INTERNATIONAL ISOTOPES INC
Form 10-K
March 28, 2014

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended December 31, 2013

OR

o 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**
	(IRS Employer Identification Number)

(State or other jurisdiction of incorporation or origination)

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 Exchange Act: None.

Securities registered pursuant to Section 12(g) of the Exchange 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 o NO x

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 o NO x

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 x NO o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). YES x NO o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. o

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

Large accelerated filer o	Accelerated filer o
Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company x

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). YES o NO x

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 28, 2013, the last business day of our second fiscal quarter, was $26,028,969. For purposes of this calculation, all directors and executive officers of the registrant and holders of 5% 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 March 3, 2014, the number of shares outstanding of the registrant s common stock, $.01 par value, was 369,178,724 shares.

Documents Incorporated by Reference

Certain information called for in Part III of this Annual Report on Form 10-K is incorporated by reference to the registrant s definitive proxy statement for the 2014 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, 2013.

ii

INTERNATIONAL ISOTOPES INC.

FORM 10-K

TABLE OF CONTENTS

PART I

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 (the Act). This Act provides a "safe harbor" for forward-looking statements to encourage companies to provide prospective information about themselves so long as they identify these statements as forward-looking and provide meaningful cautionary statements identifying important factors that could cause actual results to differ from the projected results. 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: the commercial opportunity of the depleted uranium and fluorine extraction processing facility, the expected rate of capital expenditure on the depleted uranium project, the estimated capital required to support the planned timeline for the project, the planned start of uranium facility construction, the expected growth in various 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 resume cobalt-60 production and manage costs, 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 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).

Item 1. BUSINESS

General Business and Products Description

International Isotopes Inc. (the Company , we , us and our) was 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; and International Isotopes Transportation Services, Inc., an Idaho corporation.

Our core business consists of six reportable segments which include: Nuclear Medicine Standards, Cobalt Products, Radiochemical Products, Fluorine Products, Radiological Services, and Transportation.

Beginning in 2004, we began a major undertaking to construct the first commercial uranium de-conversion facility in the U.S. At that time, it was our belief that such an undertaking would provide an excellent commercial opportunity to us in the future.

In October 2012, we received the Nuclear Regulatory Commission s (NRC) construction and operating license for the planned de-conversion facility. This is a forty (40) year operating license and is the first commercial license of this type issued in the U.S. 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 we believe that it provides us with a very valuable asset now and when we are ready to resume formal design and engineering work on the plant.

However, there have been several changes in the nuclear industry that have caused us to place near-term engineering work on this de-conversion project on hold. When we began pursuing this project there were three companies planning for construction of new commercial uranium enrichment plants in the U.S. and a fourth company using Silex laser separation technology, and we were communicating with all of them for possible de-conversion agreements to process their tails. These facilities included AREVA Inc. s (AREVA) planned Eagle Rock Facility in Idaho Falls, Idaho, URENCO USA s (UUSA) (formerly known as Louisiana Energy Services or LES) Eunice, New Mexico, facility, United States Enrichment Corporation s (USEC) American Centrifuge project in Piketon, Ohio, and GE-Hitachi s use of a Silex laser separation technology in Wilmington, North Carolina. We were successful in executing a de-conversion service agreement with UUSA that would use approximately 50% of the installed processing capacity of our proposed de-conversion facility. However, plans to obtain additional contracts with the other enrichment companies in order to commit 100% of the planned facility s capacity have been delayed because of the slowdown in nuclear industry growth. Having contracts in place is necessary for us to obtain funding for the project. Both the Fukushima, Japan, disaster and low natural gas prices in the U.S. have negatively impacted the nuclear industry and there is no serious discussion of significant growth in nuclear capacity in the U.S. in the near term. However, we believe that the overseas outlook is quite different. For example, South Korea has announced plans to increase its nuclear capacity, China has completed safety and regulatory review of proposed new plants and is expected to add eleven plants in 2014, and two new plants were approved in 2014 for construction in the United Kingdom. And although the three other commercial enrichment companies that we were in discussions with to secure de-conversion contracts have not moved forward, neither have they cancelled construction plans. We believe that one or more of these companies will resume construction plans on their new enrichment facilities in the next few years and when they do, we will resume contract talks to commit the remaining capacity for our planned de-conversion facility and continue efforts to obtain project financing to proceed with the design and construction of the facility in Hobbs, New Mexico. We expect we will be able to revise our contract dates with URENCO once one of these other enrichment companies plans construction. In the meantime we will focus our efforts upon our other business segments and continue to work towards achieving profitability in those areas.

Although formal design work for the de-conversion facility is on hold, in 2013, we achieved several significant goals in our other business segments. During 2013 we:

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made significant progress to restore cobalt product sales through completion of corrective actions necessary to resume shipments of cobalt targets to our Idaho Falls facility ;

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funded additional engineering studies by the site contractor to evaluate continued irradiation of our cobalt targets;

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obtained additional NRC licensing to carry out field services and as a result realized a significant increase in our Radiological Services revenue in the Radiological Services segment;

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designed and built a portable hot cell that will facilitate a further expansion in our field service capabilities;

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developed a new lightweight flood source in collaboration with RadQual, LLC (RadQual) that will have a product launch in 2014; and

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were successful in further reducing overall Company operational expense.

During 2013, we made significant progress in several of our core business segments and during 2014, we plan to continue efforts to further expand and improve upon these operations. We will continue to invest in these segments and work to reduce production costs and expand sales in each of them. 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 14 in the Notes to our Consolidated Financial Statements which begin on page F-6.

Nuclear Medicine Standards

This segment consists of the manufacture of sources and standards associated with SPECT (Single Photon Emission Computed Tomography) imaging, patient positioning, and calibration or operational testing of dose measuring equipment for the nuclear pharmacy industry. These items include flood sources, dose calibrators, rod sources, flexible and rigid rulers, spot markers, pen point markers, and a host of specialty design items. We manufacture these products for RadQual through an exclusive manufacturing agreement. The agreement provides that we will manufacture sources exclusively for RadQual and will not manufacture products that would directly compete with RadQual sources. The agreement also states that RadQual will only procure sources manufactured by us for distribution to RadQual customers. Should this agreement with RadQual terminate, we would be precluded from competing with RadQual in the nuclear medicine market. For this reason, we have worked to expand revenues from other segments to decrease our risk of dependency on one specific customer. The initial term of the agreement with RadQual expired on December 31, 2008, but the agreement automatically renews each January 1st thereafter unless otherwise terminated by either party with 60 days written notice. In 2007 and 2008, we acquired 24.5% of RadQual.

There are over 5,000 nuclear medicine centers in the U.S. that require these types of products on a regular repeat basis. We have been manufacturing these products for RadQual since 2001. The majority of these sales are to U.S. customers; however, recent years have seen an increase in foreign sales of many products. All of 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. Useful life varies from isotope to isotope and product to product but in most cases averages 18 months to two years. The isotopes used in manufacturing these nuclear medicine products are available from various sources world-wide. In addition to the products themselves, we have developed a complete line of specialty packaging for the safe transport and handling of these products.

RadQual has numerous distributors for direct sales of its products. Formerly, the largest distributor was Technology Imaging Services Inc. (TIS). In December 2010, we formed a 50/50 joint venture with RadQual to acquire the assets of TIS and to use those assets to create TI Services. We believed that this joint venture would provide growth opportunities in existing and future RadQual product lines both domestically and internationally. In both 2012 and 2013, however, TI Services, LLC experienced net losses due to reduced margins on certain non-nuclear medicine related products. During 2013, we were able to stem these losses and will continue those efforts in 2014. Also in collaboration with RadQual, we developed a new light weight imaging source, the Rad-Lite, that we believe will not only enhance our contract manufacturing role with RadQual, but will offer expanded sales opportunities for TI Services, LLC.

Cobalt Products

This segment includes the fabrication of cobalt capsules for teletherapy or irradiation devices, and recycling of expended cobalt sources. Although historically, bulk cobalt sales have accounted for a large percentage of the total revenue from this business segment, during the past two years we have not had any bulk sales because of our inability to pull cobalt material from the Advanced Test Reactor (ATR) which is under the direction of the U.S. Department of Energy (DOE) and its prime operating contractor which operates the ATR. This situation is discussed in further detail

below.

The year-over-year demand for cobalt has continued to increase as a result of the introduction of several new types of cobalt therapy units and we have continued to see robust growth in the demand for cobalt manufactured products for those devices. We continue to explore opportunities to further develop our Cobalt Products sales opportunities through increased production of finished source products. The production, use, transport, and import/export of these products are all heavily regulated, but we have developed an experienced staff of technicians, drivers, and supervisors to comply with the regulations and support cost effective and timely delivery of these products. One reason we established our Transportation segment was to support the delivery of cobalt products.

Historically, most of our cobalt production has been dependent upon the DOE and its prime operating contractor, which controls the ATR operations and, therefore, controls the continued production of cobalt in the government-funded ATR. In June 2012, a leak of a cobalt target belonging to another commercial business resulted in the curtailment of all further cobalt handling and production activities at the ATR pending completion of several corrective actions. The investigation into the leaking cobalt target identified three areas requiring corrective actions. Those areas were: (1) changes to cobalt target handling controls, (2) concerns with continued irradiation of in-process targets, and (3) enhancing the design of future cobalt targets. During 2013, we worked with the contractor to resolve these issues and in October 2013 we were able to resume shipments of cobalt material to our production facility in Idaho Falls, ID. During 2014, we will continue to work with the contractor to complete a new cobalt target design that will be used in the ATR, which should allow irradiation to resume in 2014. We expect that most of the existing in-process cobalt targets will also be able to resume irradiation later in 2014. However, because of the decayed state and physical condition of a few of those targets, we determined that it would be very unlikely that we would receive future value from them and we recorded a $193,000 inventory write-down of cobalt material in December 2013. Because cobalt takes approximately three years to produce, these past interruptions in irradiation will create a gap of approximately one year in our ability to manufacture cobalt products. To mitigate the impact of these delays and interruptions to our cobalt production activities we are investigating alternate sources of cobalt supply, evaluating possible sales of lower activity cobalt already in process, and identifying additional reactors for cobalt irradiation.

Radiochemical Product

This segment includes production and distribution of various isotopically pure radiochemicals for medical, industrial, or research applications. These products are either directly produced by us or are purchased in bulk from other producers and distributed by us in customized packages and chemical forms tailored to meet customer and market demands. Iodine-131 radiochemical accounts for the largest portion by far of revenue within this segment. Our iodine-131 is supplied through an agreement with NTP Radioisotopes (Pty) Ltd. (NTP) in South Africa and is imported as a radiochemical intended for medical applications. Although there are other manufacturers of iodine-131, in August 2010, we entered into a three-year agreement with NTP for the supply of iodine-131 that allows us to purchase iodine at a mutually agreeable pre-determined price and renewed this agreement in August of 2013. Either party may terminate the agreement by giving three months notice prior to the expiration of the term. During the fourth quarter of 2013, NTP experienced a shut-down in its facility in South Africa that produces iodine-131 which directly impacted our radiochemical manufacturing and sales. We were able to secure an alternate source of the product and were able to resume iodine production; however, the unexpected shutdown negatively impacted our iodine-131 sales in the fourth quarter.

Generally, iodine-131 is used in the treatment and diagnosis of various diseases of the thyroid gland such as Graves disease, thyroid cancer and hyperthyroidism. There are also several investigational and clinical trials underway to explore the use of iodine-131 for such applications as the treatment of breast, lung, prostate, and ovarian cancers. Other less significant sales of radiochemical in this segment consist of sales of isotopes such as Cobalt-57 (Co-57), Cesium-137 (Cs-137), Sodium-22 (Na-22), and Barium-133 (Ba-133).

Fluorine Products

We established the fluorine products business segment in 2004 to support production and sale of the gases produced using our Fluorine Extraction Process (FEP). The FEP is a process that produces ultra-high-purity fluoride gas products through a solid-to-solid reaction between depleted uranium tetrafluoride (DUF4) and various solid metal oxides such as silicon. High-purity fluoride gases are in ever-increasing demand for processes such as ion-implantation and chemical vapor deposition and also for the manufacture of organic complexes used in a host of industrial applications and manufacturing processes. The FEP products have very high purity, which makes them ideally suited to these specialty applications.

We acquired seven patents for the FEP in January 2004 and built a pilot production facility in Idaho that began operation in 2006. In 2010, we were granted an additional process patent on FEP based upon information gained through the operation of the pilot facility. Our pilot facility was not used for commercial gas production but instead focused upon production of high-purity products and examined methods of scaling up the size of the production operations in support of the proposed FEP facility in New Mexico. By the end of 2012, we had completed our testing of individual components and analytical processes and in April 2013 we shut down the pilot facility and terminated our lease on that property.

Radiological Services

This segment includes a wide variety of miscellaneous services such as processing gemstones, decommissioning disused irradiation units, and sealed source exchange in irradiation and therapy units. In May 2004, we entered into an exclusive contract with Quali-Tech, Inc., for gemstone processing and, historically, this contract has accounted for the majority of sales in this segment. In May 2012, we modified and renewed the contract, which remains in effect until either party gives a minimum of six months notice to the other that it does not intend to continue the contract. The contract provides that we shall act as the exclusive processor of gemstones for Quali-Tech, Inc., for the term of the contract and two years beyond.

In 2012, we obtained an amendment to our NRC license that allows the performance of certain field service activities in connection with the DOE s Orphan Source Recovery Program (OSRP). These activities include services to support recovery of disused sources under the DOE s OSRP and installation or removal of certain cobalt therapy units. During 2013, we also designed and built a mobile hot cell unit to use in this field service work.

In March 2012, we completed an agreement for exclusive sales of radioactive material transportation containers through a worldwide distributor agreement with Alpha-Omega Services, Inc. (AOS), of Bellflower, California, signed in August 2007. We had been awaiting Nuclear Regulatory Commission (NRC) approval as well as the NRC Certificate of Compliance for the containers in order to begin marketing efforts. The series of AOS model containers should address a wide range of needs for the transportation of radioactive materials and provide us with some expanded business opportunities in the Radiological Services and Cobalt Products segments. Sales of these containers are not expected to begin until sometime later in 2014 as the containers become available.

Transportation

This segment was established in 2006 through our subsidiary, International Isotopes Transportation Services (IITS). IITS was established to provide transportation of our products (such as cobalt sources) and to offer for hire transportation services of hazardous and non-hazardous cargo materials. A major factor in our determination to establish this subsidiary and business segment was the volume of regulations involving the security and tracking of shipments of cobalt. IITS provides us with considerable savings for the transportation of our own products and produces a small revenue stream through the transportation of products for other companies. We anticipate that this

segment will also provide some of the transportation services for our planned depleted uranium de-conversion facility in New Mexico.

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.

Nuclear Medicine Standards

Calibration and Reference Standards are required for the daily operational checks and calibration of the measurement of SPECT imaging devices frequently used in nuclear medicine. Calibration and quality assurance testing is required as a routine part of the normal operations of this equipment to ensure its reliability and accuracy. We exclusively manufacture many of these products for RadQual, which in turn has several distributors who make direct sales around the U.S. We directly ship these products to all 50 states and several overseas locations. There is only one other producer of these products in the world that directly competes with us for these products. Most of the products manufactured by our competitor are similar in design to our products because all must meet Original Equipment Manufacturer (OEM) dimensional and performance standards. However, we attempt to differentiate our products from our competitor s products through increased levels of quality control and customer service. We received ISO-9000 and ISO-13485 quality program certifications in 2011 that have allowed us to start selling these products into several foreign countries that require this additional quality certification for manufacturers.

In December 2010, we formed TI Services, LLC, a joint venture with RadQual, which is expected to continue as a major distributor of products in the field of nuclear medicine and nuclear cardiology. TI Services, LLC experienced net losses in 2012 and in 2013. However, we have implemented some price changes and cost control measures which have decreased these losses. In 2013, in collaboration with RadQual, we developed a new flood source product that will be marketed by TI Services, LLC, which we believe will further improve its financial performance for 2014.

Cobalt Products

Historically, we have sold high-activity bulk cobalt to a customer that used it to fabricate several models of sealed sources for medical and industrial applications. However, with recent problems at the DOE s ATR, we have not been able to continue irradiation of our cobalt targets housed at that facility and so have been forced to halted bulk cobalt sales. We therefore recorded no bulk cobalt sales in 2012 or in 2013. With the cobalt material we were able to obtain in 2013 we manufactured a wide range of sealed source products. These products include applications such as radiation therapy, security examination, and blood sterilization. While there are other technologies available to provide external radiation therapy, there are several state-of-the-art devices that continue to depend on cobalt sources for several specialized applications. There are currently no other producers of high specific activity cobalt in the U.S. However, there are at least three significant producers in other parts of the world. There is only one other company in the U.S. currently licensed to handle large quantities of cobalt.

In addition to manufacturing cobalt sources, we recycle used cobalt sources by recovering the cobalt for re-use in the manufacture of new sealed sources for teletherapy devices, irradiators, and other source applications. We are the only company in the U.S. that provides this unique service. There has been a significant increase in regulation by the NRC in recent years that has created a significant barrier to any new entrants to this market. We expect growth in the demand for cobalt in several of the newer applications, coupled with an expected decline in reactors around the world that are capable of producing this type of high-activity material. to significantly increase the demand for our cobalt products in the next 5 years. Nonetheless, we are at present dependent upon our contract relationship with the DOE for access to its ATR in Idaho for continued cobalt production. The interruption to cobalt production experienced in

2012 has significantly impacted our Cobalt Products business segment. This impact continued to be felt during 2013 but will be improved significantly in 2014 as some processing and sales resume. However, the impact to cobalt production could be felt through 2016 depending upon our ability to resume irradiation of cobalt targets, start new irradiation cycles, and locate alternative sources of supply.

Radiochemical Products

We typically supply radioisotope products in bulk form. The markets for most radiochemicals are 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; or (3) further process and include the radioisotope products into a pharmaceutical product for U.S. Food and Drug Administration (FDA)-approved therapy or imaging. We are the only U.S. company that supplies iodine-131 radiochemical directly to radiopharmacies. There is one major foreign company that produces a similar pharmaceutical product that competes with our sales. Continuation of business in this segment is highly dependent upon maintaining a low-cost, high-quality product meeting all of the current Good Manufacturing Practices (cGMP).

Fluorine Products

We are developing our Fluorine Products segment in conjunction with uranium de-conversion in order to take advantage of the anticipated need for depleted uranium de-conversion services. Our FEP patents provide a unique opportunity to provide certain high-purity fluoride compounds while also offering a for fee de-conversion service to the uranium enrichment industry. Although during 2013 we curtailed the formal engineering work on the planned de-conversion facility, we believe that there will be a resumption of nuclear growth overseas that will positively impact the front end of the nuclear fuel cycle. Once that occurs the ground work we have completed on the depleted uranium de-conversion and fluorine extraction project should put us in an excellent position to take advantage of our position in the industry and should serve to justify the financial investment in this uranium de-conversion project in the future. During 2012, we completed testing of certain process parameters and demonstrating the purity of the FEP products and in 2013 we closed our pilot facility and terminated our lease on that property.

Radiological Services

Historically, most of our radiological services have been performed in support of gemstone processing for Quali-Tech, Inc. Although we have reported a decline in gemstone processing in recent years, volumes increased significantly in 2013 as demand for luxury items such as jewelry increased. Although we do anticipate strong gemstone processing revenues in 2014, we expect that most of the revenue within this segment will be the result of field service work.

Starting in 2012, we obtained our first amendment to our NRC license to permit certain field service activities. In 2013 we were awarded several contracts for field service activities in connection with the OSRP. During 2013, we also designed and built a mobile hot cell unit for use in this field service work and we have requested an additional amendment to our NRC licenses to support a further expansion of these field service activities. In 2014 and beyond we will be working to further increase these field service opportunities in the U.S. and abroad and expect that field services will be the major source of revenue within this business segment.

While there are other companies that compete with us for field services, we believe the addition of the portable hot cell gives us a unique competitive advantage in this area.

Transportation

IITS was formed in order to support transportation of our own products and to provide for hire transportation services. IITS specializes in the transportation of hazardous, radioactive materials including large cobalt shipments. These types of shipments face a significant amount of increased new regulation and enhanced security requirements and IITS is well suited to meeting these requirements while significantly reducing the costs of transport to us. IITS has specially trained drivers and specially equipped vehicles intended to meet the new standards for transportation of large cobalt shipments. Therefore, IITS is capable of providing unique transportation services that we believe only one or two other commercial carriers in the U.S. can also provide. The transportation segment directly supports the sale and delivery of our cobalt products and the conduct of field service projects.

Government Regulation

Licensing

We have obtained two broad scope materials licenses from the NRC that permit use and possession of by-product material, as well as licenses that permit the exempt distribution of irradiated gemstones, import and export of certain radioactive materials, a wide range of field service activities, and Type B shipments of radioactive materials. The first broad scope material license covers calibration and reference standard manufacturing and distribution, radioisotope processing and distribution, large scale cobalt processing and recycle operations, radioactive gemstone processing, environmental sample analysis, certain field service activities, and research and development. The second broad scope materials license specifically covers FEP production under our subsidiary, International Isotopes Fluorine Products, Inc. This license is specific to the handling of fairly large quantities of depleted uranium in various chemical forms. The exempt distribution license permits the direct release of irradiated gemstones into the U.S. without export. All of our existing licenses and permits are adequate to allow current business operations. The planned uranium de-conversion facility will require a ground water permit from the state of New Mexico before operation. As a condition of our NRC licenses in Idaho, we are required to provide financial assurance for decommissioning activities. We currently fulfill this license requirement with a surety bond which names the NRC as beneficiary and which is supported with restricted certificates of deposit in an amount equaling one half of the face value of the bond. 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.

In October 2012, we were granted a Part 40 construction and operating license by the NRC for the proposed depleted uranium de-conversion and FEP production facility. The facility, which is to be located in Lea County, New Mexico, is proposed to initially de-convert up to approximately 11 million pounds of depleted uranium hexafluoride (DUF_6) annually into fluoride products and depleted uranium oxides (DUO). Further engineering work on this facility was placed on hold in 2013 until additional contracts for utilization of the facility can be obtained. There is no specific timeline required by the NRC for the start of construction on this project.

Regulation of Radioisotope Production Waste

All of our manufacturing processes generate some radioactive waste. We must handle this waste pursuant to the Low Level Radioactive Waste Policy Act of 1980, 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 and are ultimately applied at the time of disposal. 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.

A surety bond has been used to provide the financial assurance required by the NRC for our Idaho facility license for decommissioning upon termination of operations and a similar mechanism will be required to fund the decommissioning of the new facility.

Other Regulations

We are registered as a medical device manufacturer through the FDA for several of our nuclear medicine reference and calibration standards. We are registered with the U.S. Department of Transportation 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 and are registered with the FDA as an Active Pharmaceutical Ingredient (API) manufacturer. Our Idaho Falls facility is also registered with the FDA as a Manufacturing facility.

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.

Employees

As of December 31, 2013, we had 22 full-time employees.

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 and our own IITS subsidiary for delivery of our products. For smaller quantities of material, and overnight and next-day delivery, we utilize other commercial carriers. For our products that involve large quantities of radioactive material, most commonly cobalt-60, that invoke certain special transportation requirements, we use our IITS transportation subsidiary. The creation of the IITS subsidiary has produced additional revenue in for-hire operations and decreased costs by allowing us to transport our own products more cost-effectively than other commercial carriers.

Dependence on Customers

During 2013, one major customer, RadQual, accounted for 44% of our total gross revenue. This total includes both sales under an exclusive sales agreement with RadQual and its sales as a distributor of our products and also includes sales reported by TI Services, LLC, our joint venture with RadQual. We do not believe we are dependent upon the sales this customer makes as a distributor because we have the option of terminating the distributor relationship and assuming direct sales of the product. Sales under exclusive contract with RadQual represent, 25%, and 23% of our total gross revenues for the years ended December 31, 2013 and 2012, respectively. Combined sales, on which we are dependent, to our three largest customers, accounted for 55% of our total gross revenues in 2013 and accounted for 52% of our total gross revenues in 2012. We are making efforts to reduce our dependency on a small number of customers by expanding sales in both domestic and foreign markets and through our establishment of the joint venture, TI Services, LLC, to expand distribution of products. We have also put in place an additional sales agreement with one customer that we expect will expand the sale of cobalt products and create the additional opportunity for revenue from new radiological services.

Patents, Trademarks, Licenses and Royalty Agreements

In 2004, we obtained certain patents related to the FEP. In July 2010, we were granted a new patent on the FEP process which provides patent protection of this intellectual property through 2019. These patents will be important to our future plans to build upon FEP production capacity including our planned construction of the first commercial depleted uranium de-conversion and fluorine extraction facility in the U.S. We believe this will provide a commercial opportunity once companies resume planning and construction of new uranium enrichment facilities in the U.S. In 2009, patent applications were made in Brazil, Canada, China, Europe, Japan, Russia, and South Africa. In 2013, the FEP process patent was granted in Russia. The applications in all of the other countries mentioned are still in process.

Research and Development

We had research and development expenses totaling $706,048 in 2013, compared with $990,021 in 2012. These expenses were primarily associated with engineering, design, and licensing activities for our planned depleted uranium de-conversion and FEP facility.

In years prior to 2011, we expensed all costs related to the continued development of the uranium de-conversion facility project as research and development expenses. These expenses included all Idaho FEP facility operations as well as facility design, product market development, and NRC license application review costs. During 2011, when it was determined by management that the project had progressed to a point where it was considered very likely that the NRC license for the de-conversion facility would be issued in 2012, these research and development costs were capitalized. During 2013, all such expenses were capitalized and, once we resume further work on the project, we will continue to capitalize these expenses in the future.

Available Information

Our internet website address is http://www.internationalisotopes.com. Our 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 Securities Exchange Act of 1934, as amended (the Exchange Act) are available free of charge through our website as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Information on our website is not incorporated by reference into this 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 actually occur, our business, financial condition and operating results could be materially adversely affected.

Risks Related to Our Proposed De-Conversion and FEP Produced Fluoride Gas Business

We will need to raise additional funds to complete the construction of our de-conversion and FEP facility. We need to secure more customer contracts and raise approximately $125 million in additional funds to complete the design and construction of a de-conversion facility with a production-scale FEP operation. We may not be able to raise the additional capital required to complete the facility on acceptable terms, or at all. In addition, the total funds required to complete this project have been based upon early preliminary estimates and, while we believe these estimates are conservative, there can be no assurance that unforeseen expenses will not be incurred and additional funding will not be required to complete the project.

We do not have an operating history with respect to our strategy to combine de-conversion services and FEP-produced fluoride gas products and this business may not succeed. We have no operating results with respect to providing de-conversion services or producing high volumes of fluoride gas products using FEP to date and, therefore, we do not have an operating history upon which you can evaluate this business or our prospects. Our prospects must be considered in light of the risks and uncertainties encountered in entering a new line of business. Some of these risks relate to our potential inability to:

construct our planned de-conversion and FEP production plant, including the effective management of the cost of the design and construction of the facility, and obtain the additional financing necessary for such construction;

maintain the necessary regulatory approvals for the facility and the ongoing operations of the facility;

obtain the groundwater permit from the state of New Mexico;

produce commercially economic volumes of high-purity fluoride gas using FEP;

effectively manage this new business and its operations;

successfully establish and maintain our intended low-cost structure;

successfully obtain disposal services for our depleted uranium waste stream; and

successfully address the other risks described throughout this Annual Report.

If we cannot successfully manage these risks, our business and results of operations and financial condition will suffer.

The market for our de-conversion services may be adversely affected if planned enrichment facilities that would create by-products suitable for our de-conversion services are not completed. We plan to build a de-conversion and FEP production plant, in part, to process the anticipated DUF_6 by-product from certain enrichment facilities being planned by several companies, including USEC, AREVA and GE-Hitachi Nuclear Energy's Global Laser Enrichment. While we have an agreement in place with UUSA and that facility is in operation, additional contracts will be required to utilize the full capacity of our planned facility. If none of the other anticipated enrichment facilities are completed, we may not have sufficient demand for our de-conversion services to realize the expected economic benefit from our planned de-conversion and FEP production plant.

We currently have only one contract to provide de-conversion services to an enrichment firm. We currently have only one effective de-conversion services agreement with UUSA. The agreement is conditional upon, among other things, each party obtaining necessary third party and government approvals, UUSA obtaining the approval of the NRC to the amendment of a provision in its materials license that prohibits shipments of depleted uranium to de-conversion facilities employing anhydrous hydrofluoric acid in the de-conversion process, and our meeting certain performance milestones in the construction and start-up of the planned facility. The initial term of the agreement extends for a period sufficient to cover five years of de-conversion services once our planned uranium de-conversion facility is operational, based on operations starting no later than January 1, 2014. UUSA has indicated they will amend the agreement commitment dates once we secure an additional de-conversion agreement and establish firm dates for start of construction. Because the start of construction of the project has been delayed, and we did not meet the January 1, 2014 deadline, we will need to renegotiate this term of the contract with UUSA. If we cannot demonstrate certain production capacities in accordance with the agreement, UUSA has the option to terminate the agreement and we would have no opportunity to cure pursuant to the terms of the agreement.

There is no history of large-scale commercial fluoride gas production utilizing FEP. We have successfully demonstrated the feasibility of using FEP to produce some fluoride gases and Starmet Corporation (Starmet), which originally developed and patented the technology, also used FEP to produce a fluoride gas. However, FEP has not been used for large-scale commercial production of the size and magnitude envisioned in conjunction with the de-conversion process and there may be technical issues and process challenges related to the utilization of FEP for large-scale commercial production. Unforeseen issues associated with constructing and scaling up these new FEP operations could significantly impact our proposed schedule and our overall ability to produce high-purity fluoride gas in the quantities anticipated.

Prior to the start of operations of the facility, we must obtain a Ground Water Permit from the State of New Mexico, and we cannot guarantee the amount of time required to obtain this permit from the State of New Mexico for operation of these facilities. The operation of the planned depleted uranium de-conversion facility requires a ground water permit from the State of New Mexico. There is no assurance that the ground water permit will be issued to us by the State of New Mexico. We also have no control over the actual time required by the State of New Mexico to review and approve the application for the ground water permit. Failure to obtain the permit, or any delay in obtaining the permit, could delay the construction of our planned depleted uranium de-conversion facility, thereby delaying revenue-generating operations at the facility.

The DOE is obligated to take depleted uranium from enrichment companies. The DOE has constructed two depleted uranium de-conversion facilities. These facilities are obligated to process depleted uranium produced from United States commercial uranium enrichment facilities. We cannot assure you that enrichment companies will not select the DOE as their de-conversion service provider. If we are unable to meet the milestones required by our de-conversion services agreement with UUSA and it terminates that agreement, and other enrichment companies select the DOE as their de-conversion services provider, we will not be able to realize the expected economic benefit from our planned de-conversion and FEP production plant.

We will be handling large quantities of DUF_6 and fluoride gases, which are radioactive and hazardous materials, respectively, and are subject to intense regulation. The hazardous nature of DUF_6 and fluoride gases affects the actions we are required to take for licensing, air permitting , environmental review, emergency response, liability insurance, personnel training, and generally increases the level of concern by the general public with respect to our handling of these materials. All of these factors complicate the licensing and operations processes and involve a host of additional regulatory factors that could affect the timeline for completing our de-conversion and FEP facility and cost estimates, and involve political pressures that could negatively influence operations. Additionally, the NRC is revising its regulations on the disposal of depleted uranium waste at Low Level Radioactive Waste (LLRW) disposal facilities that accept substantial quantities of depleted uranium. Any changes to the current regulations may result in increased disposal costs that we intend to pass through to our customers, which, depending on the significance of the increased cost, may cause potential customers to continue to store their DUF_6 rather than pay for de-conversion and disposal services.

We will be subject to competition from the DOE and other companies. While there are no currently operating commercial DUF_6 de-conversion facilities in the United States, the DOE is operating two de-conversion plants intended to process DUF_6 from the DOE s existing 1.5 billion-pound stockpile. Additionally, AREVA currently operates a de-conversion plant in France, UUSA is constructing a facility in the U.K., and the State Atomic Energy Corporation ROSATOM has constructed a facility in Russia. We cannot assure you that the operators of the existing DUF_6 de-conversion facilities will not build additional facilities to expand their operations and compete with us in providing de-conversion services or that commercial enrichment companies will not choose to ship their depleted DUF_6 overseas for processing in France, the U.K., or Russia.

We currently hold conditional title to the property in Lea County, New Mexico where the proposed plant is to be constructed. The property location for our planned facility is located in Lea County, New Mexico. Lea County, New Mexico has transferred the property to us under the provisions of the New Mexico Local Economic Development Act, Project Participation Agreement. We are obligated to meet certain performance objectives; namely starting Phase I construction no later than December 31, 2014, and completing Phase I and hiring at least 75 employees by December 31, 2015, in order to retain title to the property. We are currently in discussions with Lea County to extend the deadlines for these performance objectives and the county has indicated its willingness to do so. If the agreement is not revised, we would have an option to purchase the property at its appraised value or let ownership revert to the county. If we do not retain title to the property, it will have a material adverse impact on our planned de-conversion and FEP project.

After completing Phase I of our planned de-conversion and FEP production facility, we may not have sufficient earnings to complete additional planned phases of the facility. We plan to integrate the de-conversion of DUF_6 with FEP in multiple phases. After funding Phase I, we plan to fund additional phases through earnings. If we do not realize the earnings necessary to fund these additional phases, we may need to find other sources of capital. We cannot assure you that we will be able to raise the additional capital required to complete these phases on acceptable terms, or at all. In addition, the total funds required to complete these phases have been based upon early preliminary estimates and there can be no assurance that unforeseen expenses will not be incurred and any additional funding required to complete these phases will be obtained.

Our business may be harmed if we fail to protect our proprietary FEP technology utilized in our planned de-conversion and FEP production facility. We rely on patents to protect our intellectual property rights to the FEP technology to be used in our planned de-conversion and FEP production plant. Although we have filed international Patent Cooperation Treaty (PCT) applications to seek international protection for the FEP process in certain countries, we cannot be certain that our competitors will not be able to design around our patents and that the laws of some countries in which our FEP patents are or may be practiced will protect our products or intellectual property rights to the same extent as do the laws of the United States, increasing the possibility of piracy of our patents. Although we intend to vigorously defend our intellectual property rights, we may not be able to prevent misappropriation of our FEP technology. Our competitors may also independently develop technologies that are substantially equivalent or superior to our technology.

Risks Related To Our Current Business Operations

We are dependent on various third parties in connection with our business operations. The production of high-specific activity cobalt is dependent upon the DOE, and its prime-operating contractor, which controls the Idaho reactor. Current activity at the Idaho reactor may continue to affect the supply of cobalt material needed for the manufacture of cobalt sources. Loss of the ability to use, or cost-effectively use, these irradiation services would significantly impact our cobalt products business segment because there is not currently another reactor available in the United States that is capable of providing this type of service for us. Our nuclear medicine calibration and reference standard manufacturing is conducted under an exclusive contract with RadQual, which in turn has agreements in place with several companies for marketing and sales. Our radiochemical iodine is supplied through two supply sources. Unanticipated contract terminations by any of these suppliers and 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 our current business operations. During 2012 and 2013 sales to RadQual represented 44% and 41% of our total gross revenues. Combined sales to our three largest customers accounted for 55% of our total gross revenues during 2013. Combined sales to these three customers accounted for 52% of gross revenue in 2012. 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 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 United States. Most of our radiochemicals are also manufactured by several other companies in the world, and there are other suppliers of high-purity fluoride products. Each of our competitors has significantly greater financial resources that could give them a competitive advantage over us.

Risks Related To Our Company Generally

We have incurred, and may continue to incur, losses. With the exception of 2002, we have incurred net losses for most fiscal periods since our inception. From inception through December 31, 2013, we have generated $76,076,885 in revenues and an accumulated deficit (including preferred stock dividends and returns) in the amount of $116,697,147. 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 results. The availability of necessary working capital, however, is subject to many factors beyond our control, including our ability to obtain favorable financing, 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.

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 damages that may be caused by hazardous substance releases and exposures. The materials used in our operations subject us to risks of environmental contamination that 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. A surety bond has been used to provide the financial assurance required by the NRC for our Idaho facility license for decommissioning upon termination of operations and a similar mechanism will be required to fund the decommissioning of the new facility . However, if a contamination event occurred within, or outside, of our facility, we would 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 results of operations.

We are dependent upon key personnel. Our ongoing operations are dependent on Steve T. Laflin, President and Chief Executive Officer. The loss of Mr. Laflin could have a material adverse effect on our business. We have a $2 million key man life insurance policy on Mr. Laflin and an employment agreement that extends through February 28, 2017. However, there is no assurance that we will be able to retain Mr. Laflin 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. For instance, our topaz gemstone processing is affected by the demand for luxury items such as jewelry as well as by the instability of foreign markets which are key in the manufacture of products using irradiated gemstones.

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 to provide for 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 of nuclear medicine and calibration standards sales and radiochemical products.

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, and 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 of our manufacturing processes generate some radioactive waste. We must handle this waste pursuant to the Low Level Radioactive Waste Policy Act of 1980, 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 and are ultimately applied at the time of disposal. The NRC is revising its regulations on the disposal of depleted uranium waste at LLRW disposal facilities that accept substantial quantities of depleted uranium. If

commercial LLRW disposal facilities are not readily available to us, we may not be able to provide the de-conversion services at the level assumed by our business model.

***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 not at times result in liability under 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.

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 the Comprehensive Environmental Response, Compensation, and Liability Act, the Resource Conservation and Recovery Act and state statutes such as the Idaho Hazardous Waste Management Act, the Low Level Radioactive Waste Policy Act of 1980, NRC regulations concerning various irradiated, radioactive, and depleted uranium materials, and United States Department of Transportation 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 incur, 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. 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.

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.

Financial Accounting Standards. Our financial results can be impacted by new or modified financial accounting standards.

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, including our new uranium de-conversion and fluoride gas production business, if a successful product liability claim were brought against us in excess of our available insurance coverage or established reserves, it would have a material adverse effect on our business and financial results.

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 debt 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.

Our earnings, cash flow and financial position are exposed to financial market risks worldwide, including interest rates. Fluctuations in domestic and world markets could adversely affect interest rates and impact our ability to obtain credit or attract investors. Such market risk could have a negative impact on future business opportunities including our ability to raise additional capital for planned business expansion. We also purchase some of our radiochemical products from overseas suppliers and the price of those products could be adversely affected through changes in currency exchange rates.

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 technologies 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 a number of factors, including 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 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 technologies or 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.

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 has historically been quoted on the Over The Counter Bulletin Board® (OTCBB) under the ticker symbol INIS.OB. 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, 2013, there were approximately 14,200,000 shares of common stock issuable upon exercise of vested stock options outstanding, at a weighted-average exercise price of $.09 per share. An additional 13,275,396 shares were reserved for issuance under our 2006 Equity Incentive Plan and our International Isotopes Inc. Employee Stock Purchase Plan as of December 31, 2013. 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 fund design, licensing and construction of our planned uranium de-conversion plant. Any such issuances will have the effect of further diluting the interest of the holders of our securities. Also outstanding as of December 31, 2013, are Series H Warrants for the issuance of 1,913,892 shares of common stock, Series I Warrants for the issuance of 12,924,887 shares of common stock, Series K warrants for the issuance of 2,419,172 shares of common stock, and Series L warrants for the issuance of 10,000,000 shares of common stock.

Item 1B. UNRESOLVED STAFF COMMENTS

We are a smaller reporting company, as defined by Item 10(f)(1) of Regulation S-K, and therefore are not required to provide the information required by this item.

Item 2. PROPERTIES

During 2013 we leased two properties in Idaho Falls, Idaho. However, one of these leases was terminated in April of 2013. We hold the conditional title to 640 acres of land in Lea County, New Mexico. The following paragraphs provide a brief summary of these properties.

4137 Commerce Circle, Idaho Falls, ID The facility located on this property houses our main corporate headquarters and all of our current manufacturing operations. We hold this property pursuant to a lease that extends through April 2021. The facility was new when leased in March 2001 and remains in excellent condition. We have a purchase option and a right of first refusal on this property that allows us to purchase this property at any time for a stated amount.

1359 Commerce Way, Idaho Falls, ID The facility located on this property housed our FEP pilot production operations. The facility was first leased in February 2004 and we held this property pursuant to a lease that extended through April 2013. The lease included an option for us to extend the lease for one additional year upon the April 30, 2013 expiration date; however, we declined to exercise the option and terminated the lease at that time.

Land - Lea County New Mexico In August 2011, we received land from Lea County, New Mexico, pursuant to a Project Participation Agreement whereby the land was deeded to us for no monetary consideration. In return, we committed to construct a uranium de-conversion and FEP facility on the land. In order to retain title to the property, we must begin construction of the uranium de-conversion facility no later than December 31, 2014, and complete Phase I of the project and have hired at least 75 persons to operate the facility no later than December 31, 2015, although commercial operations need not have begun by that date. We are currently in discussions with Lea County to extend the deadlines for these performance objectives. If we do not succeed in modifying the dates in the agreement then we may, at our sole option, either purchase or re-convey the property to Lea County, New Mexico. The purchase price of the property would be $776,078, plus interest at the annual rate of 5.25% from the date of the closing to the date of payment. If we timely perform the project commencement requirements by a modified date, Lea County, New Mexico will execute a full and complete release of the mortgage on the property. We have not recorded the value of this property as an asset and will not do so until such time that sufficient progress on the project has been made to meet our obligations under the agreements for permanent transfer of the title.

Item 3. LEGAL PROCEEDINGS

We are not party to any material pending legal proceedings.

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 quoted on the OTCBB under the trading symbol INIS.OB. High asked prices and low bid prices reported by the OTCBB during the periods indicated are shown below, which reflect inter-dealer prices, without retail mark-up, mark-down, or commission and may not reflect actual transactions:

Fiscal Year	Quarter	High	Low
2013	1st	$0.20	$0.12
2013	2nd	$0.16	$0.11
2013	3rd	$0.16	$0.09
2013	4th	$0.11	$0.02
2012	1st	$0.32	$0.09
2012	2nd	$0.24	$0.11
2012	3rd	$0.23	$0.14
2012	4th	$0.22	$0.06

As of March 3, 2014, there were 546 holders of record of our common stock. 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 or retain funds for research and development and expansion of our business. We do not anticipate paying any dividends to shareholders for the foreseeable future.

Item 6. SELECTED FINANCIAL DATA

We are a smaller reporting company, as defined by Item 10(f)(1) of Regulation S-K, and, therefore, are not required to provide the information required by this item.

Item 7.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion of the results of the company's 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 report.

Our belief is that transparency and clarity are key goals of responsible financial reporting. We are committed to these goals which we believe will provide our shareholders with informative financial disclosures and present an accurate overview of our financial position and operating results.

Management s Discussion and Analysis of Financial Condition and Results of Operations is intended to provide readers of our financial statements with a clear explanation, from the perspective of our management, of our financial condition, results of operations, liquidity, and certain other factors that may affect our future results. The following information is presented in six sections:

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Overview

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Business Strategy and Core Philosophies

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Results of Operations

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Liquidity and Capital Resources

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New Accounting Standards

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Outlook for 2014

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Overview

We manufacture a full range of nuclear medicine calibration and reference standards, a wide range of products including cobalt teletherapy sources, and a varied selection of radioisotopes and radiochemicals for medical research, and clinical devices. We hold several patents for a fluorine extraction process that we are planning to use in conjunction with a new planned commercial depleted uranium de-conversion facility, and provide a host of transportation, recycling, and processing services on a contract basis for clients. A more detailed description of each of these product lines and services can be found in Item 1, Business under General Business and Products Description, within this report.

In 2013, we continued to develop our various business segments, make investments into facilities and infrastructure, launch new products, and enter into new agreements that we believe will increase our future revenues. Although a detailed description of segment performance can be found in the Results of Operations section of this report, the following list highlights some of our more significant accomplishments in 2013:

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In February 2013, we entered into a securities purchase agreement with certain private investors pursuant to which we sold convertible debentures for an aggregate of $1,060,000.

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In July 2013, we obtained a grant in the amount of $80,000 from the State of New Mexico to install groundwater monitoring wells and initiate water sampling at the site of the proposed de-conversion facility.

During the fourth quarter of 2013 we again began receiving cobalt material from the ATR at our Idaho Falls facility and resumed the manufacture and sale of sealed sources.

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We successfully designed, constructed, and obtained an NRC license for, the use of a portable hot cell in the performance of certain field service source removal activities and successfully contracted to perform this service in December 2013.

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We developed a new lightweight flood source in collaboration with RadQual and will launch this product in 2014.

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We continued to reduce our overall operational expense in comparison to the prior year.

Business Strategy and Core Philosophies

Broadly defined, our business strategy is to continue to build our reputation as a leader in the nuclear medicine and nuclear products industries, as well as seek ways to improve our customer service and expand our market share, with the ultimate goal of providing greater returns to our shareholders. Specifically, we are continuously working with our customers to improve and develop products to better serve the needs of the end user which, ultimately, will boost product sales. A key part of our near- and long-range business strategy is to secure customer contracts and pursue financial support so that we can resume work on building the nation s first commercial depleted uranium de-conversion and fluorine extraction processing facility.

Our core philosophy is to strive to provide high quality products and services as a profitable and environmentally conscious business, while offering excellent customer service and the highest quality working environment to our employees. We operate under an ISO Quality Management System under which we seek to continuously improve our product manufacturing processes.

Results of Operations

Summary for 2013:

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Revenue in 2013 was approximately $6.8 million.

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Net loss for 2013 increased by approximately 10% compared to 2012.

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Our total gross profit rate increased from 35% in 2012 to 37% in 2013.

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Our operating costs, exclusive of research and development expense, decreased approximately 5% in 2013. Including research and development expense in total operating expense, overall operating costs decreased by approximately 10%.

Year ended December 31, 2013 compared to year ended December 31, 2012

The following table presents comparative Revenues for the years 2013 and 2012:

Revenues	**For the year ended December 31, 2013**	**For the year ended December 31, 2012**	**$ change**	**% change**
Radiochemical Products	$ 1,636,535	$ 1,677,291	$ (40,756)	-2%
Cobalt Products	1,080,011	1,369,130	(289,119)	-21%
Nuclear Medicine Standards	3,249,126	4,169,710	(920,584)	-22%
Radiological Services	763,980	177,871	586,109	-330%
Flourine Products	-	-	-	0%
Transportation	119,498	227,932	(108,434)	-48%
Total Segments	6,849,150	7,621,934	(772,784)	-10%
Corporate revenue	-	-	-	0%
Total Consolidated	$ 6,849,150	$ 7,621,934	$ (772,784)	-10%

Revenues

Total revenues in 2013 were $6,849,150, compared to $7,621,934 in 2012, which represents a decrease of $772,784, or approximately 10%. Each of our business segments reported decreased revenue in 2013, with the exception of our Radiological Services segment. The details of each segment are discussed below.

Revenues	For the year ended December 31, 2013	% of Total Revenues 2013	For the year ended December 31, 2012	% of Total Revenues 2012
Radiochemical Products	$ 1,636,535	24%	$ 1,677,291	22%
Cobalt Products	1,080,011	16%	1,369,130	18%
Nuclear Medicine Standards	3,249,126	47%	4,169,710	55%
Radiological Services	763,980	11%	177,871	2%
Flourine Products	-	0%	-	0%
Transportation	119,498	2%	227,932	3%
Corporate revenue	-	0%	-	0%
Total Segments	$ 6,849,150	100%	$ 7,621,934	100%

Radiochemical Products

Sales of radiochemical products accounted for approximately 24% of our total sales revenue in 2013 and decreased by $40,756, or approximately 2% to $1,636,535, as compared to $1,677,291 in 2012. Sales performance in this segment was driven by sales of iodine-131. Radiochemical sales through the first three quarters of the year had been trending slightly better than the prior year. However, during the fourth quarter our main supplier experienced an event that caused temporary curtailment in its production and forced us to identify and obtain materials from an alternate supplier with competitive pricing. While we were able to resume a normal level of production and sales before year-end, the interruption caused a significant decrease in revenue for the period and ultimately resulted in a decrease in revenue within this segment for 2013 compared to the prior year.

Of our total iodine-131 sales for 2013, approximately 79% of those sales were made through one distributor, RadQual, of which we own a 24.5% share. Should RadQual discontinue sales of iodine-131, or if we terminate its distributor role, we have the option to market and sell this product directly to customers.

Cobalt Products

Total cobalt products sales accounted for approximately 16% of our total sales revenue in 2013. Please refer to the previous table which presents this comparative data.

Total sales of Cobalt Products decreased by 21% to $1,080,011 in 2013, as compared to $1,369,130 in 2012 primarily as the result of our very limited supply of cobalt material. During 2012 we were unable to supply cobalt products due to an interruption in cobalt production at the ATR, a DOE-managed facility. The interruption in production was attributable to a curtailment of cobalt handling pending investigation into the damage of a cobalt target that occurred in the ATR in 2012. Throughout 2013, we worked with the DOE and the subcontractor to resolve both of these issues and during the fourth quarter of 2013 were able to resume shipments of cobalt targets from the ATR to our facility. The decrease in availability along with the increase in cost of obtaining this material has negatively impacted our sales, however we will continue to work towards a full resumption of cobalt target irradiation, the implementation of a new cobalt target design with the DOE, and to pursue alternate reactors for production of this important isotope.

In December 2013, we reviewed the current status of all cobalt targets and made the determination to write off inventory costs assigned to some targets that had decayed or were in a physical condition that we deemed unlikely to resume irradiation. The total amount of cobalt target material written off was $193,982. Because cobalt takes several years to produce, the past interruption in cobalt irradiation will likely cause about a one year gap in new cobalt production. The time length of this gap is dependent upon our ability to resume irradiation of in-process targets and restart irradiation of new cobalt targets and cannot be determined precisely at the present time.

Nuclear Medicine Standards

Sales of nuclear medicine standards accounted for approximately 47% and 55%, of our total sales revenue in 2013 and 2012, respectively. Sales in this segment decreased by $920,584, or approximately 22%, to $3,249,126 in 2013, as compared to $4,169,710 in 2012. This year-to-year comparison includes sales from TI Services, LLC, a 50/50 joint venture that we formed with RadQual in December 2010, to distribute products and services for nuclear medicine, nuclear cardiology and Positron Emission Tomography (PET) imaging. The following table presents 2013 and 2012 sales for the nuclear medicine standards segment:

Nuclear Medicine Standards	**For the year ended December 31, 2013**	**For the year ended December 31, 2012**	**$ change**	**% change**

Source Sales	$	1,732,086	$	1,779,196	$	-47,110	-3%
TI Services LLC		1,517,040		2,390,514		-873,474	-37%
	$	3,249,126	$	4,169,710	$	-920,584	-22%

TI Services, LLC sales for 2013 were $1,517,040 as compared to $2,390,514, for 2012, a decrease of $873,474, or approximately 37%. This decrease in TI Services, LLC sales is largely attributable to a drop in sales of paper products used in nuclear medicine imaging, which is the result of clinics shifting towards maintaining electronic records. We are working closely with RadQual, our partner in the TI Services, LLC joint-venture, to develop new products to market through TI Services, LLC. One such new product, a new light flood source, will be introduced early in 2014. We expect that, with the introduction of this new product, we will see a significant improvement in source revenue. Sales of flood sources increased to $1,476,043 in 2013, from $1,448,179, in 2012. This is an increase of $27,864, or approximately 2%, and we believe that this small increase was the result of some clinics finding it necessary to replenish expended sources.

Radiological Services

Revenues from our Radiological Services segment accounted for approximately 11% of our total sales revenue in 2013, and approximately 2% in 2012. Sales in this segment increased by $586,109, or approximately 330%, from $177,871 in 2012, to $763,980 in 2013. Gemstone processing accounted for approximately 40% of Radiological Services sales in 2013 and approximately 92% in 2012. Revenues from gemstone processing increased by $143,737, from $164,364 in 2012, to $308,101 in 2013. This is an increase of approximately 87% and was the result of an apparent renewed demand for luxury items, such as jewelry, and a resulting increase in the volume of gemstone processing services provided.

Radiological Field Services revenue increased significantly from $13,507 in 2012, to $455,879 in 2013. This is an increase of $442,372 and was the result of contractual field services work performed under the DOE s OSRP. In 2012 we obtained an amendment to our NRC license that allows the performance of certain field service activities. These activities include efforts to support recovery of disused sources under the DOE s OSRP and installation or removal of certain radiation devices. Additionally, in December 2013 we entered into a support services agreement with one customer to perform field service work related to source design and installation. Based upon the current and anticipated contract commitments for this type of work we expect that field services will continue to be the primary source of revenue within this segment in 2014.

We also perform radiological service consulting work in conjunction with our sealed source sales. With the drastic decline in the availability of high-specific activity material, radiological work related to source sales continued to decline in 2013. However, if we are able to secure additional alternate sources of cobalt material, we expect the radiological consulting work in this area to improve.

The following table presents radiological services revenue for the two years ended December 31, 2013 and 2012:

Radiological Services	**For the year ended December 31, 2013**	**For the year ended December 31, 2012**	**$ change**
Topaz	$ 308,101	$ 164,364	$ 143,737
Radiological Field Services	455,879	13,507	442,372
	$ 763,980	$ 177,871	$ 586,109

Fluorine Products

There were no revenues to report from the Fluorine Products segment for 2013. We have been developing our fluorine products in conjunction with uranium de-conversion, in order to take advantage of the anticipated need for depleted uranium de-conversion services. We established the Fluorine Products segment in 2004 to support production and sale of the gases produced using our FEP process. From 2004 to 2012, we used our pilot facility to develop production processes for various high-purity products and to test methods of scaling up the size of production operations in support of the planned de-conversion facility in New Mexico. In 2012, we completed our testing of individual components and analytical processes and in 2013 we closed the pilot plant facility. Further activity within this segment has been deferred until the Company begins construction of the planned new depleted uranium de-conversion and fluorine extraction processing facility in New Mexico.

Our FEP patents offer a unique opportunity to provide certain high-purity fluoride compounds while also offering a for fee de-conversion service to the uranium enrichment industry. During 2013, we incurred $819,848 of planning and other expenses related to the de-conversion project, as compared to $1,050,995 in 2012. This decrease of approximately $714,748 was the result of our scaling back development efforts due to decreased funding available for the project.

In 2012, we received both the air permit from the New Mexico Environment Department and the Part 40 combined construction and operating license for the planned depleted uranium de-conversion facility. In July 2013, the Company obtained a grant in the amount of $80,000 from the State of New Mexico to install groundwater monitoring wells and initiate water sampling. This action and the subsequent report were the first steps required for the preparation of the groundwater permit with the State of New Mexico.

In November 2013, we announced that we were placing continued formal design work on the de-conversion facility on hold, although we will continue to pay for essential items such as the NRC licensing and continued interactions with our customers, the state of New Mexico, and Lea County.

Transportation

Revenues from our Transportation segment accounted for approximately 2% of our total revenues in 2013 and approximately 3% of total revenue in 2012. Sales in this segment decreased by approximately 48% to $119,498 in 2013, as compared to $227,932 in 2012. This decline in revenue was attributable to reduced opportunities for transportation contracting during the period. The decline in our cobalt products segment directly affects revenues in our Transportation segment since we use our specially trained drivers to transport our products. As revenues for our Cobalt Products and Radiological Services segments regain strength we anticipate that our Transportation segment revenues will grow as well. There are numerous regulations that apply to, and agencies which monitor, the security and tracking of cobalt shipments and our Transportation segment specializes in the transport of hazardous, radioactive materials, including large cobalt shipments.

Cost of Revenues and Gross Profit

Cost of revenue for 2013 was $4,313,543, as compared to $4,970,033 in 2012, a decrease of $656,491 or approximately 13%. Gross profit percentage increased to 37% for 2013, from 35% in 2012. The following table presents revenues and cost of revenues information:

	For the year ended December 31, 2013	**% of Total Revenues 2013**	**For the year ended December 31, 2012**	**% of Total Revenues 2012**
Total Revenues	$ 6,849,150		$ 7,621,934	
Cost of Revenues				

Radiochemical Products	$ 1,249,358	18%	$ 1,414,484	18%
Cobalt Products	707,185	10%	436,268	6%
Nuclear Medicine Standards	2,131,032	31%	2,948,675	39%
Radiological Services	200,173	3%	80,224	1%
Flourine Products	-	0%	-	-
Transportation	25,795	0%	90,383	1%
Total Segments	$ 4,313,543	63%	$ 4,970,033	65%
Gross Profit	$ 2,535,607		$ 2,651,901	
Gross Profit %	37%		35%	

During 2013, we took steps to recover increased freight and shipping costs by making sales price adjustments and by pursuing alternate shipping methods. We were also able to cut some freight costs by using our own transportation vehicles for some higher cost, cross-country shipments of material. We also made adjustments to sales prices and reduced distributor discounts to increase revenue. The cost of material used in manufacturing our products remained relatively stable during 2013, with the exception of the cost of cobalt material discussed earlier. We are not aware of any near future price increases that could potentially affect our cost of revenues, however, we will continue to monitor production material costs and make adjustments as necessary to maintain product margins.

Operating Costs and Expenses

Total operating costs and expenses for 2013 were $4,633,860, as compared to $4,835,351 in 2012; this is a decrease of $201,491, or approximately 4%.

The following table presents Operating Costs and Expenses for 2013 as compared to 2012:

	For the year Ended December 31, 2013	For the year Ended December 31, 2012	% change
Operating Costs and Expenses:			
Salaries and Contract Labor	$ 1,801,433	$ 1,899,225	-5%
General, Administrative and Consulting	2,126,379	1,946,105	9%
Research and Development	706,048	990,021	-29%
Total operating expenses	$ 4,633,860	$ 4,835,351	-4%

Salaries and Contract Labor decreased 5% in 2013, as compared to 2012. Salaries and Contract Labor included approximately $349,000 in non-cash equity-based compensation in 2013, as compared to approximately $286,000 in 2012. The increase of approximately $63,000 was the result of our recording non-cash equity based compensation expense in 2013 resulting from modification to the terms of several classes of warrants, in which we offered holders a discounted exercise price, as well as non-cash compensation expense recorded for stock options and restricted stock awards outstanding. The warrant exercise offer is discussed in detail in the Notes to Consolidated Financial Statements for the years ending December 31, 2013 and 2012. General, Administrative and Consulting expenses increased 9% to $2,126,379 in 2013, as compared to $1,946,105 in 2012. This increase in General, Administrative and Consulting expense includes a net loss on sale of long lived assets in the amount of $307,402. In April of 2013 we concluded our testing activities at our pilot facility in Idaho Falls, terminated our lease on that facility and sold or scrapped the majority of equipment related to the activities at that facility. The sales and scrapping of equipment resulted in an approximate loss of $307,000. Excluding this loss, General, Administrative and Consulting expenses decreased approximately 7%, through our on-going efforts to limit excess costs and economize in our production processes wherever possible.

Research and development expense was $706,048 for 2013 as compared to $990,021 for 2012. This is a decrease of $283,973, or approximately 29%. The majority of research and development expense, reported in both 2013 and 2012, was incurred for planning and licensing activities with regard to the planned de-conversion facility. During 2013, funding specifically for this project was limited; consequently, we limited additional investment in the project to expenses necessary to maintain licensing and continued interactions with New Mexico and Lea County. We will continue to delay further engineering work on the de-conversion project until we are able to secure additional contracts for de-conversion services.

Other Income (Expense)

Other Income (Expense) in 2013 was ($387,309) compared to ($98,649) in 2012.

	For the year ended December 31, 2013	For the year ended December 31, 2012
Other income (expense)	$ 22,929	$ 49,982
Equity in net income of affiliate	57,650	54,463
Interest income	1,147	502
Interest expense	(469,035)	(203,596)
Total other (expense)	$ (387,309)	$ (98,649)

Other income was $22,929 for 2013 as compared to other income of $49,982 for 2012. During 2012 we reported other income as the net effect of a non-operating cost reimbursement project that was completed during 2012, and, although we completed a similar contract in 2013, the net result was less. Equity in net income of affiliate reflects the Company s 24.5% share of net income reported by RadQual. Interest income in 2013 was $1,147, as compared to $502 in 2012. This slight increase of $645 was due to increased funds held at banks and other institutions in interest-bearing accounts. Interest expense increased significantly during 2013, from $203,596 in 2012, to $469,035 in 2013. This is an increase of $265,439, or approximately 130% and was the result of interest expense recorded for convertible debentures. In July 2012 we entered into a securities purchase agreement with certain institutional and private investors to sell convertible debentures for proceeds of $3,069,900. These debentures bear interest at 8% per year and mature in July 2017. As a result of this agreement we recorded approximately $78,000 and $82,000 in non-cash interest expense and consulting expense, respectively, during 2013. In February 2013 we entered into a securities purchase agreement and sold convertible debentures for proceeds of $1,060,000. These debentures accrue interest at a rate of 10% per year, compounded annually, and mature in September 2015. As a result of this financing activity, we recorded approximately $120,000 of non-cash interest expense during 2013. In December 2013, we borrowed $500,000 from our Chairman of the Board and one of our major shareholders. The note bears interest at 6% and is due June 30, 2014. In connection with this note payable we recorded approximately $18,000 of non-cash interest as part of a debt discount feature.

Net Loss

Our Net Loss was $2,461,845 in 2013, compared to a Net Loss of $2,240,810 in 2012. This is an increase in loss of $221,035, or approximately 10%. During 2013 we recorded $307,402 in net loss on sales of assets sold or scrapped as a result of closing our FEP pilot facility in Idaho Falls. We also recorded $193,982 in inventory write-off expense related to older, low-activity cobalt targets which we determined to have impaired market value due to their age and physical condition. We do not anticipate similar expense in 2014 and expect our net loss to decrease accordingly.

Liquidity and Capital Resources

On December 31, 2013, we had cash and cash equivalents of $456,374 compared to $546,143 at December 31, 2012, and cash used in operating activities was $1,393,898.

Accounts receivable at December 31, 2013 were $1,046,403 as compared to $861,790 at December 31, 2012.

Inventories at December 31, 2013 were $1,478,349 as compared to $1,284,561 at December 31, 2012. The majority of our inventory consists of irradiated material held at the site of the DOE s prime-operating contractor, which controls

the Idaho test reactor. The typical operating cycle for the irradiation of this material is greater than one year. It is not certain at the present time whether the INL contractor will permit the continued irradiation of this material. In 2013, we determined that it would not be cost-effective to incur additional handling and irradiation costs for some of our cobalt targets located at the ATR. Consequently, we wrote off $193,982 of target inventory.

We incurred a loss of $2,461,845 for the year ended December 31, 2013, and have an accumulated deficit of $116,697,147 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 $480,458 for 2013. We used $572,101 to purchase property and equipment and intangible assets. We received member distributions from our investment in RadQual, in the amount of $82,708 and also received proceeds from the sale of assets in the amount of $9,980.

Financing activities provided cash of $1,784,587 for the year ended December 31, 2013. We received proceeds from the issuance of convertible debentures in the amount of $1,060,000, proceeds from issuance of a note payable in the amount of $500,000 and proceeds from stock sales and from the exercise of warrants in the amount of $460,949.

In October 2012, we renegotiated the remaining $400,000 principal balance on an unsecured note payable to our former Chairman of the Board. Pursuant to the terms of the modification to the note, we made a $200,000 principal payment on October 29, 2012. Starting on November 1, 2012, interest began to accrue on the remaining principal balance at an annual rate of 5% and the remaining principal payments were to be made in $100,000 installments on December 1, 2012 and January 1, 2013. In November 2012, the note was further modified to state that the remaining $100,000 installments would be made on January 1, 2013 and February 1, 2013. Subsequently, in January 2013, we renegotiated the remaining $100,000 principal balance of the note. Per the modified agreement, the remaining $100,000 principal continued to accrue interest at a rate of 5% until March 2013. All accrued principal and accrued interest was paid in full in March 2013.

On July 27, 2012, we entered into a securities purchase agreement with certain institutional and private investors pursuant to which we sold convertible debentures for an aggregate of $3,069,900. The debentures bear interest at 8%, mature in July 2017 and are unsecured. These debentures are convertible at any time into shares of our common stock at an initial conversion price of $0.225 per share, subject to adjustment in certain conditions. Under certain conditions, we may force the conversion of the debentures. In addition, from and after the second anniversary of the closing date, we have the right to redeem all or part of the debentures at any time prior to their maturity date. Notwithstanding the foregoing, we also have the right prior to the second anniversary of the issuance of the debentures to redeem all or part of the debentures if, but only if, we successfully consummate a financing of the proposed Hobbs, New Mexico de-conversion facility in the amount of at least $25 million. Any redemption of the debentures by us requires the payment of a redemption fee as set forth in the debentures. Each investor also received a common stock purchase warrant to purchase such number of shares of our common stock equal to twenty five percent (25%) of the number of shares of common stock that the note purchased by such investor was convertible into on the closing date. The total number of warrants issued was 4,502,520. The warrants are immediately exercisable at a price of $0.30 per share and have a term of five years. The fair value of the warrants, determined using the Black-Scholes Option Pricing Model, was calculated using the following assumptions: risk free rate of .650%, expected dividend yield of 0%, expected volatility of 88%, and an expected life of 5 years.

On February 20, 2013, we entered into a securities purchase agreement with certain private investors pursuant to which we sold convertible debentures for an aggregate of $1,060,000. The debentures accrue interest at a rate of 10% per annum, compounded annually. The conversion price in effect for these debentures, on any conversion date, is equal to the lesser of $0.14 or the average closing price of our common stock for the 120 consecutive trading days up to, but not including, the maturity date. If at any time prior to the maturity date, the volume weighted average price of our common stock exceeds $0.50 per share over any consecutive thirty trading days then the Company is required to convert the debentures. At the maturity date all of the outstanding principal of the debentures as well as the accrued interest will be converted into shares of common stock. The fair market value of the Company s common stock was $0.15 per share on the date of the agreement. Consequently, the difference between the anticipated conversion price of $0.14 and the closing price of $0.15, multiplied by the number of issuable common shares upon conversion, will be recorded as a beneficial conversion feature with an increase to equity and a debt discount in the amount of $75,715. This amount will be accreted to interest expense through February 20, 2015.

On December 23, 2013, we entered into a promissory note agreement with our Chairman of the Board and one of our major shareholders (collectively, the Lenders), pursuant to which we borrowed $500,000 from the Lenders. The loan bears interest at 6% per annum and is due June 30, 2014. At any time, the Lenders may settle any or all of the principal and accrued interest on the loan in exchange for shares of our common stock at a price per share determined

based upon the average closing price of our common stock for the 20 days preceding the maturity or prepayment date. In connection with the loan, each of the Lenders was issued 5,000,000 warrants to purchase shares of our common stock at $0.06 per share. The fair value of these shares was recorded as a debt discount and will be amortized to interest expense over the life of the loan. In 2013, we recorded $18,143 of debt discount in connection with this loan.

We expect that cash from operations, cash obtained through equity 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.

Off-Balance Sheet Arrangements

As of December 31, 2013 and 2012, we had no off-balance sheet arrangements or obligations.

New Accounting Standards

None.

Outlook for 2014

Based upon the investments we have made in our facilities, projects, and products developed in 2013, we have the following goals for 2014:

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Continue to support essential tasks related to the Hobbs de-conversion project;

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Launch sale of the new Rad-Lite flood source in early 2014;

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Pursue additional field services work utilizing both the NRC license for additional field service activities and our mobile hot cell;

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Successfully resume cobalt target irradiation at the ATR and obtain alternate sources of cobalt-60 material;

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Continue to research new opportunities to expand the sale of radiochemical products through joint development agreements and continue evaluation of new generic drug product applications through the FDA;

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Expand sales of our nuclear medicine products and increase cash flow by offering new products, expanding international sales, and improving the profitability of our joint venture, TI Services, LLC; and,

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Continue to expand our customer base, increase revenues in every business segment, continue to reduce production and operating costs, and attempt to achieve profitability in our core business segment operations.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are a smaller reporting company, as defined by Item 10(f)(1) of Regulation S-K, 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 and are hereby incorporated by reference:

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-15(e) 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 evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2013. Based on that evaluation, our CEO and CFO concluded that our disclosure controls and procedures were effective as of December 31, 2013.

Management s Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. 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 United States of America. 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*, 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, 2013.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended December 31, 2013, that have materially affected, or are reasonable likely to materially affect, our internal control over financial reporting.

Item 9B. OTHER INFORMATION

On December 23, 2013, we entered into a promissory note agreement with our Chairman of the Board and one of our major shareholders (collectively, the Lenders), pursuant to which we borrowed $500,000 from the Lenders. The loan bears interest at 6% per annum and is due June 30, 2014. At any time, the Lenders may settle any or all of the principal and accrued interest on the loan in exchange for shares of our common stock at a price per share determined based upon the average closing price of our common stock for the 20 days preceding the maturity or prepayment date. In connection with the loan, each of the Lenders was issued 5,000,000 warrants to purchase shares of our common stock at $0.06 per share. The fair value of these shares was recorded as a debt discount and will be amortized to interest expense over the life of the loan. In 2013, we recorded $18,143 of debt discount in connection with this loan.

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.internationalisotopes.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, we will disclose that fact on our website.

The other information required by this item is incorporated by reference in our definitive proxy statement for our 2014 annual meeting of shareholders, which will be filed with the SEC within 120 days after December 31, 2013.

Item 11. EXECUTIVE COMPENSATION

The information required by this item is incorporated by reference to our definitive proxy statement for our 2014 annual meeting of shareholders, which will be filed with the SEC within 120 days after December 31, 2013.

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

Securities Authorized for Issuance under Equity Compensation Plans

We currently maintain three equity compensation plans that provide for the issuance of our common stock to officers and other employees, directors and consultants, each of which have been approved by our shareholders: the 2002 Long Term Incentive Plan, the International Isotopes Inc. Employee Stock Purchase Plan and the 2006 Equity Incentive Plan. The following table sets forth information regarding outstanding options and shares reserved for future issuance under the foregoing plans as of December 31, 2013:

Equity Compensation Plan Information
December 31, 2013

Plan Category	(a) Number of securities to be issued upon exercise of outstanding options, warrants, and rights	(b) Weighted-average exercise price of outstanding options, warrants, and rights	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders:	14,200,000	$ 0.09	13,997,495[(1)]
Equity compensation plans not approved by security holders	-	-	-
Total	14,200,000	$ 0.09	-

29

(1)

Includes 12,134,210 shares available for issuance under the 2006 Equity Incentive Plan and 1,141,186 shares available for issuance under the International Isotopes Inc. Employee Stock Purchase Plan. Up to 2,000,000 shares that are currently subject to outstanding options granted under the 2002 Long Term Incentive Plan may become available for issuance under the Company s 2006 Equity Incentive Plan in the future to the extent those shares are not issued (for example, if those options expire without being exercised). Shares available for issuance under the 2006 Equity Incentive Plan may be granted in the form of stock options, stock awards, restricted stock awards, restricted stock units, stock appreciation rights or any other form of equity compensation approved by the Board or its Compensation Committee.

The other information required by this item is incorporated by reference to our definitive proxy statement for our 2014 annual meeting of shareholders, which will be filed with the SEC within 120 days after December 31, 2013.

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

The information required by this item is incorporated by reference to our definitive proxy statement for our 2014 annual meeting of shareholders, which will be filed with the SEC within 120 days after December 31, 2013.

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this item is incorporated by reference to our definitive proxy statement for our 2014 annual meeting of shareholders, which will be filed with the SEC within 120 days after December 31, 2013.

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(*a)(1) and (a)(2) Financial Statements and Financial Statement Schedules*

See the index to and the financial statements and supplementary data beginning on page 26 which are incorporated herein by reference.

(a)(3) Exhibits

The following documents are filed or incorporated herein by reference as exhibits to this report:

2.1

Unit Purchase Agreement, effective as of May 23, 2008, among the Company, Randall O Kane, Keith Allberg and Peter Ouimette (incorporated by reference to Exhibit 99.1 of the Company s Current Report on Form 8-K filed on June 2, 2008).

2.2

Asset Purchase Agreement, dated May 30, 2008, between the Company and Sequoyah Fuels Corporation (incorporated by reference to Exhibit 99.1 of the Company s Current Report on Form 8-K filed on June 5, 2008).

2.3

First Amendment to the Asset Purchase Agreement, dated June 3, 2008, between the Company and Sequoyah Fuels Corporation (incorporated by reference to Exhibit 99.2 of the Company s Current Report on Form 8-K filed on June 5, 2008).

2.4

Securities Purchase Agreement, dated November 7, 2008, among the Company and the purchasers named therein (incorporated by reference to Exhibit 2.1 of the Company s Current Report on Form 8-K filed on November 12, 2008).

2.5

Securities Purchase Agreement, dated September 18, 2009, among the Company and the purchasers named therein (incorporated by reference to Exhibit 2.1 of the Company s Current Report on Form 8-K filed on September 18, 2009).

2.6

Securities Purchase Agreement, dated February 24, 2010, among the Company and the purchasers named therein (incorporated by reference to Exhibit 2.1 of the Company s Current Report on Form 8-K filed on February 25, 2010).

2.7

Securities Purchase Agreement, dated October 29, 2010, among the Company and the purchasers named therein (incorporated by reference to Exhibit 99.1 of the Company s Current Report on Form 8-K filed on November 1, 2010).

2.8

Securities Purchase Agreement, dated July 27, 2012, among the Company, the purchasers named therein and Euro Pacific Capital, Inc. (incorporated by reference to Exhibit 99.1 of the Company s Current Report on Form 8-K filed on August 2, 2012).

2.9

Securities Purchase Agreement, dated February 20, 2013, among the Company and the purchasers named therein (incorporated by reference to Exhibit 2.1 of the Company s Current Report on Form 8-K filed on February 26, 2013).

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

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).

4.1

Form of Class E Warrant (incorporated by reference to Exhibit 4.1 of the Company s Current Report on Form 8-K filed on April 21, 2008).

4.2

Form of Class F Warrant (incorporated by reference to Exhibit 4.1 of the Company s Current Report on Form 8-K filed on November 12, 2008).

4.3

Form of Class G Warrant (incorporated by reference to Exhibit 4.1 of the Company s Current Report on Form 8-K filed on September 18, 2009).

4.4

Form of Class H Warrant (incorporated by reference to Exhibit 4.2 of the Company s Current Report on Form 8-K filed on February 25, 2010).

4.5

Form of Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.1 of the Company s Current Report on Form 8-K filed on November 1, 2010).

4.6

Form of Class J Warrant (incorporated by reference to Exhibit 4.7 of the Company s Annual Report on Form 10-K for the year ended December 31, 2010).

4.7

Form of 8% Convertible Note (incorporated by reference to Exhibit 99.2 of the Company s Current Report on Form 8-K filed on August 2, 2012).

4.8

Form of Class K Warrant (incorporated by reference to Exhibit 99.3 of the Company s Current Report on Form 8-K filed on August 2, 2012).

4.9

Form of Convertible Debenture (incorporated by reference to Exhibit 4.1 of the Company s Current Report on Form 8-K filed on February 26, 2013).

4.10+

Form of Class L Warrant.

10.1

International Isotopes Inc. 2002 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.1 of the Company's Annual Report on Form 10-KSB for the year ended December 31, 2002).

10.2

Form of Incentive Stock Option Agreement under the International Isotopes Inc. 2002 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.2 of the Company s Annual Report on Form 10-KSB for the year ended December 31, 2004).

10.3

International Isotopes Inc. Employee Stock Purchase Plan (incorporated by reference to Appendix B to the Company s definitive proxy statement on Schedule 14A, as amended, filed on May 6, 2005).

10.4

Lease Agreement (4137 Commerce Circle), dated May 1, 2011, between the Company and Adrian Rand Robison and Dorothy Robison (incorporated by reference to Exhibit 10.1 of the Company s Quarterly Report on Form 10-Q for the quarter ended June 30, 2011).

10.5

Option to Purchase and Right of First Refusal (4137 Commerce Circle), dated May 2, 2003 between the Company and Adrian Rand Robison and Dorothy Robison (incorporated by reference to Exhibit 10.7 of the Company s Annual Report on Form 10-KSB for the year ended December 31, 2004).

10.6

International Isotopes Inc. 2006 Equity Incentive Plan (incorporated by reference to Annex A of the Company s definitive proxy statement on Schedule 14A filed on May 1, 2006).

10.7

Alpha-Omega Services, Inc. Distributor Agreement, dated August 14, 2007, between the Company and Alpha-Omega Services, Inc. (incorporated by reference to Exhibit 99.1 of the Company's Current Report of Form 8-K filed on August 22, 2007).

10.8

Technical Support Services Agreement, dated May 30, 2008, between the Company and Sequoyah Fuels Corporation (incorporated by reference to Exhibit 99.3 of the Company s Current Report on Form 8-K filed on June 5, 2008).

10.9

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).

10.10

Memorandum of Agreement, dated October 22, 2009, between the Company and the New Mexico Environment Department (incorporated by reference to Exhibit 99.1 of the Company s Current Report on Form 8-K filed on October 27, 2009).

10.11

Gemstone Processing Agreement between the Company and Quali-Tech, Inc. (incorporated by reference to Exhibit 10.1 of Amendment No. 1 to the Company s Quarterly Report on Form 10-Q for the quarter ended June 30, 2009 filed on September 24, 2009).

10.12

Manufacturing Agreement, dated January 30, 2006, between the Company and RadQual, LLC (incorporated by reference to Exhibit 10.2 of Amendment No. 1 to the Company s Quarterly Report on Form 10-Q for the quarter ended June 30, 2009 filed on September 24, 2009).

10.13

De-Conversion Services Agreement, dated April 13, 2010, between International Isotopes Fluorine Products, Inc. and Louisiana Energy Services, LLC. (Incorporated by reference to Exhibit 10.1 to the Company s Quarterly Report on Form 10-Q for the quarter ended March 31, 2010).**

10.14

Sales Agreement, dated April 1, 2010, between the Company and GE-Hitachi Nuclear Energy Americas, LLC (incorporated by reference to Exhibit 10.2 to the Company s Quarterly Report on Form 10-Q for the quarter ended March 31, 2010).**

10.15

Sales Agreement, effective August 1, 2010, between International Isotopes Idaho, Inc. and NTP Radioisotopes (Pty) Ltd. (incorporated by reference to Exhibit 10.3 of the Company s Quarterly Report on Form 10-Q for period ended June 30, 2010).**

10.16

Registration Rights Agreement, dated October 29, 2010, among the Company and certain investors party thereto (incorporated by reference to Exhibit 99.2 of the Company s Current Report on Form 8-K filed on November 1, 2010).

10.17

Registration Rights Agreement, dated July 27, 2012, among the Company and the purchasers named therein (incorporated by reference to Exhibit 99.4 of the Company s Current Report on Form 8-K filed on August 2, 2012).

10.18

Amended and Restated Employment Agreement, dated May 16, 2012, between the Company and Stephen Laflin (incorporated by reference to Exhibit 10.2 of the Company s Quarterly Report on Form 10-Q for the quarter ended June 30, 2012).

10.19+

Promissory Note Agreement, dated December 23, 2013, among the Company, Ralph Richart and John McCormack.

21.1

Subsidiaries (incorporated by reference to Exhibit 21 of the Company s Annual Report on Form 10-KSB for the year ended December 31, 2005).

23.1+

Consent of Eide Bailly LLP

23.2+

Consent of Hansen, Barnett & Maxwell, P.C.

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+

The following financial statements, formatted in XBRL: (i) Consolidated Balance Sheets as of December 31, 2013 and 2012, (ii) Consolidated Statements of Operations for the years ended December 31, 2013 and 2012, (iii) Consolidated Statement of Shareholders Equity for the years ended December 31, 2013 and 2012, (iv) Consolidated Statements of Cash Flows for the years ended December 31, 2013 and 2012 and (v) Notes to Consolidated Financial Statements.

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

** Contains material that has been omitted pursuant to a request for confidential treatment and such material has been filed separately with the Commission.

+ Filed herewith.

* Furnished herewith.

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/ Steve T. Laflin
Steve T. Laflin
President, Chief Executive Officer,
and Director

Date: March 28, 2014

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 28, 2014	By: /s/ Steve T. Laflin Steve T. Laflin President, Chief Executive Officer, and Director
March 28, 2014	By: /s/ Laurie McKenzie-Carter Laurie McKenzie Carter Chief Financial Officer, Secretary
March 28, 2014	By: /s/ Christopher Grosso Christopher Grosso Director
March 28, 2014	By: /s/ Ralph Richart

Ralph Richart
Chairman of the Board of Directors

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES

CONSOLIDATED FINANCIAL STATEMENTS

TABLE OF CONTENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and

Shareholders of International Isotopes, Inc.

We have audited the accompanying consolidated balance sheet of International Isotopes, Inc. and Subsidiaries (collectively the Company) as of December 31, 2013 and the related consolidated statement of operations, stockholders equity, and cash flows for the year then ended. The Company s management is responsible for these financial statements. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, 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. An audit also includes examining, on a test basis, evidences supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of International Isotopes, Inc. as of December 31, 2013 and the consolidated results of its operations, and its cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

/s/ Eide Bailly LLP

Salt Lake City, Utah

March 28, 2014

H B M

HANSEN, BARNETT & MAXWELL, P.C.
Certified Public Accountants

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and the Shareholders

International Isotopes, Inc.

We have audited the accompanying consolidated balance sheet of and subsidiaries as of 2, and the related consolidated statement of operations, stockholders equity, and cash flows for the year then ended. s management is responsible for these financial statements. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, 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. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion the consolidated financial statements referred to above present fairly, in all material respects, the financial position of International Isotopes, Inc. and subsidiaries as of 2, and the results of its operations and its cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

/s/ **HANSEN, BARNETT & MAXWELL P.C.**

Salt Lake City, Utah

March 28, 2013

Registered with the Public Company Accounting Oversight Board

5 Triad Center, Suite 750, Salt Lake City, Utah 84180-1128

Tel 801-532-2200 FAX 801-532-7944 www.hbmcpas.com

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES

Consolidated Balance Sheets

	December 31,	
Assets	**2013**	**2012**
Current assets		
Cash and cash equivalents	$ 456,374	$ 546,143
Accounts receivable	1,046,403	861,790
Inventories (Note 4)	1,478,349	1,284,561
Prepaids and other current assets	613,795	751,417
Total current assets	3,594,921	3,443,911
Long-term assets		
Restricted certificate of deposit	204,222	203,177
Property, plant and equipment, net (Note 5)	2,271,153	2,323,262
Capitalized lease disposal costs, net (Note 12)	90,199	102,499
Investment (Note 3)	1,368,808	1,393,866
Patents and other intangibles, net (Note 6)	4,478,711	4,575,190
Total long-term assets	8,413,093	8,597,994
Total assets	$ 12,008,014	$ 12,041,905
Liabilities and Stockholders Equity		
Current liabilities		
Accounts payable	$ 732,449	$ 1,328,631
Accrued liabilities	610,759	465,020
Current installments of notes payable net of debt discount (Note 7)	341,373	100,000
Total current liabilities	1,684,581	1,893,651
Long-term liabilities		
Convertible debt net of debt discount (Note 7)	3,806,452	2,711,235
Notes payable net of current portion (Note 7)	254,198	-
Obligation for lease disposal costs (Note 12)	566,369	523,238
Mandatorily redeemable convertible preferred stock (Note 9)	850,000	850,000
Total long-term liabilities	5,477,019	4,084,473
Total liabilities	7,161,600	5,978,124
Stockholders equity (Note 9)		
Common stock, $0.01 par value; 750,000,000 shares authorized; 369,130,899 and 360,259,221 shares issued and outstanding respectively	3,691,314	3,602,597

Additional paid-in capital		117,783,738		116,604,260
Accumulated deficit		(116,697,147)		(114,235,302)
Equity attributable to International Isotopes Inc. stockholders		4,777,905		5,971,555
Equity attributable to noncontrolling interest		68,509		92,226
Total equity		4,846,414		6,063,781
Total liabilities and stockholders equity	$	12,008,014	$	12,041,905

See accompanying notes to consolidated financial statements.

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES

Consolidated Statements of Operations

	Years ended December 31,	
	2013	**2012**
Sale of product	$ 6,849,150	$ 7,621,934
Cost of product	4,313,543	4,970,033
Gross profit	2,535,607	2,651,901
Operating costs and expenses:		
Salaries and contract labor	1,801,433	1,899,225
General, administrative and consulting	2,126,379	1,946,105
Research and development	706,048	990,021
Total operating expenses	4,633,860	4,835,351
Operating loss	(2,098,253)	(2,183,450)
Other income (expense):		
Other income (expense)	22,929	49,982
Equity in net income of affiliate	57,650	54,463
Interest income	1,147	502
Interest expense	(469,035)	(203,596)
Total other (expense)	(387,309)	(98,649)
Net loss	(2,485,562)	(2,282,099)
Loss attributable to noncontrolling interest	(23,717)	(41,289)
Net loss attributable to International Isotopes Inc.	$ (2,461,845)	$ (2,240,810)
Net loss per common share - basic and diluted	$ (0.01)	$ (0.01)
Weighted average common shares outstanding - basic and diluted	365,201,905	359,893,961

See accompanying notes to consolidated financial statements.

INTERNATIONAL ISOTOPES INC AND SUBSIDIARIES

Consolidated Statement of Stockholders' Equity

Years ended December 31, 2013 and 2012

	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Deficit	Equity Attributable to Internat'l Isotopes Shareholders	Equity Attributable to Noncontrolling Interest	Total Equity
Balance December 31, 2011	357,202,750	$ 3,572,024	$ 115,719,376	$ (111,994,492)	$ 7,296,908	$ 133,516	$ 7,430,424
Shares issued under employee stock purchase plan	119,227	1,201	11,710	-	12,911	-	12,911
Shares issued for exercise of employee stock options	2,685,457	26,854	23,146	-	50,000	-	50,000
Shares issued for conversion of shareholder note	204,167	2,042	38,792	-	40,834	-	40,834
Stock grant	47,620	476	(476)	-	-	-	-
Convertible debentures beneficial conversion feature	-	-	25,656	-	25,656	-	25,656
Warrants issued with convertible debentures	-	-	500,041	-	500,041	-	500,041
Stock based compensation	-	-	286,015	-	286,015	-	286,015
Net loss	-	-	-	(2,240,810)	(2,240,810)	(41,289)	(2,282,099)
Balance December 31, 2012	360,259,221	3,602,597	116,604,260	(114,235,302)	5,971,555	92,226	6,063,781
Shares issued under employee	93,970	939	9,621	-	10,560	-	10,560

stock purchase plan							
Shares issued for exercise of employee stock options	1,793,104	17,931	12,069	-	30,000	-	30,000
Shares issued with exercise of warrants	6,727,972	67,280	353,109	-	420,389	-	420,389
Stock grant	256,632	2,567	(2,567)	-	-	-	-
Convertible debentures beneficial conversion feature	-	-	75,715	-	75,715	-	75,715
Warrants issued with convertible debentures	-	-	383,025	-	383,025	-	383,025
Stock based compensation	-	-	348,506	-	348,506	-	348,506
Net loss	-	-	-	(2,461,845)	(2,461,845)	(23,717)	(2,485,562)
Balance December 31, 2013	369,130,899	$ 3,691,314	$ 117,783,738	$ (116,697,147)	$ 4,777,905	$ 68,509	$ 4,846,414

See accompanying notes to consolidated financial statements.

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES

Consolidated Statements of Cash Flows

	Years ended December 31,	
	2013	**2012**
Cash flows from operating activities:		
Net loss	$ (2,485,562)	$ (2,282,099)
Adjustments to reconcile net loss to net cash used in operating activities:		
Net income in equity method investment	(57,650)	(54,463)
Depreciation and amortization	415,607	415,181
Loss on disposal of property, plant and equipment	307,402	-
Accretion of obligation for lease disposal costs	43,131	39,847
Accretion of beneficial conversion feature	37,580	33,747
Equity based compensation	348,506	286,015
Noncash interest expense	202,228	40,834
Changes in operating assets and liabilities:		
Accounts receivable	(184,613)	(58,440)
Prepaids and other current assets	137,622	(491,126)
Inventories	(193,788)	180,732
Accounts payable and accrued liabilities	35,639	(844,980)
Net cash used in operating activities	(1,393,898)	(2,734,752)
Cash flows from investing activities:		
Restricted certificate of deposit	(1,045)	225,709
Dividends received from equity method investment	82,708	83,352
Proceeds from sale of property, plant and equipment	9,980	-
Purchase of property, plant and equipment	(572,101)	(1,835,313)
Net cash used in investing activities	(480,458)	(1,526,252)
Cash flows from financing activities:		
Proceeds from issuance of convertible debentures	1,060,000	2,969,900
Proceeds from issuance of debt	500,000	-
Proceeds from sale of stock	460,949	62,910
Principal payments on notes payable and capital leases	(236,362)	(328,359)
Net cash provided by financing activities	1,784,587	2,704,451
Net change in cash and cash equivalents	(89,769)	(1,556,553)
Cash and cash equivalents at beginning of year	546,143	2,102,696
Cash and cash equivalents at end of year	$ 456,374	$ 546,143
Supplemental disclosure of cash flow activities:		
Cash paid for interest	$ 200,375	$ 288,017
Supplemental disclosure of noncash investing and financing transactions:		
	$ 75,715	$ 25,656

Increase in equity and decrease in debt for the beneficial conversion feature associated with the convertible debentures				
Increase in notes payable through conversion of NRC payable	$	596,816	$	-
Increase in equity and decrease in debt for amount allocated to warrants issued with convertible debentures	$	383,025	$	366,756
Decrease in accrued interest through warrant exercise	$	110,733		
Increase in equity and prepaid interest for stock issuance in lieu of interest on note	$	-	$	40,834
Increase in equity and prepaid for fees paid in connection with the issuance of the convertible debentures	$	-	$	133,285
Partial settlement of note payable through conversion to convertible debentures	$	-	$	100,000

See accompanying notes to consolidated financial statements.

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEARS ENDED DECEMBER 31, 2013 AND 2012

NOTE 1 DESCRIPTION OF BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES

Description of business

International Isotopes Inc. (the Company) 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., and International Isotopes Transportation Services, Inc. The consolidated financial statements also include the accounts of the Company s 50%-owned joint venture, TI Services, LLC, which is located in Ohio. Intercompany balances and transactions have been eliminated in consolidation. The Company s headquarters and all operations, with the exception of TI Services, LLC, are located in Idaho Falls, Idaho.

Nature of operations The Company s business consists of six major business segments: Nuclear Medicine Standards, Cobalt Products, Radiochemical Products, Fluorine Products, Radiological Services, and Transportation.

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 three years. 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, its wholly-owned subsidiaries and its 50%-owned joint venture, TI Services, LLC. All significant intercompany accounts and transactions have been eliminated in 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 $456,374 and $546,143 at December 31, 2013 and 2012, respectively, consist of operating accounts, money market accounts, and certificates of deposit. 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, 2013 and 2012, the Company had pledged certificates of deposit valued at $204,222 and $203,177, respectively, as security on letters of credit. The letters of credit are required as part of the operating license agreement with the Nuclear Regulatory Commission (NRC). Previously, the Company maintained an irrevocable, automatically renewable letter of credit against a Certificate of Deposit to provide the financial assurance required by the NRC for the operating license. However, in April 2012, that letter of credit was replaced by a surety bond naming the NRC as beneficiary. The surety bond renews annually and requires a letter of credit against a certificate of deposit at Wells Fargo bank in the amount of 50% of the face value of the surety bond. In April 2012, the Company placed $203,177 into a certificate of deposit for this purpose. At December 31, 2013, restricted cash consisted of the new certificate of deposit in the amount of $204,222.

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. Allowances are provided for uncollectible accounts when deemed necessary. At December 31, 2013 and 2012, the Company recorded no allowance for uncollectible accounts.

c)

Inventories

Inventories are carried at the lower of cost or market. Cost is determined using the first in, first out method. Work in progress inventory contains product that is undergoing irradiation. This irradiation process can take up to three years to reach high specific activity (HSA) levels.

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)

Patents and other intangibles

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 the costs significantly in excess of the amount originally expected for the acquisition of an asset. 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, 2013 and 2012, 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. Based on the evaluation, assets that had previously been used in the FEP pilot plant testing process were determined to have no future value when the pilot plant was closed in 2013. These assets had a carrying value of approximately $307,000 and were recorded as scrap expense during the year ended December 31, 2013. There was no impairment recorded during the year ended December 31, 2012.

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)

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.

i)

Revenue recognition

Revenue is recognized when products are shipped. No warranty coverage or right of return provisions are provided to customers. During the fiscal year ending December 31, 2013, and 2012, the Company had sales to one entity of approximately 44% and 41%, respectively, of its revenues. At December 31, 2013 and 2012, 48% of accounts receivable were from one customer due to such customer s additional role as a distributor for the Company s radiochemical and nuclear medicine products. The loss of this customer may result in lower revenues and limit the cash available to grow the business and achieve profitability.

j)

Research and development costs

The Company had research and development expenses totaling $706,048 in 2013 and $990,021 in 2012.

k)

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, 2013 and 2012, the Company recognized share-based compensation expense of $348,506 and $286,015, respectively, related to stock options, warrants and unvested stock grants. This expense is included as part of salaries and contract labor on the accompanying statements of operations.

l)

Net loss per common share basic and diluted

Basic loss per share is computed on the basis of the weighted-average number of common shares outstanding during the year. Diluted 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.

At December 31, 2013 and 2012, the Company had the following common stock equivalents outstanding that were not included in the computation of diluted net loss per common share as their effect would have been anti-dilutive, thereby decreasing the net loss per common share:

	December 31,	
	2013	**2012**
Stock options	16,450,000	17,700,000
Warrants	27,257,951	38,059,303
Unvested stock awards issued under the 2006 Equity Incentive Plan	-	151,719
850 shares of Series B redeemable convertible preferred stock	425,000	425,000
	44,132,951	56,336,022

m)

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 six business segments.

n)

Recently issued accounting standards

There have been no new accounting pronouncements issued but not yet adopted by the Company that are expected to have a material impact on the Company s financial statements.

NOTE 2 BUSINESS CONDITION AND LIQUIDITY

The Company has a history of recurring losses with an accumulated deficit of $116,697,147 at December 31, 2013, and a net loss of $2,461,845 for the year then ended. The Company s working capital, which includes inventory that will not be sold for up to three years, increased by $360,080 in 2013 from the prior year. The Company had net cash used in operating activities of $1,393,898 in 2013. During 2013, the Company sought to improve future cash flows from operating activities by improving operating cost control measures, obtaining additional quality certifications to

permit expanded sales of products, and raising capital. The Company s net loss was $2,461,845 in 2013, compared to a net loss of $2,240,810 in 2012. This is an increase of $221,035, or approximately 10%.

In 2004, the Company acquired seven patents for the Fluorine Extraction Process (FEP) and began the design and construction of an FEP pilot plant to produce a fluoride gas. The plant was completed to the extent required to conduct some initial production testing in early 2006. During the remainder of 2006 and 2007, the Company expanded the scale of production testing in order to define the operational parameters for regular commercial production and completed installation of additional ancillary equipment and systems. In 2008, the Company produced qualification samples of fluoride gas to provide to a prospective customer. This pilot plant has successfully demonstrated the technical viability of FEP and its ability to produce high-purity fluoride gas, but, because of changing market conditions, the Company is not producing that specific fluoride gas on a commercial scale at this time. From 2009 through 2012, the pilot plant was used to complete the testing program for the development of various fluoride gas analytical processes and testing of certain key components for the planned uranium de-conversion and fluorine extraction processing facility. The Company shut down the pilot facility in 2013 upon the conclusion of the testing.

Beginning in 2008, the Company started a major undertaking to construct the first commercial uranium de-conversion facility in the United States (U.S.). The Company believes this will provide an excellent commercial opportunity because there is one U.S. company operating and expanding a new uranium enrichment facility, and there are several other proposed new commercial enrichment facilities in various stages of licensing, design, or financing. Collectively, these new U.S. enrichment facilities will produce a large amount of depleted uranium hexafluoride that must be de-converted for disposal. In the process of de-conversion, the Company plans to use the FEP process to produce high-value, high-purity, fluoride gases.

In April 2010, the Company entered into an agreement with URENCO USA (UUSA), a wholly-owned subsidiary of URENCO Limited, to provide depleted uranium de-conversion services for its enrichment facility located in Eunice, New Mexico. These services will begin once commercial operations of the Company s planned de-conversion facility, to be built in Lea County, near Hobbs, New Mexico, are underway. The term of the agreement extends through the first five years of the Company s operation of the planned uranium de-conversion facility. It will require significant capital and time to design, license, and construct such a uranium de-conversion facility before the Company can recognize revenue under this agreement.

In August 2011, the Company completed the acquisition of property for the planned uranium de-conversion facility in Lea County, New Mexico. The property is a 640-acre parcel that was offered to the Company as part of an incentives package prepared by the Economic Development Corporation of Lea County. Pursuant to a project participation agreement and an industrial revenue bond transaction, the property was transferred to the Company in accordance with the Local Economic Development Act of Lea County, New Mexico. Under the project participation agreement, the Company is required to commence construction on the facility no later than December 2014 and to substantially complete Phase I of the facility and have hired at least 75 persons by December 2015. If the Company fails to perform either of these obligations, and at the time of such failure has not secured financing for Phase I of the facility and expended at least $200,000 in costs of improvement of the property, then the Company must either re-convey the property to Lea County, New Mexico or purchase the property from Lea County in accordance with the project participation agreement. The Company is currently discussing a modification to the agreement with Lea County that would defer the construction start dates by at least several years. In accordance with ASC 360-10-Property, Plant and Equipment, the land was recorded at a zero basis representing the costs incurred by the Company for the acquisition. Should the Company not meet its obligations under the project participation agreement, and therefore decide to purchase the land, the Company would adjust the carrying value of the land to include the costs paid to Lea County to keep the land.

In March 2012, the Company completed an agreement for exclusive sales of radioactive material transportation containers through a worldwide distributor agreement with Alpha-Omega Services, Inc. (AOS), of Bellflower, California, signed in August 2007. AOS and the Company had been awaiting Nuclear Regulatory Commission (NRC) approval as well as the NRC Certificate of Compliance for the containers in order to begin marketing efforts. The series of AOS model containers should address a wide range of needs for the transportation of radioactive materials and provide the Company with some expanded business opportunities in the Radiological Services and Cobalt Products segments. Sales of these containers are not expected to begin until sometime later in 2014 as the containers become available.

In April 2012, the Company received the air permit from the New Mexico Environment Department for the proposed depleted uranium de-conversion facility. Although a state groundwater permit is required prior to the commencement of operations, the air permit will allow the Company to start construction on its planned project. In July 2013, the Company obtained a grant in the amount of $80,000 from the State of New Mexico to install groundwater monitoring wells and initiate water sampling. This action and the subsequent report were the first steps required for the preparation of the groundwater permit with the State of New Mexico.

In October 2012, the NRC issued a Part 40 combined construction and operating license for the Company s planned depleted uranium de-conversion and fluorine extraction processing facility. The Company originally submitted its license application to the NRC in December 2009, and the NRC had been reviewing the application since that time. The planned facility is a first-of-its-kind depleted uranium de-conversion facility and the first source material facility to implement full-integrated safety analysis, consistent with requirements of Part 70, Subpart H of NRC regulations. The facility is the first source material facility to be licensed by the NRC for a forty-year license term. There is no required start date for construction of the project under this NRC license.

Throughout 2013, the Company made significant efforts to reduce Company operational expense and worked towards improving overall segment and business financial performance. Because of a general slowdown in the growth rate of the nuclear industry the Company has put the de-conversion project on hold until such time that additional commercial uranium enrichment projects move forward in the U.S. Because of this delay, the Company announced in November 2013 that continued formal design work on the de-conversion project was being placed on hold; however, essential items such as NRC licensing and continued interface with customers, New Mexico and Lea County will continue. And the Company intends to continue to explore opportunities to raise funds to support the engineering, construction, and start-up of the planned uranium de-conversion facility through debt financing, equity offerings, or other means once additional contracts for de-conversion service that would fully commit the capacity of the planned facility are obtained.

NOTE 3 PURCHASED ASSET AND INVESTMENTS

Interest in RadQual, LLC

The Company owns a 24.5% interest in RadQual, LLC (RadQual), with which the Company has an exclusive manufacturing agreement for nuclear medicine products. The 24.5% ownership of RadQual has a balance of $1,368,808 and is reported as an asset at December 31, 2013. For the year ended December 31, 2013, member distributions from RadQual totaled $82,708 and were recorded as a reduction of the investment, and for the same period in 2012, member distributions totaled $83,352. For the years ended December 31, 2013 and 2012, earnings allocated to the Company from RadQual totaled $57,650 and $54,463, respectively. These allocated earnings were recorded as equity in net income of affiliate on the Company s consolidated statements of operations.

At December 31, 2013 and 2012, the Company had receivables from RadQual in the amount of $400,025 and $417,543, respectively, which are recorded as part of accounts receivable on the Company s condensed consolidated balance sheets. For the years ended December 31, 2013 and 2012, the Company had revenues from RadQual in the amount of $3,018,822 and $3,157,361, respectively, which are recorded as sale of product on the Company s consolidated statements of operations. At December 31, 2013, and 2012, TI Services, LLC had payables to RadQual in the amount of $126,000 and $99,000, respectively.

Summarized financial information for RadQual as of the years ended December 31 was as follows:

	2013	2012
Current assets	$ 525,000	$ 617,000
Noncurrent assets	109,000	142,000
Current liabilities	399,000	441,000
Noncurrent liabilities	190,000	156,000
Income	3,980,000	4,184,000
Gross profit	841,000	898,000
Net income	$ 259,000	$ 255,000

The difference between the Company s investment in RadQual and its underlying equity in net assets of RadQual of $1,358,000 at December 31, 2013 is accounted for as equity method goodwill and accordingly is not being amortized.

Acquisition of interest in TI Services, LLC

During December 2010, the Company together with RadQual, formed a 50%-owned joint venture called TI Services, LLC. TI Services, LLC was formed to acquire the assets of Technology Imaging Services, Inc., which were held by a bank as collateral under a defaulted loan. TI Services, LLC is engaged in the distribution and sale of products related to the nuclear medicine industry. Because the Company controls more than a 50% direct and indirect ownership interest in TI Services, LLC, the assets and liabilities of TI Services, LLC are consolidated with those of the Company, and RadQual s non-controlling interest in TI Services, LLC is included in the Company s financial statements as a non-controlling interest.

NOTE 4 INVENTORIES

Inventories consisted of the following at December 31, 2013 and 2012:

	2013	2012
Raw materials	$ 247,667	$ 247,914
Work in progress	1,206,708	993,343
Finished goods	23,974	43,304
	$ 1,478,349	$ 1,284,561

Included in inventories are the various pellet holders and housings involved in target fabrication, raw cobalt, nickel and other raw elements, completed flood sources and irradiated cobalt and nuclear medicine-related supplies and products.

Work in progress includes cobalt-60 isotopes that are located in the U.S. federal government s Advanced Test Reactor (ATR) located outside of Idaho Falls, Idaho. These isotopes are at various stages of irradiation. Some isotopes are near completion and others may require up to three years to complete. At December 31, 2013 and 2012, these isotopes had a carrying value of $957,221 and $830,137, respectively. This value is based on accumulated costs which are allocated based on the length of time isotopes remain in the reactor. During the year ended December 31, 2013, it was determined that it would not be cost-effective to incur additional handling and irradiation costs for some cobalt targets held at the reactor. As a result, $193,982 of target inventory was written off to expense.

NOTE 5 PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment are summarized as follows at December 31, 2013 and 2012:

Depreciation expense was $272,237 and $303,409 for the years ended December 31, 2013 and 2012, respectively.

			Estimated
	2013	2012	Useful Lives
Furniture and fixtures	$ 385,616	$ 409,327	3 - 5 years
Transportation equipment	117,726	117,726	5 - 10 years
Plant and improvements	463,754	567,481	5 years
Production equipment	3,267,799	4,029,567	5 - 10 years
	4,234,895	5,124,101	
Accumulated depreciation	(1,963,742)	(2,800,839)	
	$ 2,271,153	$ 2,323,262	

NOTE 6 PATENTS AND OTHER INTANGIBLE ASSETS

The Company owns certain patents and patents pending related to a fluorine extraction process, patents for various uses of some fluoride gases as fluorinating agents, and patents for a container to transport radioactive materials. These patents were developed in an effort to expand the possible markets for the high purity fluoride gases the Company will produce with its fluorine extraction process. In 2010, the Company was granted an additional process patent on the FEP process and during 2011 the Company started the process to file for international protections of this patent in South Africa, Japan, Russia, China, Canada, and the European Union. During 2012, the Company was granted additional process patents for the FEP process in the United States. In 2013, the FEP process patent was granted in Russia. The applications in all of the other countries are still in process. At the present time, the final value of this patent technology or the feasibility of expanding the fluoride gas markets through the use of this newly patented technology is uncertain.

In late 2010, management became reasonably certain that the NRC would issue the operating license for the planned de-conversion facility in New Mexico about mid-2012 and the Company began in 2011 to capitalize certain costs associated with the licensing and planning process. Previous to 2011, these costs were included as part of research and development expense. During 2013 and 2012, the costs capitalized with regard to this facility totaled approximately $376,000 and $1,175,000, respectively. In October 2012, the NRC issued the Company a 40-year construction and operating license. The license will be amortized over its 40-year life.

The following table summarizes the patent and intangible activity for the years ended December 31, 2013 and 2012:

	2013	2012
Beginning	$ 4,833,277	$ 3,657,481
Additions	34,590	1,175,796
Ending	4,867,867	4,833,277
Accumulated amortization	(389,156)	(258,087)
	$ 4,478,711	$ 4,575,190

During the years ended December 31, 2013 and 2012, the Company recognized $131,069 and $100,768 of amortization expense, respectively.

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,	
2014	$ 124,975
2015	124,975

2016	124,975
2017	124,975
2018	124,975
Thereafter	3,853,837
	$ 4,478,711

NOTE 7 CONVERTIBLE DEBENTURES AND NOTES PAYABLE

Convertible debentures

On July 27, 2012, the Company entered into a securities purchase agreement with certain institutional and private investors pursuant to which it sold convertible debentures for an aggregate of $3,069,900. The debentures bear interest at 8%, mature July 2017 and are unsecured. These debentures are convertible at any time into shares of the Company's common stock at an initial conversion price of $0.225 per share, subject to adjustment in certain conditions. Under certain conditions, the Company may force the conversion of the debentures. In addition, after the second anniversary of the closing date, the Company will have the right to redeem all or part of the debentures at any time prior to the maturity date. The Company also has the right prior to the second anniversary of the closing date to redeem all or part of the debentures if the Company successfully consummates a financing of the proposed Lea County, New Mexico de-conversion facility in the amount of at least $25 million. Any redemption of the debentures by the Company requires the payment of a redemption fee as set forth in the debentures.

Each investor also received a common stock purchase warrant to purchase common stock equal to twenty five percent (25%) of the shares issuable upon conversion of the debentures. The warrants are immediately exercisable at a price of $0.30 per share and have a term of five years.

In accordance with FASC 470-20, Accounting for Convertible Debt Instruments that may be settled in cash upon conversion, the Company allocated the proceeds to the debentures and warrants based on their relative fair value, which resulted in $2,703,144 being allocated to the debentures and $366,756 being allocated to the warrants. Subsequent to the allocation, the Company calculated a beneficial conversion feature of $25,656. The allocated warrant value and the beneficial conversion feature were recorded as debt discount and will be accreted to interest expense over the five-year life of the debentures. During the period ended December 31, 2013, $73,352 of the fair value of the warrants was accreted to interest expense and $5,131 of the beneficial conversion feature was accreted to interest expense. For the same period in 2012, $31,540 of the fair value of the warrants and $2,207 of the beneficial conversion feature were accreted to interest expense.

In connection with this offering, the Company paid a fee and issued to the placement agent a warrant to purchase 1,091,520 shares of the Company s common stock. The placement warrant had a fair value of $133,285. The value of the placement warrant and the fees are recorded as offering costs and will be amortized to expense over the life of the debentures.

The fair value of the warrants, determined using the Black-Scholes Option Pricing Model, was calculated using the following assumptions: risk-free interest rate of .65%, expected dividend yield of 0%, expected volatility of 88%, and an expected life of 5 years.

In February 2013, the Company entered into a securities purchase agreement with certain private investors pursuant to which it sold convertible debentures for an aggregate of $1,060,000. The debentures accrue interest at a rate of 10% per annum, compounded annually and mature September 2015. The conversion price in effect for these debentures, on any conversion date, is equal to the lesser of $0.14 or the average closing price of the Company s common stock for the 120 consecutive trading days up to, but not including, the maturity date. If at any time prior to the maturity date, the volume weighted average price of the Company s common stock exceeds $0.50 per share over any consecutive thirty trading days, then the Company is required to convert the debentures. At the maturity date all of the outstanding principal of the debentures as well as the accrued interest will be converted into shares of common stock. The fair market value of the Company s common stock was $0.15 per share on the date of the agreement. Consequently, the difference between the anticipated conversion price of $0.14 and the closing price of $0.15, multiplied by the number of issuable common shares upon conversion, was recorded as a beneficial conversion feature with an increase to equity and a debt discount in the amount of $75,715. This amount will be accreted to interest expense through February 2015. During the year ended December 31, 2013, $32,449 of the beneficial conversion feature was amortized to interest expense.

Notes payable

In June 2011, the Company entered into an agreement with a related party to obtain financing for certain equipment. The amount financed was $45,000, included a security interest in the equipment financed and matured June 2012. The note was paid in full in 2012.

At December 31, 2012, the Company held a $100,000 unsecured note payable to its former Chairman of the Board. The original terms of the note had been modified to extend the maturity date and payment terms and under these modified terms, all principal and accrued interest was due in March 2013. The note plus all accrued interest was paid in full at that time.

During April 2013, the Company negotiated with the NRC to convert amounts owing as a trade payable to a long-term note. The Company converted a total of $596,816 to the note payable which is payable in monthly installments of $17,500 and accrues interest at a rate of 1% annually. The note matures February 15, 2016 and is unsecured.

In December 2013, the Company borrowed $500,000 from the Company s Chairman of the Board and one of the Company s major shareholders. The $500,000 note bears interest at 6% and is due June 30, 2014. 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 note, each of the two lenders was issued 5,000,000 warrants to purchase shares of the Company s common stock. The fair value of the warrants was $383,025 and was recorded as debt discount and will be amortized to interest expense over the life of the loan. The fair value of the warrants was determined using the Black-Scholes Option Pricing Model and was calculated using the following assumptions: risk free interest rate of 1.66%, expected dividend yield of 0%, expected volatility of 78.9%, and an expected life of 5 years.

Notes payable as of December 31, 2013 and 2012 consist of the following:

	2013	2012
Note payable to the NRC bearing interest at 1%; monthly installments of $17,500, unsecured.	$ 460,453	$ -
Note payable to a related parties bearing interest at 6%; All principal and interest due on June 30, 2014, secured.	500,000	-
Note payable to the former chairman of the board, interest accrues at 5%; unsecured; all principal and interest repaid March 2013.	-	100,000
Total notes payable	960,453	100,000
Less: unamortized debt discount	(364,882)	-
Less: current maturities	(341,373)	(100,000)
Notes payable, net of current installments and debt discount	$ 254,198	$ -

Maturities of convertible debt and notes payable obligations (net of debt discounts) at December 31, 2013, excluding mandatorily convertible debt of $1,060,000, are as follows:

Years ending December 31,	
2014	$ 706,255
2015	208,327
2016	45,871
2017	3,069,900
	$ 4,030,353

NOTE 8 LEASE OBLIGATIONS

Operating leases

The Company leases office space under operating leases, one of which is a ten-year lease which expires in 2021 and the second lease, which was historically renewed annually, was terminated in April 2013. Rental expense under such leases for the years ended December 31, 2013 and 2012 was $156,780 and $193,222, respectively.

The following is a schedule by years of operating leases as of December 31, 2013:

Years ending December 31,	
2014	$ 136,313
2015	136,313
2016	136,313
2017	136,313
2018	136,313
Thereafter	317,944
	$ 999,509

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

Warrants

As disclosed in Note 7, on July 27, 2012, the Company entered into a securities purchase agreement with certain institutional and private investors. Each investor also received a common stock purchase warrant to purchase such number of shares of our common stock equal to twenty-five percent (25%) of the number of shares of common stock that the note purchased by such investor may be convertible into on the closing date. The total possible number of warrants to be issued is 4,502,520. The warrants are immediately exercisable at a price of $0.30 per share and have a term of five years. The fair value of the warrants, determined using the Black-Scholes Option Pricing Model, was calculated using the following assumptions: risk-free rate of .650%, expected dividend yield of 0%, expected volatility of 88%, and an expected life of 5 years.

On September 3, 2013, in an effort to raise capital to support its ongoing planned uranium de-conversion project, the Company authorized an offer to its current warrant holders to encourage them to exercise outstanding warrants. The offer gave warrant holders two options. The first option allowed holders of the Company s outstanding warrants to

exchange one warrant for one share of the Company s common stock at a discounted warrant exercise price of $0.09 per share until close of business on October 4, 2013. The second option allowed holders of the Company s outstanding warrants to exchange two Class H or K Warrants, or four Class F or I Warrants, for one share of the Company s common stock at a discounted price of $0.06 per share. The Company discounted the exercise price of (i) its Class F Warrants which were issued on November 7, 2008, from $0.30 to $0.09 under Option 1, and to $0.06 under Option 2, (ii) its Class H Warrants, which were issued August 24, 2011, from $0.22 to $0.09 under Option 1, and to $0.06 under Option 2, (iii) its Class I Warrants, which were issued on October 29, 2010, from $0.40 to $0.09 under Option 1, and to $0.06 under Option 2, and (iv) its Class K Warrants, which were issued on July 27, 2012, from $0.30 to $0.09 under Option 1 and to $0.06 under Option 2. In addition to the reduced exercise price, Class K Warrant holders could also apply the accrued interest on their outstanding convertible subordinated notes, due to be paid on September 30, 2013, towards the cash exercise price of either option. As a result of this offer, 557,021 warrants were exercised under Option 1 and the company issued 557,021 shares of its common stock for proceeds of $50,132. $46,193 of these proceeds was applied to outstanding interest. Under Option 2, 17,244,331 warrants were exercised and the Company issued 6,170,951 shares of its common stock for proceeds of $370,257. $64,540 of these proceeds was applied to outstanding interest. In total, as a result of this offer, 17,801,352 warrants were exercised and Company issued 6,727,972 shares of its common stock for proceeds of $420,389, and $110,733 of the proceeds was applied to outstanding interest. In September 2013, the 3,000,000 remaining Class F Warrants expired.

As disclosed in Note 7, the Company entered into a note with the Chairman of the Board and one of the Company s major shareholders. Each lender received a 5,000,000 common stock purchase warrants. If the note is not paid by the due date, June 30, 2014, each lender will receive an additional 7,500,000 warrants. The warrants are immediately exercisable at a price of $0.06 per share and have a term of five years. The warrants have a fair value of $383,025 which is recorded as a debt discount and amortized to interest expense over the note term. The fair value of the warrants, determined using the Black-Scholes Option Pricing Model, was calculated using the following assumptions: risk-free rate of 1.66%, expected dividend yield of 0%, expected volatility of 78.9%, and an expected life of 5 years.

The following table summarizes warrant activity for the years ended December 31, 2013 and 2012:

Warrants	Outstanding Shares	Weighted Average Exercise Price
Outstanding at December 31, 2011	33,556,783	$ 0.25
Granted	4,502,520	0.30
Exercised		
Forfeited		
Outstanding at December 31, 2012	38,059,303	0.26
Granted	10,000,000	0.06
Exercised	(17,801,352)	0.06
Forfeited	(3,000,000)	0.30
Outstanding at December 31, 2013	27,257,951	$ 0.26

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 of Directors 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, 2013, there were 850 shares of the Series B Preferred Stock outstanding with a mandatory redemption date of May 2022 at $1,000 per share or $850,000. The shares are also convertible into common stock at a conversion price of $2.00 per share. These preferred shares carry no dividend preferences. Due to the mandatory redemption provision, the Series B Preferred Stock has been classified as a liability in the accompanying balance sheets.

Employee Stock Purchase Plan

In September 2004, the Company s Board of Directors (the 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 payroll 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.

During 2013 and 2012, the Company issued 93,970 and 119,227 shares of common stock to employees for proceeds of $10,560 and $12,909, respectively, in accordance with the employee stock purchase plan.

Subsequent to December 31, 2013, the Company issued 47,825 shares of common stock for proceeds of $2,439 under this employee stock purchase plan.

2006 Equity Incentive Plan

In April 2006, the Company adopted the International Isotopes Inc. 2006 Equity Incentive Plan (the 2006 Plan). The 2006 Plan was approved by shareholders in July 2006. The 2006 Plan replaced the Company s 2002 Long-Term Incentive Plan (the Prior Plan). The 2006 Plan permits the granting of any or all of the following types of awards: (1) incentive and nonqualified stock options, (2) stock appreciation rights, (3) stock awards, restricted stock and stock units, (4) performance shares and performance units conditioned upon meeting performance criteria, and (5) other stock- or cash-based awards.

The 2006 Plan authorizes the issuance of up to 20,000,000 shares of common stock, plus 1,350,000 shares issued but not subject to outstanding awards under the Prior Plan. There are also 13,000,000 shares granted and outstanding under the Prior Plan that could become available for issuance under the 2006 Plan (for example, if they are forfeited or otherwise expire or terminate without the issuance of shares). Unless earlier terminated, the 2006 Plan will terminate on July 12, 2016. At December 31, 2013 there were 12,134,210 shares available for issuance under this plan.

Non-Vested Stock Grants

Non-vested stock awards outstanding at December 31, 2013 and 2012, and changes during the same years were as follows:

Non-vested Stock Awards	2013	Weighted average grant date fair value	2012	Weighted average grant date fair value
Balance at beginning of year	$ 151,720	$ 0.18	$ 370,917	$ 0.18
Granted	-	-	-	-
Vested	(151,750)	0.18	(185,457)	0.18
Forfeited	-		(33,740)	
Non-vested shares at end of year	$ -		$ 151,720	

The intrinsic value of stock awards vested during the years ended December 31, 2013 and 2012 was $0 and $25,964, respectively. During the years ended December 31, 2013 and 2012, the Company recognized $283 and $5,278 of compensation expense respectively. As of December 31, 2013, there was no unamortized deferred compensation remaining.

Pursuant to an employment agreement, the Company issued 175,000 in fully vested shares of Company stock in February 2013 under the 2006 Equity Incentive Plan to a member of Company management. The number of shares

issued was calculated using the average closing price of common stock for the 20 trading days prior to the issue date. 70,088 shares were retained in a cashless exercise by the Company to satisfy the employee s payroll tax liabilities. The net shares issued on February 28, 2013 totaled 104,912 shares valued at $16,786.

In September 2012, the Company issued 2,000,000 in nonqualified stock options to certain directors under the 2006 Plan. The options have an exercise price of $0.17 per share and vest 25% on the first anniversary of the grant date with 25% vesting after each additional one-year period of continuous service. In November 2013, these options were re-priced to an exercise price of $0.07 per share. The options expire 10 years from the date of grant. The options had a fair value of $244,483 or $0.12 per share as estimated on the date of grant using the Black-Scholes options pricing model with the following weighted average assumptions: risk-free interest rate of .83%, expected dividend yield rate of 0%, expected volatility of 85%, and an expected life of 6.25 years.

Pursuant to a Board resolution on September 26, 2012, the Company re-priced 4,500,000 options which had an original exercise price of $0.32 per share and expire on May 4, 2019. The stock options were adjusted to an exercise price of $0.17 per share with the expiration date remaining May 4, 2019. The option re-price had a fair value of $72,136 as estimated on the date of re-pricing using the Black-Scholes options pricing model with the following weighted-average assumptions: risk free interest rate of 1.03%, expected dividend yield rate of 0%, expected volatility of 83.53%, and an expected life of 6.61 years.

In January 2013, the Company issued 750,000 nonqualified stock options to certain consultants under the 2006 Plan. The options have an exercise price of $0.15 per share and vest 25% on the first anniversary of the grant date with 25% vesting after each additional one-year period of continuous service. In November 2013, these options were re-priced to an exercise price of $0.07 per share. The options expire 10 years from the date of grant. The options had a fair value of $100,923 or $0.135 per share as estimated on the date of grant using the Black-Scholes options pricing model with the following weighted average assumptions: risk-free interest rate of 1.87%, expected dividend yield rate of 0%, expected volatility of 84.62%, and an expected life of 10 years.

Pursuant to a Board resolution on January 10, 2013, the Company re-priced 600,000 options which had an original exercise price of $0.32 per share and expire on May 4, 2019. The stock options were adjusted to an exercise price of $0.15 per share with the expiration date remaining May 4, 2019. The option re-price had a fair value of $11,145 as estimated on the date of re-pricing using the Black-Scholes options pricing model with the following weighted-average assumptions: risk free interest rate of 1.26%, expected dividend yield rate of 0%, expected volatility of 84.20%, and an expected life of 6.29 years.

In April 2013, 2,000,000 nonqualified stock options were exercised under a partial cashless exercise. The Company received proceeds of $30,000 and issued 1,793,104 shares of common stock.

Pursuant to a Board resolution on November 11, 2013, the Company re-priced 11,850,000 options which had previous exercise prices between $0.15 and $0.70 per share and expire between October 31, 2017 and January 18, 2023. The stock options were adjusted to an exercise price of $0.07 per share with the expiration dates remaining unchanged. An additional $156,499 of compensation expense was recognized in the current period and $15,175 will be recognized in future periods. The option re-price had a fair value of $171,674 as estimated on the date of re-pricing using the Black-Scholes options pricing model with the following weighted-average assumptions: risk free interest rate of 1.47%, expected dividend yield rate of 0%, expected volatility of 78.68%, and an expected life between 3.97 and 9.19 years.

Stock Options

A summary of the stock options issued under the Company s 2006 Plan is as follows:

	Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life	Aggregate Intrinsic Value
Outstanding at December 31, 2011	25,700,000	$ 0.17		
Exercised	(2,500,000)	0.02		
Forfeited	(7,500,000)	0.02		
Granted	2,000,000	0.17		
Outstanding at December 31, 2012	17,700,000	0.23		
Granted	750,000	0.15		
Exercised	(2,000,000)	0.03		
Outstanding at December 31, 2013	16,450,000	0.09	3.7	-
Exercisable at December 31, 2013	14,200,000	$ 0.09	4.2	$ -

The total intrinsic value of stock options exercised in 2013 and 2012 was $0 and $470,000, respectively.

The total intrinsic value of stock options outstanding at December 31, 2013 was $0. The intrinsic value for stock options outstanding is calculated as the amount by which the quoted price of $0.06 of our common stock as of the end of 2013 exceeds the exercise price of the options.

The Company recognized $331,437 and $270,737 of compensation expense for the years ended December 31, 2013 and 2012, respectively.

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

NOTE 10 INCOME TAXES

The Company paid no federal or state income taxes during 2013 and 2012. Income tax benefit on losses differed from the amounts computed by applying the U.S. federal income tax rate of 34% to pretax losses as a result of the following:

	2013	2012
Income tax benefit	$ (837,028)	$ (761,876)
Nondeductible expenses	146,912	129,843
State taxes net of federal benefit	(113,245)	(103,077)
Change in valuation allowance	803,361	735,110
Total income tax expense	$ -	$ -

The tax effects of temporary differences that give rise to significant portions of the Company s deferred tax assets (liabilities) as of December 31, 2013 and 2012 are presented below:

	2013	2012
Deferred income tax asset	$ -	$ -
Net operating loss carryforward	11,191,259	10,338,475
Valuation allowance	(11,024,333)	(10,220,972)
Total deferred income tax asset	166,926	117,503
Deferred income tax liability - depreciation	(166,926)	(117,503)
Deferred tax asset (liability)	$ -	$ -

At December 31, 2013, the Company had net operating losses of approximately $28,100,000 that will begin to expire in 2023. The valuation allowances for 2013 and 2012 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 has identified its federal income tax returns for the years ended December 31, 2010 through 2013 as remaining subject to examination. The Company s income tax returns in state income tax jurisdictions remain subject to examination for years ended December 31, 2010 through 2013. 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

The production of HSA Cobalt is dependent upon the U.S. Department of Energy, and its prime operating contractor, which controls the reactor and laboratory operations. Continued access to the ATR for cobalt production continues to remain subject to the approval of BEA based upon the priorities of the experiments program. Furthermore, in June 2012, a leak of a cobalt target belonging to another commercial business resulted in the curtailment of all further cobalt handling and production activities at the ATR, pending completion of several corrective actions. The investigation into the leaking cobalt target identified three areas that needed corrective action: (1) changes to cobalt target handling controls, (2) concerns with continued irradiation of in-process targets, and (3) enhancing the design of future cobalt targets. During 2013, the Company completed corrective actions for both target handling and enhanced target design and was successful in transferring some targets from the ATR to its main facility. However, it is not certain that the INL contractor will permit continued irradiation of the in-process cobalt targets currently stored at the reactor site. The Company is discussing this issue with the INL contractor, and, if not resolved, the Company will not be able to resume irradiation of these targets and would be forced to write down the value of the Work in Process assigned to this material and sell or salvage these targets. Because cobalt takes approximately three years to produce, not being able to continue irradiation of these targets could cause a gap in new cobalt production during 2015 and 2016. To mitigate the impact of these delays and interruptions to the Company s cobalt production activities the Company is investigating alternative sources of cobalt supply, evaluating possible sales of lower activity cobalt already in process, and identifying additional reactors for cobalt irradiation.

Nuclear Medicine Reference and Calibration Standard manufacturing is conducted under an exclusive contract with RadQual, which in turn has an agreement in place with several companies for distributing the product. The majority of the radiochemical product sold by the Company is provided through a supply agreement with a single entity. A loss of any of these customers or suppliers could adversely affect operating results by causing a delay in production or a possible loss of sales.

Contingencies

Because all of the Company s business segments involve radioactive materials, the Company is required to have an operating license from the NRC and specially trained staff to handle these materials. The Company has an NRC operating license and has amended this license several times to increase the amount of material permitted within the facility. Additional processing capabilities and license amendments could be implemented that would permit processing of other reactor-produced radioisotopes by the Company, but this license does not currently restrict the volume of business operations performed or projected to be performed in the coming year. Previously, the Company maintained an irrevocable, automatically renewable letter of credit against a certificate of deposit to provide the financial assurance required by the NRC for the operating license. However, in April 2012, that letter of credit was replaced by a surety bond naming the NRC as beneficiary. The surety bond renews annually and requires a letter of credit against a certificate of deposit in the amount of 50% of the face value of the surety bond. In April 2012, the Company placed $203,177 into a certificate of deposit for this purpose. At December 31, 2013, restricted cash

consisted of the new certificate of deposit in the amount of $204,222.

Defined Contribution Pension Plan

The Company has a 401(k) defined-contribution pension plan (the Plan) for which employees are eligible after completing six months of full-time service. Participants, under provision of Internal Revenue Code § 401(k), may elect to contribute up to $17,000 of their compensation to the Plan which includes both before-tax and Roth after-tax contribution options. Although the Company reserves the right to make discretionary matching contributions to participant accounts, there were no employer matching contributions made for either 2013 or 2012. All amounts withheld for employee contributions were made during 2013. The employer reserves the right to terminate the 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 guidance provided by the NRC and 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 recognizes period-to-period changes in the liability resulting from the passage of time (accretion expense) and revisions to the original estimate resulting from changes in the facility processes or radiological characteristics. Changes resulting from the passage of time are recorded as interest expense in the statement of operations and changes resulting from revisions to the original estimate are recorded as an increase or decrease to the capitalized lease disposal cost. The 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, 2013 and 2012:

	Obligation for Lease Disposal Cost	Capitalized Lease Disposal Cost
Balance at December 31, 2011	$ 483,391	$ 113,503
Increase in lease disposal costs	-	-
Accretion expense / Amortization expense	39,847	(11,004)
Balance at December 31, 2012	523,238	102,499
Increase in lease disposal costs	-	-
Accretion expense / Amortization expense	43,131	(12,300)
Balance at December 31, 2013	$ 566,369	$ 90,199

NOTE 13 FAIR VALUE MEASUREMENTS

At December 31, 2013 and 2012, the Company had no assets or liabilities carried at fair value.

NOTE 14 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 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. The Company has identified the following business segments:

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The Nuclear Medicine Standards segment consists of the manufacture of sources and standards associated with SPECT (Single Photon Emission Computed Tomography) imaging, patient positioning, and calibration or operational testing of dose measuring equipment for the nuclear pharmacy industry and includes consolidated reporting of TI Services, LLC, the Company s 50/50 joint venture with RadQual, LLC.

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The Cobalt Products segment includes the fabrication of cobalt capsules for teletherapy or irradiation devices, and recycling of expended cobalt sources.

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The Radiochemical Products segment includes production and distribution of various isotopically pure radiochemicals for medical, industrial, or research applications. These products are either directly produced by the Company or are purchased in bulk from other producers and distributed by the Company in customized packages and chemical forms tailored to customer and market demands. Iodine-131 is the most predominant radiochemical sold in this segment.

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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 in New Mexico.

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The Radiological Services segment concerns a wide array of miscellaneous services that consists of gemstone processing and field services that include source installation, removal, and radiation device decommissioning.

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The Transportation segment provides transportation services for the Company s products and offers for hire transportation services of hazardous and non-hazardous cargo materials.

The following presents certain segment information as of and for the years ended December 31, 2013 and 2012:

Sale of product	**2013**	**2012**
Radiochemical products	$ 1,636,535	$ 1,677,291
Cobalt products	1,080,011	1,369,130
Nuclear medicine standards	3,249,126	4,169,710
Radiological services	763,980	177,871
Fluorine products	-	-
Transportation	119,498	227,932
Total segments	6,849,150	7,621,934
Corporate revenue	-	-
Total consolidated	$ 6,849,150	$ 7,621,934

Depreciation and amortization	**2013**	**2012**
Radiochemical products	$ 33,027	$ 37,173
Cobalt products	80,929	94,957
Nuclear medicine standards	20,856	21,439
Radiological services	10,333	10,399
Fluorine products	187,831	232,113
Transportation	12,873	13,374
Total segments	345,849	409,455
Corporate depreciation and amortization	69,758	5,726
Total consolidated	$ 415,607	$ 415,181

Segment income (loss)	**2013**	**2012**
Radiochemical products	$ 223,011	$ 94,165
Cobalt products	62,791	401,132
Nuclear medicine standards	609,107	581,342
Radiological services	430,525	90,102
Fluorine products	(819,848)	(1,050,995)
Transportation	(29,842)	(15,734)
Total segments	475,745	100,012
Corporate loss	(2,937,589)	(2,340,822)
Net loss	$ (2,461,845)	$ (2,240,810)

Expenditures for segment assets	**2013**	**2012**
Radiochemical products	$ 4,356	$ 2,793
Cobalt products	-	31,742
Nuclear medicine standards	3,540	4,429
Radiological services	150,840	255,000
Fluorine products	413,365	1,537,935
Transportation	-	-
Total segments	572,101	1,831,899
Corporate purchases	-	3,414
Total consolidated	$ 572,101	$ 1,835,313

Segment assets	**2013**	**2012**

Radiochemical products	$	153,305	$	229,516
Cobalt products		1,574,603		1,510,183
Nuclear medicine standards		573,389		451,252
Radiological services		608,949		267,414
Fluorine products		6,093,151		6,239,235
Transportation		12,864		29,734
Total segments		9,016,261		8,727,334
Corporate assets		2,991,753		3,314,571
Total consolidated	$	12,008,014	$	12,041,905

NOTE 15 SUBSEQUENT EVENTS

Pursuant to an employment agreement, the Company issued to a member of Company management 280,000 shares of fully-vested Company stock in February 2014 under the 2006 Equity Incentive Plan. The number of shares awarded was based on a $28,000 stock award using a price of $0.10 per share. The agreement states 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 $0.10 per share. Compensation expense recorded pursuant to this transaction was $16,800, which was determined by multiplying the number of shares awarded by the closing price of the stock on February 27, 2014, which was $0.06 per share. There were 112,140 shares retained in the cashless exercise by the Company to satisfy the employee s payroll tax liabilities. The net shares issued on February 28, 2014 totaled 167,860 shares.