
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

For the transition period from _____ to _____

Commission file number:
0-22923

INTERNATIONAL ISOTOPES INC.

(Exact name of registrant as specified in its charter)

Texas
*(State or other jurisdiction of
incorporation or organization)*

74-2763837
(IRS Employer Identification No.)

**4137 Commerce Circle
Idaho Falls, Idaho, 83401**
(Address of principal executive offices, including zip code)

(208) 524-5300
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act: None

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
Non-accelerated filer

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 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 August 12, 2024, the number of shares of common stock, \$0.01 par value, outstanding was 523,105,145.

INTERNATIONAL ISOTOPES INC.
FORM 10-Q
For The Quarter Ended June 30, 2024

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PART I – FINANCIAL INFORMATION
ITEM 1. FINANCIAL STATEMENTS

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES
Condensed Consolidated Balance Sheets
(unaudited)

	June 30, 2024	December 31, 2023
Assets		
Current assets		
Cash and cash equivalents	\$ 2,191,108	\$ 2,688,141
Accounts receivable	1,135,987	1,469,298
Inventories	699,271	927,111
Prepays and other current assets	309,676	672,934
Total current assets	<u>4,336,042</u>	<u>5,757,484</u>
Long-term assets		
Restricted cash	1,396,423	880,752
Property, plant and equipment, net	2,567,123	2,465,077
Capitalized lease disposal costs, net	663,874	688,462
Financing lease right-of-use asset	3,606	6,611
Operating lease right-of-use asset	2,117,044	2,183,988
Goodwill	1,384,255	1,384,255
Patents and other intangibles, net	3,456,011	3,538,458
Total long-term assets	<u>11,588,336</u>	<u>11,147,603</u>
Total assets	<u>\$ 15,924,378</u>	<u>\$ 16,905,087</u>
Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable	\$ 312,233	\$ 559,597
Accrued liabilities	1,304,889	1,482,179
Unearned revenue	733,505	932,682
Current portion of operating lease right-of-use liability	145,550	140,733
Current portion of financing lease liability	1,309	2,832
Current installments of notes payable	145,000	155,733
Current portion of mandatorily redeemable preferred stock	4,063,000	—
Total current liabilities	<u>6,705,486</u>	<u>3,273,756</u>
Long-term liabilities		
Accrued long-term liabilities	56,250	75,000
Related party notes payable, net of current portion and debt discount	1,620,000	1,620,000
Notes payable, net of current portion	187,100	270,732
Asset retirement obligation	1,509,216	1,474,463
Operating lease right-of-use liability, net of current portion	2,017,512	2,091,511
Mandatorily redeemable convertible preferred stock	—	4,063,000
Total long-term liabilities	<u>5,390,078</u>	<u>9,594,706</u>
Total liabilities	<u>12,095,564</u>	<u>12,868,462</u>
Stockholders' equity		
Common stock, \$0.01 par value; 750,000,000 shares authorized; 522,957,618 and 519,787,870 shares issued and outstanding respectively	5,229,576	5,197,879
Additional paid in capital	126,316,593	126,168,605
Accumulated deficit	(127,717,355)	(127,329,859)
Total equity	<u>3,828,814</u>	<u>4,036,625</u>
Total liabilities and stockholders' equity	<u>\$ 15,924,378</u>	<u>\$ 16,905,087</u>

See accompanying notes to condensed consolidated financial statements.

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES
Unaudited Condensed Consolidated Statements of Operations

	Three months ended June 30,		Six months ended June 30,	
	2024	2023	2024	2023
Sale of product	\$ 3,169,233	\$ 3,112,165	\$ 6,073,691	\$ 6,201,700
Cost of product	1,151,722	1,269,552	2,190,069	2,579,051
Gross profit	<u>2,017,511</u>	<u>1,842,613</u>	<u>3,883,622</u>	<u>3,622,649</u>
Operating costs and expenses:				
Salaries and contract labor	961,842	944,179	1,902,345	1,919,361
General, administrative and consulting	1,047,063	943,870	2,050,620	1,771,852
Research and development	188,730	183,024	376,977	307,468
Total operating expenses	<u>2,197,635</u>	<u>2,071,073</u>	<u>4,329,942</u>	<u>3,998,681</u>
Net operating loss	<u>(180,124)</u>	<u>(228,460)</u>	<u>(446,320)</u>	<u>(376,032)</u>
Other income (expense):				
Other income	(5,344)	37,518	155,376	100,930
Interest income	33,531	9,856	66,259	28,942
Interest expense	(81,508)	(82,216)	(162,811)	(165,196)
Total other income (expense)	<u>(53,321)</u>	<u>(34,842)</u>	<u>58,824</u>	<u>(35,324)</u>
Net Loss	<u>\$ (233,445)</u>	<u>\$ (263,302)</u>	<u>\$ (387,496)</u>	<u>\$ (411,356)</u>
Net loss per common share - basic:	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>
Net loss per common share - diluted:	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>
Weighted average common shares outstanding - basic	<u>522,779,643</u>	<u>517,926,610</u>	<u>521,473,413</u>	<u>516,746,718</u>
Weighted average common shares outstanding - diluted	<u>522,779,643</u>	<u>517,926,610</u>	<u>521,473,413</u>	<u>516,746,718</u>

See accompanying notes to condensed consolidated financial statements.

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES
Unaudited Condensed Consolidated Statements of Cash Flows

	Six months ended June 30,	
	2024	2023
Cash flows from operating activities		
Net loss	\$ (387,496)	\$ (411,356)
Adjustments to reconcile net loss to net cash provided by operating activities		
Depreciation and amortization	200,422	175,398
Accretion of obligation for lease disposal costs	34,753	26,199
Equity based compensation	84,400	224,846
Gain on sale of property, plant, and equipment	(13,492)	—
Right-of-use asset amortization	(2,238)	(2,240)
Changes in operating assets and liabilities:		
Accounts receivable	333,311	306,950
Inventories	227,840	43,382
Prepays and other current assets	363,258	802,199
Accounts payable and accrued liabilities	(352,984)	(121,419)
Unearned revenues	(199,177)	(43,511)
Net cash provided by operating activities	<u>288,597</u>	<u>1,000,448</u>
Cash flows from investing activities:		
Proceeds from sale of property, plant, and equipment	36,000	—
Purchase of property, plant and equipment	(214,936)	(66,522)
Net cash used in investing activities	<u>(178,936)</u>	<u>(66,522)</u>
Cash flows from financing activities:		
Proceeds from sale of stock and exercise of options and warrants	4,865	4,880
Payments on financing lease	(1,523)	(4,040)
Principal payments on notes payable	(94,365)	(18,239)
Net cash used in financing activities	<u>(91,023)</u>	<u>(17,399)</u>
Net increase in cash, cash equivalents, and restricted cash	18,638	916,527
Cash, cash equivalents, and restricted cash at beginning of period	3,568,893	3,215,866
Cash, cash equivalents, and restricted cash at end of period	<u>\$ 3,587,531</u>	<u>\$ 4,132,393</u>
Supplemental disclosure of cash flow activities:		
Cash paid for interest	\$ 155,681	\$ 157,826
Cash paid for income taxes	\$ —	\$ —
Supplemental disclosure of noncash financing and investing transactions		
Decrease in accrued interest and increase in equity for conversion of dividends to stock	<u>\$ 90,420</u>	<u>\$ 90,660</u>

Reconciliation of cash, cash equivalents, and restricted cash as shown in the condensed consolidated statements of cash flows is presented in the table below:

	June 30, 2024	June 30, 2023
Cash and cash equivalents	\$ 2,191,108	\$ 3,274,125
Restricted cash included in long-term assets	1,396,423	858,268
Total cash, cash equivalents, and restricted cash shown in statement of cash flows	<u>\$ 3,587,531</u>	<u>\$ 4,132,393</u>

See accompanying notes to condensed consolidated financial statements.

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES
Condensed Consolidated Statement of Stockholders' (Deficit) Equity
Three and Six Months Ended June 30, 2024
(Unaudited)

	<u>Common stock</u>		Additional Paid-in Capital	Accumulated Deficit	Total (Deficit) Equity
	Shares Outstanding	Common Stock			
Balance, January 1, 2024	519,787,870	\$ 5,197,879	\$ 126,168,605	\$ (127,329,859)	\$ 4,036,625
Shares issued under employee stock purchase plan	143,098	1,431	3,434	—	4,865
Stock in lieu of dividends on convertible preferred C	1,808,400	18,084	72,336	—	90,420
Shares issued for issuance of RSUs	1,218,250	12,182	(12,182)	—	—
Stock based compensation	—	—	84,400	—	84,400
Net (loss) income	—	—	—	(387,496)	(387,496)
Balance, June 30, 2024	<u>522,957,618</u>	<u>\$ 5,229,576</u>	<u>\$ 126,316,593</u>	<u>\$ (127,717,355)</u>	<u>\$ 3,828,814</u>

	<u>Common stock</u>		Additional Paid-in Capital	Accumulated Deficit	Total (Deficit) Equity
	Shares Outstanding	Common Stock			
Balance, April 1, 2024	521,889,765	\$ 5,218,898	\$ 126,302,135	\$ (127,483,910)	\$ 4,037,123
Shares issued under employee stock purchase plan	99,603	996	2,390	—	3,386
Shares issued for issuance of RSUs	968,250	9,682	(9,682)	—	—
Stock based compensation	—	—	21,750	—	21,750
Net (loss) income	—	—	—	(233,445)	(233,445)
Balance, June 30, 2024	<u>522,957,618</u>	<u>\$ 5,229,576</u>	<u>\$ 126,316,593</u>	<u>\$ (127,717,355)</u>	<u>\$ 3,828,814</u>

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES
Condensed Consolidated Statement of Stockholders' (Deficit) Equity
Three and Six Months Ended June 30, 2023
(Unaudited)

	<u>Common stock</u>		Additional Paid-in Capital	Accumulated Deficit	Total (Deficit) Equity
	Shares Outstanding	Common Stock			
Balance, January 1, 2023	514,889,916	\$ 5,148,899	\$ 125,654,486	\$ (126,460,843)	\$ 4,342,542
Shares issued under employee stock purchase plan	191,390	1,914	2,966	—	4,880
Stock grant	343,560	3,436	(3,436)	—	—
Stock in lieu of dividends on convertible preferred C	2,266,500	22,665	67,995	—	90,660
Shares issued for issuance of RSUs	250,000	2,500	(2,500)	—	—
Stock based compensation	—	—	224,846	—	224,846
Net (loss) income	—	—	—	(411,356)	(411,356)
Balance, June 30, 2023	<u>517,941,366</u>	<u>\$ 5,179,414</u>	<u>\$ 125,944,357</u>	<u>\$ (126,872,199)</u>	<u>\$ 4,251,572</u>

	<u>Common stock</u>		Additional Paid-in Capital	Accumulated Deficit	Total (Deficit) Equity
	Shares Outstanding	Common Stock			
Balance, April 1, 2023	517,852,831	\$ 5,178,528	\$ 125,878,017	\$ (126,608,897)	\$ 4,447,648
Shares issued under employee stock purchase plan	88,535	886	1,372	—	2,258
Stock based compensation	—	—	64,968	—	64,968
Net (loss) income	—	—	—	(263,302)	(263,302)
Balance, June 30, 2023	<u>517,941,366</u>	<u>\$ 5,179,414</u>	<u>\$ 125,944,357</u>	<u>\$ (126,872,199)</u>	<u>\$ 4,251,572</u>

See accompanying notes to the condensed consolidated financial statements

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES
Notes to Unaudited Condensed Consolidated Financial Statements
June 30, 2024

(1) The Company and Basis of Presentation

International Isotopes Inc. (INIS) was incorporated in Texas in November 1995. The accompanying unaudited condensed consolidated financial statements are presented in conformity with accounting principles generally accepted in the United States of America (GAAP) and include all operations and balances of INIS and its wholly-owned subsidiaries, including RadQual, LLC (RadQual) and TI Services, LLC (TI Services). RadQual is a global supplier of molecular imaging quality control and calibration devices, and is based at INIS headquarters in Idaho Falls, Idaho. TI Services is headquartered in Boardman, Ohio and distributes products for nuclear medicine, nuclear cardiology, and Positron Emission Tomography (PET) imaging. INIS, and its wholly-owned subsidiaries are collectively referred to herein as the “Company,” “we,” “our” or “us.”

Nature of Operations – The Company manufactures a full range of nuclear medicine calibration and reference standards, generic sodium iodide I-131 drug product, cobalt teletherapy sources, and a varied selection of radiochemicals for medical research, and clinical applications. For 2024, the Company’s business consists of five business segments: Theranostics Products, Cobalt Products, Nuclear Medicine Standards, Medical Device Products, and Fluorine Products. The Company’s headquarters and all manufacturing operations are located in Idaho Falls, Idaho.

With the exception of certain unique products, the Company’s normal operating cycle is considered to be one year. Due to the time required to produce some cobalt products, the Company’s operating cycle for those products is considered to be two to three years. Accordingly, preliminary payments received on cobalt contracts, where shipment will not take place for greater than one year, have been recorded as unearned revenue and, depending upon estimated ship dates, classified under either current or long-term liabilities on the Company’s condensed consolidated balance sheets. These unearned revenues are being recognized as revenue in the periods during which the cobalt shipments take place. All assets expected to be realized in cash or sold during the normal operating cycle of business are classified as current assets.

Principles of Consolidation – The accompanying unaudited condensed consolidated financial statements are presented in conformity with GAAP and include all operations and balances of INIS and its wholly-owned subsidiaries including RadQual and TI Services. See Note 4 “Investment and Business Consolidation” for additional information. All significant intercompany accounts and transactions have been eliminated in consolidation.

Interim Financial Information – The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with GAAP for interim financial information and pursuant to the rules and regulations of the U.S. Securities and Exchange Commission (SEC). Accordingly, the accompanying unaudited condensed consolidated financial statements do not include all of the information and notes required by GAAP for complete financial statements. In the opinion of management, all adjustments and reclassifications considered necessary in order to make the financial statements not misleading and for a fair and comparable presentation have been included and are of a normal recurring nature. 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 or any future periods. The accompanying unaudited condensed consolidated financial statements should be read in conjunction with the Company’s Annual Report on Form 10-K for the year ended December 31, 2023 filed with the SEC on March 29, 2024.

Recent Accounting Pronouncements – In August 2020, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2020-06 Debt – Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging – Contracts in Entity’s Own Equity (Subtopic 815-40). The update simplifies accounting related to convertible debt instruments. The standard is effective for fiscal years beginning after December 15, 2023 including interim periods within those fiscal years. The Company has evaluated and adopted this standard there is no current effect on its financial statements.

In November 2023, FASB issued ASU 2023-07, *Segment Reporting (Topic 280) - Improvements to Reportable Segment Disclosures*, which enhances the disclosures required for operating segments in the Company’s annual and interim consolidated financial statements. ASU 2023-07 is effective for the Company in our annual reporting for fiscal 2024 and for interim period reporting beginning in fiscal 2025 on a retrospective basis, with all required disclosures to be made for all prior periods presented in the consolidated financial statements. Early adoption is permitted. The Company is currently evaluating the impact of ASU 2023-07 on its consolidated financial statements.

In December 2023, FASB issued ASU 2023-09, *Income Taxes (Topic 740) - Improvements to Income Tax Disclosures*, which enhances the disclosures required for income taxes in the Company’s annual consolidated financial statements. Notably, this ASU requires entities to disclose specific categories in the effective tax rate reconciliation and provide additional information for reconciling items that meet a quantitative threshold. ASU 2023-09 is effective for the Company in its annual reporting for fiscal 2025 on a prospective basis. Early adoption and retrospective reporting are permitted. The Company is currently evaluating the impact of ASU 2023-09 on its consolidated financial statements.

(2) Current Developments and Liquidity

Business Condition – Since inception, the Company has incurred substantial losses. During the six months ended June 30, 2024, the Company reported a net loss of \$387,496 and net cash provided by operating activities of \$288,597. During the six months ended June 30, 2023, the Company reported net loss of \$411,356 and net cash provided by operating activities of \$1,000,448.

During the three and six months ended June 30, 2024, the Company continued its focus on its strongest long-standing core business segments which consist of its Theranostics Products (previously called Radiochemical Products), Cobalt Products, and Nuclear Medicine Standards, and in particular, the pursuit of new business opportunities within those segments. Additionally, the Company has begun to focus on the start-up of its Medical Device segment which includes assets purchased from AMICI in 2023 and investing into an EasyFill Automated Iodine Capsule System.

The Company holds a Nuclear Regulatory Commission (NRC) construction and operating license for the depleted uranium facility in, as well as the property agreement with, Lea County, New Mexico, where the plant is intended to be constructed. The NRC license for the de-conversion facility is a forty (40) year operating license and is the first commercial license of this type issued in the United States. On February 8, 2024, the Company entered into a definitive agreement to sell all of our assets related to the Fluorine Products segment and the Planned Uranium De-Conversion Facility, including the Lea County land, ("DUF6 Asset Sale"). The Company expects to close the agreement within 12 to 24 months of signing. Closing is contingent on various conditions being met, including approvals and agreements by the NRC and other third parties.

The Company expects that cash from operations, equity or debt financing, and its current cash balance will be sufficient to fund operations for the next twelve months. Future liquidity and capital funding requirements will depend on numerous factors, including commercial relationships, technological developments, market factors, available credit, and management of redeemable convertible preferred stock. There is no assurance that additional capital and financing will be available on acceptable terms to the Company or at all.

(3) Net Income (Loss) Per Common Share - Basic and Diluted

For the three and six months ended June 30, 2024, the Company had 27,862,500 stock options outstanding, 5,250,000 restricted stock units outstanding, and 4,063 outstanding shares of Series C redeemable convertible preferred stock (Series C Preferred Stock), each of which were not included in the computation of diluted income (loss) per common share because they would be anti-dilutive.

For the three and six months ended June 30, 2023, the Company had 26,012,500 stock options outstanding, 7,000,000 restricted stock units outstanding, and 4,063 outstanding shares of Series C Preferred Stock, each of which were not included in the computation of diluted income (loss) per common share because they would be anti-dilutive.

The table below shows the calculation of diluted shares:

	3 Months Ended		6 Months Ended	
	June 30, 2024	June 30, 2023	June 30, 2024	June 30, 2023
Weighted average common shares outstanding - basic	522,779,643	517,926,610	521,473,413	516,746,718
Effects of dilutive shares				
Stock Options	—	—	—	—
Series C Preferred Stock	—	—	—	—
Weighted average common shares outstanding - diluted	522,779,643	517,926,610	521,473,413	516,746,718

The table below summarizes common stock equivalents outstanding at June 30, 2024 and June 30, 2023:

	June 30,	
	2024	2023
Stock options	27,862,500	26,012,500
Restricted Stock Units	5,250,000	7,000,000
Shares of Series C Preferred Stock	40,630,000	40,630,000
	<u>73,742,500</u>	<u>73,642,500</u>

(4) Investment and Business Consolidation

The Company owns all of the membership interest of RadQual. TI Services is a 50/50 joint venture between the Company and RadQual, therefore TI Services is also treated as a wholly-owned subsidiary of the Company.

In June 2023, the Company executed an agreement to buy medical devices and related assets and intellectual property rights from AMICI, Inc. The Company has been working on startup of manufacturing. These assets and expenses are included in the Medical Device Segment; launch of these products is expected later in 2024.

On June 3, 2024, The Company entered into a Strategic Development and Distribution Agreement with Alpha Nuclide Inc for the rights to manufacture and distribute the Company's Theranostics Products and Nuclear Medicine Products in mainland China as part of a 50/50 joint Venture between the Company and Alpha Nuclides. The parties will begin with the distribution of the Company's Nuclear medicine Products as part of phase I of the strategic alliance, with further planned milestones for the establishment of a joint venture to register the Company's Theranostics & Nuclear Medicine Products with the CFDA for local manufacturing and distribution. The parties envision commercializing INIS's radiopharmaceutical Iodine-131, radiochemical API, and theranostics API I-131 for 3rd party therapeutic applications in China. The parties intend to manufacture and distribute the products from Alpha Nuclide's Jiaying facility, which Alpha Nuclides is responsible for establishing. The parties also intend to enter into a supply agreement for raw material isotopes to be supplied from Alpha Nuclide to the Company to be used in the Company's manufacturing process at the Company's Idaho Falls, Idaho facility.

(5) Stockholders' Equity, Options, and Warrants

Employee Stock Purchase Plan

The Company has an employee stock purchase plan pursuant to which employees of the Company may participate to purchase shares of common stock at a discount. During the six months ended June 30, 2024 and 2023, the Company issued 143,098 and 191,390 shares of common stock, respectively, to employees under the employee stock purchase plan for proceeds of \$4,865 and \$4,880, respectively. As of June 30, 2024, 2,081,446 shares of common stock remain available for issuance under the employee stock purchase plan.

Stock-Based Compensation Plans

2015 Incentive Plan - In April 2015, the Company's Board of Directors approved the International Isotopes Inc. 2015 Incentive Plan (as amended, the 2015 Plan), which was subsequently approved by the Company's shareholders in July 2015. The 2015 Plan was amended and restated in July 2018 to increase the number of shares authorized for issuance under the 2015 Plan by an additional 20,000,000 shares. The 2015 Plan provides for the grant of incentive and non-qualified stock options, stock appreciation rights, restricted stock, restricted stock units, performance shares and units, and other stock or cash-based awards. At June 30, 2024, there were 17,217,546 shares available for issuance under the 2015 Plan.

Employee/Director Grants - The Company accounts for issuances of stock-based compensation to employees by recognizing, as compensation expense, the cost of employee services received in exchange for equity awards. The compensation expense is based on the grant date fair value of the award. Stock option compensation expense is recognized over the period during which an employee is required to provide service in exchange for the award (the vesting period).

Non-Employee Grants - The Company accounts for its issuances of stock-based compensation to non-employees by recognizing compensation expense based on the grant date fair value of the award. Stock option compensation expense is recognized over the vesting period for the award.

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Option awards outstanding as of June 30, 2024, and changes during the six months ended June 30, 2024, were as follows:

Fixed Options	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life	Aggregate Intrinsic Value
Outstanding at December 31, 2023	24,787,500	\$ 0.05	5.4	\$ 17,000
Granted	3,075,000	0.04		
Exercised	—	—		
Expired	—	—		
Forfeited	—	—		
Outstanding at June 30, 2024	27,862,500	0.04	5.5	\$ —
Exercisable at June 30, 2024	20,222,500	\$ 0.05	4.3	\$ —

The intrinsic value of outstanding and exercisable shares is based on the closing price of the Company's common stock on the OTCQB of \$0.03 per share on June 30, 2024, the last trading day of the three months ended June 30, 2024.

As of June 30, 2024, there was \$112,003 of unrecognized compensation expense related to stock options that will be recognized over a weighted-average period of 1.80 years.

Total stock-based compensation expense for the six months ended June 30, 2024 and 2023 was \$84,400 and \$224,846, respectively.

During the six months ended June 30, 2024, the Company granted an aggregate of 2,050,000 qualified stock options to 3 of its employees. These options vest over a three-year or five-year period with the first vesting on the first anniversary of the date of grant and expiration at ten-year anniversary for all grants. The exercise price for these granted options was \$0.04 per share. The options issued during the six months ended June 30, 2024 have a fair value of \$57,275, as estimated on the date of issue using the Black-Scholes options pricing model with the following weighted-average assumptions: risk free interest rate of 4.56% to 4.66%, expected dividend yield rate of 0%, expected volatility of 72.94% to 78.11% and an expected life between 5 and 7 years.

Restricted Stock Units outstanding as of June 30, 2024, and changes during the six months ended June 30, 2024, were as follows:

Non-Vested Restricted Stock Units	Number of restricted stock units	Weighted average grant-date fair value
Outstanding at December 31, 2023	7,000,000	\$ 0.04
Granted	—	
Vested and Exercised	(1,750,000)	0.04
Forfeited / Cancelled	—	
Outstanding at June 30, 2024	5,250,000	\$ 0.04

As of June 30, 2024, there was \$107,037 of unrecognized compensation expense related to Restricted Stock Units that will be recognized over a weighted-average period of 1.46 years.

Preferred Stock

At June 30, 2024, there were 4,063 shares of the Series C Preferred Stock outstanding with a mandatory redemption date of February 2025 at \$1,000 per share in either cash or shares of common stock, at the option of the holder. Holders of the Series C Preferred Stock do not have any voting rights except as required by law and in connection with certain events as set forth in the Statement of Designation of the Series C Preferred Stock. The Series C Preferred Stock accrues dividends at a rate of 6% per annum, payable annually on February 17th of each year. The Series C Preferred Stock are convertible at the option of the holders at any time into shares of the Company common stock at an initial conversion price equal to \$0.10 per share, subject to adjustment. If the volume-weighted average closing price of the Company's common stock over a period of 90 consecutive trading days is greater than \$0.25 per share, the Company may redeem all or any portion of the outstanding Series C Preferred Stock at the original purchase price per share plus any accrued and unpaid dividends, payable in shares of common stock.

During the six months ended June 30, 2024 and 2023, dividends paid to holders of the Series C Preferred Stock totaled \$243,030 and \$243,780 respectively. Some holders of the Series C Preferred Stock elected to settle their dividend payments with shares of the Company's common stock in lieu of cash. For the six months ended June 30, 2024 and 2023, the Company issued an aggregate of 1,808,400 and 2,266,500 shares of common stock, respectively, in lieu of dividend payments in the aggregate of \$90,420 and \$90,660, respectively, with the remaining dividend payable settled in cash of \$152,610 and \$153,120, respectively.

(6) Debt

In December 2013, the Company entered into a promissory note agreement with its then Chairman of the Board and one of our major shareholders, pursuant to which we borrowed \$500,000 (the 2013 Promissory Note). The 2013 Promissory Note is secured and bears interest at 6% per annum and was originally due June 30, 2014. According to the terms of the 2013 Promissory Note, at any time, the lenders may settle any or all of the principal and accrued interest with shares of our common stock. In December 2019, the 2013 Promissory Note was modified to extend the maturity date to December 31, 2021, with all remaining terms unchanged. In January 2022, the 2013 Promissory Note was modified to extend the maturity date to December 31, 2023, with all remaining terms unchanged. In February 2024, the 2013 Promissory Note was modified to extend the maturity date to March 31, 2026, with all remaining terms unchanged. At June 30, 2024, accrued interest payable on the 2013 Promissory Note was \$316,734.

In April 2018, the Company borrowed \$120,000 from its then Chief Executive Officer and Chairman of the Board pursuant to a promissory note (the 2018 Promissory Note). The 2018 Promissory Note accrues interest at 6% per annum, which is payable upon maturity of the 2018 Promissory Note. The 2018 Promissory Note was originally unsecured and originally matured on August 1, 2018. At any time, the holder of the 2018 Promissory Note may elect to have any or all of the principal and accrued interest settled with shares of our common stock based on the average price of the shares over the previous 20 trading days. In June 2018, the 2018 Promissory Note was modified to extend the maturity date to March 31, 2019 with all other provisions remaining unchanged. In February 2019, the 2018 Promissory Note was modified to extend the maturity date to July 31, 2019 with all other provisions remaining unchanged. In July 2019, the 2018 Promissory Note was modified to extend the maturity date to January 31, 2020 with all other provisions remaining unchanged. In December 2019, the 2018 Promissory Note was modified to extend the maturity date to December 31, 2021, the note was also modified to become secured by company assets, with all other provisions remaining unchanged. In December 2021, the 2018 Promissory Note was modified to extend the maturity date to December 31, 2023, with all remaining terms unchanged. In December 2023, the 2018 Promissory Note was modified to extend the maturity date to January 31, 2025, with all remaining terms unchanged. In February 2024, the 2018 Promissory Note was modified to extend the maturity date to March 31, 2026, with all remaining terms unchanged. At June 30, 2024, accrued interest on the 2018 Promissory Note totaled \$44,570.

In December 2019 and February 2020, the Company borrowed an aggregate of \$1,000,000 from four of the Company's major shareholders pursuant to a promissory note (the 2019 Promissory Note). The 2019 Promissory Note bears an interest rate of 4% annually and was originally due December 31, 2022. According to the terms of the 2019 Promissory Note, at any time, the lenders may settle any or all of the principal and accrued interest with shares of the Company's common stock based on the average closing price of the Company's common stock for the 20 days preceding the payment. In connection with the 2019 Promissory Note, the lenders were issued warrants totaling 30,000,000 warrants to purchase shares of the Company's common stock at \$0.045 per share (the Class O Warrants). The fair value of these Class O Warrants issued totaled \$446,079 and was recorded as a debt discount and was amortized over the life of the 2019 Promissory Note. The Company calculated a beneficial conversion feature of \$315,643 which was accreted to interest expense over the life of the 2019 Promissory Note. In December 2022, the 2019 Promissory Note was modified to extend the maturity date to December 31, 2024, with all remaining terms unchanged. In February 2024, the 2019 Promissory Note was modified to extend the maturity date to March 31, 2026, with all remaining terms unchanged. At June 30, 2024, the accrued interest on the 2019 Promissory Note totaled \$179,131.

In June 2023, the Company executed an asset purchase agreement with AMICI, Inc. for purchase of medical devices and related assets and intellectual property rights. As part of the asset purchase agreement, the Company entered a promissory agreement for \$427,100. According to the terms of the agreement, the Company is to pay the seller a minimum of \$10,000 per month for a period of 45 months. The amount due is not subject to interest until the 25th month after the anniversary of the closing of the agreement. At June 30, 2024, the balance of this agreement was \$332,100.

(7) Commitments and Contingencies

Dependence on Third Parties

The production of High Specific Activity Cobalt is dependent upon the U.S. Department of Energy (DOE), and its prime operating contractor, which controls the Advanced Test Reactor (ATR) and laboratory operations at the ATR located outside of Idaho Falls, Idaho. In October 2014, the Company signed a ten-year contract with the DOE for the irradiation of cobalt targets for the production of cobalt-60. The Company will be able to purchase cobalt targets for a fixed price per target with an annual 5% escalation in price. The contract term is October 1, 2014 through September 30, 2024. The Company is currently working on an extension to this contract. Also, the DOE may end the contract if it determines termination is necessary for the national defense, security or environmental safety of the United States.

Sales of our most predominant Theranostics products are dependent upon a few key suppliers. An interruption in production by any of these individual suppliers could have an immediate negative impact upon radiochemical sales until material could be purchased from alternate suppliers including obtaining regulatory approval to use material from alternative suppliers if necessary.

The Nuclear Medicine Reference and Calibration Standard products sold by the Company are dependent upon certain radioisotopes that are supplied to the Company through agreements with several suppliers. A loss of any of these suppliers could adversely affect operating results by causing a delay in production or a possible loss of sales. In six months ended June 30, 2024, there was a global shortage of Cobalt-57 isotopes, a key isotope for this business segment that resulted in significant lost sales. The Company has added additional suppliers in 2024 and continue to search for additional means to produce and procure certain critical isotopes, including through our Chinese Joint Venture. In July 2024, the Company began receiving Cobalt-57 from our main supplier again. We expect a revenue catch-up for the second half of 2024 and potentially into the first quarter of 2025 as we fulfill all pending orders that have been delayed due to the global shortage.

Contingencies

Because all the Company's business segments involve the handling or use of radioactive material, the Company is required to have an operating license from the NRC and specially trained staff to handle these materials. The Company has amended this operating license numerous times to increase the amount of material permitted within the Company's facility. Although this license does not currently restrict the volume of business operations performed or projected to be performed in the upcoming year, additional processing capabilities and license amendments could be implemented that would permit processing of other reactor-produced radioisotopes by the Company. The financial assurance required by the NRC to support this license has been provided for with a surety bond held with North American Specialty Insurance Company which is supported by a restricted money market account held with Merrill Lynch. In the six months ended June 30, 2024 the Company funded an additional \$484,000 to this restricted money market account. At June 30, 2024, the balance of this account was \$1,396,423.

In August 2011, the Company received land from Lea County, New Mexico, pursuant to a Project Participation Agreement (PPA), whereby the land was deeded to the Company for no monetary consideration. In return, the Company committed to construct a uranium de-conversion and Fluorine Extraction Process facility on the land. In order to retain title to the property, the Company was to begin construction of the de-conversion facility no later than December 31, 2014, and complete Phase I of the project and have hired at least 75 persons to operate the facility no later than December 31, 2015, although commercial operations need not have begun by that date. In 2015, the Company negotiated a modification to the PPA that extended the start of construction date to December 31, 2015, and the hiring milestone to December 31, 2016. Those dates were also not met.

On February 8, 2024, the Company entered into a definitive agreement to sell all of our assets related to the Fluorine Products segment and the Planned Uranium De-Conversion Facility, including the Lea County land, for an aggregate purchase price of approximately \$12.5 million, subject to conditions. The Company expects to close the agreement within 12 to 24 months of signing. Closing is contingent on various conditions being met, including approvals and agreements by the NRC and other third parties. The Company has not recorded the value of this property as an asset and will not do so until such time that material changes to or sufficient progress on the project has been made to meet the Company's obligations under the agreements for permanent transfer of the title.

(8) Revenue Recognition

Revenue from Product Sales

The following tables present the Company's revenue disaggregated by business segment and geography, based on management's assessment of available data:

	Three Months Ended June 30, 2024				Three Months Ended June 30, 2023			
	U.S.	Outside	Total	% of Total	U.S.	Outside	Total	% of Total
		U.S.	Revenues	Revenues		U.S.	Revenues	Revenues
Theranostics Products	\$ 2,030,018	\$ 139,113	\$ 2,169,131	68%	\$ 1,605,313	\$ 130,730	\$ 1,736,043	56%
Cobalt Products	588,599	3,600	592,199	19%	395,395	52,863	448,258	14%
Nuclear Medicine Products	230,914	176,989	407,903	13%	732,524	195,340	927,864	30%
Medical Devices Products	—	—	—	0%	—	—	—	0%
Fluorine Products	—	—	—	0%	—	—	—	0%
	<u>\$ 2,849,531</u>	<u>\$ 319,702</u>	<u>\$ 3,169,233</u>	<u>100%</u>	<u>\$ 2,733,232</u>	<u>\$ 378,933</u>	<u>\$ 3,112,165</u>	<u>100%</u>

	Six Months Ended June 30, 2024				Six Months Ended June 30, 2023			
	U.S.	Outside	Total	% of Total	U.S.	Outside	Total	% of Total
		U.S.	Revenues	Revenues		U.S.	Revenues	Revenues
Radiochemical Products	\$ 3,650,544	\$ 423,669	\$ 4,074,213	67%	\$ 3,230,429	\$ 268,010	\$ 3,498,439	56%
Cobalt Products	803,967	22,200	826,167	14%	537,553	69,013	606,566	10%
Nuclear Medicine Products	766,343	406,968	1,173,311	19%	1,604,112	492,583	2,096,695	34%
Medical Devices Products	—	—	—	0%	—	—	—	0%
Fluorine Products	—	—	—	0%	—	—	—	0%
	<u>\$ 5,220,854</u>	<u>\$ 852,837</u>	<u>\$ 6,073,691</u>	<u>100%</u>	<u>\$ 5,372,094</u>	<u>\$ 829,606</u>	<u>\$ 6,201,700</u>	<u>100%</u>

The Company's revenue consists primarily of distribution of theranostics including sodium iodide I-131 drug product, calibration and reference standards manufactured for use in the nuclear medicine industry, and cobalt source manufacturing. With the exception of certain unique products, the Company's normal operating cycle is considered to be one year. Due to the time required to produce some cobalt products, the Company's operating cycle for those products is considered to be two to three years. Accordingly, preliminary payments received on cobalt contracts where shipment has not taken place have been recorded as unearned revenue on the Company's condensed consolidated balance sheets and classified under current or long-term liabilities, depending upon estimated ship dates. For the six months ended June 30, 2024, the Company reported current unearned revenue of \$733,505. For the period ended December 31, 2023, the Company reported current unearned revenue of \$932,682. These unearned revenues will be recognized as revenue in the periods during which the cobalt shipments take place.

Contract Balances

The Company records a receivable when it has an unconditional right to receive consideration after the performance obligations are satisfied. As of June 30, 2024, and December 31, 2023, accounts receivable totaled \$1,135,987 and \$1,469,298, respectively. For the six months ended June 30, 2024, the Company did not incur material impairment losses with respect to its receivables.

(9) Leases

The Company leases office and warehouse space under operating leases. Right-of-use assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent its obligation to make lease payments under the lease. Operating lease, right-of-use assets, and liabilities are recognized at the lease commencement date based on the present value of lease payments over the reasonably certain lease term. The implicit rates with the Company's operating leases are generally not determinable and the Company uses its incremental borrowing rate at the lease commencement date to determine the present value of its lease payments. The determination of the Company's incremental borrowing rate requires judgement. The company determines its incremental borrowing rate for each lease using its then-current borrowing rate. Certain of the Company's leases include options to extend or terminate the lease. The Company establishes the number of renewal options periods used in determining the operating lease term based upon its assessment at the inception of the operating lease. The option to renew the lease may be automatic, at the option of the Company, or mutually agreed to between the landlord and the Company. Once the facility lease term has begun, the present value of the aggregate future minimum lease payments is recorded as a right-of-use asset. Lease expense is recognized on a straight-line basis over the term of the lease.

	Six Months Ended June 30,	
	2024	2023
Operating lease costs	\$ 143,554	\$ 150,732
Short-term operating lease costs	4,658	3,600
Financing lease expense:		
Amortization of right-of-use assets	1,523	4,550
Interest on lease liabilities	74	270
Total financing lease expense	1,597	4,820
Total lease expense	<u>\$ 149,809</u>	<u>\$ 159,152</u>
Right-of-use assets obtained in exchange for new operating lease liabilities	\$ —	\$ —
Right-of-use assets obtained in exchange for new financing lease liabilities	\$ —	\$ —
Weighted-average remaining lease term (years) - operating leases	10.6	11.6
Weighted-average remaining lease term (years) - financing leases	0.4	1.4
Weighted-average discount rate - operating leases	6.75%	6.75%
Weighted-average discount rate - financing leases	6.75%	6.75%

The future minimum payments under these operating lease agreements are as follows:

	Operating Leases	Financing Leases
2024 (excluding the six-months ended June 30, 2024)	\$ 143,554	\$ 1,331
2025	287,108	—
2026	287,108	—
2027	287,108	—
2028	287,108	—
Thereafter	1,738,084	—
Total minimum lease obligations	<u>3,030,070</u>	<u>1,331</u>
Less-amounts representing interest	(867,008)	(22)
Present value of minimum lease obligations	2,163,062	1,309
Current maturities	(145,550)	(1,309)
Lease obligations, net of current maturities	<u>\$ 2,017,512</u>	<u>\$ —</u>

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(10) Segment Information

In 2024, the Company has five reportable segments which include: Theranostics Products, Cobalt Products, Nuclear Medicine Standards, Medical Device Products, and Fluorine Products.

Information regarding the operations and assets of these reportable business segments is contained in the following table:

	Three months ended June 30,		Six months ended June 30,	
	2024	2023	2024	2023
Sale of Product				
Theranostics Products	\$ 2,169,131	\$ 1,736,043	\$ 4,074,213	\$ 3,498,439
Cobalt Products	592,199	448,258	826,167	606,566
Nuclear Medicine Standards	407,903	927,864	1,173,311	2,096,695
Medical Device Products	—	—	—	—
Fluorine Products	—	—	—	—
Total Segments	3,169,233	3,112,165	6,073,691	6,201,700
Corporate revenue	—	—	—	—
Total Consolidated	\$ 3,169,233	\$ 3,112,165	\$ 6,073,691	\$ 6,201,700

	Three months ended June 30,		Six months ended June 30,	
	2024	2023	2024	2023
Depreciation and Amortization				
Theranostics Products	\$ 5,697	\$ 6,665	\$ 14,743	\$ 13,824
Cobalt Products	23,527	13,142	27,414	25,976
Nuclear Medicine Standards	32,866	28,900	61,419	58,109
Medical Device Products	—	—	—	—
Fluorine Products	26,095	28,970	57,940	57,940
Total Segments	88,185	77,677	161,516	155,849
Corporate depreciation and amortization	10,790	10,453	38,906	19,549
Total Consolidated	\$ 98,975	\$ 88,130	\$ 200,422	\$ 175,398

	Three months ended June 30,		Six months ended June 30,	
	2024	2023	2024	2023
Segment Income (Loss)				
Theranostics Products	\$ 1,171,390	\$ 717,455	\$ 2,184,854	\$ 1,484,567
Cobalt Products	99,324	53,640	32,999	27,395
Nuclear Medicine Standards	(377,758)	9,728	(368,262)	138,513
Medical Device Products	(83,839)	—	(112,350)	—
Fluorine Products	(26,095)	(21,895)	(4,846)	(51,134)
Total Segments	783,022	758,928	1,732,395	1,599,341
Corporate loss	(1,016,467)	(1,022,230)	(2,119,891)	(2,010,697)
Net Income	\$ (233,445)	\$ (263,302)	\$ (387,496)	\$ (411,356)

	Three months ended June 30,		Six months ended June 30,	
	2024	2023	2024	2023
Expenditures for Segment Assets				
Theranostics Products	\$ —	\$ —	\$ 93,924	\$ —
Cobalt Products	39,799	6,165	39,799	6,165
Nuclear Medicine Standards	—	—	49,038	3,130
Medical Device Products	—	—	—	—
Fluorine Products	—	—	—	—
Total Segments	39,799	6,165	182,761	9,295
Corporate purchases	4,216	8,155	32,175	57,227
Total Consolidated	\$ 44,015	\$ 14,320	\$ 214,936	\$ 66,522

	June 30,	December 31,
	2024	2023
Segment Assets		
Theranostics Products	\$ 929,131	\$ 849,351
Cobalt Products	265,543	274,513
Nuclear Medicine Standards	2,418,002	2,986,458
Medical Device Products	552,100	552,100
Fluorine Products	4,927,928	4,980,118
Total Segments	9,092,704	9,642,540
Corporate assets	6,831,674	7,262,547
Total Consolidated	\$ 15,924,378	\$ 16,905,087

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This Quarterly Report on Form 10-Q (the "Quarterly Report") contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical fact, including statements regarding industry prospects and future results of operations or financial position, made in this Quarterly Report are forward-looking statements. Words such as "anticipates," "believes," "should," "expects," "future," "intends" and similar expressions identify forward-looking statements. Forward-looking statements reflect management's current expectations, plans or projections, and are inherently uncertain. Actual results could differ materially from management's expectations, plans or projections. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this Quarterly Report. Certain risks and uncertainties that could cause our actual results to differ significantly from management's expectations are described in the risk factors set forth in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023 filed with the Securities and Exchange Commission (SEC) on March 29, 2024 and in the other reports we file with the SEC. These factors describe some but not all of the factors that could cause actual results to differ significantly from management's expectations. We undertake no obligation to update any forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events. Readers are urged, however, to review the risks and other factors set forth in the reports that we file from time to time with the SEC.

BUSINESS OVERVIEW

International Isotopes Inc., its wholly-owned subsidiaries (including RadQual, LLC, TI Services, LLC, RadVent, LLC, and Radnostix, LLC) (collectively, the "Company", "we", "our", or "us") manufacture a full range of nuclear medicine calibration and reference standards, manufacture a range of cobalt products, and distribute sodium iodide I-131 as a generic drug. We own 100% interest of RadQual, LLC (RadQual), a global supplier of molecular imaging quality control and calibration devices. As TI Services, LLC is a 50/50 joint venture between the Company and RadQual, TI Services, LLC is also a wholly-owned subsidiary of the Company.

Our business consists of the following five business segments:

Theranostics Products. Our Theranostics Products segment (formerly called Radiochemical Products) includes production and distribution of our FDA approved generic sodium iodide I-131 drug product for the treatment of hyperthyroidism and carcinoma of the thyroid. This segment also includes distribution of certain other theranostic APIs, radiochemical products, and contract manufacturing of radiopharmaceutical products for our customers. Additionally, this segment includes the Theranostics Products segment of our Radnostix China Joint Venture.

Cobalt Products. Our Cobalt Products segment includes the production of bulk cobalt (cobalt-60), fabrication of cobalt capsules for radiation therapy and various industrial applications, and recycling of expended cobalt sources. We are the only company in the U.S. that can provide all these unique services. There has been a significant increase in regulation by the Nuclear Regulatory Commission (NRC) in recent years that has created a significant barrier to new entrants into this market. The Company has a contract in place with the U.S. Department of Energy (DOE) for the production of high specific activity cobalt in the Advanced Test Reactor (ATR) in Idaho. This agreement will be in effect until October 2024.

Nuclear Medicine Standards. Our Nuclear Medicine Standards segment consists of the manufacture of sources and standards, including those associated with Single Photon Emission Computed Tomography (SPECT) and Positron Emission Tomography (PET) imaging. These sources are used for indication of patient positioning for SPECT imaging, SPECT camera operational testing, and calibration of dose measurement equipment. Revenue from nuclear medicine products includes consolidated sales from TI Services, LLC (TI Services), a 50/50 joint venture that we formed with RadQual in December 2010 to distribute our products, as well as sales from RadQual. Our nuclear medicine standards products include a host of specially designed items used in the nuclear medicine industry. In addition to the manufacture of these products, we have developed a complete line of specialty packaging for the safe transport and handling of these products as well as manufacturing of industrial calibration & reference sources made by the Company, distribution of 3rd Party industrial calibration & reference sources, and the sale of bulk radioisotopes.

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Medical Devices. A new reportable business segment starting in 2024. While we have not yet commercialized any medical devices, we have invested in this segment throughout 2023 and 2024 and anticipate additional investments for the remainder of 2024 with commercialization of products starting later in 2024. In June 2023, we acquired several medical devices with related assets and intellectual property rights from AMICI, Inc. We have been working on start-up of manufacturing of the Swirler® and Tru-Fit™ Mouthpiece assets under the branding of RadVent. Additionally, we also have investments in a joint venture arrangement for the startup of our EasyFill Automated Iodine Capsule System. We also plan to commercialize 3rd party medical devices and accessories related to the radiopharmaceutical and theranostics spaces and provide engineering, installation, and preventative maintenance and services related to those medical devices.

Fluorine Products. We established the Fluorine Products segment in 2004 in conjunction with the development and operation of the proposed depleted uranium de-conversion facility in Lea County, New Mexico. Near the end of 2013, due to changes in the nuclear industry, we placed further engineering work for this project on hold. On February 8, 2024, we entered into a definitive agreement to sell all of our assets related to the Fluorine Products segment and the Planned Uranium De-Conversion Facility, for an aggregate purchase price of approximately \$12.5 million, subject to conditions. We expect to close the agreement within 12 to 24 months of signing. Closing is contingent on various conditions being met, including approvals and agreements by the NRC and other third parties.

RESULTS OF OPERATIONS

Three Months Ended June 30, 2024, Compared to Three Months Ended June 30, 2023

Revenue for the three months ended June 30, 2024 was \$3,169,233 as compared to \$3,112,165 for the same period in 2023, an overall increase of \$57,068, or approximately 2%. This increase in revenue was the result of increased revenues in our Theranostics Products and Cobalt Products partially offset by decreased revenue in our Nuclear Medicine Standards segment due to a global shortage of Cobalt-57 isotope during the period, as discussed in more detail below.

The following table presents a period-to-period comparison of total revenue by segment for the three months ended June 30, 2024 and 2023:

	For the three months ended June 30, 2024	For the three months ended June 30, 2023	\$ change	% change
Sale of Product				
Theranostics Products	\$ 2,169,131	\$ 1,736,043	\$ 433,088	25%
Cobalt Products	592,199	448,258	143,941	32%
Nuclear Medicine Standards	407,903	927,864	(519,961)	-56%
Medical Device Products	—	—	—	—%
Fluorine Products	—	—	—	—%
Total Consolidated	\$ 3,169,233	\$ 3,112,165	\$ 57,068	2%

Cost of sales decreased to \$1,151,722 for the three months ended June 30, 2024 from \$1,269,552 for the same period in 2023. This is a decrease of \$117,830, or approximately 9%. The decrease in cost of sales in the three-month comparison was primarily due to the decreased revenues and increased gross profit percentages in our segments, as discussed in detail below. Gross profit for the three months ended June 30, 2024 was \$2,017,511, compared to \$1,842,613 for the same period in 2023. This represents an increase in gross profit of \$174,898, or approximately 9%.

The following table presents cost of sales and gross profit data for each of our business segments for the three months ended June 30, 2024 and June 30, 2023:

	For the three months ended June 30, 2024	% of Total Sales 2024	For the three months ended June 30, 2023	% of Total Sales 2023
Total Sales	\$ 3,169,233		\$ 3,112,165	
Cost of Sales				
Theranostics Products	\$ 605,192	19%	\$ 597,063	19%
Cobalt Products	329,675	10%	246,398	8%
Nuclear Medicine Standards	216,855	7%	426,091	14%
Medical Device Products	—	—%		
Fluorine Products	—	—%	—	—%
Total Segments	1,151,722	36%	1,269,552	41%
Gross Profit	\$ 2,017,511		\$ 1,842,613	
Gross Profit %	64%		59%	

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Operating expense increased approximately 6% to \$2,197,635 for the three months ended June 30, 2024, from \$2,071,073 for the same period in 2023. This increase of \$126,562 is due to a 2% increase in Salaries and Contract Labor Expenses, a 11% increase in General, Administrative, and Consulting Expenses, and a 3% increase in Research and Development costs. The increase in Salaries and Contract Labor Expenses is primarily due to an increase in the number of employees offset by decreased officer compensation. The increase in General, Administrative, and Consulting Expenses is primarily the result of increased professional expenses that occurred during the three months ended June 30, 2024, as compared to the same period in 2023. We had one-time professional expenses of approximately \$150,000 during the three months ended June 30, 2024 related to legal consulting and root cause audits for NRC enforcement and settlement for a violation that occurred in 2022. The increase in Research and Development cost is due to increased expenses related to product development during the three months ended June 30, 2024, as compared to the same period in 2023. Research and Development cost includes approximately \$100,000 of legal fees related to one-time licensing and intellectual property costs in the three months ended June 30, 2024.

The following table presents a comparison of total operating expense for the three months ended June 30, 2024 and 2023:

	For the three months ended June 30, 2024	For the three months ended June 30, 2023	% change	\$ change
Operating Costs and Expenses:				
Salaries and Contract Labor	\$ 961,842	\$ 944,179	2%	\$ 17,663
General, Administrative and Consulting	1,047,063	943,870	11%	103,193
Research and Development	188,730	183,024	3%	5,706
Total operating expenses	<u>\$ 2,197,635</u>	<u>\$ 2,071,073</u>	6%	<u>\$ 126,562</u>

Other expense was \$5,344 for the three months ended June 30, 2024 as compared to other income \$37,518 for the same period in 2023. This is a decrease of \$42,862, or approximately 114%, was due to an NRC penalty of \$45,000 paid in the three months ended June 30, 2024. The penalty was for a violation that occurred in 2022. We have taken extensive internal actions to mitigate the risk of any similar violation and penalty occurring again. This matter has been finalized with the NRC.

Interest expense for the three months ended June 30, 2024 was \$81,508, compared to \$82,216 for the same period in 2023. This is a decrease of \$708, or approximately 1%. Interest expense includes dividends accrued on our Series C Preferred Stock. As discussed below, we issued Series C Preferred Stock in February 2017 and May 2017. For the three months ended June 30, 2024 and 2023, we accrued dividends payable of \$61,695 in each period, which have been recorded as interest expense. See Note 7 "Debt" to our unaudited consolidated financial statements in this Quarterly Report for additional information about our indebtedness and the associated interest expense.

Our net loss for the three months ended June 30, 2024, was \$233,445 compared to net loss of \$263,302 for the same period in 2023. This is a decrease in net loss of \$29,857, or approximately an 11% improvement, that is largely the result of increased revenue in our Theranostics Products and Cobalt Products segments and increased gross profit percentages partially offset by the decrease in revenue in our Nuclear Medicine Standards Products segment for the three months ended June 30, 2024, as compared to the same period in 2023.

Theranostics Products. Revenue from the sale of theranostics products for the three months ended June 30, 2024 was \$2,169,131, compared to \$1,736,043 for the same period in 2023. This is an increase of \$433,088, or approximately 25% during the three months ended June 30, 2024. The increase is the result of continued increased sales of our generic sodium iodide I-131 drug product. We expect continued sales growth for our Theranostics products going forward, primarily from the sale of our generic sodium iodide I-131 drug product and new sales of theranostic API product

Gross profit of theranostics products for the three months ended June 30, 2024 was \$1,563,939, compared to \$1,138,980 for the same period in 2023, and gross profit percentages were approximately 72% and 66% for the three months ended June 30, 2024 and 2023, respectively. This increased gross profit percentage was the result of better pricing for our raw material isotope and more efficient utilization of this raw material. Cost of sales for theranostics products increased to \$605,192 for the three months ended June 30, 2024, as compared to \$597,063 for the same period in 2023. This is an increase of \$8,129, or approximately 1%, and was the result of the increase to revenue. Operating expense for this segment decreased to \$392,549 for the three months ended June 30, 2024, compared to \$421,525 for the same period in 2023. This decrease in operating expense of \$28,976, or approximately 7%, was primarily the result of decreased labor costs. This segment reported net income of \$1,171,390 for the three months ended June 30, 2024, as compared to net income of \$717,455 for the same period in 2023. The increase in net income of \$453,935 is the result of increases in revenue, increased gross profit percentage, and decreased expenses.

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Cobalt Products. Revenue from the sale of cobalt products for the three months ended June 30, 2024 was \$592,199, compared to \$448,258 for the same period in 2023. This represents an increase of \$143,941, or approximately 32%. The increase was primarily due to the timing of cobalt sealed source manufacturing sales. Large value sales of high activity cobalt sources occur at various times throughout the year. Frequently the timing of these sales can have a significant impact on period comparisons.

Cost of sales for the three months ended June 30, 2024, was \$329,675, as compared to \$246,398, for the same period in 2023. Gross profit for cobalt products for the three months ended June 30, 2024 was \$262,524 compared to \$201,860 for the same period in 2023. This is an increase of \$60,664, or approximately 30%. Operating expense in this segment increased to \$163,200 for the three months ended June 30, 2024, from \$148,220 for the same period in 2023. This is an increase of \$14,980, or approximately 10%. This increase in operating expenses for the three months ended June 30, 2024 is primarily the result of increased waste disposal costs that occurred during the three months ended June 30, 2024 as compared to the same period in 2023. Our net income for cobalt products was \$99,324 for the three months ended June 30, 2024, as compared to a net income of \$53,640 for the same period in 2023. The increase in net income of \$45,684, or approximately 85%, was attributable to the increase in revenue. We expect a strong 2nd half of 2024 for Cobalt sales revenue.

Nuclear Medicine Standards. Revenue from nuclear medicine products for the three months ended June 30, 2024, was \$407,903, compared to \$927,864 for the same period in 2023. This represents a decrease in revenue of \$519,961, or approximately 56%. The decrease is due to a global shortage of Cobalt-57 isotope during the three months ended June 30, 2024, which began in January of 2024. We continue to maintain a growing backlog of orders; in July 2024, our supply of Cobalt-57 was restored, and we began to process these backlogged orders. We expect a revenue catch-up throughout the remainder of 2024 and potentially into the first quarter of 2025 now that our global isotope supply chain has normalized.

Cost of sales for our nuclear medicine standards segment for the three months ended June 30, 2024, was \$216,855, as compared to \$426,091 for the same period in 2023. The decrease in cost of sales in the period-to-period comparison of \$209,236, or 49%, was due to decreased revenue during the three-month period ended June 30, 2024, as compared to the same period in 2023. Gross profit for our nuclear medicine standards segment for the three months ended June 30, 2024 was \$191,048 compared to \$501,773 for the same period in 2023. This is a decrease in gross profit of \$310,725, or approximately 62%.

Operating expense for this segment for the three months ended June 30, 2024 increased to \$568,806, from \$492,045 for the same period in 2023. This is an increase of \$76,761, or approximately 16%, and is the result of increased waste disposal expense and increased labor costs in the segment within these periods. Net loss for this segment for the three months ended June 30, 2024 was \$377,758, compared to a net income of \$9,728 for the same period in 2023. This is a decrease in net income of \$387,486 and is the result of decreased revenue.

Medical Device Products. For the three months ended June 30, 2024 and June 30, 2023, we had no revenue for our Medical Device Products segment.

Operating expense for this segment for the three months ended June 30, 2024 was \$83,839 with no operating expenses in the same period in 2023. Expenses include costs for labor, professional services, and research and development related to the startup of this new business segment.

Fluorine Products. For the three months ended June 30, 2024 and June 30, 2023, we had no revenue for our fluorine products segment.

During the three months ended June 30, 2024, we incurred \$26,095 of expenses related to maintenance of plans, designs, and other assets for a proposed de-conversion facility, as compared to \$21,895 for the same three-month period in 2023.

On February 8, 2024, we entered into a definitive agreement to sell all of our assets related to the Fluorine Products segment and the Planned Uranium De-Conversion Facility. We expect to close the agreement within 12 to 24 months of signing. Closing is contingent on various conditions being met, including approvals and agreements by the NRC and other third parties. Upon closing of this agreement, the costs of maintenance for the assets in this segment would not continue. With no assets nor operating activities, this business segment would be phased out.

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Six Months Ended June 30, 2024, Compared to Six Months Ended June 30, 2023

Revenue for the six months ended June 30, 2024 was \$6,073,691 as compared to \$6,201,700 for the same period in 2023, an overall decrease of \$128,009, or approximately 2%. This decrease in revenue was the result of decreased revenue in our Nuclear Medicine Standards segment due to a global shortage of Cobalt-57 isotope partially offset by increased revenues in our Theranostics Products and Cobalt Products, as discussed in more detail below.

The following table presents a period-to-period comparison of total revenue by segment for the six months ended June 30, 2024 and June 30, 2023:

	For the six months ended June 30, 2024	For the six months ended June 30, 2023	\$ change	% change
Sale of Product				
Radiochemical Products	\$ 4,074,213	\$ 3,498,439	\$ 575,774	16%
Cobalt Products	826,167	606,566	219,601	36%
Nuclear Medicine Standards	1,173,311	2,096,695	(923,384)	-44%
Fluorine Products	—	—	—	100%
Total Consolidated	\$ 6,073,691	\$ 6,201,700	\$ (128,009)	-2%

Cost of sales decreased to \$2,190,069 for the six months ended June 30, 2024 from \$2,579,051 for the same period in 2023. This is a decrease of \$388,982, or approximately 15%. The decrease in cost of sales in the six-month comparison was primarily due to the increased gross profit percentages in our segments, as discussed in detail below. Gross profit for the six months ended June 30, 2024 was \$3,883,622, compared to \$3,622,649 for the same period in 2023. This represents an increase in gross profit of \$260,973, or approximately 7%.

The following table presents cost of sales and gross profit data for each of our business segments for the six months ended :

	For the six months ended June 30, 2024	% of Total Sales 2024	For the six months ended June 30, 2023	% of Total Sales 2023
Total Sales	\$ 6,073,691		\$ 6,201,700	
Cost of Sales				
Radiochemical Products	\$ 1,181,602	19%	\$ 1,227,401	20%
Cobalt Products	438,711	7%	337,359	5%
Nuclear Medicine Standards	569,756	9%	1,014,291	16%
Fluorine Products	—	—%	—	—%
Total Segments	2,190,069	36%	2,579,051	42%
Gross Profit	\$ 3,883,622		\$ 3,622,649	
Gross Profit %	64%		58%	

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Operating expense increased approximately 8% to \$4,329,942 for the six months ended June 30, 2024, from \$3,998,681 for the same period in 2023. This increase of \$331,261 is due to a 16% increase in General, Administrative, and Consulting Expenses and a 23% increase in Research and Development costs offset by a 1% decrease in Salaries and Contract Labor Expenses. The increase in General, Administrative, and Consulting Expenses is primarily the result of increased professional expenses that occurred during the six months ended June 30, 2024, as compared to the same period in 2023. We had one-time professional expenses of approximately \$150,000 during the six months ended June 30, 2024 related to legal consulting and root cause audits for NRC enforcement and settlement for a violation that occurred in 2022. The increase in Research and Development cost is due to increased expenses related to product development during the six months ended June 30, 2024, as compared to the same period in 2023. The increase in Research and Development cost is due to increased expenses related to product development during the six months ended June 30, 2024, as compared to the same period in 2023. Research and Development cost includes approximately \$150,000 of legal fees related to one-time licensing and intellectual property expense in the three months ended June 30, 2024. The decrease in Salaries and Contract Labor Expenses is primarily due to decreased officer compensation.

The following table presents a comparison of total operating expense for the six months ended June 30, 2024 and June 30, 2023:

	For the six months ended June 30, 2024	For the six months ended June 30, 2023	% change	\$ change
Operating Costs and Expenses:				
Salaries and Contract Labor	\$ 1,902,345	\$ 1,919,361	(1)%	\$ (17,016)
General, Administrative and Consulting	2,050,620	1,771,852	16%	278,768
Research and Development	376,977	307,468	23%	69,509
Total operating expenses	\$ 4,329,942	\$ 3,998,681	8%	\$ 331,261

Other income was \$155,376 for the six months ended June 30, 2024 as compared to \$100,930 for the same period in 2023. This is an increase of \$54,446, or approximately 54%, was due to an increase in miscellaneous income partially offset by \$63,000 of other expense for NRC fines. We have taken extensive internal actions to mitigate the risk of any similar violations and penalties occurring again. These matters have been finalized with the NRC.

Interest expense for the six months ended June 30, 2024 was \$162,811, compared to \$165,196 for the same period in 2023. This is a decrease of \$2,385, or approximately 1%. Interest expense includes dividends accrued on our Series C Preferred Stock. As discussed below, we issued Series C Preferred Stock in February 2017 and May 2017. For the six months ended June 30, 2024 and 2023, we accrued dividends payable of \$121,140 for the six months ended June 30, 2024 and \$122,640 for the same period in 2023, which have been recorded as interest expense. See Note 7 "Debt" to our unaudited consolidated financial statements in this Quarterly Report for additional information about our indebtedness and the associated interest expense.

Our net loss for the six months ended June 30, 2024, was \$387,496 compared to net loss of \$411,356 for the same period in 2023. This is a decrease in net loss of \$23,860, or approximately 6% improvement, that is largely the result of increased revenue in our Theranostics Products and Cobalt Products segments and increased gross profit percentages partially offset by the decrease in revenue in our Nuclear Medicine Standards Products segment for the six months ended June 30, 2024, as compared to the same period in 2023.

Theranostics Products. Revenue from the sale of theranostics products for the six months ended June 30, 2024 was \$4,074,213, compared to \$3,498,439 for the same period in 2023. This is an increase of \$575,774, or approximately 16% during the six months ended June 30, 2024. The increase is the result of continued growth in sales of our generic sodium iodide I-131 drug product. We expect this sales growth to continue for our Theranostics products going forward, primarily from the sale of our generic sodium iodide I-131 drug product and new sales of theranostic API product.

Gross profit of theranostics products for the six months ended June 30, 2024 was \$2,892,611, compared to \$2,271,038 for the same period in 2023, an increase of 27%. Gross profit percentages were approximately 71% and 65% for the six months ended June 30, 2024 and 2023, respectively. Cost of sales for theranostics products decreased to \$1,181,602 for the six months ended June 30, 2024, as compared to \$1,227,401 for the same period in 2023. The increase in gross profit percentage was primarily the result of increased utilization and decreased pricing for our raw material isotope. Operating expense for this segment decreased to \$707,757 for the six months ended June 30, 2024, compared to \$786,471 for the same period in 2023. This decrease in operating expense of \$78,714, or approximately 10% was primarily due to decrease labor costs. This segment reported net income of \$2,184,854 for the six months ended June 30, 2024, as compared to net income of \$1,484,567 for the same period in 2023. The increase in net income of \$700,287 or 47% is the result of increases in revenue, increased gross profit percentage, and decreased expenses.

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Cobalt Products. Revenue from the sale of cobalt products for the six months ended June 30, 2024 was \$826,167, compared to \$606,566 for the same period in 2023. This represents an increase of \$219,601, or approximately 36%. The increase was primarily due to the timing of cobalt sealed source manufacturing sales. Large value sales of high activity cobalt sources occur at various times throughout the year. Frequently the timing of these sales can have a significant impact on period comparisons.

Cost of sales for the six months ended June 30, 2024, was \$438,711, as compared to \$337,359, for the same period in 2023. Gross profit for cobalt products for the six months ended June 30, 2024 was \$387,456 compared to \$269,207 for the same period in 2023. This is an increase of \$118,249 or approximately 44% and is attributable to increased revenue for the six months ended June 30, 2024. Operating expense in this segment increased to \$354,457 for the six months ended June 30, 2024, from \$241,812 for the same period in 2023. This is an increase of \$112,645, or approximately 47%. This increase in operating expenses for the six months ended June 30, 2024 is primarily the result of increased waste disposal costs that occurred during the six months ended June 30, 2024 as compared to the same period in 2023. Our net income for cobalt products was \$32,999 for the six months ended June 30, 2024, as compared to a net income of \$27,395 for the same period in 2023. The increase in net income of \$5,604, or approximately 20%, was attributable increased revenue partially offset by increased operating expenses.

We expect a strong 2nd half of 2024 for Cobalt sales revenue.

Nuclear Medicine Standards. Revenue from nuclear medicine products for the six months ended June 30, 2024, was \$1,173,311, compared to \$2,096,695 for the same period in 2023. This represents a decrease in revenue of \$923,384, or approximately 44%. The decrease is due to a global shortage of Cobalt-57 isotope during the six months ended June 30, 2024 beginning in January. We continue to maintain a growing backlog of orders; in July 2024, our supply of Cobalt-57 was restored, and we began to process these backlogged orders. We expect a revenue catch-up throughout the remainder of 2024 and potentially into the first quarter of 2025 now that our global isotope supply chain has normalized.

Cost of sales for our nuclear medicine standards segment for the six months ended June 30, 2024, was \$569,756, as compared to \$1,014,291 for the same period in 2023. The decrease in cost of sales in the period-to-period comparison of \$444,535, or 44%, was due to decreased revenue during the six-month period ended June 30, 2024, as compared to the same period in 2023. Gross profit for our nuclear medicine standards segment for the six months ended June 30, 2024 was \$603,555 compared to \$1,082,404 for the same period in 2023. This is a decrease in gross profit of \$478,849, or approximately 44%.

Operating expense for this segment for the six months ended June 30, 2024 increased to \$971,817, from \$943,891 for the same period in 2023. This is an increase of \$27,926, or approximately 3%, and is the result of increased waste expense cost and labor costs. Net loss for this segment for the six months ended June 30, 2024 was \$368,262, compared to a net income of \$138,513 for the same period in 2023. This is a decrease in net income of \$506,775, or approximately 366% and is the result of decreased revenue.

Medical Device Products. For the six months ended June 30, 2024 and June 30, 2023, we had no revenue for our Medical Device Products segment.

Operating expense for this segment for the six months ended June 30, 2024 was \$112,350 with no operating expenses in the same period in 2023. Expenses include costs for labor, professional services, and research and development related to the startup of this new business segment.

Fluorine Products. For the six months ended June 30, 2024 and June 30, 2023, we had no operating revenue for our fluorine products segment.

During the six months ended June 30, 2024, we incurred \$54,846 of expenses related to maintenance of plans, designs, and other assets for a proposed de-conversion facility, as compared to \$56,134 for the same six-month period in 2023.

During the six months ended June 30, 2024, we received other income of \$50,000 for payments related to the DUF6 Asset Sale. As compared to \$5,000 of other income for the same six-month period in 2023.

On February 8, 2024, we entered into a definitive agreement to sell all of our assets related to the Fluorine Products segment and the Planned Uranium De-Conversion Facility. We expect to close the agreement within 12 to 24 months of signing. Closing is contingent on various conditions being met, including approvals and agreements by the NRC and other third parties. Upon closing of this agreement, the costs of maintenance for the assets in this segment would not continue. With no assets nor operating activities, this business segment would be phased out.

LIQUIDITY AND CAPITAL RESOURCES

At June 30, 2024, we had cash and cash equivalents of \$2,191,108 as compared to \$2,688,141 at December 31, 2023. This is a decrease of \$497,033 or approximately 18%. For the six months ended June 30, 2024, net cash provided by operating activities was \$288,597 and for the six months ended June 30, 2023, net cash provided in operating activities was \$1,000,448. The decrease in cash provided by operating activities was a result of a one-time receipt of a tax refund receivable in 2023.

This decrease in cash and cash equivalents at period end is mainly due to a \$484,000 transfer from cash and cash equivalents to restricted cash to fund an increase to our decommissioning funding plan. Total cash, cash equivalents, and restricted cash increased by \$18,638 for the six months ended June 30, 2024.

Inventories at June 30, 2024 totaled \$699,271, and inventories at December 31, 2023 totaled \$927,111. Our inventory consists of work in process material for our Theranostics Products, Cobalt Products, Nuclear Medicine Products, and Medical Device Products segments. The decrease in revenue in the six months ended June 30, 2024 was mostly due to decreased inventory of Cobalt-57 raw material and Cobalt-57 finished goods due to the global shortage of Cobalt-57.

Cash used in investing activities was \$178,936 for the six months ended June 30, 2024, and cash used in investing activities was \$66,522 for the same period in 2023. The cash used in both periods was for the purchase of equipment offset by sales of equipment.

Cash used in financing activities was \$91,023 during the six months ended June 30, 2024, and cash used in financing activities for the same period in 2023 was \$17,399. During the six months ended June 30, 2024, cash paid for interest was \$155,681 and during the same six-month period in 2023, cash paid for interest was \$157,826. Additionally, during the six months ended June 30, 2024, we received \$4,865 in proceeds from the sale of our common stock through our Employee Stock Purchase Plan, as compared to \$4,880 in proceeds from the sale of our common stock through our Employee Stock Purchase Plan in 2023. During the six months ended June 30, 2024, principal payments on notes payable were \$94,365, as compared to \$18,239 for the same period in 2023.

In February 2024, we paid our annual dividend on the Series C Preferred Stock. Dividends payable totaled \$243,780 at that time. Some holders of the Series C Preferred Stock elected to settle their dividend payments with shares of the Company's common stock in lieu of cash. The Company issued 1,808,400 shares of common stock in lieu of a dividend payment of \$90,420. The remaining \$153,360 of dividend payable was settled with cash.

Total increase in cash for the six months ended June 30, 2024, was \$18,638 compared to a cash increase of \$916,527 for the same period in 2023.

We expect that cash from operations, cash raised via equity financing, and our current cash balance will be sufficient to fund operations for the next twelve months. Our future liquidity and capital funding requirements will depend on numerous factors, including commercial relationships, technological developments, market factors, available credit, and preferred stock shareholders. There is no assurance that additional capital and financing will be available on acceptable terms to the Company or at all.

Debt

In December 2013, we entered into a promissory note agreement with our then Chairman of the Board and one of our major shareholders, pursuant to which we borrowed \$500,000 (the 2013 Promissory Note). The 2013 Promissory Note is secured and bears interest at 6% per annum and was originally due June 30, 2014. According to the terms of the 2013 Promissory Note, at any time, the lenders may settle any or all of the principal and accrued interest with shares of our common stock. In June 2014, pursuant to a modification, the maturity date was extended to December 31, 2017. In February 2017, the 2013 Promissory Note was further modified to extend the maturity date to December 31, 2020, with all remaining terms unchanged. In December 2019, the 2013 Promissory Note was further modified to extend the maturity date to December 31, 2021, with all remaining terms unchanged. In January 2022, the 2013 Promissory Note was modified to extend the maturity date to December 31, 2023, with all remaining terms unchanged. In February 2024, the 2013 Promissory Note was modified to extend the maturity date to March 31, 2026, with all remaining terms unchanged. At June 30, 2024, accrued interest payable on the 2013 Promissory Note was \$316,734.

In April 2018, we borrowed \$120,000 from our Chief Executive Officer and Chairman of the Board pursuant to a promissory note (the 2018 Promissory Note). The 2018 Promissory Note accrues interest at 6% per annum, which is payable upon maturity of the 2018 Promissory Note. The 2018 Promissory Note was originally unsecured and originally matured on August 1, 2018. At any time, the holder of the 2018 Promissory Note may elect to have any or all of the principal and accrued interest settled with shares of our common stock based on the average price of the shares over the previous 20 trading days. Pursuant to an amendment to the 2018 Promissory Note in June 2018, the maturity date was extended to March 31, 2019 with all other provisions remaining unchanged. Pursuant to a second amendment to the 2018 Promissory Note in February 2019, the maturity date was extended to July 31, 2019 with all other provisions remaining unchanged. Pursuant to a third amendment to the 2018 Promissory Note in July 2019, the maturity date was extended to January 31, 2020 with all other provisions remaining unchanged. Pursuant to a fourth amendment to the 2018 Promissory Note in December 2019, the maturity date was extended to December 31, 2021, the note was modified to become secured by company assets, with all other provisions remaining unchanged. In December 2021, the 2018 Promissory Note was modified to extend the maturity date to December 31, 2023, with all remaining terms unchanged. In December 2023, the 2018 Promissory Note was modified to extend the maturity date to January 31, 2025, with all remaining terms unchanged. In February 2024, the 2018 Promissory Note was modified to extend the maturity date to March 31, 2026, with all remaining terms unchanged. At June 30, 2024, accrued interest on the 2018 Promissory Note totaled \$44,570.

In December 2019 and February 2020, we borrowed an aggregate of \$1,000,000 from our Chief Executive Officer, Chairman of the Board, former Chairman of the Board, and one of our major shareholders pursuant to a promissory note (the 2019 Promissory Note). The 2019 Promissory Note bears an interest rate of 4% annually and was originally due December 31, 2022. According to the terms of the 2019 Promissory Note, at any time, the lenders may settle any or all of the principal and accrued interest with shares of the Company's common stock based on the average closing price of the Company's common stock for the 20 days preceding the payment. In December 2022, the 2019 Promissory Note was modified to extend the maturity date to December 31, 2024, with all remaining terms unchanged. In February 2024, the 2019 Promissory Note was modified to extend the maturity date to March 31, 2026, with all remaining terms unchanged. At June 30, 2024, the accrued interest on the 2019 Promissory Note totaled \$179,131.

In June 2023, we executed an asset purchase agreement with AMICI, Inc. for purchase of medical devices and related assets and intellectual property rights. As part of the asset purchase agreement, we entered a promissory agreement for \$427,100. According to the terms of the agreement, we are to pay the seller a minimum of \$10,000 per month for a period of 45 months. The amount due is not subject to interest until the 25th month after the anniversary of the closing of the agreement. At June 30, 2024, the balance of this agreement was \$332,100.

CRITICAL ACCOUNTING POLICIES

From time-to-time, management reviews and evaluates certain accounting policies that are considered to be significant in determining our results of operations and financial position.

A description of the Company's critical accounting policies that affect the preparation of the Company's financial statements is set forth in the Company's Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on March 29, 2024.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act), that are designed to ensure that material information relating to us is made known to the officers who certify our financial reports and to other members of senior management and the Board of Directors. These disclosure controls and procedures are designed to ensure that information required to be disclosed in our reports that are filed or submitted under the Exchange Act are recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our principal executive and principal financial officers, or persons performing similar functions, as appropriate, to allow timely decisions regarding required disclosure.

Management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness, as of June 30, 2024, of our disclosure controls and procedures. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of June 30, 2024.

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the quarter ended June 30, 2024 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

A discussion of legal matters is found in Note 7, “Commitments and Contingencies”, in the accompanying notes to the unaudited condensed consolidated financial statements included in Part I - Item 1. Financial Statements of this Quarterly Report.

ITEM 1A. RISK FACTORS

There have been no material changes or updates to the risk factors previously disclosed in Item 1A. “Risk Factors” of our Annual Report on Form 10-K for the year ended December 31, 2023.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

None.

ITEM 5. OTHER INFORMATION

During the quarter ended June 30, 2024, no director or officer of the Company adopted or terminated a “Rule 10b5-1 trading arrangement” or “non-Rule 10b5-1 trading arrangement,” as each term is defined in Item 408(a) of Regulation S-K.

ITEM 6. EXHIBITS

Exhibit No.	Description
3.1	Restated Certificate of Formation, as amended (incorporated by reference to Exhibit 3.1 of the Company's Quarterly Report on Form 10-Q for quarter ended June 30, 2010).
3.2	Statement of Designation of the Series C Convertible Redeemable Preferred Stock of International Isotopes Inc. (incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K filed on February 24, 2017).
3.3	Certificate of Amendment to Statement of Designation of the Series C Convertible Redeemable Preferred Stock International Isotopes Inc., dated February 16, 2022 (incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K filed on February 22, 2022).
3.4	Certificate of Amendment to Statement of Designation of the Series C Convertible Redeemable Preferred Stock International Isotopes Inc., dated December 28, 2022 (incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K filed December 28, 2022).
3.5	Bylaws (incorporated by reference to Exhibit 3.2 of the Company's Registration Statement on Form SB-2 filed on May 1, 1997 (Registration No. 333-26269)).
31.1*	Certification by the Chief Executive Officer under Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification by the Chief Financial Officer under Section 302 of the Sarbanes-Oxley Act of 2002.
32.1**	Certification by the Chief Executive Officer furnished pursuant to 18 U.S.C. Section 1350 adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2**	Certification by the Chief Financial Officer furnished pursuant to 18 U.S.C. Section 1350 adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS*	Inline 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.SCH*	Inline XBRL Taxonomy Extension Schema Document
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (embedded within the Inline XBRL document and contained in Exhibit 101).

* Filed herewith.

** Furnished herewith.

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.

Date: August 14, 2024

International Isotopes Inc.

By: /s/ Shahe Bagerdjian
Shahe Bagerdjian
Chief Executive Officer

By: /s/ W. Matthew Cox
W. Matthew Cox
Chief Financial Officer

CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES OXLEY ACT OF 2002

I, Shahe Bagerdjian, certify that:

1. I have reviewed this quarterly report on Form 10-Q of International Isotopes 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.

Date: August 14, 2024

/s/ Shahe Bagerdjian

Shahe Bagerdjian, Chief Executive Officer

CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES OXLEY ACT OF 2002

I, W. Matthew Cox, certify that:

1. I have reviewed this quarterly report on Form 10-Q of International Isotopes 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.

Date: August 14, 2024

/s/ W. Matthew Cox

W. Matthew Cox, Chief Financial Officer

CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of International Isotopes Inc. and subsidiaries (the "Company") for the period ended June 30, 2024, as filed with the Securities and Exchange Commission (the "Form 10-Q"), I, Shahe Bagerdjian, Chief Executive Officer of the Company, in my capacity as such, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

- (1) The Form 10-Q fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended (15 U.S.C. 78m or 78o(d)); and
- (2) The information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

August 14, 2024

/s/ Shahe Bagerdjian
Shahe Bagerdjian
Chief Executive Officer

CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of International Isotopes Inc. and subsidiaries (the "Company") for the period ended June 30, 2024, as filed with the Securities and Exchange Commission (the "Form 10-Q"), I, W. Matthew Cox, Chief Financial Officer of the Company, in my capacity as such, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

- (1) The Form 10-Q fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended (15 U.S.C. 78m or 78o(d)); and
- (2) The information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

August 14, 2024

/s/ W. Matthew Cox

W. Matthew Cox
Chief Financial Officer