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

FORM 10-K

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

For the fiscal year ended December 31, 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: 000-22923

INTERNATIONAL ISOTOPES INC.

(Exact name of registrant as specified in its charter)

Texas	**74-2763837**
(State or other jurisdiction of incorporation or origination)	(IRS Employer Identification No.)
4137 Commerce Circle **Idaho Falls, Idaho**	**83401**
(Address of principal executive offices)	(Zip code)

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

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

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

COMMON STOCK, $.01 PAR VALUE
(Title of Class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

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, a 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. (Check one):

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

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to § 240.10D-1(b). ☐

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the average bid and asked price of such common equity at June 30, 2024, the last business day of the registrant's second fiscal quarter, was approximately $6 million. For purposes of this calculation, all directors and executive officers of the registrant and holders of 10% or more of the registrant's common stock are assumed to be affiliates. This determination of affiliate status is not necessarily conclusive for any other purpose.

As of February 26, 2025, the number of shares outstanding of the registrant's common stock, $.01 par value, was 523,706,140 shares.

DOCUMENTS INCORPORATED BY REFERENCE

Certain information called for in Part III of this Annual Report on Form 10-K is incorporated by reference from the registrant's definitive proxy statement for the 2025 annual meeting of shareholders, which will be filed with the Securities and Exchange Commission not later than 120 days after the registrant's fiscal year ended December 31, 2024.

INTERNATIONAL ISOTOPES INC.

FORM 10-K

TABLE OF CONTENTS

Cautionary Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K (the "Annual 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 Annual Report are forward-looking. Words such as: "anticipates," "believes," "should," "expects," "future" and "intends" and similar expressions identify forward-looking statements. In particular, statements regarding: financial condition, operating results and liquidity, future cash flow from operations, our ability to achieve profitability, the expected growth in business segment revenues, our expansion into new markets, the ability of our products to compete with several larger companies and products, the results of market studies used to support our business model, our anticipated improvement in economic conditions, our ability to continue cobalt-60 production, continuously source certain isotopes, and the sufficiency of our available cash and revenues from operations to meet our operating needs, are forward-looking. 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 Annual Report. Certain risks and uncertainties that could cause actual results to differ significantly from management's expectations are described in the section entitled "Risk Factors" in this Annual Report. That section, along with other sections of this Annual Report, describes some, but not all, of the factors that could cause actual results to differ significantly from management's expectations. We do not intend to publicly release any revisions to these forward-looking statements that may be made 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 other reports that we file from time to time with the Securities and Exchange Commission (the "SEC").

PART I

Item 1. BUSINESS

General Business and Products Description

International Isotopes Inc. (the "Company", "we", "us" and "our") produces an FDA approved generic sodium iodide I-131 drug product, provides radiochemicals for clinical research and life sciences, manufactures a wide range of nuclear medicine calibration and reference standards, is in development of medical devices for the nuclear medicine industry, and produces a variety of cobalt-60 products for medical, research, and industrial applications.

We were formed as a Texas corporation in 1995. Our wholly-owned subsidiaries are International Isotopes Idaho Inc., a Texas corporation; International Isotopes Fluorine Products, Inc., an Idaho corporation; International Isotopes Transportation Services, Inc., an Idaho corporation; RadQual, LLC, a limited liability company (RadQual); RadVent, LLC, a limited liability company; Radnostix, LLC, a limited liability company; and TI Services, LLC, a limited liability company (TI Services). Our core business consists of five reportable segments which include: Theranostics Products, Cobalt Products, Nuclear Medicine Standards, Medical Devices, and Fluorine Products.

During 2024, we focused our efforts on achieving profitability in each of our core business segments and launching a fifth segment. We reached several significant goals. During 2024, we:

- Increased total company revenues by $1,632,375 or 13%.
- Reached $13.9 million in total revenues which was the largest single year in company history.
- Increased sales in our Theranostics Products segment by 17% primarily through increases in sales of our FDA approved generic sodium iodide I-131 drug product.
- Increased sales in our Cobalt Products segment by 128% due to an increased yearly supply of Cobalt 60 material.
- Developed several new products for our Nuclear Medicine products segment and expanded our range of products in this segment including Positron Emission Tomography (PET) imaging standards, non-medical calibration and reference sources, and bulk isotope sales.
- Created our Medical Device segment and continued development of several products including product purchased from AMICI, Inc. that we plan to launch in 2025.
- Entered an Asset Purchase Agreement to sell our unused assets from our FEP business segment for a total of $12.5 million. The transaction is expected to close in within in the next 12 months, subject to satisfaction of certain closing conditions.
- 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.
- Entered into a joint venture agreement with Phantech LLC to form PhanQual. PhanQual is to manufacture and distribute calibration and testing phantoms for R&D and pre-clinical nuclear imaging applications.
- Entered a land purchase agreement for the lot adjacent to our Idaho Falls, ID, USA manufacturing facility.

In 2025, we plan to continue investment in these segments including work to pursue product development, reduce production costs, and expand sales in each of our segments. The following paragraphs provide a brief description of each of our business segments. Certain financial information with respect to each of our business segments, including revenues from external customers, a measure of profit or loss, and total assets, is set forth in Note 15 to our Consolidated Financial Statements which begin on page F-7.

Theranostics Products

This segment includes the production and distribution of various isotopically pure radiopharmaceuticals, APIs, and radiochemicals for medical, industrial, and research applications. These products are produced by us from radioisotopes supplied by our vendors. We produce and distribute various products in customized volumes, concentrations, chemical formulations, packages, and specifications tailored to meet our FDA specifications or customer and market demands. Our FDA approved generic sodium iodide I-131 drug product is the only generic product of this type manufactured in the U.S. and offers customers an attractive domestic alternative to the single existing foreign commercial drug manufacturer.

Cobalt Products

Our Cobalt Products segment includes the production of various cobalt-60 products and services, including the fabrication of cobalt-60 sealed sources for radiation therapy, various industrial and medical applications, and recycling of expended cobalt-60 sources.

We have explored, and intend to continue to explore, opportunities to further develop cobalt-60 products and sales on an on-going basis. The production, use, transport, and import/export of these products are all heavily regulated, but we have developed a highly experienced staff of technicians, shipping specialists, and supervisors as part of our efforts to comply with the regulations and support cost effective, timely delivery of these products.

We believe both our domestically manufactured product and service provide us with a competitive edge in competing with other manufacturers.

Nuclear Medicine Standards

This segment consists of various sealed source calibration and reference products, including our own manufactured products, jointly manufactured products, and third-party products. These products are sold through our RadQual subsidiary for use with Single Photon Emission Computed Tomography (SPECT) and Positron Emission Tomography (PET) imaging equipment, patient positioning, radiopharmacy and radiopharmaceutical CDMO lab equipment, pre-clinical imaging equipment, clinical trial or custom geometry applications, and calibration or operational testing of measuring and/or testing equipment. Our Nuclear Medicine Standards products include flood sources, dose calibrators, cylinder phantoms, rod sources, line sources, flexible and rigid rulers, spot markers, pen point markers, and a host of specialty design items. Our pre-clinical products include distribution of fillable sources from Phantech and pre-clinical sealed sources via our PhanQual joint venture with Phantech. Our Calibration & Reference sources include RadQual products for the nuclear pharmacies and related lab equipment; we also distribute non-medical sources manufactured by our partner, ORANO LEA. Our Nuclear Medicine Standards segment also commercializes bulk isotope sales, medical devices, and shielding and accessories related to our sealed source products.

According to the IAEA, over 140 countries have the availability of SPECT and/or PET cameras, with more than 33,000 installed units in total. These installed cameras use nuclear medicine products on a regular repeat basis, with many of them requiring calibration as part of on-going certification. Most Nuclear Medicine Standards product sales are to U.S. customers. However, in recent years, because of stronger marketing efforts, we have seen an increase in foreign sales. All these products contain radioactive isotopes that decay at a predictable rate. Therefore, customers are required to periodically replace most of these products when they reach the end of their useful lives. The useful life of these products varies depending on the isotope used in manufacture, but in most cases averages eighteen months to two years. The various isotopes used in manufacturing these Nuclear Medicine Standards products are from several sources world-wide, and we are continually working to develop multiple sources of each isotope. In addition to the products themselves, we have developed a complete line of specialty packaging for the safe transportation and handling of these products.

Medical Devices

This segment was started in 2024 from assets previously reported as part of the Nuclear Medicine Standards segment. The products for the Medical Device segment are currently under development. In 2022 we entered a joint venture to develop the EasyFill Automated Capsule System, a robotic lab device to be paired with our Theranostics Products. The EasyFill is still in the developmental stage. In 2023, we entered an asset purchase agreement with AMICI, Inc. to purchase manufacturing molds, device registrations, trademarks, and all production rights to several AMICI medical device and accessory products for lung ventilation; this included the Swirler Radioaerosol System and Tru-Fit mouthpiece products. In January 2025, as part of an amendment to the AMICI asset purchase agreement, we received the manufacturing molds, device registrations, trademarks, and all production rights to the AMICI line of Xenon System products. These acquired assets from AMICI are currently under development and are expected to be released in the second half of 2025 to be sold through our RadVent subsidiary. In 2024, our Medical Device segment entered into a distribution and servicing agreement with Scintomics ATT for their complete line of radiosynthesis modules.

Fluorine Products and the Planned Uranium De-Conversion Facility

We established the fluorine products business segment in 2004 to support production and sale of various fluoride gases produced using our Fluorine Extraction Process ("FEP"). FEP was intended to be completed in conjunction with the operation of a proposed depleted uranium ("DUF6") de-conversion facility in Lea County, New Mexico. DUF6 is the waste by-product of uranium enrichment, and any uranium enrichment facility will create very large quantities of DUF6. In October 2012, we received a construction and operating license from the U.S. Nuclear Regulatory Commission ("NRC") for the planned facility. Changes in the nuclear industry near the end of 2013, however, significantly reduced commercial demand for this type of facility. Therefore, we suspended all further development work on the project, but we have maintained all licenses and permits for the project.

On February 8, 2024, we entered into a definitive agreement to sell all our assets related to the Fluorine Products segment and the Planned Uranium De-Conversion Facility to American Fuel Resources ("DUF6 Asset Sale"). We expect to close the agreement before the March 2026 milestone. Closing is contingent on various conditions being met, including approvals and agreements by the NRC and other third parties. Upon the closure of the DUF6 Asset Sale, we plan to pay down the related notes and close our fluorine products business segment.

Industry Overview, Target Markets, and Competition

The industries and markets that require or involve the use of radioactive material are diverse. Our current core business operations involve products that are used in a wide variety of applications and in various markets. The following provides an explanation of the markets and competitive factors affecting our current business segments.

Theranostics Products

In February 2020, our abbreviated new drug application ("ANDA") for a generic radiopharmaceutical sodium iodide I-131 drug product was approved by the U.S. FDA. This product is approved for use in treatment of hyperthyroidism and carcinoma of the thyroid and is the only generic sodium iodide I-131 product approved by the FDA that is manufactured in the U.S. The only other supplier to the U.S. of an FDA approved sodium iodide product comes from a foreign manufacturer.

We sell our generic sodium iodide I-131 to radiopharmacy customers, who manufacture patient-specific capsules and make direct sales in the U.S. to clinicians. We directly ship our generic sodium iodide I-131 to all 50 states and we also periodically supply a GMP equivalent to some overseas locations.

Since the launch of this drug product in 2020, the corresponding sales have had a significant positive impact on our revenues. We expect this growth in sales for this product to continue in 2025 and beyond as we grow our market share in the U.S., expand into new territories, and develop strategic joint-ventures in countries where it is not economical to serve from our existing manufacturing site.

We also supply Theranostics Products in API and radiochemical form. The markets for most radiochemicals can be highly competitive. The target markets for these products are customers who (1) incorporate them into finished industrial or medical devices; (2) use radioisotope products in clinical trials for various medical applications with the aim to further process and include the radioisotope products into pharmaceutical products approved by the U.S. FDA for labeled use in therapy or imaging, or (3) include our radioisotope products into their pharmaceutical products approved outside the U.S. for encapsulated and/or labeled use in therapy or imaging. We can ship to all 50 states and internationally. We are deploying a unique product strategy which we believe will make us the go-to API supplier for 3rd party radiopharmaceutical products.

We believe that we are uniquely qualified and have a competitive advantage for future opportunities because we have a unique combination of NRC licensing, GMP compliant operating facility, and trained personnel.

Cobalt Products

Cobalt-60 products are used in various applications where high-energy isotopes are required, such as radiation therapy, gamma sterilization, security devices, radiography examination and industrial applications.

We provide various products and services to customers in medical, industrial, defense, and government sectors. Our products and services include cobalt-60 raw material supply, contract manufacturing of sources, our own NRC registered sources, and cobalt-60 recycling. In recent years, we have helped our customers develop a market for low specific activity (HSA) cobalt-60 sealed sources. We also have numerous supply contracts for medium specific activity (MSA) and high specific activity (HSA) cobalt-60 sealed sources.

Stringent regulatory, facility safety, and operator qualification requirements associated with the manufacturer and distribution of sealed cobalt-60 sources present significant entry barriers for new market participants. There are no other domestic suppliers of cobalt-60 products in the US and there is one major foreign supplier in the North American market. We are actively working to add robustness to our supply chain, exploring the availability of cobalt-60 material from foreign suppliers.

Medical Devices

Our Medical Device segment will consist of our own medical devices and the distribution and servicing of third-party products. We intend to leverage our existing network of distributors for Theranostics Products and Nuclear Medicine Standards products to purchase, use, and distribute our catalog of Medical Device products. We are actively working to launch three products in this segment: EasyFill, RadVent, and third-party products.

Our EasyFill Automated Capsule System will target radiopharmacy partners both in the US and around the world. There are over 400 radiopharmacy locations globally, of which approximately 20% of them prepare sodium iodide I-131 capsules in house. Most of these potential customers currently lease a shielded encapsulation device from the only available foreign supplier, who is also the only other supplier of sodium iodide I-131 into the U.S. We believe the launch of the EasyFill will also improve our market share of our Theranostics Product segment as the two products are used together. We are actively finalizing the development of the industrialized commercial unit for launch in late 2025.

Our RadVent products, which were purchased from AMICI Inc, are used with various lung imaging studies, in conjunction with other approved radiopharmaceuticals, such as Technetium-99m-DTPA and Xenon-133. These products are generally sold through the same distributor type and for resale to the same end-user demographic as our Theranostics Products and Nuclear Medicine Standards products. The AMICI products were long-established market leaders before their shutdown in 2020 during a moratorium on lung imaging due to the COVID pandemic. At the time, AMICI was also white label supplying to other providers and also supplying some components and medical devices to other companies which were being incorporated into competitive devices. We are actively working on establishing new manufacturing channels and expect to launch the first products from the RadVent portfolio by mid-2025.

Our Medical Devices segment also plans to commercialize various nuclear medicine focused devices which target the same core user base as our own devices and could leverage our existing personnel skills, facilities, logistics, and service engineering capabilities. In 2024 we entered an exclusive agreement for U.S. and Canada to distribute, service, and supply consumables for Scintomics ATT's entire lineup of radiosynthesis equipment.

Nuclear Medicine Standards

We manufacture and distribute sealed sources and devices for various applications, including medical, laboratory, pre-clinical, industrial, and research. Many of our products are registered with the U.S. NRC and U.S. FDA where required, as well as their equivalent regulatory authorities in international jurisdictions. We ship these products directly to all 50 states and many overseas locations. We are certified under ISO-9001:2015 and ISO-13485-2016 quality programs which allow us to sell our products into several foreign countries where these quality certifications are required for manufacturers.

We have varying target markets and distribution tactics and channels, depending on the type of products we are selling. We predominately sell our medical products through distributors who make direct sales in the U.S. and internationally to end-users. Medical calibration and reference standards are used for daily or periodic operational checks and calibration of nuclear medicine devices, such as SPECT and PET cameras and lab equipment, which are routinely used in nuclear medicine clinics and radiopharmacies around the world. As part of licensing and certification requirements in the U.S. and other high-regulatory jurisdictions, calibration and quality assurance testing for equipment accuracy is required to be part of routine operations of this equipment. Over 140 countries have availability of SPECT and/or PET cameras, with more than 33,000 installed units in total. There are also more than 400 radiopharmacy and CDMO sites which use lab equipment that relies on calibration and reference standards. We also commercialize our PhanQual pre-clinical products in partnership with PhanTech; these products are targeted directly to end-users. Our non-medical industrial products are sold direct to end-users or to OEMs who bundle the sealed sources with their equipment. In the U.S., the core target market for industrial sources and calibration standards are utilities, mining operations, the U.S. Department of Energy, and environmental laboratories.

There are some small regional suppliers internationally and only one major producer of a similar catalog of products in the world that competes directly with us for this broad portfolio of products. Most of the products manufactured by our major competitor are similar in design to our products as these products must meet Original Equipment Manufacturer (OEM) dimensional and performance standards. We attempt to differentiate our products through strategic alignment with OEMs, high levels of service, competitive pricing, patent protections, and exclusive arrangements with OEMs.

We continue working to expand the number and types of products that are manufactured in this segment and expand our qualified suppliers for the raw material used for our products. We plan to eventually manufacture some of our medical products in China through our joint-venture, Radnostix China.

Fluorine Products and the Planned Depleted Uranium De-Conversion Facility

Our Fluorine Products segment was developed in conjunction with uranium de-conversion to take advantage of the anticipated need for depleted uranium de-conversion services. During 2013, we curtailed all further work on the de-conversion facility because of a lack of demand for uranium de-conversion services at that time. We have continued to maintain the assets and licenses related to our previously planned de-conversion facility.

On February 8, 2024, we entered into a definitive agreement to sell all our assets related to the Fluorine Products segment and the Planned Uranium De-Conversion Facility to American Fuel Resources ("DUF6 Asset Sale"). We expect to close the agreement before the March 2026 milestone. Closing is contingent on various conditions being met, including approvals and agreements by the U.S. Nuclear Regulatory Commission and other third parties. Upon the closure of the DUF6 Asset Sale, we plan to pay down the related notes and close our fluorine products business segment.

Government Regulation

Licensing

We currently operate under two NRC licenses, one for broad scope operations and another for exempt distribution. Our broad scope license covers calibration and reference standard manufacturing and distribution, radioisotope processing and distribution, large scale cobalt-60 processing and recycle operations, radioactive gemstone processing, environmental sample analysis, certain field service activities, and research and development. The exempt distribution license permits the release and distribution of irradiated gemstones to unlicensed entities in the U.S. All of our existing licenses and permits are adequate to allow current business operations. We do not handle "special nuclear materials" (i.e. nuclear fuels and weapons grade uranium, thorium or plutonium); therefore, our facility is not designated as a "nuclear" facility that would require additional licensing.

As a condition of our NRC licenses in Idaho, we are required to provide financial assurance for decommissioning activities. We fulfill this license requirement with a surety bond which names the NRC as beneficiary and is supported by a restricted cash account held in trust by a third party.

In October 2012, we were granted a 40-year construction and operating license by the NRC for our planned depleted uranium de-conversion and fluorine extraction processing facility (the "de-conversion facility"). The de-conversion facility was planned to be located in Lea County, New Mexico. Further engineering work on the proposed deconversion facility was placed on hold in 2013 due to changes in market conditions. There is no specific timeline required by the NRC for the start of construction on this project. Most of the pre-construction design, licensing and state permitting has already been completed for the project. These licenses for the de-conversion facility are included in the DUF6 Asset Sale as described above.

Regulation of Radioisotope Production Waste

All our manufacturing processes generate some radioactive waste. We must handle this waste pursuant to the Low-Level Radioactive Waste (LLRW) Policy Act (LLRW Act), which requires the safe disposal of mildly radioactive materials. The estimated costs for storage and disposal of these materials have been included in the manufacturing and sales price of our products. Actual disposal costs are subject to change at the discretion of the disposal sites. We have obtained all necessary permits and approvals for the disposal of our waste materials, and we do not anticipate any negative changes in capacity or regulatory conditions that would limit or restrict our waste disposal capabilities.

Nuclear Regulatory Commission Oversight

We operate under two NRC licenses and are subject to NRC oversight and periodic inspections of our operations.

Other Regulations

We are registered as a medical device manufacturer through the FDA for several of our Nuclear Medicine Standards segment's and Medical Devices segment's products. We are registered with the U.S. Department of Transportation (DOT) for the shipment of radioactive materials. We also have an NRC license for the import and export of radioactive materials. Because of increasing security controls and regulations, it is likely that we may encounter additional regulations affecting transportation, storage, sale, and import/export of radioactive materials.

We are also subject to inspection by the FDA to manufacture our sodium iodide I-131 product in compliance with our ANDA for sodium iodide I-131 and all applicable cGMP requirements for this and other contract manufactured products. We are registered with the FDA as a drug manufacturing facility, and we are subject to periodic and random inspections by the FDA for the continued manufacture of drug products.

We are subject to government regulation and intervention both in the U.S. and in all foreign jurisdictions in which we conduct business. Compliance with applicable laws and regulations results in higher capital expenditures and operating costs and changes to current regulations with which we must comply can necessitate further capital expenditures and increases in operating costs to enable continued compliance.

Environmental Compliance

We are subject to various federal, state, local and foreign government requirements regulating the discharge of materials into the environment or otherwise relating to the protection of the environment. These laws and regulations include, but are not limited to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Resource Conservation and Recovery Act (RCRA) and state statutes such as the Idaho Hazardous Waste Management Act, the LLRW Policy Act, NRC regulations concerning various irradiated, radioactive, and depleted uranium materials, and U.S. DOT regulations concerning shipment of radioactive materials. Certain of these laws and regulations can impose substantial fines and criminal sanctions for violations and require installation of costly equipment or operational changes to limit emissions and/or decrease the likelihood of accidental hazardous substance releases. We have incurred, and expect to continue to incur, capital and operating costs to comply with these laws and regulations. In addition, changes in laws, regulations and enforcement of policies, or the imposition of new clean-up requirements or remedial techniques, could require us to incur costs in the future that would have a negative effect on our financial condition or results of operations.

Distribution Methods for Products

We sell our products directly to our customers who, in some cases, are both end users and distributors. We use common commercial carriers for delivery of our products, and in some cases our customers arrange for deliveries from our manufacturing site.

Dependence on Customers

Combined sales, on which we are dependent, to our three largest customers, accounted for 32% of our total gross revenues in 2024 and accounted for 22% of our total gross revenues in 2023.

Patents, Trademarks, Licenses and Royalty Agreements

In 2004, we obtained certain patents related to the FEP. In 2010, we were granted an additional process patent on the FEP process. During 2012, we were granted additional process patents for the FEP process in the United States. These patents are included in the DUF6 Asset Sale as noted above.

In 2009, the University of Washington entered an exclusive utility patent license and royalty agreement with RadQual whereby RadQual has the exclusive right to exploit a patent for Calibration method and system for PET scanners.

In 2009 the USPTO granted a utility patent for Simulated dose calibrator source standard for positron emission tomography radionuclides. The patent is assigned to our RadQual subsidiary.

In 2021, we entered into an exclusive licensing agreement with Memorial Sloan-Kettering Cancer Center (MSKCC) for commercial development of a Radioimmuno Assay (RIA) test kit for the detection for SARS COVID-19 virus in the blood. A patent application for this test kit was submitted to the U.S. patent office in March 2021. The useful application and commercial viability of this opportunity will continue to be evaluated; however, at the present time we do not plan the commercial development of this product but may pursue other related commercial opportunities.

In 2023 we filed various utility and design patents in the U.S. and other international jurisdictions for our EasyFill product and its related consumables. These patents are currently pending approval by the USPTO and international authorities.

In 2023, as part of an asset purchase agreement with AMICI, Inc., we acquired the trademarks for the Swirler Radioaerosol System and Tru-Fit mouthpiece products.

In 2024, we received trademarks in China for our RadQual and Radnostix branding.

In 2024, our application to trademark our RadVent branding and logo in the U.S. was accepted. These marks are awaiting final registration by the USPTO.

Employees

As of December 31, 2024, we had 42 total employees, including 41 full-time employees.

Available Information

Our internet website address is www.intisoid.com. We are subject to the reporting requirements under the Securities Exchange Act of 1934, as amended (the Exchange Act). Consequently, we are required to file reports and information with the SEC, including Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act. These reports and other information concerning us are available free of charge through (i) our website as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC, and (ii) the SEC's website at www.sec.gov. Information contained on, or accessible through, our website is not incorporated by reference into this Annual Report or other reports filed with the SEC.

Item 1A. RISK FACTORS

Readers should carefully consider the following factors that may affect our business, future operating results, and financial condition, as well as other information included in this Annual Report. The risks and uncertainties described below are not the only ones the Company faces. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations. If any of the following risks occur, our business, financial condition and operating results could be materially adversely affected.

Risks Related To Our Company

We have incurred, and may continue to incur, losses. We have incurred net losses for most fiscal periods since our inception. From inception through December 31, 2024, we have an accumulated deficit (including preferred stock dividends and returns) in the amount of $127,321,285. The negative cash flow we have sustained has materially reduced our working capital, which in turn could materially and negatively impact our ability to fund future operations and continue to operate as a going concern. Management has taken, and continues to take, actions to improve our financial condition and results of operations. The availability of necessary working capital, however, is subject to many factors beyond our control, including, among other things, our ability to obtain financing on favorable terms, or at all, economic cycles, market acceptance of our products, competitors' responses to our products, the intensity of competition in our markets, and the level of demand for our products.

We may need additional financing to continue operations. Because we may continue to experience negative cash flow, we may need to obtain additional financing to continue operations. Management will continue to plan and take actions to improve our financial results which could enhance our ability to obtain financing. However, obtaining additional financing is subject to many factors beyond our control and may not be available to us on acceptable terms or at all. If we are unable to raise additional funds when needed, we could be required to delay the development and construction of projects, reduce the scope of, abandon or sell some or all our growth projects or default on our contractual commitments in the future, any of which would have a material adverse effect on our business, financial condition and operating results.

Our operations expose us to the risk of material environmental liabilities. We are subject to potential material liabilities related to the remediation of environmental hazards and to personal injuries or property damage that may be caused by hazardous substance releases and exposures. The materials used in our operations expose us to risks of environmental contamination that could subject us to liability, including remediation obligations that could be very costly. In addition, the discovery of previously unknown contamination could require us to incur costs in the future that would have a negative effect on our financial condition or results of operations. We have a Surety Bond in place supported by funds in a restricted cash account to provide the financial assurance required by the NRC for our Idaho facility license for decommissioning and a similar mechanism will be required to fund the decommissioning of the proposed new depleted uranium facility. However, if a contamination event occurred within, or outside of, our facility, we may be financially responsible to remediate such contamination and could have to borrow money or fund the remediation liability from our future revenue. We may not be able to borrow the funds, or have available revenue, sufficient to meet this potential liability, which could have a significant negative impact on our financial condition and results of operations.

We are dependent upon key personnel. Our ongoing operations are currently dependent on Shahe Bagerdjian, President and Chief Executive Officer. The loss of Mr. Bagerdjian could have a material adverse effect on our business. We maintain a $4.1 million key man life insurance policy on Mr. Bagerdjian and an employment agreement that extends through June 19, 2028. However, there is no assurance that we will be able to retain Mr. Bagerdjian or our existing personnel or attract additional qualified employees. The loss of any of our key personnel or an inability to attract additional qualified employees could result in a significant decline in revenue.

General economic conditions in markets in which we do business can impact the demand for our goods and services. Decreased demand for our products and services can have a negative impact on our financial performance and cash flow. Demand for our products and services, in part, depends on the general economic conditions affecting the countries and industries in which we do business. A downturn in economic conditions in the U.S. or industry that we serve may negatively impact demand for our products and services, in turn negatively impacting our operations and financial results. Further, changes in demand for our products and services can magnify the impact of economic cycles on our businesses.

Volatility in raw material and energy costs, interruption in ordinary sources of supply and an inability to recover unanticipated increases in energy and raw material costs from customers could result in lost sales or significantly increase the cost of doing business. Market and economic conditions affecting the costs of raw materials, utilities, energy costs, and infrastructure required for the delivery of our goods and services are beyond our control and any disruption or halt in supplies, or rapid escalations in costs could affect our ability to manufacture products or to competitively price our products in the marketplace. For instance, an interruption in the supply of isotopes such as cobalt-57, cobalt-60, or iodine-131 could result in lost sales in Nuclear Medicine Standards, Cobalt Product, and Theranostics Products segments. We also purchase some of our material and products from overseas suppliers and the price of those products could be adversely affected through changes in currency exchange rates.

During the year ending December 31, 2024, there was a global shortage of cobalt-57, a key isotope for our Nuclear Medicine Standards segment. This shortage occurred from January 2024 until the end of July 2024 and resulted in significant lost sales for this business segment. Our supply of cobalt-57 was restored in July 2024, and we have added additional suppliers in 2024. We are continuing to search for additional means to produce and procure certain critical isotopes, including through our Chinese Joint Venture, which we entered into in June 2024.

We are subject to extensive government regulation in jurisdictions around the globe in which we do business. Regulations address, among other things, environmental compliance, import/export restrictions, healthcare services, taxes and financial reporting, can significantly increase the cost of doing business, which in turn can negatively impact our operations, financial results and cash flow. We are subject to government regulation and intervention both in the United States and in all foreign jurisdictions in which we conduct business. Compliance with applicable laws and regulations results in higher capital expenditures and operating costs and changes to current regulations with which we must comply can necessitate further capital expenditures and increases in operating costs to enable continued compliance. Additionally, from time to time, we may be involved in legal or administrative proceedings under certain of these laws and regulations. Significant areas of regulation and intervention include the following:

Radioactive Waste. All our manufacturing processes generate some radioactive waste. For waste that cannot be decayed in storage we must handle this waste pursuant to the LLRW Policy Act, which requires the safe disposal of mildly radioactive materials. The estimated costs for storage and disposal of these materials have been included in the manufacturing and sales price of our products. However, actual disposal costs are subject to change at the discretion of the disposal site. An unexpected or material increase in these costs could have a material adverse effect on our financial condition and results of operations. In 2024, we experience material waste disposal costs totaling $229,540. We anticipate similar waste disposal expenses in 2025.

Health Compliance. Health regulations dictated by the United States Occupational Safety and Health Administration and NRC are extensive in our business. There is no assurance that our activities will comply with all applicable health regulations at times and, as a result, may expose us to liability under applicable health regulations. Costs and expenses resulting from such liability may materially negatively impact our operations and financial condition. Overall, health laws and regulations will continue to affect our business worldwide.

NRC License Enforcement Actions. The NRC may take enforcement action in the event that we are found to be in violation of NRC regulations or in violation of any of our license requirements. Consequences of violations depend upon the severity of the violations as well as the adequacy and timeliness of corrective actions implemented by the licensee to investigate and correct the cause of the violation and to prevent reoccurrence. The NRC has discretionary authority in the action they choose to take against license violations, but these actions can include civil penalties and restrictions upon licensee operations or license suspension. The imposition of any such penalties and/or restrictions upon our operations or suspension of our license could have a material adverse effect on our financial condition and results of operations. In 2024 we incurred significant expenses related to two violations in 2021 and 2022. These violations resulted in NRC fines of $63,000, additional legal expenses of $47,636, and professional expenses for corrective actions of $123,216.

Environmental Regulation. We are subject to various federal, state, local and foreign government requirements regulating the discharge of materials into the environment or otherwise relating to the protection of the environment. These laws and regulations include, but are not limited to CERCLA, the RCRA and state statutes such as the Idaho Hazardous Waste Management Act, the LLRW Policy Act, NRC regulations concerning various irradiated, radioactive, and depleted uranium materials, and U.S. DOT regulations concerning shipment of radioactive materials. Certain of these laws and regulations can impose substantial fines and criminal sanctions for violations and require installation of costly equipment or operational changes to limit emissions and/or decrease the likelihood of accidental hazardous substance releases. We have incurred, and expect to continue to incur, capital and operating costs to comply with these laws and regulations. In addition, changes in laws, regulations and enforcement of policies, or the imposition of new clean-up requirements or remedial techniques, could require us to incur costs in the future that would have a negative effect on our financial condition or results of operations.

Import/Export Regulation. We are subject to significant regulatory oversight of our import and export operations due to the nature of our product offerings. Penalties for non-compliance can be significant, and violations can result in adverse publicity. Because of increasing security controls and regulations, it is likely that we may encounter additional regulations affecting the transportation, storage, sale, and import/export of radioactive materials.

Taxes. We structure our operations to be tax efficient and to make use of tax credits and other incentives. Nevertheless, changes in tax laws, actual results of operations, final audit of tax returns by taxing authorities, and the timing and rate at which tax credits can be utilized can change the rate at which we are taxed, thereby affecting our financial results and cash flow.

We may incur material losses and costs as a result of product liability claims that may be brought against us. We face an inherent business risk of exposure to product liability claims in the event that products supplied by us fail to perform as expected or such failures result, or are alleged to result, in bodily injury. Although we have purchased insurance with coverage and in amounts that we believe to be adequate and reasonable in light of our current and planned operations, if a successful product liability claim were brought against us in excess of our available insurance coverage, it would have a material adverse effect on our business and financial results.

Catastrophic events such as natural disasters, pandemics, war and acts of terrorism could disrupt our business or the business of our suppliers or customers, and any such disruptions could have a negative impact on our operations, financial results and cash flow. Our operations are at all times subject to the occurrence of catastrophic events outside our control, ranging from severe weather conditions such as hurricanes, floods, earthquakes and storms, to health epidemics and pandemics, to acts of war and terrorism. Any such event could cause a serious business disruption that could affect our ability to produce and distribute our products and possibly expose us to third-party liability claims. Additionally, such events could impact our suppliers, thereby causing energy and raw materials to become unavailable to us, and our customers, who may be unable to purchase or accept our products and services. Any such occurrence could have a negative impact on our operations and financial condition.

Our future growth is largely dependent upon our ability to develop new products that achieve market acceptance with acceptable margins. Our businesses operate in global markets that are characterized by rapidly changing technologies and evolving industry standards. Accordingly, our future growth rate depends upon several factors, including, but not limited to, our ability to (i) identify emerging technological trends in our target end-markets, (ii) develop and maintain competitive products, (iii) enhance our products by adding innovative features that differentiate our products from those of our competitors, and (iv) develop, manufacture, and bring products to market quickly and cost-effectively. Our ability to develop new products based on technological innovation or U.S. FDA approval can affect our competitive position and requires the investment of significant resources. These development efforts divert resources from other potential investments in our businesses, and they may not lead to the development of new products on a timely basis or that meet the needs of our customers as fully as competitive offerings. In addition, the markets for our products may not develop or grow as we currently anticipate. The failure of our technologies or products to gain market acceptance due to more attractive offerings by our competitors could significantly reduce our revenues and adversely affect our competitive standing and prospects.

We are dependent on various third parties in connection with our business operations. The production of high-specific activity cobalt-60 is dependent upon the U.S. Department of Energy (DOE), and its prime-operating contractor, which controls the Idaho reactor. Current activity at the Idaho ATR may continue to affect the supply of cobalt-60 material needed for the manufacture of cobalt-60 sources for our Cobalt Products business segment. Loss of this cobalt-60 supply would have a significantly impact on this business segment because there is not currently another reactor available in the U.S. that is capable of providing this type of service for us. We are continuing to search for additional means to produce and procure cobalt-60 material. Our radiochemical iodine is supplied to us through two supply sources. Unanticipated contract terminations by these suppliers or suppliers of the key raw materials of our other products or other third parties would have a material adverse impact on our operations, financial results, and cash flow.

We are dependent on a limited number of customers in connection with some of our current business operations. Combined sales to our three top customers accounted for 32% and 22% of our total gross revenue during 2024 and 2023, respectively. Although we are making efforts to reduce our dependency on a small number of customers, the loss of any one of these customers could have a significant impact on our future results of operations and financial condition. Unanticipated contract terminations by any of these current customers could have a material adverse impact on operations, financial results, and cash flow.

We are subject to competition from other companies. Each of our existing business areas has direct competition from other businesses. High-specific activity cobalt-60 is supplied by other reactor facilities around the world. Nuclear medicine calibration and reference standards are being produced by one other major manufacturer in the U.S. We have one major competitor in the U.S. for our generic sodium iodide I-131 drug product. Most of our competitors have significantly greater financial resources that could give them a competitive advantage over us.

Risks Related To Our Common Stock

Trading in our common stock is limited, and the price of our common stock may be subject to substantial volatility. Our common stock is quoted on the OTCQB Marketplace under the U.S. trading symbol "INIS". The market for our securities is limited, the price of our stock is volatile, and the risk to investors in our common stock is greater than the risk associated with stock trading on other markets. These factors may reduce the potential market for our common stock by reducing the number of potential investors. This may make it more difficult for investors in our common stock to sell shares to third parties or to otherwise dispose of their shares. This could cause our stock price to decline.

We currently do not intend to pay dividends on our common stock. We do not plan to pay dividends on shares of our common stock in the near future. Consequently, an investor in our common stock can only achieve a return on its investment in us if the market price of our common stock appreciates.

We are contractually obligated to issue shares in the future, which will dilute your interest in us. As of December 31, 2024, there were approximately 17,982,500 shares of common stock issuable upon the exercise of vested stock options, at a weighted-average exercise price of $.05 per share. An additional 32,529,296 shares were reserved for issuance under our equity plans as of December 31, 2024. Our outstanding preferred stock and certain of our outstanding debt is also convertible into shares of our common stock at the holders' option. In addition, we expect to issue additional options to purchase shares of our common stock to compensate employees, consultants and directors, and we may issue additional shares to raise capital to expand our manufacturing capability, develop additional products, or business segments. Any such issuance will have the effect of further diluting the interest of the holders of our securities.

Item 1B. UNRESOLVED STAFF COMMENTS

We are a smaller reporting company, and therefore, are not required to provide the information required by this item.

Item 1C. CYBERSECURITY

The operation of our business is dependent on the secure functioning of our computer infrastructure. This infrastructure is used to maintain key processes including management of sensitive company information and operation of sales, record-keeping, and accounting functions.

We employ a specialized third-party information technology ("IT") management firm to monitor and manage our cybersecurity functions. Processes employed include real-time monitoring of company communications and IT activities and also consultation and risk assessment of company procedures. Additionally, our third-party IT firm provides education to management and employees regarding our IT risks. All our employees receive information security training (including data protection and fraud awareness) on an annual basis. Department managers are given additional risk management training as part of periodic management meetings. Our activities are monitored at all times by our IT firm. The IT firm reports all matters of cybersecurity including any threats, breaches, or risks directly to our Chief Financial Officer who reports directly to the Chief Executive Officer. Our Chief Financial Officer regularly meets with the IT firm to review our cybersecurity response plans, discuss any needed updates, and identify risk management actions to be taken. Updates regarding cybersecurity are provided to our directors at least annually and as needed for any important developments including cybersecurity breaches and risks. As of the date of this Annual Report, we know of no cybersecurity incident that has or is likely to materially affect us, our business strategy, our results of operations, or our financial condition.

We carry a cybersecurity insurance policy to help cover any costs that may occur from a cybersecurity incident. Although risks from cybersecurity threats and implementation of our cybersecurity program have not materially affected our business strategy, business operations or our financial condition, a cybersecurity incident could have a material adverse effect in the future if it were to cause business disruption or data loss.

Item 2. PROPERTIES

In 2024, we leased one property in Idaho ("Building A") which serves as or main corporate headquarters and houses all of our current manufacturing operations for our core business segments. Our TI Services subsidiary leases an office facility in Ohio. In December 2024, we purchased vacant land adjacent to our main corporate headquarters. We also hold the conditional title to 640 acres of land in Lea County, New Mexico for the proposed de-conversion facility. The following paragraphs provide a brief summary of these properties. Beginning in January 2025, we began leasing a second facility across the street from our main headquarters ("Building B").

Building A: 4137 Commerce Circle, Idaho Falls, Idaho – The facility located on this property houses our main corporate headquarters and all of our current manufacturing operations. In January 2020, we entered into a new lease agreement due to new and expanded facilities made available to us. The initial lease term is until January 2030 and provides an option to renew for an additional 5 years. The facility was new when leased in March 2001 and remains in excellent condition. We have the right of first refusal on this property that allows us to match any offer to purchase this property.

Building B: 1359 Commerce Way, Idaho Falls, Idaho – This facility is located directly across the street from Building A. We began leasing this facility in January 2025; the initial term is until December 2029 and we have the option to extend the lease for two additional terms of 5 years each. We have the right of first refusal on this property that allows us to match any offer to purchase this property.

775 Boardman-Canfield Rd, Unit A-2, Boardman, Ohio – This office facility houses the employees of TI Services who are engaged in sales activities. The facility was leased in November 2017 and is currently under tenancy from month-to-month.

Land Adjacent to Building A, Idaho Falls, Idaho – Land is located directly South of Building A; it was acquired in December 2024 through a mix of cash and seller's financing. The land has no zoning restrictions in regards to building coverage and height.

Item 3. LEGAL PROCEEDINGS

We are not a party to any legal proceedings that we believe to be material, and we are not aware of any pending or threatened litigation against us that we believe could have a material adverse effect on our business, operating results, financial condition, or cash flows.

Item 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is traded on the OTCQB under the trading symbol "INIS". The following table shows the high and low prices of our common stock on the OTCQB. The following quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission and may not necessarily represent actual transactions:

OTC Bulletin Board (Symbol "INIS")

Period	High (US $)	Low (US $)
First Quarter 2023	0.10	0.08
Second Quarter 2023	0.10	0.06
Third Quarter 2023	0.09	0.04
Fourth Quarter 2023	0.07	0.03
First Quarter 2024	0.05	0.04
Second Quarter 2024	0.04	0.03
Third Quarter 2024	0.04	0.03
Fourth Quarter 2024	0.04	0.03

Holders of Record

As of February 2025, there were 458 holders of record of our common stock.

Dividends

We have never paid any cash dividends on our common stock. In the future, and based upon our profit performance, our Board of Directors (the "Board") will evaluate and determine whether to issue dividends, subject to compliance and limitations under any applicable debt or other financing agreements in effect at that time or retain funds for research and development and expansion of our business. We do not anticipate paying any dividends to shareholders of our common stock for the foreseeable future.

Recent Sales of Unregistered Securities; Use of Proceeds from Registered Securities

None.

Purchases of Equity Securities by the Issuer

None.

Performance Graph

We are a smaller reporting company, and therefore, are not required to provide the information required by this item.

Item 6. RESERVED

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion of our results of operations and financial condition should be read in conjunction with the accompanying financial statements and related notes thereto included in Item 8, "Financial Statements and Supplementary Data," within this Annual Report. Some of the information contained in this discussion and analysis or set forth elsewhere in this Annual Report, including information with respect to our plans and strategies for our business, statements regarding the industry outlook, our expectations regarding the future performance of our business and the other non-historical statements contained herein are forward-looking statements. See "Cautionary Note Regarding Forward-Looking Statements." You should also review the "Risk Factors" in Item 1A. of this Annual Report for a discussion of important factors that could cause actual results to differ materially from the results described herein or implied by such forward-looking statements.

Overview

International Isotopes Inc. (the "Company", "we", "us" and "our") produces an FDA approved generic sodium iodide I-131 drug product, manufactures a wide range of nuclear medicine calibration and reference standards, produces a variety of cobalt-60 products, and is in development to manufacture and sell medical devices for the nuclear medicine industry. A more detailed description of each of these product lines and services along with a description of our business segments can be found in Item 1, "Business" within this Annual Report.

During 2024, we focused our efforts on achieving profitability in each of our core business segments and launching a fifth segment. We reached several significant goals during 2024, which included the following:

- Increased total revenues by $1,632,375, which is a 13% increase as compared to 2023.
- Reached $13.9 million in total revenue which was the largest annual revenue in company history, beating the previous record by 13%.
- Increased sales in the Theranostics Products segment by 17% primarily through increases in sales of our FDA approved generic sodium iodide I-131 drug product.
- Increased sales in our Cobalt Products segment by 128% due to an increased yearly supply of Cobalt 60 material.
- Developed several new products for our Nuclear Medicine products segment and expanded our range of products in this segment into Positron Emission Tomography (PET) imaging standards.
- Created our Medical Device segment and continued development of several products including product purchased from AMICI, Inc. that we plan to launch in 2025.
- Entered an Asset Purchase Agreement to sell our unused assets from our FEP business segment for a total of $12.5 million, which is expected to close within in the next 12 months, subject to satisfaction of certain closing conditions.
- 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.
- Entered into a joint venture agreement with Phantech LLC to form PhanQual. PhanQual is to manufacture and distribute calibration and testing phantoms for R&D and pre-clinical nuclear imaging applications.
- Entered a land purchase agreement for the lot adjacent to our Idaho Falls, ID, USA manufacturing facility, which increases our operational footprint for potential future business and operational expansion.

Business Strategy and Core Philosophies

Our business strategy is to continue to build our reputation as a leader in radioisotope applications, such as theranostics, radiopharmaceutical, radiochemical, medical device, cobalt-60, and nuclear medicine product industries, and to maximize revenue potential across all our product segments. We also intend to continually seek ways to improve our customer service and expand our market share, with the ultimate goal of providing greater return to our shareholders. Specifically, we are continuously working with our customers to improve and develop new products to better serve the needs of the end user which, ultimately, we believe will boost product sales. A key part of our short-term and long-term business strategy is to develop, and enter into additional markets for our Theranostics, Nuclear Medicine, and Medical Devices segments. In addition, we will manage costs and cash flow in such a way to support further expansion of our products and services to exploit additional market opportunities.

Our core philosophy is to strive to provide high quality products and services as a profitable business, while offering excellent customer service and providing a safe and productive working environment for our employees. We operate in accordance with an ISO Quality Management System and in accordance with all current Good Manufacturing Practices under which we seek to maintain the highest level of quality and continuously improve our product manufacturing processes.

Results of Operations

Following is a summary of results of operations for 2024, which is explained in greater detail below:

- Revenue in 2024 was approximately $13.9 million. This was the largest annual revenue generated in the company’s history and a 13% increase compared to 2023;
- Sales in our Theranostics Products increased by approximately 17% in 2024 compared to 2023;
- Sales in our Nuclear Medicine Standards segment decreased by approximately 20% and sales in our Cobalt Products segment increased approximately 128% in 2024 as compared to 2023;
- Total gross profit percentage increased to 62% in 2024 from 60% in 2023;
- Operating costs for 2024 increased approximately 6% as compared to 2023;
- Cash provided by operating activities in 2024 was $638,783;
- Operating profit for 2024 was $6,901 as compared to an operating loss of $776,299 in 2023; and
- Net income of $8,574 in 2024 as compared to a net loss of $869,016 in 2023.
- EBITDA of $615,934 in 2024 as compared to a negative EBITDA of $(266,032) in 2023. (1)
- Adjusted EBITDA of $1,236,282 in 2024 as compared to Adjusted EBITDA of $257,932 in 2023. (1)

(1) EBITDA and Adjusted EBITDA are non-GAAP financial measure. See "Non-GAAP Financial Measures" below for more information and reconciliations.

Year Ended December 31, 2024 Compared to Year Ended December 31, 2023

The following table presents comparative revenues for the years ended December 31, 2024 and 2023:

Revenues	For the year ended December 31, 2024	% of Total Revenues 2024	For the year ended December 31, 2023	% of Total Revenues 2023
Theranostics Products	$ 8,006,315	58%	$ 6,842,898	56%
Cobalt Products	2,365,572	17%	1,037,073	8%
Nuclear Medicine Standards	3,519,216	25%	4,387,414	36%
Medical Devices Products	8,657	0%	—	0%
Fluorine Products	—	0%	—	0%
Total Segments	$ 13,899,760	100%	$ 12,267,385	100%

Revenues

Total revenues in 2024 were $13,899,760, compared to $12,267,385 in 2023, which represents an increase of $1,632,375, or approximately 13%. The performance of each segment is discussed in the following paragraphs.

Revenues	For the year ended December 31, 2024	For the year ended December 31, 2023	$ change	% change
Theranostics Products	$ 8,006,315	$ 6,842,898	$ 1,163,417	17%
Cobalt Products	2,365,572	1,037,073	1,328,499	128%
Nuclear Medicine Standards	3,519,216	4,387,414	(868,198)	(20)%
Medical Devices Products	8,657	—	8,657	—%
Fluorine Products	—	—	—	—%
Total Segments	13,899,760	12,267,385	1,632,375	13%
Corporate revenue	—	—	—	—%
Total Consolidated	$ 13,899,760	$ 12,267,385	$ 1,632,375	13%

Theranostics Products

Sales of Theranostics Products accounted for approximately 58% of our sales revenue in 2024 as compared to 56% of our total sales revenue in 2023. Sales in this segment increased by $1,163,417, or approximately 17% to $8,006,315 in 2024 as compared to $6,842,898 in 2023. The increase is primarily the result of increased sales of our generic sodium iodide I-131 drug product.

Sales of our FDA-approved generic sodium iodide drug product make up the bulk of sales in this segment. We expect continued growth in sales for this product in 2025 and beyond. Within this segment, we also currently distribute sodium iodide (I-131) as a theranostics API product and a radiochemical product. The radiochemical product is used for a variety of applications including industrial use, and the theranostics API product is being used in investigational and clinical trials. We believe that market growth, new customers, and entry into new territories, in addition to any theranostics API that we plan to submit to the FDA, should increase our future sales in this business segment.

Cobalt Products

Cobalt Products sales accounted for approximately 17% of our total revenue in 2024 and approximately 8% in 2023. Sales in this segment increased by $1,328,499, or approximately 128%, in 2024 to $2,365,572, as compared to $1,037,073 in 2023. The increase in revenue within this segment was the result of increased cobalt-60 sales due to increases in supply of cobalt-60 material from the ATR and increased customer activity. Revenue in the Cobalt Products segment is subject to the variability of cobalt-60 material supply and timing of our cobalt-60 customers' various contracts that utilize our products. Our sealed source manufacturing generates the majority of our revenue within this segment and sealed source sales depend on our ability to produce or procure cobalt-60 material.

Periodically we have been able to acquire recycled material that can be used to manufacture sealed sources for customers, and in some instances, our customers have supplied their own cobalt material for source fabrication. We will continue to have access to cobalt-60 material produced by the DOE and expect to obtain, process, and sell additional cobalt-60 products as a result during 2025.

We have entered into cobalt-60 supply agreements with several customers. The terms of these cobalt-60 contracts required some advance progress payments from each customer. The funding received under these contracts has been recorded as unearned revenue under short-term liabilities in our consolidated financial statements. We recognized some of this revenue in prior years including in 2024 and 2023 when we fulfilled contract performance objectives by supplying sealed sources manufactured with cobalt-60 from the ATR or alternate suppliers.

Nuclear Medicine Standards

Sales in the Nuclear Medicine Standards segment accounted for approximately 25% of our total revenue in 2024 as compared to 36% in 2023. Sales in this segment were $3,519,216 in 2024, as compared to $4,387,414 in 2023, this is a decrease of $868,198, or approximately 20%. The decrease in 2024 was due to a global shortage of cobalt-57 isotope from January 2024 to the end of July 2024. Due to the shortage of this raw material and our inability to deliver many of our products at that time, sales during this shortage period were approximately $1,000,000 below our projections for this segment. These potential lost sales were slightly offset by total sales of $1,419,503 for the three months ended December 31, 2024, which was the largest quarterly revenue for the Nuclear Medicine Standards segment in the Company's history. Our record 4th quarter 2024 sales for this segment are partly due to pent-up market demand because of the worldwide cobalt-57 shortage. We believe this segment will return to normal recurring revenue and profitability in 2025.

Fluorine Products

In 2024 and 2023, we had no revenues related to Fluorine Products. Work on our deconversion facility project that is the entirety of this business segment has been on hold since 2013 because of a slowdown in the nuclear industry that specifically impacted fuel cycle facilities. Since that time, we have limited our expenditures to essential items such as maintenance of the NRC license, land use agreements, communication with our prospective FEP product customers, and interface with the State of New Mexico and Lea County officials. In February 8, 2024, we entered into an asset purchase agreement to sell all our assets related to the Fluorine Products segment and the Planned Uranium De-Conversion Facility to American Fuel Resources ("DUF6 Asset Sale"). We expect to close the agreement in the next 12 months subject to certain closing conditions, including approvals and agreements by the U.S. Nuclear Regulatory Commission and other third parties.

During 2024, we received $50,000 of other income related to the DUF6 Asset Sale and incurred $109,187 of expenses related to maintaining licenses and permits for the proposed de-conversion project, as compared to $7,920 of other income and $113,019 of expenses in 2023. The largest expense in this business segment is $104,379 for the amortization of our NRC license for this project; this amortization is approximately 96% and 92% of the total expenses for 2024 and 2023 respectively. We expect that our costs in the future will be limited to essential items such as continued interactions with our customers, the state of New Mexico, and Lea County, New Mexico. Upon the closure of the DUF6 Asset Sale, we plan to pay down the related notes and dissolve our Fluorine Products segment.

Cost of Revenues and Gross Profit

Cost of revenues for 2024 was $5,251,207 as compared to $4,888,409 in 2023, an increase of $362,798, or 7%. Gross profit percentage increased to 62% for 2024, from 60% in 2023. The following table presents revenues and cost of revenues information:

	For the year ended December 31, 2024	% of Total Revenues 2024	For the year ended December 31, 2023	% of Total Revenues 2023
Total Revenues	$ 13,899,760	100%	$ 12,267,385	100%
Cost of Revenues				
Theranostics Products	$ 2,267,138	16%	$ 2,370,048	19%
Cobalt Products	1,265,910	9%	482,670	4%
Nuclear Medicine Standards	1,709,369	12%	2,035,691	17%
Medical Devices Products	8,790	0%	—	—%
Fluorine Products	—	—%	—	—%
Total Segments	$ 5,251,207	38%	$ 4,888,409	40%
Gross Profit	$ 8,648,553		$ 7,378,976	
Gross Profit %		62%		60%

During 2024, we continued to monitor and control direct costs. Raw materials used in our Theranostics Products and Nuclear Medicine Standards represented the bulk of direct costs for 2024. In each of these business segments, we have purchase agreements in place with suppliers to obtain optimum pricing. Periodically, the cost can increase for these raw materials or we may also use alternate supply sources for our material which might not carry pricing as favorable as our contracted suppliers.

The increase in gross profit percentage in 2024 is a result of increased overall sales activity, increased sales prices, and better cost controls. Additionally, we have worked to find more effective cost controls and to increase our overall utilization of our raw materials.

Operating Costs and Expenses

Total operating costs and expenses for 2024 were $8,641,652, as compared to $8,155,275 in 2023. This is an increase of $486,377, or approximately 6%.

The following table presents operating costs and expenses for 2024 as compared to 2023:

	For the year ended December 31, 2024	For the year ended December 31, 2023	% change	$ change
Operating Costs and Expenses:				
Salaries and Contract Labor	$ 4,021,896	$ 4,032,155	(0)%	$ (10,259)
General, Administrative and Consulting	4,009,019	3,545,766	13%	463,253
Research and Development	610,737	577,354	6%	33,383
Total operating expenses	$ 8,641,652	$ 8,155,275	6%	$ 486,377

Salaries and contract labor expenses decreased by $10,259, which was the result of a decrease in non-cash equity compensation expense and executive salaries due to the conclusion of our CEO transition period. These decreases were partially offset by an increase to the number of our employees and increases to labor rates due to merit raises and cost-of-living adjustments. Non-cash equity compensation expense recorded for the year ended December 31, 2024, was $199,420 as compared to $464,041 for the same period in 2023. This expense is for equity compensation recorded for outstanding stock options and restricted stock units granted to directors, officers, and employees.

General administrative and consulting expenses increased 13% to $4,009,019 in 2024, as compared to $3,545,766 in 2023. Legal and professional expenses increased approximately $285,000 in 2024 as compared to 2023. We had one-time professional expenses of approximately $170,000 in 2024 related to legal consulting and root cause audits for NRC enforcement and settlement for a violation that occurred in 2022. The remaining $115,000 increase in legal and professional expenses is due to increased activity in business development in all business segments and the building out of our Medical Devices segment. General and Administrative expenses also included waste disposal costs of $229,540 in 2024 as compared to $181,804 in 2023. Research and development expense was $610,737 for 2024, compared to $577,354 for 2023. This is an increase of $33,383, or approximately 6%. This increase in research and development expenses was the result of increased costs associated with product development in our Medical Device segment.

Other Income (Expense)

The following table presents other income (expense) for 2024 as compared to 2023:

	For the year ended December 31, 2024	For the year ended December 31, 2023
Other income (expense)	$ 207,966	$ 160,173
Interest income	122,385	78,890
Interest expense	(328,678)	(331,780)
Total other (expense)	$ 1,673	$ (92,717)

Other income was $207,966 for 2024 as compared to other income of $160,173 for 2023. This increase of $47,793 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 income in 2024 was $122,385 as compared to $78,890 in 2023. This increase of $43,495 was due to increased interest rates and increased cash balances held at banks and other institutions in interest-bearing accounts.

Interest expense decreased during 2024, to $328,678, from $331,780 in 2023. This decrease of $3,102, or approximately 1%, was due to decreased interest for notes payable. Interest expense includes dividends accrued on our Series C Preferred Stock (as defined below) issued in 2017. In 2024 and 2023 we recorded interest expense of $243,030 and $244,530, respectively, for dividends payable on our Series C Preferred Stock.

Net Income or Loss

Our net income was $8,574 in 2024, compared to a net loss of $869,016 in 2023. This is an increase in net income of $877,590. This decrease is the result of increased revenue and profit margin in 2024 as compared to 2023.

EBITDA and Adjusted EBITDA

The following table presents EBITDA[(1)] and Adjusted EBITDA[(1)] for 2024 and 2023, as well as reconciliations to net income (loss) for 2024 as compared to 2023:

	Years ended December 31,	
	2024	**2023**
Net income (loss)	$ 8,574	$ (869,016)
Interest expense, net	206,293	252,890
Provision for income taxes	—	—
Depreciation and amortization	401,067	350,094
EBITDA	615,934	(266,032)
Non-cash stock-based compensation	199,420	464,041
Gain on disposal of property, plant, and equipment	(13,492)	—
NRC Enforcement Matters [(a)(1)]	233,852	—
Medical Devices Buildout [(b)(1)]	200,568	59,923
Adjusted EBITDA	$ 1,236,282	$ 257,932

(a) Represents costs for an NRC violation that occurred in 2022, including legal expenses, costs for corrective actions, and NRC fines.
(b) Represents legal work for intitial buildout of the Medical Devices business segment.

(1) EBITDA and Adjusted EBITDA are non-GAAP financial measure. See "Non-GAAP Financial Measures" below for more information.

Non-GAAP Financial Measures

This report contains financial measures that do not comply with U.S. generally accepted accounting principles (“GAAP”), such as EBITDA and Adjusted EBITDA. EBITDA is defined as net income plus interest, income taxes, depreciation and amortization. Adjusted EBITDA is defined as EBITDA, adjusted to exclude items that are deemed to be unusual and non-recurring, and that we do not believe are indicative of the companies recurring operating performance, such as non-cash stock-based compensation, gain on disposal of assets, and costs associated with NRC enforcement matters and our medical devices buildout.

These non-GAAP financial measures are supplemental measures to our results of operations as reported under GAAP. Our management uses these measures to better analyze our financial results and business operations. In management’s opinion, these non-GAAP measures are useful to investors and other users of our financial statements by providing greater transparency into the ongoing operating performance of the Company and its future outlook. Such measures should not be considered alternatives to net income or any other performance measures derived in accordance with GAAP. The Company's measurement of EBITDA and Adjusted EBITDA may not be comparable to similar measures of other companies as they are not performance measures calculated in accordance with GAAP.

See the tables above for reconciliations of GAAP to non-GAAP measures.

Liquidity and Capital Resources

At December 31, 2024, we had cash and cash equivalents of $1,945,523 compared to $2,688,141 at December 31, 2023. Restricted cash, which is included in long-term assets increased to $1,431,710 at December 31, 2024 compared to $880,752 at December 31, 2023. This increase in Restricted Cash was due to requirements for increased reserved cash requirements as part of revisions to our Decommissioning Funding Plan. Net cash provided by operating activities was $638,783 in 2024, compared to net cash provided by operating activities of $582,589 in 2023. This represents an increase in cash provided by operating activities of $56,194. This increase is due to improved operational performance, an increase in accounts payable and decreased inventory, partially offset by increased accounts receivable and decreased unearned revenues in the year over year comparison.

Accounts receivable at December 31, 2024 were $1,521,380 as compared to $1,469,298 at December 31, 2023.

Inventories at December 31, 2024 were $820,893 as compared to $927,111 at December 31, 2023.

Included in our work in process inventory are in-process and completed nuclear medicine products, irradiated cobalt, and nuclear medicine-related materials and products.

We recognized net income of $8,574, for the year ended December 31, 2024, and have an accumulated deficit of $127,321,285 since inception. To date, our operations and plant and equipment expenditures have been funded principally from proceeds from public and private sales of debt and equity as well as through asset sales.

Net cash used in investing activities was $685,215 for 2024 and net cash used in investing activities was $149,058 for 2023. During 2024, we used $551,215 to purchase equipment and leasehold improvements and $170,000 towards our purchase of land. We used $149,058 to purchase equipment in 2023. We had proceeds from sale of equipment of $36,000 in 2024, and we had no proceeds from sale of equipment in 2023.

Financing activities used cash of $145,228 for the year ended December 31, 2024. We received proceeds from the sale of common stock in the amount of $11,969 and made principal payment on loans in the amount of $154,365 in 2024. For the year ended December 31, 2023, financing activities used cash of $80,504. We received proceeds from the sale of common stock in the amount of $8,398 and made principal payment on loans in the amount of $83,389 in 2023.

In February 2017, we entered into subscription agreements with certain investors, including two of our directors, for the sale of (i) an aggregate of 3,433 shares of Series C Preferred Stock, and (ii) Class M warrants to purchase an aggregate of 17,165,000 shares of our common stock (Class M Warrants), for gross proceeds of $3,433,000. The Class M Warrants were exercisable at an exercise price of $0.12 per share, subject to adjustment as set forth in the warrant. In February 2022, 515,000 Class M Warrants were exercised; in February 2022 all remaining Class M Warrants expired.

In March 2017, we amended our 8% unsecured debentures issued that were scheduled to mature in July 2017 (the Notes) and gave the noteholders certain additional rights (the Amendment). Pursuant to the Amendment, the Notes were modified to provide each holder the right, at the holder's option and exercisable prior to May 12, 2017, to convert all or any portion of the principal amount of the Notes, plus accrued but unpaid interest, into shares of our Series C Preferred Stock at a conversion price of $1,000 per share. Holders that elected to convert their Notes into Series C Preferred Stock received a warrant to purchase up to 3,750 shares of our common stock for each share of Series C Preferred Stock received upon conversion of the Notes, with each warrant having a five-year term, a cashless exercise feature, and an exercise price of $0.10 per share of common stock. As a result of this modification, an aggregate of $780,000 of the Notes was converted to 780 shares of Series C Preferred Stock and 2,925,000 Class N Warrants. The Class N Warrants were exercisable at an exercise price of $0.12 per share, subject to adjustment as set forth in the warrant, and expired in February 2022.

In total, 4,213 shares of Series C Preferred Stock were issued for gross proceeds of $4,213,000. The Series C Preferred Stock accrues dividends at a rate of 6% per annum, payable annually on February 17th of each year, commencing on February 17, 2018. Shares of Series C Preferred Stock are convertible at the option of the holder at any time into shares of our common stock at an initial conversion price equal to $0.10 per share, subject to adjustment. At any time after February 17, 2019, if the volume-weighted average closing price of our common stock over a period of 90 consecutive trading days is greater than $0.25 per share, we 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.

In total, 150 shares of Series C Preferred Stock have previously been converted to common stock at the option of the holder At December 31, 2023, 4,063 shares of Series C Preferred Stock were outstanding. All outstanding shares of Series C Preferred Stock were originally required to be redeemed by us on February 17, 2022 at the original purchase price per share, payable in cash or shares of common stock, at the option of the holder. Since original issuance, the redemption date of the Series C Preferred Stock has been extended to February 28, 2027. Holders of 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.

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 based on the average price of the shares over the previous 20 trading days. In connection with the 2013 Promissory Note, each of the two lenders was issued 5,000,000 Class L warrants to purchase shares of our common stock at an exercise price of $0.06 per share. The warrants were immediately exercisable. In June 2014, we renegotiated the terms of the 2013 Promissory Note. Pursuant to the modification, the maturity date was extended to December 31, 2017 and each lender was granted an additional 7,500,000 Class L warrants to purchase shares of our common stock at an exercise price of $0.06 per share. The warrants were immediately exercisable. In February 2017, the 2013 Promissory Note was further modified to extend the maturity date to December 31, 2020, with all remaining terms unchanged. On December 23, 2018, all 25,000,000 Class L warrants expired. 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 further modified to extend the maturity date to December 31, 2023, with all remaining terms unchanged. In February 2024, the 2013 Promissory Note was further modified to extend the maturity date to March 31, 2026.

In April 2018, we borrowed $120,000 from our 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 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, and the note was modified to become secured by company assets, with all other provisions remaining unchanged. In December 2021, the 2018 Promissory Note was further modified to extend the maturity date to December 31, 2023, with all remaining terms unchanged. In December 2023, the 2018 Promissory Note was further modified to extend the maturity date to January 31, 2025. In February 2024, the 2018 Promissory Note was further modified to extend the maturity date to March 31, 2026.

In December 2019, we entered into a promissory note agreement with our then Chief Executive Officer, Chairman of the Board, former Chairman of the Board, and one of our major shareholders (the 2019 Promissory Note). The 2019 Promissory Note authorizes us to borrow up to $1,000,000. As of December 31, 2019, we borrowed $675,000 under the 2019 Promissory Note; the remaining $325,000 was borrowed in February 2020. The 2019 Promissory Note is secured and bears interest at 4% per annum and has a maturity date of December 31, 2022. According to the terms of the 2019 Promissory Note, at any time, a holder of the 2019 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 connection with the 2019 Promissory Note, we issued 30,000,000 Class O Warrants with a term of five years to purchase shares of our common stock at $0.045 per share (the Class O Warrants). All the Class O Warrants were exercised in January 2021. 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 further modified to extend the maturity date to March 31, 2026.

We expect that cash from operations, cash obtained through securities offerings, and our current cash balance will be sufficient to fund operations for the next twelve months. Although we may seek additional debt financing for our projects and operations in the future, there is no assurance that we will be able to secure additional debt financing on acceptable terms to us, or at all.

Goals for 2025

Based upon the investments we have made in our facilities and investments we anticipate making, and based on projects, and products developed in 2024, we have the following goals for 2025:

- Continue to expand sales of our FDA approved sodium iodide I-131 generic drug product, including entering new territories;
- Complete development of and launch a fully automated I-131 capsule loading system to pharmacies in the U.S and select overseas customers;
- Launch our Medical Devices segment beginning by offering products purchased from AMICI, Inc.
- Expand sales of our Nuclear Medicine Standards products and increase cash flow by offering new products and further expanding our international sales and distributor relationships;
- Explore acquisition opportunities to expand our product offerings and increase revenue, cash flow, and profit margin;
- Continue to expand our customer base, increase revenues, reduce production and operating costs, and attempt to achieve profitability in our core business segment operations; and
- Continue efforts towards closing the DUF6 Asset Sale agreement.

Critical Accounting Estimates

Asset retirement obligation – The asset retirement obligation is based on the expected future cash flows of the decommissioning funding plan. The decommissioning funding plan is based on the estimated number of hours of specific personnel, estimated wages and disposal costs. Once the decommissioning funding plan has been developed, we use a discount rate to determine the estimated current value of the liability.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are a smaller reporting company, and therefore, are not required to provide the information required by this item.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The following financial statements are included herewith:

Index to Consolidated Financial Statements

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

Item 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures (as defined in Rules 13a-15I and 15d-15(e) under the Exchange Act) that are designed to ensure information required to be disclosed in our reports that are filed or submitted under the Exchange Act, is 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 (CEO) and Chief Financial Officer (CFO), has conducted an evaluation (pursuant to Rule 13a-15(b) of the Exchange Act) of the effectiveness of our disclosure controls and procedures as of December 31, 2024. Based on that evaluation, our CEO and CFO concluded that our disclosure controls and procedures were effective as of December 31, 2024.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15(d)-15(f) under the Exchange Act). Internal control over financial reporting is a process to provide reasonable assurance regarding the reliability of our financial reporting for external purposes in accordance with accounting principles generally accepted in the U.S. Internal control over financial reporting includes maintaining records that in reasonable detail accurately and fairly reflect our transactions; providing reasonable assurance that transactions are recorded as necessary for preparation of our financial statements; providing reasonable assurance that receipts and expenditures are made in accordance with management authorization; and providing reasonable assurance that unauthorized acquisition, use or disposition of company assets that could have a material effect on our financial statements would be prevented or detected on a timely basis. Because of its inherent limitations, internal control over financial reporting is not intended to provide absolute assurance that a misstatement of our financial statements would be prevented or detected.

Management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework and criteria established in *Internal Control — Integrated Framework (2013)*, issued by the Committee of Sponsoring Organizations of the Treadway Commission. This evaluation included review of the documentation of controls, evaluation of the design effectiveness of controls, testing of the operating effectiveness of controls and a conclusion on this evaluation. Based on this evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2024.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the three months ended December 31, 2024, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. OTHER INFORMATION

During the quarter ended December 31, 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 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

None.

PART III.

Item 10. DIRECTORS, EXECUTIVE OFFICERS, AND CORPORATE GOVERNANCE

We have adopted a Code of Ethics that applies to our principal executive officer, principal financial officer, principal accounting officer and controller, or persons performing similar functions. Our Code of Ethics is posted on our website and can be accessed, free of charge, at http://www.intisoid.com. If we waive, or implicitly waive, any material provision of the Code of Ethics that apply to our executive officers, or substantively amend the Code of Ethics, in each case that is required to be disclosed, we will disclose that fact on our website.

The other information required by this item are incorporated by reference from our definitive proxy statement for our 2025 annual meeting of shareholders, which will be filed with the SEC within 120 days after December 31, 2024.

Item 11. EXECUTIVE COMPENSATION

The information required by this item is incorporated by reference from our definitive proxy statement for our 2025 annual meeting of shareholders, which will be filed with the SEC within 120 days after December 31, 2024.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this item is incorporated by reference from our definitive proxy statement for our 2025 annual meeting of shareholders, which will be filed with the SEC within 120 days after December 31, 2024.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this item is incorporated by reference from our definitive proxy statement for our 2025 annual meeting of shareholders, which will be filed with the SEC within 120 days after December 31, 2024.

Item 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this item is incorporated by reference to our definitive proxy statement for our 2025 annual meeting of shareholders, which will be filed with the SEC within 120 days after December 31, 2024.

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a)(1) and (a)(2) Financial Statements

See the index to and the financial statements beginning on page [31].

(a)(3) Exhibits
The following documents are filed or incorporated herein by reference as exhibits to this report:

2.1++	Asset Purchased Agreement, dated February 8, 2024, among International Isotopes Inc., International Isotopes Fluorine Products, Inc. and American Fuel Resources, LLC (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed on February 8, 2024).#
3.1	Restated Certificate of Formation of the Company, 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 the Company (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 of 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 of 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	Certificate of Amendment to Statement of Designation of the Series C Convertible Redeemable Preferred Stock of International Isotopes Inc., dated October 2, 2024 (incorporated by reference to Exhibit 3.1 of the Company's Current Report on Form 8-K filed October 2, 2024).
3.6	Bylaws of the Company (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).
10.1†	International Isotopes Inc. Amended and Restated Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed on July 21, 2020).
10.2†	International Isotopes Inc. Amended and Restated 2015 Incentive Plan (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed on July 30, 2018).
10.3+	Lease Agreement (4137 Commerce Circle), dated January 20, 2020, between the Company and Adrian Rand Robison and Dorothy Robison.
10.4†	Form of Director and Officer Indemnification Agreement (incorporated by reference to Exhibit 99.1 of the Company's Current Report on Form 8-K filed on September 17, 2008).

10.5	Registration Rights Agreement, dated February 17, 2017, among the Company and the purchasers named therein (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed on February 24, 2017).
10.6†	Executive Employment Agreement, dated December 23, 2022, between the Company and Shahe Bagerdjian (as amended) (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed on May 8, 2023).
19.1+	International Isotopes Inc. Insider Trading Policy
21.1+	Subsidiary list.
23.1+	Consent of Haynie & Company.
31.1+	Certification of Chief Executive Officer under Section 302 of the Sarbanes-Oxley Act of 2002.
31.2+	Certification of Chief Financial Officer under Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification of Chief Executive Officer furnished under Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Certification of Chief Financial Officer furnished under 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 (formatted as Inline XBRL and contained in Exhibit 101)

† This exhibit constitutes a management contract or compensatory plan or arrangement.

++ Schedules have been omitted pursuant to Item 601(b)(2) of Regulation S-K. The Company hereby undertakes to supplementally furnish copies of any omitted schedules to the Securities and Exchange Commission upon request.

Certain portions of the exhibit have been omitted pursuant to Rule 601(b)(10) of Regulation S-K. The omitted information is not material and is the type of information that the registrant treats as private or confidential.

+ Filed herewith.

* Furnished herewith.

Item 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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.

International Isotopes Inc.

By: /s/ Shahe Bagerdjian
Shahe Bagerdjian
President, Chief Executive Officer, and Director

Date: March 4, 2025

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

March 4, 2025

By: /s/ Shahe Bagerdjian
Shahe Bagerdjian
President, Chief Executive Officer, and Director

March 4, 2025

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

March 4, 2025

By: /s/ Robert Atcher
Robert Atcher
Director

March 4, 2025

By: /s/ Christopher Grosso
Christopher Grosso
Chairman of the Board of Directors

March 4, 2025

By: /s/ Steve Laflin
Steve Laflin
Director

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES

CONSOLIDATED FINANCIAL STATEMENTS

TABLE OF CONTENTS

1785 West 2320 South
Salt Lake City, UT 84119
801-972-4800
801-972-8941
www.HaynieCPAs.com

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and
Stockholders of International Isotopes Inc

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of International Isotopes Inc (the Company) as of December 31, 2024, and 2023, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the years in the two-year period ended December 31, 2024, and the related notes (collectively referred to as the financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2024 and 2023, and the results of its operations and its cash flows for each of the years in the two-year period ended December 31, 2024, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Valuation of Intangible Assets/Impairment Analysis – Deconversion Facility

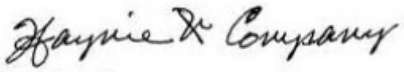
Description of the Matter:

As discussed in Note 2 and Note 6 to the consolidated financial statements, the Company had approximately $3.4 Million net in assets related to the future construction and operation of a depleted uranium de-conversion facility as of December 31, 2024. The actual construction of the facility was put on hold in a previous year and performance milestones have not been met. Because of this delay, management must assess whether these assets are impaired. Management's assessment relies on estimates, future projections of the market, and judgment.

Auditing management's valuation and impairment analysis can be complex, involves judgment, and requires a thorough understanding of the irradiation process.

How We Addressed the Matter in Our Audit:

We reviewed the Company's assumptions in developing an estimate in determining whether the assets were impaired. We reviewed all necessary agreements, and plans in place, including the agreements for the Asset Purchase Agreement that is expected to close in the next 12 months. We reviewed the Company's amortization on the applicable assets and compared the net book value to the fair value of the assets.



Haynie & Company
Salt Lake City, Utah
March 4, 2025
PCAOB #457

We have served as the Company's auditor since 2018.

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES
Consolidated Balance Sheets

	December 31, 2024	December 31, 2023
Assets		
Current assets		
Cash and cash equivalents	$ 1,945,523	$ 2,688,141
Accounts receivable	1,521,380	1,469,298
Inventories	820,893	927,111
Prepaids and other current assets	698,030	672,934
Total current assets	4,985,826	5,757,484
Long-term assets		
Restricted cash	1,431,710	880,752
Property, plant, and equipment, net	3,297,769	2,465,077
Capitalized lease disposal costs, net	639,286	688,462
Financing lease right-of-use asset	826	6,611
Operating lease right-of-use asset	2,047,733	2,183,988
Goodwill	1,384,255	1,384,255
Patents and other intangibles, net	3,373,563	3,538,458
Total long-term assets	12,175,142	11,147,603
Total assets	$ 17,160,968	$ 16,905,087
Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable	861,883	559,597
Accrued liabilities	1,494,665	1,482,179
Unearned revenue	513,317	932,682
Current portion of operating lease right-of-use liability	150,532	140,733
Current portion of financing lease liability	—	2,832
Current installments of notes payable	308,399	155,733
Total current liabilities	3,328,796	3,273,756
Long-term liabilities		
Accrued long-term liabilities	37,500	75,000
Related party notes payable	1,620,000	1,620,000
Notes payable, net of current portion	278,897	270,732
Asset retirement obligation	1,544,788	1,474,463
Operating lease right-of-use liability, net of current portion	1,940,979	2,091,511
Mandatorily redeemable convertible preferred stock	4,063,000	4,063,000
Total long-term liabilities	9,485,164	9,594,706
Total liabilities	12,813,960	12,868,462
Stockholders' equity		
Common stock, $0.01 par value; 750,000,000 shares authorized; 523,553,435 and 519,787,870 shares issued and outstanding respectively	5,235,534	5,197,879
Additional paid in capital	126,432,759	126,168,605
Accumulated deficit	(127,321,285)	(127,329,859)
Total equity	4,347,008	4,036,625
Total liabilities and stockholders' equity	$ 17,160,968	$ 16,905,087

See accompanying notes to consolidated financial statements.

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES
Consolidated Statements of Operations

	Years ended December 31, 2024	2023
Sale of product	$ 13,899,760	$ 12,267,385
Cost of product	5,251,207	4,888,409
Gross profit	8,648,553	7,378,976
Operating costs and expenses:		
Salaries and contract labor	4,021,896	4,032,155
General, administrative, and consulting	4,009,019	3,545,766
Research and development	610,737	577,354
Total operating expenses	8,641,652	8,155,275
Operating profit (loss)	6,901	(776,299)
Other income (expense):		
Other income	207,966	160,173
Interest income	122,385	78,890
Interest expense	(328,678)	(331,780)
Total other (expense) income	1,673	(92,717)
Net income (loss)	$ 8,574	$ (869,016)
Net income (loss) per common share - basic:	$ —	$ —
Net income (loss) per common share - diluted:	$ —	$ —
Weighted average common shares outstanding - basic	522,289,354	517,777,847
Weighted average common shares outstanding - diluted	522,289,354	517,777,847

See accompanying notes to consolidated financial statements.

INTERNATIONAL ISOTOPES INC AND SUBSIDIARIES
Consolidated Statement of Stockholders' Equity
Years ended December 31, 2024 and 2023

	Common Stock		Additional Paid-in	Accumulated	Total
	Shares	Amount	Capital	Deficit	Equity
Balance December 31, 2022	514,889,916	$ 5,148,899	$ 125,654,486	$ (126,460,843)	$ 4,342,542
Shares issued under employee stock purchase plan	316,866	3,169	5,229	—	8,398
Stock grant	343,560	3,436	(3,436)	—	—
Stock issued in lieu of dividends on preferred C shares	2,266,500	22,665	67,995	—	90,660
Shares issued for issuance of RSUs	1,971,028	19,710	(19,710)	—	—
Stock based compensation	—	—	464,041	—	464,041
Net loss	—	—	—	(869,016)	(869,016)
Balance December 31, 2023	519,787,870	5,197,879	126,168,605	(127,329,859)	4,036,625
Shares issued under employee stock purchase plan	388,915	3,889	8,080	—	11,969
Stock issued in lieu of dividends on preferred C shares	1,808,400	18,084	72,336	—	90,420
Shares issued for issuance of RSUs	1,568,250	15,682	(15,682)	—	—
Stock based compensation	-	-	199,420	—	199,420
Net income	—	—	—	8,574	8,574
Balance December 31, 2024	523,553,435	$ 5,235,534	$ 126,432,759	$ (127,321,285)	$ 4,347,008

See accompanying notes to consolidated financial statements.

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES
Consolidated Statements of Cash Flows

	Years ended December 31,	
	2024	2023
Cash flows from operating activities:		
Net (loss) income	$ 8,574	$ (869,016)
Adjustments to reconcile net income/loss to net cash provided by (used in) operating activities:		
Depreciation and amortization	401,067	350,094
Gain on disposal of property, plant, and equipment	(13,492)	—
Accretion of obligation for lease disposal costs	70,325	53,126
Equity based compensation	199,420	464,041
Right-of-use asset changes, net	(4,478)	(4,478)
Changes in operating assets and liabilities:		
Accounts receivable	(52,082)	127,588
Prepaids and other current assets	(25,096)	350,195
Inventories	106,218	(182,318)
Accounts payable and accrued liabilities	367,692	240,040
Unearned revenues	(419,365)	53,317
Net cash provided by operating activities	638,783	582,589
Cash flows from investing activities:		
Proceeds from sale of property, plant, and equipment	36,000	
Purchase of property, plant, equipment, and patents	(721,215)	(149,058)
Net cash used in investing activities	(685,215)	(149,058)
Cash flows from financing activities:		
Proceeds from sale of stock	11,969	8,398
Payments on financing lease liability	(2,832)	(5,513)
Principal payments on notes payable	(154,365)	(83,389)
Net cash used in financing activities	(145,228)	(80,504)
Net (decrease) increase in cash and cash equivalents and restricted cash	(191,660)	353,027
Cash and cash equivalents and restricted cash at beginning of year	3,568,893	3,215,866
Cash and cash equivalents and restricted cash at end of year	$ 3,377,233	$ 3,568,893
Supplemental disclosure of cash flow activities:		
Cash paid for interest	$ 162,557	$ 163,920
Cash paid for taxes	$ 10,108	$ 10,176
Supplemental disclosure of noncash financing and investing transactions:		
Decrease in accrued interest and increase in equity for conversion preferred dividends to stock	$ 90,420	$ 90,660
Property acquired in exchange for a note payable	$ 315,196	$ 452,100
Non-cash increase of capitalized asset retirement obligation for increased funding plan	$ —	$ 478,959

	December 31,	
	2024	2023
Cash and cash equivalents	$ 1,945,523	$ 2,688,141
Restricted cash included in long-term assets	1,431,710	880,752
Total cash, cash equivalents, and restricted cash shown in statement of cash flows	$ 3,377,233	$ 3,568,893

See accompanying notes to consolidated financial statements.

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEARS ENDED DECEMBER 31, 2024 AND 2023

NOTE 1 – DESCRIPTION OF BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES

Description of business – International Isotopes Inc. (the "Company" or "INIS") was incorporated in Texas in November 1995. The accompanying 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 the Company and its wholly owned subsidiaries, International Isotopes Idaho Inc., International Isotopes Fluorine Products, Inc., International Isotopes Transportation Services, Inc., RadVent, LLC, and Radnostix, LLC. The consolidated financial statements also include the accounts of wholly owned subsidiaries TI Services, LLC, ("TI Services"), and RadQual, LLC (RadQual). TI Services is headquartered in Youngstown, Ohio and was formed with RadQual in December 2010 to distribute products and services for nuclear medicine, nuclear cardiology and Positron Emission Tomography (PET) imaging. RadQual is a global supplier of molecular imaging quality control devices, and is now headquartered in Idaho Falls, Idaho.

Nature of Operations – INIS and its subsidiaries, (collectively, the "Company," "we," "our" or "us") manufacture a full range of nuclear medicine calibration and reference standards, a wide range of products, including cobalt teletherapy sources, and an FDA-approved radiopharmaceutical drug product. The Company also holds several patents for a fluorine extraction process that would be used in conjunction with a proposed commercial depleted uranium de-conversion facility which would be located in Lea County, New Mexico (the "De-Conversion Facility"). The Company's business consists of five major business segments: Theranostics Products, Cobalt Products, Nuclear Medicine Standards, Medical Devices, and Fluorine Products. The Company's headquarters and all operations, with the exception of TI Services, 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-60 contracts, where shipment will not take place for greater than the operating cycle, have been recorded as unearned revenue and, depending upon estimated ship dates, classified under current or long-term liabilities on the Company's consolidated balance sheets. These unearned revenues will be recognized as revenue in the future period during when the cobalt-60 shipment takes place. All assets expected to be realized in cash or sold during the normal operating cycle of the business are classified as current assets.

Principles of Consolidation – The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries, including RadQual and TI Services. All significant intercompany accounts and transactions have been eliminated during consolidation.

Significant accounting policies

a) Financial instruments and cash equivalents

The carrying value of notes payable approximates fair value because they bear interest at rates which approximate market rates.

Cash and cash equivalents, totaling $1,945,523 and $2,688,141 at December 31, 2024 and 2023, respectively, consist of operating accounts and money market accounts. For purposes of the consolidated statements of cash flows, the Company considers all highly-liquid financial instruments with original maturities of three months or less at date of purchase to be cash equivalents.

At December 31, 2024 and 2023, the Company had pledged cash on deposit in a money market account valued at $1,431,710 and $880,752 respectively, as security for a surety bond. The surety bond is required as part of the Company's operating license agreement with the Nuclear Regulatory Commission ("NRC").

The Company maintains its cash accounts in various deposit accounts, the balances of which are periodically in excess of federally insured limits.

b) Accounts receivable

The Company sells products mainly to recurring customers, wherein the customer's ability to pay has previously been evaluated. The Company generally does not require collateral. The Company periodically reviews accounts receivable for amounts considered uncollectible and allowances are provided for uncollectible accounts when deemed necessary. At December 31, 2024 and December 31, 2023 the Company had no allowance for doubtful accounts.

c) Inventories

Inventories are carried at the lower of cost or net realizable value. Cost is determined using the first in, first out method. When indicators of inventory impairment exist, the Company measures the carrying value of the inventory against its market value, and if the carrying value exceeds the market value, the inventory value is adjusted down accordingly. No impairment was recorded for the years ended December 31, 2024 and December 31, 2023.

d) Property, plant and equipment

Depreciation on property, plant and equipment is computed using the straight-line method over the estimated useful life of the asset.

Leasehold improvements are amortized over the shorter of the life of the lease or the service life of the improvements. Maintenance, repairs, and renewals that neither materially add to the value of the property nor appreciably prolong its life are charged to expense as incurred. Gains or losses on dispositions of property and equipment are included in the results of operations.

e) Goodwill and other intangibles

Goodwill is not amortized but is tested for impairment at least annually. Goodwill represents the excess of the purchase price over the fair value of net tangible and identifiable intangible assets recorded as a result of the change in ownership of RadQual. As of December 31, 2024 and 2023, there has been no impairment of goodwill.

Patents and other intangibles are amortized using the straight-line method over their estimated useful lives and are evaluated for impairment at least annually or when events or circumstances arise that indicate the existence of impairment. The Company evaluates the recoverability of identifiable intangible assets whenever events or changes in circumstances indicate that an intangible asset's carrying amount may not be recoverable. Such circumstances could include but are not limited to: (1) a significant decrease in the market value of an asset, (2) a significant adverse change in the extent or manner in which an asset is used, or (3) an accumulation of costs significantly in excess of the amount originally expected for the acquisition of an asset. When indicators of impairment exist, the Company measures the carrying amount of the asset against the estimated undiscounted future cash flows associated with it. Should the sum of the expected future cash flows be less than the carrying value of the asset being evaluated, an impairment loss would be recognized. The impairment loss would be calculated as the amount by which the carrying value of the asset exceeds its fair value. The evaluation of asset impairment requires the Company to make assumptions about future cash flows over the life of the asset being evaluated. These assumptions require significant judgment, and actual results may differ from assumed and estimated amounts. During the years ended December 31, 2024 and 2023, the Company had no impairment losses related to intangible assets.

f) Impairment of long-lived assets

Long-lived assets are reviewed for impairment annually, or when events or circumstances arise that indicate the existence of impairment, using the same evaluation process as described above for patents and other intangibles. There was no impairment recorded during the years ended December 31, 2024 and 2023.

g) Income taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carry-forwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rate is recognized in income in the period that includes the enactment date.

h) 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.

i) Use of estimates

Management of the Company has made a number of estimates and assumptions relating to the reporting of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and reported amounts of revenues and expenses during the reporting period to prepare these consolidated financial statements in conformity with GAAP. Actual results could differ from those estimates.

j) Revenue recognition

Revenue is recognized when products are shipped. No warranty coverage or right of return provisions are provided to customers. Amounts received as prepayment on future products or services are recorded as unearned revenues and recognized as income when the product is shipped or service performed. See Note 14 Revenue Recognition.

k) Advertising Expenses

Advertising expenses, which include promotional expenses, are expensed as incurred and totaled $135,048 and $142,188 for the years ended December 31, 2024 and 2023, respectively.

l) Research and development costs

Research and development costs are expensed as incurred and totaled $610,737 and $577,354 for the years ended December 31, 2024 and 2023, respectively. These research and development costs were incurred for corporate business development and in our Theranostics Products, Nuclear Medicine Standards, and Medical Devices segments.

m) Share-based compensation

The Company accounts for issuances of share-based compensation to employees in accordance with GAAP which requires the recognition of the cost of employee services received in exchange for an award of equity instruments in the financial statements and is measured based on the grant date fair value of the award. Compensation expense is recognized over the period during which an employee is required to provide service in exchange for the award (the vesting period).

For the years ended December 31, 2024 and 2023, the Company recognized share-based compensation expense of $199,420 and $464,041, respectively, related to stock options, stock grants, and restricted stock units. This expense is included as part of salaries and contract labor in the accompanying statements of operations.

n) Net income/loss per common share – basic and diluted

Basic income/loss per share is computed on the basis of the weighted-average number of common shares outstanding during the year. Diluted income/loss per share is computed on the basis of the weighted-average number of common shares plus all potentially dilutive issuable common shares outstanding during the year.

The table below shows the calculation of diluted shares:

	December 31,	
	2024	**2023**
Weighted average common shares outstanding - basic	522,289,354	517,777,847
Effects of dilutive shares		
Stock options	—	—
Series C redeemable convertible preferred stock	—	—
Weighted average common shares outstanding - diluted	522,289,354	517,777,847

For the year ended December 31, 2024, the Company had 26,087,500 stock options 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 per common share because they would be anti-dilutive.

For the year ended December 31, 2023, the Company had 24,787,500 stock options 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 per common share because they would be anti-dilutive.

The table below summarizes common stock equivalents outstanding at December 31, 2024 and 2023:

	December 31,	
	2024	2023
Stock options	26,087,500	24,787,500
4,063 Shares of Series C redeemable convertible preferred stock	40,630,000	40,630,000
	66,717,500	65,417,500

n) Business segments and related information

GAAP establishes standards for the way public business enterprises are to report information about operating segments in annual financial statements and requires enterprises to report selected information about operating segments in interim financial reports issued to shareholders. It also establishes standards for related disclosure about products and services, geographic areas and major customers. The Company currently operates in five business segments.

o) Recent accounting standards

During the fourth quarter of 2024, the Company adopted Accounting Standard Update ("ASU") 2023-07, "Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures," which was issued by the Financial Accounting Standards Board (the "FASB") in December 2023. ASU 2023-07 enhances the disclosures required for operating segments in the Company's annual and interim consolidated financial statements. See Note 15, "Segment Information" to these consolidated financial statement for additional disclosures.

NOTE 2 – BUSINESS CONDITION AND LIQUIDITY

The Company has a history of recurring losses with an accumulated deficit of $127,321,285 at December 31, 2024 and net income of $8,574 for the year then ended. The Company's working capital has decreased by $826,698 from the prior year. The Company has cash flows provided by operations of $638,783. During 2024, the Company sought to improve future cash flows from operating activities through execution of new sales agreements, improving operating cost control measures, making improvements in current manufacturing processes, pursuing new service contracts, and developing new products. The Company's net income was $8,574 in 2024, compared to net loss of $869,016 in 2023. This is an increase in net income of $877,590. This increase in net income is largely the result of increased sales and gross profit in 2024.

During the year ended December 31, 2024, the Company continued to focus on its long-standing core business segments, which consist of its Theranostics Products, Cobalt Products, and Nuclear Medicine Standards, and particularly the pursuit of new business opportunities within those segments. The Company is also developing a Medical Device segment.

Due to changes in the nuclear industry, the Company's plans for the design and construction of a large-scale uranium de-conversion and fluorine extraction facility were placed on hold. The Company will continue to incur some costs associated with the maintenance of licenses and other necessary project investments for the proposed facility. The Company holds a Nuclear Regulatory Commission ("NRC") construction and operating license for the depleted uranium facility 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. There are no other companies with a similar license application under review by the NRC. Therefore, the NRC license represents a significant competitive barrier, and the Company believes this makes it a valuable asset. In February 2024, the Company entered into an Asset Purchase Agreement to sell all the assets associated with the planned de-conversion facility. The Company expects to close the transaction in approximately 12 to 24 months, subject to satisfaction of certain closing condition. Proceeds from this sale would be $12.5 million in total.

The Company expects that cash from operations 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 contract manufacturing agreements, commercial relationships, technological developments, market factors, available credit, and voluntary warrant redemption by shareholders. There is no assurance that additional capital and financing will be available on acceptable terms to the Company or at all.

NOTE 3 – PURCHASED ASSET AND INVESTMENTS

AMICI Asset Purchase Agreement and Medical Devices

In June 2023, the Company acquired several medical devices with related assets and intellectual property rights from AMICI, Inc. and has been working on FDA 510k transfers, and start-up of manufacturing. In January 2025, the parties amended the Asset purchase Agreement whereby the Company received additional product rights and related assets to make up for a shortfall by AMICI in deliverable assets originally contemplated in the Asset Purchase Agreement. These acquired assets from AMICI are currently under development and are expected to be released in the second half of 2025 to be sold through our RadVent subsidiary as part of our Medical Devices segment.

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 Jiaxing 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.

On August 6, 2024, the Company entered into a joint venture agreement with Phantech LLC to form PhanQual. PhanQual will leverage INIS's and Phantech's technologies, facilities, experience, and global network to design, manufacture, and distribute sealed sources, including adapting Phantech's patented and cutting-edge fillable calibration source technology, into sealed source calibration devices to better serve the R&D and theranostics community. Additionally, RadQual will globally distribute Phantech's entire portfolio of fillable sources through RadQual's global network of distributors. PhanQual's revenues and operations will operate through RadQual and will be included in our Nuclear Medicine Standards segment.

NOTE 4 – INVENTORIES

Inventories at December 31, 2024 totaled $820,893, and inventories at December 31, 2023 totaled $927,111. Our inventory consists of work in process material for our Theranostics Products, Cobalt Products, Medical Devices, and Nuclear Medicine Standards Products segments.

NOTE 5 – PROPERTY, PLANT AND EQUIPMENT

Property, plant, and equipment are summarized as follows at December 31, 2024 and 2023:

	2024	2023	Estimated Useful Lives (in years)
Furniture and fixtures	$ 287,463	$ 287,463	3 - 5
Transportation equipment	44,886	114,708	5 - 10
Plant and improvements	789,963	526,205	5
Production equipment	4,812,550	4,569,980	5 - 10
Land	485,196	—	
	6,420,058	5,498,356	
Accumulated depreciation	(3,122,289)	(3,033,279)	
	$ 3,297,769	$ 2,465,077	

Included in fixed assets are assets purchased during the planning phase for the construction of a de-conversion facility in Hobbs, New Mexico; these de-conversion facility assets are included in the DUF6 Asset Sale. Although construction of the facility is currently on hold, the Company has determined that these assets continue to have future economic value based on what it considers a strong likelihood that construction of the facility will occur in the future.

Depreciation expense was $181,211 and $160,567 for the years ended December 31, 2024 and 2023, respectively.

NOTE 6 – PATENTS AND OTHER INTANGIBLE ASSETS

The Company owns certain patents and patents pending related to a fluorine extraction process (FEP), for various uses of some fluoride gases as fluorinating agents, patents pending related to the EasyFill Automated Capsule System which are owned jointly by our joint venture, and some of the RadQual nuclear medicine calibration sources. The FEP patents were developed in an effort to expand the potential markets for the high purity fluoride gases the Company had planned to produce with its fluorine extraction process. The feasibility of expanding the fluoride gas markets through the use of this patented technology is uncertain. The RadQual product patents were developed to give RadQual a unique competitive advantage by offering calibration standards exclusive to RadQual.

In October 2012, the NRC issued the Company a 40-year construction and operating license for the de-conversion facility. Capitalized costs associated with the licensing and planning process for this license are being amortized over the 40-year life of the license.

The following table summarizes the patent and intangible activity for the year ended December 31, 2024:

	2024
Beginning	$ 5,370,878
Additions	—
Disposals	—
Ending	5,370,878
Accumulated amortization	(1,997,315)
	$ 3,373,563

During the year ended December 31, 2024, the Company recognized $164,895 of amortization expense, and during the year ended December 31, 2023, the Company recognized $164,895 of amortization expense.

Patent and other intangible asset amortization is based on the remaining life of the asset and estimated amortization expense is as follows:

Years ending December 31,	
2025	$ 164,895
2026	164,895
2027	164,895
2028	164,895
2029	164,895
Thereafter	2,549,088
	$ **3,373,563**

NOTE 7 – CONVERTIBLE DEBENTURES AND NOTES PAYABLE

Convertible debentures

As discussed in Note 9 below, in February 2017, pursuant to a private placement transaction with certain investors, the Company issued 3,433 shares of Series C Preferred Stock and warrants. In connection with the private placement, two investors holding convertible debentures exchanged aggregate principal totaling $205,000 of the convertible debentures for shares of the Series C Preferred Stock and warrants.

Notes payable

In December 2013, the Company entered into a promissory note agreement with its then Chairman of the Board and one of its major shareholders, pursuant to which the Company 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 the Company's common stock. In connection with the 2013 Promissory Note, each of the two lenders was issued 5,000,000 Class L warrants to purchase shares of our common stock at an exercise price of $0.06 per share (Class L Warrants). The Class L Warrants were immediately exercisable. The fair value of these warrants issued totaled $384,428 and was recorded as a debt discount amortized over the life of the 2013 Promissory Note. The Company calculated a beneficial conversion feature of $15,464 which was accreted to interest expense over the life of the 2013 Promissory Note. In June 2014, we renegotiated the terms of the 2013 Promissory Note. Pursuant to the modification, the maturity date was extended to December 31, 2017 and each lender was granted an additional 7,500,000 Class L Warrants to purchase shares of the Company's common stock at an exercise price of $0.06 per share. The Class L Warrants were immediately exercisable. In February 2017, the 2013 Promissory Note was further modified to extend the maturity date to December 31, 2020, with all remaining terms unchanged. On December 23, 2018, all 25,000,000 Class L Warrants expired. 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 further modified to extend the maturity date to December 31, 2023, with all remaining terms unchanged. In February 2024, the 2013 Promissory Note was further modified to extend the maturity date to March 31, 2026, with all remaining terms unchanged.

At December 31, 2024, accrued interest payable on the 2013 Promissory Note was $331,734.

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 and the 2018 Promissory 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 other provisions remaining unchanged. In December 2023, the 2018 Promissory Note was modified to extend the maturity date to January 31, 2025. In February 2024, the 2018 Promissory Note was modified to extend the maturity date to March 31, 2026.

At December 31, 2024, accrued interest on the 2018 Promissory Note totaled $48,170.

On December 20, 2019, the Company entered into a promissory note agreement with four of the Company's major shareholders (the 2019 Promissory Note). The 2019 Promissory Note authorizes the Company to borrow up to $1,000,000. As of December 31, 2019, the Company had borrowed $675,000 under the 2019 promissory note. In February 2020, the Company borrowed an additional $325,000. 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 trading 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 (Class O Warrants). In January 2023, 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.

At December 31, 2024, accrued interest on the 2019 Promissory Note totaled $199,131.

Notes payable as of December 31, 2024 and 2023 consist of the following:

	2024	2023
Note payable to related parties bearing interest at 6% all principal and interest due on March 31, 2026, secured	$ 120,000	$ 120,000
Note payable to related parties bearing interest at 4% all principal and interest due on March 31, 2026, secured	1,000,000	1,000,000
Note payable to related parties bearing interest at 6% all principal and interest due on March 31, 2026, secured	500,000	500,000
Note payable to a financial institution bearing interest at 5.99% monthly installments of $1,046, secured	—	34,365
Note payable for purchase contract bearing no interest until the 25th month after the anniversary of the closing interest at 8% thereafter monthly installments of $10,000	272,100	392,100
Note payable for purchase contract, payment of $170,000 on January 15, 2025, remaining contract bearing interest at 4% annual January installments of $40,000	315,196	—
Total notes payable	2,207,296	2,046,465
Less: current maturities	(308,399)	(155,733)
Notes payable, net of current installments and debt discount	$ 1,898,897	$ 1,890,732

Maturities of convertible debt and notes payable, excluding debt discount and debt issuance costs, at December 31, 2024, are as follows:

Years ending December 31,	
2025	$ 308,399
2026	1,767,594
2027	55,859
2028	36,982
Thereafter	38,462
	$ 2,207,296

NOTE 8 – LEASE OBLIGATIONS

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.

	Year Ended December 31,	
	2024	2023
Operating lease costs	$ 287,108	$ 287,108
Short-term operating lease costs	7,200	7,200
Financing lease expense:		
Amortization of right-of-use assets	2,832	6,023
Interest on lease liabilities	96	395
Total financing lease expense	2,928	6,418
Total lease expense	$ 297,236	$ 300,726
Weighted-average remaining lease term (years) - operating leases	10.1	11.1
Weighted-average remaining lease term (years) - financing leases	—	1.2
Weighted-average discount rate - operating leases	6.75%	6.75%
Weighted-average discount rate - financing leases	6.75%	6.75%

Maturities of lease liabilities as of December 31, 2024, were as follows:

	Operating leases	Finance leases
For the years ended December 31,		
2025	$ 287,108	$ —
2026	287,108	—
2027	287,108	—
2028	287,108	—
2029	287,108	—
Thereafter	1,450,976	—
Total minimum lease obligations	2,886,516	—
Less-amount representing interest	(795,005)	—
Present value of minimum lease obligations	2,091,511	—
Current maturities	(150,532)	—
Lease obligations, net of current maturities	$ 1,940,979	$ —

NOTE 9 – SHAREHOLDERS' EQUITY, REDEEMABLE CONVERTIBLE PREFERRED STOCK, OPTIONS AND WARRANTS

Warrants

At December 31, 2024 and December 31, 2023 there were no outstanding warrants.

Mandatorily Redeemable Convertible Preferred Stock

The Company is authorized to issue up to 5,000,000 shares of preferred stock, par value $0.01 per share. The Board is authorized to set the distinguishing characteristics of each series prior to issuance, including the granting of limited or full voting rights, rights to the payment of dividends and amounts payable in event of liquidation, dissolution or winding up of the Company.

At December 31, 2023 and December 31, 2024, there were 4,063 total shares of the Series C Preferred Stock outstanding. The Series C Preferred Stock are convertible at the option of the investors at any time into shares of the Company's common stock at an initial conversion price equal to $0.10 per share, subject to adjustment. At any time after February 17, 2019, 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 ($1,000) plus any accrued and unpaid dividends, payable in shares of common stock. All outstanding shares of Series C Preferred Stock were to be redeemed by the Company on February 17, 2022 at the original purchase price per share, payable in cash or shares of common stock, at the option of the holder. In February 2022, based on approval of a majority of the Preferred C Holders, the Company extended the redemption date of the Series C Preferred Stock to February 17, 2023. In December 2022, based on approval of a majority of the Preferred C Holders, the Company extended the redemption date of the Series C Preferred Stock to February 17, 2025. In September 2024, based on approval of a majority of the Preferred C Holders, the Company extended the redemption date of the Series C Preferred Stock to February 17, 2027. Holders of 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 Company pays dividends on the Series C Preferred Stock in February each year. Dividends payable totaled $243,780 in February 2024 and February 2023. 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 in 2024 and 2,266,500 shares of common stock in lieu of a dividend payment of $90,660 in 2023. $152,610 of dividend payable was settled with cash in 2024 and $153,120 was settled with cash in 2023.

The outstanding 4,063 shares of Series C Preferred Stock originated as follows:

On February 17, 2017, the Company entered into subscription agreements with certain investors, including two of the Company's directors, for the sale of (i) an aggregate of 3,433 shares of Series C Preferred Stock, and (ii) Class M warrants to purchase an aggregate of 17,165,000 shares of the Company's common stock (the Class M Warrants), for gross proceeds of $3,433,000. The Series C Preferred Stock accrues dividends at a rate of 6% per annum, payable annually on February 17th of each year, commencing on February 17, 2018.

The Class M Warrants were immediately exercisable at an exercise price of $0.12 per share, subject to adjustment as set forth in the warrant, and expired in February 2022.

The Company allocated the proceeds to the Series C Preferred Stock and Class M Warrants based on their relative fair value, which resulted in $2,895,379 being allocated to the Series C Preferred Stock and $537,621 being allocated to the Class M Warrants. The allocated Class M Warrant value was recorded as a discount to the Series C Preferred Stock and will be amortized to interest expense over the five-year life of the warrants. At December 31, 2023 and December 31, 2024, the carrying value of these 3,433 shares of Series C Preferred Stock was $3,433,000.

On March 24, 2017, the Company entered into an Amendment to the 8% Convertible Notes (the Amendment), pursuant to which the 8% Convertible Notes (the Notes) issued by the Company in July 2012 were amended to give noteholders certain additional rights. Pursuant to the Amendment, the Notes were modified to provide each holder the right, at the holder's option and exercisable prior to May 12, 2017, to convert all or any portion of the principal amount of the Notes, plus accrued but unpaid interest, into shares of Series C Preferred Stock at a conversion price of $1,000 per share. Holders that elected to convert their Notes into Series C Preferred Stock received a Class N Warrant to purchase up to 3,750 shares of the Company's common stock for each share of Series C Preferred Stock received upon conversion of the Notes, with each Warrant having a five-year term, a cashless exercise feature, and an exercise price of $0.10 per share of common stock. On May 12, 2017, the Company completed the retirement of $1,835,000 of the Notes in early cash redemptions, and $780,000 of the Notes were converted into an aggregate of 780 shares of Series C Preferred Stock and Class N Warrants to purchase an aggregate of 2,925,000 shares of the Company's common stock. In 2021, 150 shares of Series C Preferred Stock were converted into shares of common stock.

The Class N Warrants were immediately exercisable at an exercise price of $0.10 per share, subject to adjustment as set forth in the warrant, and expired in May 2022.

The Company allocated the proceeds to the Series C Preferred Stock and Class N Warrants based on their relative fair value, which resulted in $675,947 being allocated to the Series C Preferred Stock and $104,053 being allocated to the Class N Warrants. The allocated Class N Warrant value was recorded as a discount to the Series C Preferred Stock and will be amortized to interest expense over the five-year life of the warrants. At December 31, 2023 and December 31, 2024, the carrying value of 630 shares of Series C Preferred Stock was $630,000.

Employee Stock Purchase Plan

In September 2004, the Company's Board approved an employee stock purchase plan for an aggregate of up to 2,000,000 shares of the Company's common stock. The plan allows employees to deduct up to 15% of their salary or wages each pay period to be used for the purchase of common stock at a discounted rate. The common shares will be purchased at the end of each three-month offering period or other period as determined by the Board. The plan is intended to qualify as an "employee stock purchase plan" under Section 423 of the Internal Revenue Code. An amendment and restatement of the plan was approved in July 2020 by the Company's shareholders, which increased the number of shares available for purchase by 3,000,000 shares. At December 31, 2024 there were 2,224,544 shares available under the employee stock purchase plan.

During 2024 and 2023, the Company issued 388,915 and 316,866 shares of common stock to employees for proceeds of $11,969 and $8,398, respectively, in accordance with the employee stock purchase plan.

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. The 2015 Plan amends and restates the Company's Amended and Restated 2006 Equity Incentive Plan (the "2006 Plan").

The 2015 Plan authorizes the issuance of up to 80,000,000 shares of common stock, plus 11,089,967 shares authorized, but not issued under the 2006 Plan. Unless earlier terminated, the 2015 Plan will terminate on July 13, 2025. At December 31, 2024 there were 19,174,296 shares available for issuance under the 2015 Plan.

Non-Vested Stock Grants

Pursuant to an employment agreement with its Chief Executive Officer, the Company awarded 560,000 fully vested shares of common stock to its then Chief Executive Officer in February 2023 under the 2015 Plan. The number of shares awarded was based on a $28,000 stock award using a price of $0.05 per share. The employment agreement provides that the number of shares issued will be based on the average closing price of common stock for the 20 trading days prior to issue date but not less than $0.05 per share. Compensation expense recorded pursuant to this stock grant was $22,400, which was determined by multiplying the number of shares awarded by the closing price of the common stock on February 28, 2023, which was $0.04 per share. The Company withheld 216,440 shares of common stock to satisfy the employee's payroll tax obligations in connection with this issuance. The net shares issued on February 28, 2023 totaled 343,560.

Stock Options

A summary of the stock options issued under the Company's equity plans is as follows:

Stock Options	Outstanding Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life	Average Intrinsic Value
Outstanding at December 31, 2022	24,993,500	0.07		—
Granted	3,100,000	0.04		
Exercised	—			
Forfeited	(3,306,000)	0.08		
Outstanding at December 31, 2023	24,787,500	0.05	5.4	17,000
Granted	7,300,000	0.04		
Exercised	—			
Forfeited	(2,850,000)	0.05		
Expired	(3,150,000)	0.04		
Outstanding at December 31, 2024	26,087,500	0.05	6.1	—
Exercisable at December 31, 2024	17,982,500	$ 0.05	4.9	—

The total intrinsic value of stock options outstanding at December 31, 2024 was $0. The intrinsic value for stock options outstanding is calculated as the amount by which the quoted price of $0.03 of the Company's common stock as of the end of 2024 exceeds the exercise price of the options.

The Company recognized $64,210 and $199,554 of compensation expense related to these options for the years ended December 31, 2024 and 2023, respectively. At December 31, 2024, the remaining compensation expense was $97,355 and will be recognized over 1.67 years.

During the year ended December 31, 2024 and December 31, 2023 no qualified stock options were exercised.

During the year ended December 31, 2024, the Company granted an aggregate of 5,800,000 qualified stock options to 8 of its employees. These options vest over a three-year to five-year period with the first vesting at the first anniversary of grant and expiration at ten-year anniversary for all grants. The exercise price for these granted options was $0.03 and $0.05 per share. The options issued during the year ended December 31, 2024 have a fair value of $55,574, 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 3.91% to 4.66%, expected dividend yield rate of 0%, expected volatility of 72.94% to 80.33% and an expected life between 5 and 7 years. In October, the Company granted its chairman 1,500,000 qualified stock options. These options vest of a three-year period with the first vesting at the date of grant and expiration at ten-year anniversary. The exercise price for these granted options was $0.035 per share. The options have a fair value of $41,980, 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 4.14%, expected dividend yield rate of 0%, expected volatility of 76.03% to 79.46% and an expected life between 5 and 6 years.

All options exercised were issued under a qualified plan and accordingly, there is no income tax effect in the accompanying financial statements.

Restricted Stock Units

A summary of the non-vested restricted stock units issued under the Company's equity plans is as follows:

Non-Vested Restricted Stock Units	Number of restricted stock units	Weighted average grant-date fair value
Outstanding at December 31, 2022	—	
Granted	7,250,000	0.04
Vested	(250,000)	0.04
Forfeited / Cancelled	—	
Outstanding at December 31, 2023	7,000,000	0.04
Granted	—	
Vested	(1,750,000)	0.04
Forfeited / Cancelled	—	
Outstanding at December 31, 2024	5,250,000	$ 0.04

The Company recognized $83,161 and $121,202 of compensation expense related to these restricted stock units ("RSU") for the years ended December 31, 2024 and 2023, respectively. At December 31, 2024, the remaining compensation expense was $64,237 and will be recognized over 1.10 years.

On March 3, 2023, the Compensation Committee of our Board of Directors approved the cancellation of 1,000,000 outstanding stock options held by a member of the Board in exchange for the grant of 750,000 RSUs. The RSUs vest over a three-year period beginning on the grant date.

On May 8, 2023, pursuant to an executive employment agreement entered into with its newly appointed President, the Company granted 6,500,000 RSUs to its President. 1,500,000 RSUs vest on April 17, 2024, 2,000,000 RSUs vest on April 17, 2025, and 3,000,000 RSUs vest on April 17, 2026. Each RSU represents the contingent right to receive one share of the Company's common stock.

On September 5, 2023, pursuant to an employment agreement with its President, the Company awarded 2,500,000 fully vested RSUs under the 2015 Plan to the Company's President upon his promotion to Chief Executive Officer. The compensation expense recorded pursuant to this RSU award was $150,000, which was determined by multiplying the number of shares awarded by the closing price of the common stock on September 5, 2023, which was $0.06 per share. The Company withheld 778,972 shares of common stock to satisfy payroll tax obligations in connection with this issuance. The net shares issued on September 5, 2023 totaled 1,721,028.

On September 11, 2024, the Company awarded 350,000 fully vested RSUs under the 2015 Plan to the Company's CEO as part of an annual bonus. Compensation expense recorded pursuant to this RSU award was $10,500, which was determined by multiplying the number of shares awarded by the closing price of the common stock on September 10, 2024, which was $0.03 per share. The Company paid $4,510 in payroll tax obligations on behalf of the employee in connection with this issuance.

NOTE 10 – INCOME TAXES

The Company paid no federal or state income taxes during 2024 and 2023. Income tax benefit on losses differed from the amounts computed by applying the recently enacted U.S. federal income tax rate of 21% to pretax losses as a result of the following:

	2024	2023
Income tax expense (benefit)	$ 1,801	$ (182,493)
Book and tax differences	(23,178)	40,577
State taxes net of federal benefit	—	—
Change in valuation allowance	21,377	141,916
	$ —	$ —

The tax effects of temporary differences that give rise to significant portions of the Company's deferred tax assets (liabilities) as of December 31, 2024 and 2023 are presented below:

	2024	2023
Deferred income tax asset	$ —	$ —
Net operating loss carryforward	7,942,854	7,918,996
Valuation allowance	(7,419,124)	(7,476,180)
Total deferred income tax asset	523,730	442,816
Deferred income tax liability - depreciation	(523,730)	(442,816)
Deferred tax asset (liability)	$ —	$ —

At December 31, 2024, the Company had net operating losses of approximately $38,000,000 that will begin to expire in 2024. The valuation allowances for 2024 and 2023 have been applied to offset the deferred tax assets in recognition of the uncertainty that such benefits will be realized.

In accordance with GAAP, the Company has analyzed its filing positions in all jurisdictions where it is required to file income tax returns for the open tax years in such jurisdictions. The Company currently believes that all significant filing positions are highly certain and that all of its significant income tax filing positions and deductions would be sustained upon audit. Therefore, the Company has no significant reserves for uncertain tax positions, and no adjustment to such reserves was required by GAAP. No interest or penalties have been levied against the Company and none are anticipated, therefore no interest or penalty has been included in the provision for income taxes in the consolidated statements of operations.

The Internal Revenue Code contains provisions which reduce or limit the availability and utilization of net operating loss carry forwards in the event of a more than 50% change in ownership. If such an ownership change occurs with the Company, the use of these net operating losses could be limited.

NOTE 11 – COMMITMENTS AND CONTINGENCIES

Dependence on Third Parties

Sales during 2024 to the Company's top three customers was approximately 32% of its total gross revenue. The Company is making efforts to reduce its dependency on a small number of customers by expanding both domestic and foreign.
Approximately 19% of the Company's total gross revenue was from sales from a single customer as part of our Theranostics Products segment.

The production of cobalt-60 is dependent upon the DOE, and its prime operating contractor, which controls the reactor and laboratory operations at the ATR located outside of Idaho Falls, Idaho. From 2014 to 2024, the Company had a ten-year contract with the DOE for the irradiation of cobalt targets for the production of cobalt-60. The Company was able to purchase cobalt targets as available for a fixed price per target and with an annual 5% escalation in price. The contract term was October 1, 2014, through September 30, 2024. The Company continues to source cobalt-60 from the DOE through amendments to the existing contract.

The key isotope materials used to manufacture our Theranostics Products and Nuclear Medicine Standards Products are supplied to the Company through agreements with several suppliers. The loss of any of these suppliers could adversely affect operating results by causing a delay in production or a possible loss of sales.

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 operation 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 and a restricted money market account, in the amount of $1,431,710, held with North American Specialty Insurance Company and Merrill Lynch, respectively.

Defined Contribution Pension Plan

The Company has a 401(k) defined-contribution pension plan (the "401(k) Plan"). Employees are eligible to participate in the Plan after completing six months of full-time service. Participants, under provision of Internal Revenue Code § 401(k), may elect to contribute up to $23,000 of their compensation to the 401(k) Plan which includes both before-tax and Roth after-tax contribution options. Beginning in 2023, the Company began matching contributions according to safe harbor 401(k) rules. All amounts withheld for employee contributions for 2023 and 2024 were paid into the 401(k) Plan. The employer reserves the right to terminate the 401(k) Plan at any time.

NOTE 12 – ASSET RETIREMENT OBLIGATION

As part of the Company's NRC operating license and as part of the Company's facility lease agreements, the Company is responsible for decommissioning any facilities upon termination or relocation of operations. The Company has developed a decommissioning funding plan using guidelines provided by the NRC and has estimated the cost of decommissioning the facility in Idaho Falls. The decommissioning cost estimate is reviewed at least annually to validate the assumptions and is revised as necessary when changes in the facility processes or radiological characteristics would affect the cost of decommissioning.

In accordance with GAAP, the Company has recognized future estimated decommissioning costs as an asset retirement obligation and a related capitalized lease disposal cost. The Company has recognized period-to-period changes in the liability (accretion) in the statement of operations as amortization expense. Changes resulting from revisions to the original estimate are recorded as an increase or decrease to the capitalized lease disposal cost. Capitalized lease disposal cost is amortized on a straight-line basis over the remaining life of the facility operating lease agreement.

The following summarizes the activity of the asset retirement obligation for the years ended December 31, 2024 and 2023:

	Obligation for Lease Disposal Cost
Balance at December 31, 2022	942,378
Increase in lease disposal costs	478,959
Accretion expense/amortization expense	53,126
Balance at December 31, 2023	1,474,463
Increase in lease disposal costs	—
Accretion expense/amortization expense	70,325
Balance at December 31, 2024	$ 1,544,788

NOTE 13 – FAIR VALUE MEASUREMENTS

At December 31, 2024 and 2023, the Company had no assets carried at fair value.

NOTE 14 – REVENUE RECOGNITION

Revenue from Product Sales

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

Revenues	For the year ended December 31, 2024	% of Total Revenues 2024	For the year ended December 31, 2023	% of Total Revenues 2023
Theranostics Products	$ 8,006,315	58%	$ 6,842,898	56%
Cobalt Products	2,365,572	17%	1,037,073	8%
Nuclear Medicine Standards	3,519,216	25%	4,387,414	36%
Medical Devices Products	8,657	0%	—	0%
Fluorine Products	—	0%	—	0%
Total Segments	$ 13,899,760	100%	$ 12,267,385	100%

Prior period amounts have not been adjusted under the modified retrospective approach.

Under ASC Topic 606, the Company recognizes revenue when it satisfies a performance obligation by transferring control of the promised goods or services to its customers, in an amount that reflects the consideration the Company expects to receive in exchange for the product or service.

Product sales consist of a single performance obligation that the Company satisfies at a point in time. All transactions in the Theranostics Products, Nuclear Medicine Standards, and Medical Devices segments fall into this category. Most sales transactions in the Cobalt Products business segment fall into this category but other Cobalt Products sales are recorded as deferred income as discussed below. The Company recognizes product revenue when the following events have occurred: (a) the Company has transferred physical possession of the products, (b) the Company has a present right to payment, (c) the customer has legal title to the products, and (d) the customer bears significant risks and rewards of ownership of the products. Based on the Company's historical practices and shipping terms specified in the sales agreements and invoices, these criteria are generally met when the products are:

- Invoiced.
- Shipped from the Company's facilities ("FOB shipping point", which is the Company's standard shipping term). For these sales, the Company determined that the customer is able to direct the use of, and obtain substantially all of the benefits from, the products at the time the products are shipped.

The Company's revenue consists primarily of products manufactured for use in the nuclear medicine industry, distribution of radiochemicals and radiopharmaceuticals, and cobalt-60 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-60 contracts, where shipment will not take place for greater than one year, have been recorded as unearned revenue on the Company's consolidated balance sheets and classified under current or long-term liabilities, depending upon estimated ship dates. For the year ended December 31, 2024, the Company reported current unearned revenue of $513,317. 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-60 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 December 31, 2024, and December 31, 2023, accounts receivable totaled $1,521,380 and $1,469,298, respectively.

Practical Expedients

The Company has elected the practical expedient not to determine whether contacts with customers contain significant financing components.

NOTE 15 – SEGMENT INFORMATION

Information related to the Company’s reportable operating business segments is shown below. The Company’s reportable segments are reported in a manner consistent with the way management evaluates the businesses. The results of operations are regularly reviewed by the Company's chief operating decision maker ("CODM"), the Chief Executive Officer. The Company identifies its reportable business segments based on differences in products and services. The accounting policies of the business segments are the same as those described in the summary of significant accounting policies. In order to evaluate each reportable segment's performance, the CODM uses income from operations as a measure of profit and loss. The CODM compares operational performance against management expectations when making decisions regarding allocation of operating and capital resources to each segment.

The Company has identified the following business segments:

- The Nuclear Medicine Standards
consists of various sealed source calibration and reference products, including our own manufactured products, jointly manufactured products, and third-party products. These products are sold through our RadQual subsidiary for use with Single Photon Emission Computed Tomography (SPECT) and Positron Emission Tomography (PET) imaging equipment, patient positioning, radiopharmacy and radiopharmaceutical CDMO lab equipment, pre-clinical imaging equipment, clinical trial or custom geometry applications, and calibration or operational testing of measuring and/or testing equipment industry. Nuclear Medicine Standards products include flood sources, dose calibrators, cylinder phantoms, rod sources, line sources, flexible and rigid rulers, spot markers, pen point markers, and a host of specialty design items. Pre-clinical products include distribution of fillable sources from Phantech and pre-clinical sealed sources via our PhanQual joint venture with Phantech. Calibration & Reference sources include RadQual products for nuclear pharmacies and related lab equipment; the Company also distributes non-medical sources manufactured by its partner, ORANO LEA. The Nuclear Medicine Standards segment also commercializes bulk isotope sales, medical devices, shielding, and accessories related to the Company's sealed source products.

- The Cobalt Products segment includes management of a cobalt-60 irradiation contract, fabrication of cobalt-60 capsules for teletherapy or irradiation devices, and recycling of expended cobalt-60 sources.

- The Theranostics Products Segment includes production and distribution of various isotopically pure radiopharmaceuticals, APIs, and radiochemicals for medical, industrial, and research applications. The Company produces these products from radioisotopes supplied by its vendors. The Company produces and distributes various products in customized volumes, concentrations, chemical formulations, packages, and specifications tailored to meet FDA specifications or customer and market demands. The Company's FDA approved generic sodium iodide I-131 drug product is the only generic product of this type manufactured in the U.S. and offers customers an attractive domestic alternative to the single existing foreign commercial drug manufacturer

- The Medical Devices segment was started in 2024 from assets previously reported as part of the Nuclear Medicine Standards segment. The products for the Medical Devices segment are currently under development. In 2022 the Company entered a joint venture to develop the EasyFill Automated Capsule System, a robotic lab device to be paired with its Theranostics Products. The EasyFill is still in the developmental stage. In 2023, the Company entered an asset purchase agreement with AMICI, Inc. to purchase manufacturing molds, device registrations, trademarks, and all production rights to several AMICI diagnostic and therapeutic products for lung ventilation; this included the Swirler Radioaerosol System and Tru-Fit mouthpiece products. In January 2025, as part of an amendment to the AMICI asset purchase agreement, the Company received the manufacturing molds, device registrations, trademarks, and all production rights to the AMICI line of Xenon System products. The products that will use these acquired assets from AMICI are currently under development and are expected to be released in the second half of 2025 to be sold through its RadVent subsidiary. In 2024, the Company's Medical Devices segment entered into a distribution and servicing agreement with Scintomics for its complete line of radiosynthesis modules.

- The Fluorine Products segment historically involved the production of small-scale qualification samples of high purity fluoride gas for various industrial applications, as well as development of laboratory and analytical processes required to support the planned uranium de-conversion and fluorine extraction facility. During 2013, these testing activities were completed, and the pilot plant facility was closed. The Company has developed or acquired all patent rights to these processes. Future work in this segment will involve license support and, as financing permits, further work related to the de-conversion facility.

The following presents certain segment information as of and for the years ended December 31, 2024 and 2023:

Sale of product	2024	2023
Theranostics Products	$ 8,006,315	$ 6,842,898
Cobalt Products	2,365,572	1,037,073
Nuclear Medicine Products	3,519,216	4,387,414
Medical Devices Products	8,657	—
Fluorine Products	—	—
Total segments	13,899,760	12,267,385
Corporate revenue	—	—
Total consolidated	$ 13,899,760	$ 12,267,385

Depreciation and amortization	2024	2023
Theranostics Products	$ 30,197	$ 25,287
Cobalt Products	51,179	53,331
Nuclear Medicine Products	122,825	114,833
Medical Devices Products	—	—
Fluorine Products	115,879	115,879
Total segments	320,080	309,330
Corporate depreciation and amortization	80,987	40,764
Total consolidated	$ 401,067	$ 350,094

Segment income (loss)	2024	2023
Theranostics Products	$ 4,367,236	$ 3,041,755
Cobalt Products	183,442	(126,504)
Nuclear Medicine Products	(90,959)	386,592
Medical Devices Products	(465,230)	(4,380)
Fluorine Products	(59,188)	(105,099)
Total segments	3,935,301	3,192,364
Corporate loss	(3,926,727)	(4,061,380)
Total consolidated	$ 8,574	$ (869,016)

Expenditures for segment assets	2024	2023
Theranostics Products	$ 146,295	$ 3,420
Cobalt Products	39,799	49,774
Nuclear Medicine Products	70,912	3,130
Medical Devices Products	—	32,007
Fluorine Products	—	—
Total segments	257,006	88,331
Corporate purchases	464,209	60,727
Total consolidated	$ 721,215	$ 149,058

Segment assets	2024	2023
Theranostics Products	$ 992,513	$ 849,351
Cobalt Products	167,881	274,513
Nuclear Medicine Products	2,928,814	2,985,441
Medical Devices Products	553,117	553,117
Fluorine Products	4,875,738	4,980,118
Total segments	9,518,063	9,642,540
Corporate assets	7,642,905	7,262,547
Total consolidated	$ 17,160,968	$ 16,905,087

NOTE 16 – SUBSEQUENT EVENTS

On January 1, 2025, the Company entered into a lease agreement, with the right to purchase the property, for a second building, which is located directly across the street from their Idaho Falls facility. The building is approximately 8,600 square feet on a 1.73-acre lot.

On January 9, 2025, the Company amended and finalized the Asset Purchase Agreement with AMICI, Inc., dated June 16th, 2023. To make up for a shortfall of inventory and assets the Company was to receive under the original agreement, it will receive the manufacturing molds, device registrations, trademarks, and all production rights to the AMICI, Inc. line of Xenon System products as well as the registered intellectual property to Swirler® and Tru-Fit™ Mouthpiece products.

Exhibit 19.1

INTERNATIONAL ISOTOPES INC.

INSIDER TRADING POLICY

I. INTRODUCTION

"Insider trading" refers generally to buying or selling a security, in breach of a fiduciary duty or other relationship of trust and confidence, while in possession of material, nonpublic information about the security. Insider trading violations may also include "tipping" such information, securities trading by the person "tipped," and securities trading by those who misappropriate such information.

The scope of insider trading violations can be wide reaching. The Securities and Exchange Commission (the "SEC") has brought insider trading cases against corporate officers, directors, and employees who traded the corporation's securities after learning of significant, confidential corporate developments; friends, business associates, family members, and other "tippees" of such officers, directors, and employees who traded the securities after receiving such information; employees of law, banking, brokerage, and printing firms who were given such information in order to provide services to the corporation whose securities they traded; government employees who learned of such information because of their employment by the government; and other persons who misappropriated, and took advantage of, confidential information from their employers.

Consequently, an "insider" can include officers, directors, major stockholders and employees of an entity whose securities are publicly traded. In general, an insider must not trade for personal gain in the securities of that entity if that person possesses material, nonpublic information about the entity. In addition, an insider who is aware of material, nonpublic information must not disclose such information to family, friends, business or social acquaintances, employees or independent contractors of the entity (unless such employees or independent contractors have a position within the entity giving them a clear right and need to know), and other third parties. ***An insider is responsible for assuring that his or her family members comply with insider trading laws.*** An insider may make trades in the market or discuss material information only after the material information has been made public.

II. PENALTIES; SANCTIONS

General. Violation of the prohibition on insider trading can result in a prison sentence and civil and criminal fines for the individuals who commit the violation, and civil and criminal fines for the entities that commit the violation.

International Isotopes Inc. (the "Company") can be subject to a civil monetary penalty even if the directors, officers or employees who committed the violation concealed their activities from the Company.

Criminal Penalties. The maximum prison sentence for an insider trading violation is now 10 years. The maximum criminal fine for individuals is now $1,000,000, and the maximum fine for non-natural persons (such as an entity whose securities are publicly traded) is now $2,500,000.

Civil Sanctions. Persons who violate insider trading laws may become subject to an injunction and may be forced to disgorge any profits gained or losses avoided. The civil penalty for a violator may be an amount up to three times the profit gained or loss avoided as a result of the insider trading violation.

The Company (as well as other natural or non-natural persons who are deemed to be controlling persons of the violator) faces a civil penalty not to exceed the greater of $1,000,000 or three times the profit gained or loss avoided as a result of the violation if the Company knew or recklessly disregarded the fact that the controlled person was likely to engage in the acts constituting the insider trading violation and failed to take appropriate steps to prevent the acts before they occurred.

In addition, persons who traded contemporaneously with, and on the other side of, the insider trading violator may sue the violator and the controlling persons of the violator to recover the profit gained or loss avoided by the violator.

Bounties. The SEC is offering bounties to persons who provide information leading to the imposition of the civil penalty.

III. POLICY STATEMENT

Illegal insider trading is against the policy of the Company. Such trading can cause significant harm to the reputation for integrity and ethical conduct of the Company. Individuals who fail to comply with the requirements of this Insider Trading Policy are subject to disciplinary action, at the sole discretion of the Company, including dismissal for cause.

IV. WHAT IS MATERIAL, NONPUBLIC INFORMATION?

Nonpublic, or inside, information about the Company that is not known to the investing public may include, among other things, strategic plans; significant capital investment plans; negotiations concerning acquisitions or dispositions; major new contracts (or the loss of a major contract); other favorable or unfavorable business or financial developments, projections or prospects; a change in control or a significant change in management; impending securities splits, securities dividends or changes in dividends to be paid; a call of securities for redemption; and, most frequently, financial results.

All information about the Company is considered nonpublic information until it is disseminated in a manner calculated to reach the securities marketplace through recognized channels of distribution and public investors have had a reasonable period of time to react to the information. Generally, information which has not been available to the investing public for at least two (2) full business days is considered to be nonpublic. Recognized channels of distribution include annual reports, prospectuses, press releases, marketing materials, and publication of information in prominent financial publications, such as *The Wall Street Journal*.

Nonpublic information is material if it might reasonably be expected to affect the market value of the securities and/or influence investor decisions to buy, sell or hold securities. If a person feels the information is material, it probably is. Moreover, it should be remembered that plaintiffs who challenge and judges who rule on particular transactions have the benefit of hindsight.

If a person is in doubt as to whether information is public or material, that person should wait until the information becomes public, or should refer questions to Shahe Bagerdjian**, who has been designated to act as the Compliance Officer (herein so called)**.

V. HANDLING OF INFORMATION

General Rules. The Company's records must always be treated as confidential. Items such as interim and annual financial statements, managed assets information and similar information are proprietary (that is, information pertaining to and used exclusively by the Company), and proprietary information must not be disclosed or used for any purpose other than for Company business. All Company policies and procedures designed to preserve and protect confidential information must be strictly followed at all times.

No director, officer or employee of the Company shall at any time make any recommendation or express any opinion as to trading in the Company's securities.

Information learned about other entities in a special relationship with the Company, such as acquisition negotiations, is confidential and must not be given to outside persons without proper authorization.

All confidential information in the possession of a director, officer or employee is to be returned to the Company at the termination his or her relationship with the Company.

VI. TRADING IN THE COMPANY AND OTHER SECURITIES

General Rule. Directors, officers and employees of the Company shall not effect any transaction in the Company's securities if they possess material, nonpublic information about the Company. This restriction generally does not apply to the exercise of stock options under the Company's stock option or deferred compensation plans, but would apply to the sale of any shares acquired under such plans. The provisions set forth in this Paragraph VI and all other provisions of this Insider Trading Policy shall equally apply to the directors, officers and employees of any subsidiary of the Company.

Pre-Clearance by Compliance Officer. ***Every director, officer or employee of the Company shall advise the Compliance Officer before he or she effects any transaction in the Company's securities.*** This shall be done by submitting a completed Trading Approval Form, attached as Exhibit A, to the Compliance Officer. The Compliance Officer shall advise such director, officer or employee whether the proposed transaction is permissible under this Insider Trading Policy by making the appropriate indication and countersigning the Trading Approval Form.

Automatic Black-Out Periods. Investment by the Company's directors, officers or employees in Company securities is encouraged, so long as such persons do not purchase or sell such securities in violation of this Insider Trading Policy. In furtherance of the goals underlying the Company's Insider Trading Policy, the Company's directors, officers and employees are prohibited from buying or selling Company securities between the 16th day of the last month of each fiscal quarter and the second business day following the release of the Company's earnings for the immediately preceding fiscal period to the public (the "Black-Out Period"). These Black-Out Periods are designed to prevent any inadvertent trading by such persons in the Company's securities during the particularly sensitive period leading up to, and immediately following, the release of the Company's quarterly financial results. The grant or exercise of stock options to purchase the Company's stock is permitted during Black-Out Periods (although any sale of such stock during Black-Out Periods is prohibited unless such sale is made pursuant to an approved Rule 10b5-1 Trading Plan, as discussed below).

Black-out Communications. In addition to the foregoing restrictions, the Company reserves the right to issue "black-out notices" to specified persons when material, nonpublic information exists. Any person who receives such a notice shall treat the notice as confidential and shall not disclose its existence to anyone else.

Trading in Securities of Other Entities. In addition, no director, officer or employee of the Company shall effect any transaction in the securities of another entity, the value of which is likely to be affected by actions of the Company that have not yet been publicly disclosed. Please note that this provision is in addition to the restrictions on trading in securities of other entities set forth in the Company's Code of Ethics.

Applicability to Family Members. The foregoing restrictions on trading are also applicable to family members' accounts, accounts subject to the control of personnel subject to this Insider Trading Policy or any family member, and accounts in which personnel subject to this Insider Trading Policy or any family member has any beneficial interest, except that the restrictions on trading do not apply to accounts where investment decisions are made by an independent investment manager in a fully discretionary account. ***Personnel subject to this Insider Trading Policy are responsible for assuring that their family members comply with the foregoing restrictions on trading.*** For purposes of this Policy, "Family Members" include one's spouse and all members of the family who reside in one's home.

Rule 10b5-1 Trading. Notwithstanding the restrictions stated in this Paragraph VI, such restrictions shall not apply to purchases or sales of securities of the Company made by the persons covered hereby who have entered into a written trading plan that complies with Rule 10b5-1 of the Exchange Act and has been approved by the Compliance Officer.

VII. INVESTIGATIONS; SUPERVISION

Investigations. If any person subject to this Insider Trading Policy has reason to believe that material, nonpublic information of the Company has been disclosed to an outside party without authorization, that person should report this to the Compliance Officer immediately.

If any person subject to this Insider Trading Policy has reason to believe that an insider of the Company or someone outside of the Company has acted, or intends to act, on inside information, that person should report this to the Compliance Officer immediately.

If it is determined that an individual maliciously and knowingly reports false information to the Company with intent to do harm to another person or the Company, appropriate disciplinary action will be taken according to the severity of the charges, up to and including dismissal. All such disciplinary action will be taken at the sole discretion of the Company.

VIII. LIABILITY OF THE COMPANY

The adoption, maintenance and enforcement of this Insider Trading Policy is not intended to result in the imposition of liability upon the Company for any insider trading violations where such liability would not exist in the absence of this Insider Trading Policy.

Questions. All questions regarding this Insider Trading Policy should be directed to Shahe Bagerdjian, who has been designated to act as the Compliance Officer.

EXHIBIT A

Submitted Pursuant to:

INTERNATIONAL ISOTOPES INC. INSIDER TRADING PLAN

PRE-CLEARANCE TRADING APPROVAL FORM

I, _____(name), seek pre-clearance to engage in the transaction described below:

Acquisition or Disposition (circle one)

Name: _____

Account Number: _____

Date of Request: _____

Amount or # of Shares: _____

Broker: _____

I hereby certify that, to the best of my knowledge, the transaction described herein is not prohibited by the Insider Trading Policy.

Signature: _____ Print Name: _____

Approved or Disapproved (circle one)

Date of Approval _____

Signature:_____ Print Name:_____

Compliance Officer Approval:_____

If approval is granted, you are authorized to proceed with this transaction for immediate execution.

Exhibit 21.1

SUBSIDIARY LIST

Name of Subsidiary	State Incorporation
International Isotopes Idaho Inc.	Idaho
International Isotopes Fluorine Products Inc.	Idaho
International Isotopes Transportation Services Inc.	Idaho
RadQual, LLC	Idaho
TI Services, LLC	Ohio
RadVent, LLC	Idaho
Radnostix, LLC	Idaho

1785 West 2320 South
Salt Lake City, UT 84119
801-972-4800
801-972-8941
www.HaynieCPAs.com

Consent of Independent Registered Public Accounting Firm

We hereby consent to the incorporation by reference in this Annual Report on Form 10-K of International Isotopes, Inc. for the year ended December 31, 2024 of our report dated March 4, 2025 in its Registration Statement on Form S-8 (No. 333-252900, No. 333-228374, No. 333-206369, 333-121335 and No. 333-158575), and Form S-3 (No. 333-142674) relating to the financial statements for the year ended December 31, 2024 listed in the accompanying index.

Haynie & Company

Haynie & Company
Salt Lake City, Utah
March 4, 2025

Exhibit 31.1

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

I, Shahe Bagerdjian, certify that:

1. I have reviewed this annual report on Form 10-K 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: March 4, 2025

/s/ Shahe Bagerdjian
Shahe Bagerdjian, Chief Executive Officer

Exhibit 31.2

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

I, W. Matthew Cox, certify that:

1. I have reviewed this annual report on Form 10-K 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: March 4, 2025

/s/ W. Matthew Cox
W. Matthew Cox, Chief Financial Officer

Exhibit 32.1

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

In connection with the Annual Report of International Isotopes Inc. (the "Company") on Form 10-K for the year ended December 31, 2024, as filed with the Securities and Exchange Commission (the "Form 10-K"), 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-K 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-K fairly presents, in all material respects, the financial condition and results of operations of the Company.

March 4, 2025

/s/ Shahe Bagerdjian
Shahe Bagerdjian
Chief Executive Officer

Exhibit 32.2

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

In connection with the Annual Report of International Isotopes Inc. (the "Company") on Form 10-K for the year ended December 31, 2024, as filed with the Securities and Exchange Commission (the "Form 10-K"), I, W. Matthew Cox, Chief Financial Officer of the Company, certify, in my capacity as such, 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-K 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-K fairly presents, in all material respects, the financial condition and results of operations of the Company.

March 4, 2025

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