated in currencies other than the U.S. dollar represented approximately 5% and 4% of total net sales for the three and six months ended June 30, 2024, respectively, and 3% for both the three and six months ended June 30, 2023.

A 10% change in foreign exchange rates would have an immaterial impact on the consolidated results of operations since most of our sales outside the United States are denominated in U.S. dollars.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our principal executive and financial officers have evaluated and concluded that our disclosure controls and procedures are effective as of June 30, 2024. The disclosure controls and procedures are designed to ensure that the information required to be disclosed in this report filed under the Securities Exchange Act of 1934 is recorded, processed, summarized, and reported within the time periods specified in the Securities and Exchange Commission’s rules and forms and is accumulated and communicated to our principal executive and financial officers as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control Over Financial Reporting

During the quarter ended June 30, 2024, there were no changes in internal control that have materially affected or are reasonably likely to materially affect internal control over financial reporting.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings

The Company is involved in various legal proceedings arising in the normal course of business. The Company does not believe that the ultimate resolution of these matters will have a material adverse effect on its consolidated financial position, results of operations, or cash flows.

Item 1A. Risk Factors

Information regarding risk factors appears in the Safe Harbor Statement at the beginning of this quarterly report on Form 10-Q, and in Part I — Item 1A of our 2023 Form 10-K. There have been no material changes from the risk factors previously disclosed.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

None.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not Applicable.

Item 5. Other Information

None.

Table of Contents

Item 6. Exhibits

Unless otherwise indicated, each of the following exhibits has been filed with the Securities and Exchange Commission by Veeco under File No. 0-16244.

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed or Furnished Herewith
		Form	Exhibit	Filing Date	
31.1	Certification of Chief Executive Officer pursuant to Rule 13a—14(a) or Rule 15d—14(a) of the Securities and Exchange Act of 1934.				*
31.2	Certification of Chief Financial Officer pursuant to Rule 13a—14(a) or Rule 15d—14(a) of the Securities and Exchange Act of 1934.				*
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes - Oxley Act of 2002.				*
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes - Oxley Act of 2002.				*
101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.				**
101.XSD	XBRL Schema.				**
101.PRE	XBRL Presentation.				**
101.CAL	XBRL Calculation.				**
101.DEF	XBRL Definition.				**
101.LAB	XBRL Label.				**
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).				**

* Filed herewith
** Filed herewith electronically

SIGNATURES

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, thereunto duly authorized, on August 6, 2024.

Veeco Instruments Inc.

By: /s/ WILLIAM J. MILLER, Ph.D.
William J. Miller, Ph.D.
Chief Executive Officer

By: /s/ JOHN P. KIERNAN
John P. Kiernan
Senior Vice President and Chief Financial Officer

Exhibit 31.1

CERTIFICATION PURSUANT TO
RULE 13a — 14(a) or RULE 15d — 14(a)
OF THE SECURITIES EXCHANGE ACT OF 1934

I, William J. Miller, Ph.D., certify that:

1. I have reviewed this quarterly report on Form 10-Q for the period ended June 30, 2024 of Veeco Instruments Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5. The registrant’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):

   (a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and

   (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

By: /s/ WILLIAM J. MILLER, Ph.D.
William J. Miller, Ph.D.
Chief Executive Officer
Veeco Instruments Inc.
August 6, 2024

Exhibit 31.2

CERTIFICATION PURSUANT TO
RULE 13a — 14(a) or RULE 15d — 14(a)
OF THE SECURITIES EXCHANGE ACT OF 1934

I, John P. Kiernan, certify that:

1. I have reviewed this quarterly report on Form 10-Q for the period ended June 30, 2024 of Veeco Instruments Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By: /s/ JOHN P. KIERNAN
John P. Kiernan
Senior Vice President and Chief Financial Officer
Veeco Instruments Inc.
August 6, 2024

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the quarterly report of Veeco Instruments Inc. (the “Company”) on Form 10-Q for the period ended June 30, 2024 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, William J. Miller, Ph.D., Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: /s/ WILLIAM J. MILLER Ph.D.
William J. Miller, Ph.D.
Chief Executive Officer
Veeco Instruments Inc.
August 6, 2024

A signed original of this written statement required by Section 906 has been provided to Veeco Instruments Inc. and will be retained by Veeco Instruments Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the quarterly report of Veeco Instruments Inc. (the “Company”) on Form 10-Q for the period ended June 30, 2024 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, John P. Kiernan, Senior Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: /s/ JOHN P. KIERNAN
John P. Kiernan
Senior Vice President and Chief Financial Officer
Veeco Instruments Inc.
August 6, 2024

A signed original of this written statement required by Section 906 has been provided to Veeco Instruments Inc. and will be retained by Veeco Instruments Inc. and furnished to the Securities and Exchange Commission or its staff upon request.