INTERNATIONAL ISOTOPES INC
Form 10-K
March 30, 2018

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, 2017

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**
(State or other jurisdiction of incorporation or origination)	(IRS Employer Identification Number)

4137 Commerce Circle

Idaho Falls, Idaho	**83401**
(Address of principal executive offices)	(Zip code)

(208) 524-5300

(Registrant's telephone number, including area code)

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

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

COMMON STOCK, $.01 PAR VALUE

(Title of Class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES 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, smaller reporting company, or an emerging growth company. See the definitions of large accelerated filer, accelerated filer, smaller reporting company, and emerging growth company in Rule 12b-2 of the Exchange Act. (Check one):

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

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

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 30, 2017, the last business day of our second fiscal quarter, was approximately $23.7 million. For purposes of this calculation, all directors and executive officers of the registrant and holders of 10% or more of the registrant s common stock are assumed to be affiliates. This determination of affiliate status is not necessarily conclusive for any other purpose.

As of March 16, 2018, the number of shares outstanding of the registrant s common stock, $.01 par value, was 407,633,450 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 2018 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, 2017.

INTERNATIONAL ISOTOPES INC.

FORM 10-K

TABLE OF CONTENTS

		Page No.
PART I		
Item 1.	Business	1
Item 1A.	Risk Factors	8
Item 1B.	Unresolved Staff Comments	13
Item 2.	Properties	13
Item 3.	Legal Proceedings	14
Item 4.	Mine Safety Disclosures	14
PART II		
Item 5.	Market for Registrant s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	14
Item 6.	Selected Financial Data	14
Item 7.	Management s Discussion and Analysis of Financial Condition and Results of Operations	14
Item 7A.	Quantitative and Qualitative Disclosures About Market Risk	25
Item 8.	Financial Statements and Supplementary Data	25
Item 9.	Changes in and Disagreements With Accountants on Accounting and Financial Disclosure	25
Item 9A.	Controls and Procedures	25
Item 9B.	Other Information	26
PART III		
Item 10.	Directors, Executive Officers and Corporate Governance	26
Item 11.	Executive Compensation	26
Item 12.	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	26
Item 13.	Certain Relationships and Related Transactions, and Director Independence	26
Item 14.	Principal Accounting Fees and Services	27
Item 15.	Exhibits, Financial Statement Schedules	27
Item 16.	Form 10-K Summary	29

Signatures 30

Cautionary Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K (the Annual Report) contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical fact, including statements regarding industry prospects and future results of operations or financial position, made in this Annual Report are forward-looking. Words such as: anticipates, believes, should, expects, future and intends and similar expressions identify forward-looking statements. In particular, statements regarding: the expected growth in business segment revenues, our expansion into new markets, the ability of our products to compete with several larger companies and products, the results of market studies used to support our business model, our anticipated improvement in economic conditions, the expected increased revenue by gaining approval of new generic drug products, our ability to continue cobalt-60 production and manage costs, the commercial opportunity of the proposed depleted uranium and fluorine extraction processing facility, and the sufficiency of our available cash and revenues from operations to meet our operating needs, are forward-looking. Forward-looking statements reflect management s current expectations, plans or projections and are inherently uncertain. Actual results could differ materially from management's expectations, plans or projections. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this Annual Report. Certain risks and uncertainties that could cause actual results to differ significantly from management s expectations are described in the section entitled Risk Factors in this Annual Report. That section, along with other sections of this Annual Report, describes some, but not all, of the factors that could cause actual results to differ significantly from management s expectations. We do not intend to publicly release any revisions to these forward-looking statements that may be made to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events. Readers are urged, however, to review the risks and other factors set forth in the other reports that we file from time to time with the Securities and Exchange Commission (the SEC).

PART I

Item 1.

BUSINESS

General Business and Products Description

International Isotopes Inc. (the Company , we , us and our) was formed as a Texas corporation in 1995. O
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.

During 2017, we focused our efforts on achieving profitability in each of our core business segments and reached several significant goals. During 2017, we:

.

Continued research into the expansion of radiochemical products and performed follow-up work with regard to the 2016 submission of an abbreviated New Drug Application (aNDA) to the U.S. Food and Drug Administration (FDA) for a new generic sodium iodide drug;

.

Maintained improved production methods in our nuclear medicine segment and achieved continued and significant reduction in waste and scrapped material as a result of these efforts;

.

Became a managing member of RadQual, LLC (RadQual), as a result of a change in ownership of RadQual by affiliates of the Company, which we believe will strengthen our ability to develop and market our nuclear medicine products;

.

Contracted with an alternate supplier of cobalt-60 for the purchase of cobalt material to meet near term customer contract obligations;

.

Awarded several radiological services jobs through the U.S. Department of Energy s (DOE) Orphan Source Recovery Program (OSRP) and through the International Atomic Energy Agency (IAEA) in which we were able to use our mobile hot cell both domestically and abroad; and

.

Maintained our relationships in Lea County, New Mexico (location of our proposed de-conversion facility) and continued to pursue opportunities to obtain additional contracts for depleted uranium de-conversion services related to our proposed de-conversion project.

In 2018, we plan to continue efforts to further expand and improve upon our operations in our core business segments. We intend to continue to invest in these segments and work to pursue product development, 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 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 Single Photon Emission Computed Tomography (SPECT) imaging, patient positioning, and calibration or operational testing of dose measuring equipment for the nuclear pharmacy industry. Our nuclear medicine standards products include flood sources, dose calibrators, rod sources, flexible and rigid rulers, spot markers, pen point markers, and a host of specialty design items. These products are manufactured through an exclusive manufacturing agreement with RadQual, of which we own a 24.5% interest. In August 2017, affiliates of the Company purchased 75.5% of RadQual and at that time the Company was named as one of two managing members of RadQual. As a result of this ownership change the Company will have significant influence in management decisions with regard to RadQual s business operations. The Company has a manufacturing agreement with RadQual, that will remain in place and provides that we will manufacture sources exclusively for RadQual and will not manufacture products that would directly compete with RadQual sources.

There are over 5,000 nuclear medicine centers in the United States (U.S.) that require nuclear medicine products on a regular repeat basis. We have been manufacturing these products for RadQual since 2001. The majority of nuclear medicine product sales are to U.S. customers; however, in recent years we have seen an increase in foreign sales. 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. The useful life of these products varies depending on the isotope used in manufacture, 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 and we are not dependent on a single supplier. In addition to the products themselves, we have developed a complete line of specialty packaging for the safe transportation 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 those assets were used to create TI Services, LLC (TI Services). This joint venture has provided sales opportunities in existing and future RadQual product lines both domestically and internationally as a marketer for RadQual products.

Cobalt Products

Our cobalt products segment includes the production of bulk cobalt (cobalt-60), fabrication of cobalt capsules for radiation therapy or various industrial applications, and recycling of expended cobalt sources.

Although historically bulk cobalt sales have accounted for a significant amount of the total revenue from this business segment, as further described below, during the past several years we have not had any bulk sales because of an interruption in cobalt production in the DOE s Advanced Test Reactor (ATR) located in Idaho. However, through continued work with the DOE, a new cobalt target was designed and in October 2014, we entered into a ten-year agreement with the DOE for the irradiation of the new target design which should increase our supply of cobalt material from the ATR in late 2018. Subsequent to completing the agreement with the DOE, we began putting commercial sales agreements in place with some customers. In accordance with those agreements, we began receiving pre-payments from customers on future cobalt shipments which we have recorded as unearned revenue. We expect to recognize significant sales of our cobalt-60 material in late 2018. In the meantime, we have identified a secondary supplier of cobalt-60 material to fulfill customer needs and will also rely on obtaining recycled material for the manufacture of some sources.

The year-over-year demand for cobalt products has remained strong as a result of the introduction of several new types of cobalt therapy units and we have continued to see demand for cobalt-manufactured products for those devices. On an ongoing basis we explore opportunities to further develop cobalt products and sales. 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.

We also own older cobalt targets that are stored at the ATR. We are currently working with the DOE on determining a feasible transfer and shipping method for these targets. The older targets continue to hold significant market value to us provided we are able to transport them to our facility for processing. In December of 2016 we brought in two targets from the ATR which were used to build calibration sources for the DOE. We did not pull any additional older cobalt target material out of the ATR during 2017, however, some material could be transferred and sold during 2018. We will reevaluate the remaining value of this older material at the end of 2018 and either make additional impairments to value or schedule future shipments in 2019.

Radiochemical Products

This segment includes production and distribution of various isotopically pure radiochemicals for medical, industrial, and 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. Sodium Iodide (Iodine-131) radiochemical product accounts for the largest portion of sales within this segment. The bulk of our Iodine-131 is supplied to us through an agreement with NTP Radioisotopes (Pty) Ltd. (NTP) in South Africa and is imported as a radiochemical intended for medical applications. In November 2017, we renewed our agreement with NTP for the supply of Iodine-131 that allows us to purchase iodine at a mutually agreeable pre-determined price through December 2019. Either party may terminate the agreement by giving three months notice prior to the expiration of the term. We have identified additional suppliers of sodium iodide from whom we have purchased material during 2017 and will likely continue this relationship into the future.

Perhaps the most significant business development for the Company during 2016 was our submittal of an abbreviated New Drug Application (aNDA) to the FDA for sodium iodide I-131. During 2017, we continued support and follow-up work with the FDA that such a submission typically requires and will continue these efforts during 2018. 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. This is the first generic application for a sodium iodide product in the U.S. and after FDA approval sales of the product in the U.S. are expected to have a significant and beneficial impact to overall Company revenue and profitability. Other less significant sales of radiochemical in this segment consist of sales of isotopes such as Cobalt-57 (Co-57), Cesium-137 (Cs-137), Germanium 68 (Ge-68), Sodium-22 (Na-22), and Barium-133 (Ba-133).

Radiological Services

This segment includes a wide variety of services such as decommissioning disused irradiation units, performing sealed source exchanges in irradiation and therapy units, and processing gemstones. 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. In November 2016, we made an additional modification to the contract to increase the gemstone processing charge on March 1st of each year thereafter beginning on March 1, 2018. The adjustment to the charge will be based on data provided by the U.S. Bureau of Labor Statistics Historical Consumer Price Index. All other provisions of the agreement remain unchanged. The contract provides that we will act as the exclusive processor of gemstones for Quali-Tech, Inc., for the term of the contract and two years beyond.

We are licensed through the Nuclear Regulatory commission (NRC) to perform 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. We designed and built a mobile hot cell unit to use in this field service work and during 2017 and 2016 used the unit to perform numerous OSRP field service jobs. The unique design of our mobile hot cell allows us to modify the hot cell s components to perform customized source removal. This type of field service work is expected to generate the majority of revenue within this business segment in the coming years and has expanded to include similar international contract opportunities through the International Atomic Energy Agency (IAEA).

Transportation

We established this segment in 2006 through our subsidiary, International Isotopes Transportation Services (IITS), 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 decision to establish this subsidiary and business segment was the high cost of third-party transportation services and high 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. Because our transportation services have historically operated in support of our radiological field services work and other business segments, beginning in 2018, management has decided to eliminate transportation services as a separate reporting segment and will include future transportation service activity within the other business segments for which the service is performed.

Fluorine Products and the Planned Uranium De-conversion Facility

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

We established the fluorine products business segment in 2004 to support production and sale of the gases produced using our Fluorine Extraction Process (FEP) that we intended to use in conjunction with the operation of the proposed depleted uranium de-conversion facility in Lea County, New Mexico. 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 high 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 de-conversion 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.

DUF6 is the waste by-product of uranium enrichment and any uranium enrichment facility will create very large quantities of DUF6. Our intended plant design would process DUF6 into DUF4 and then use the DUF4 in the FEP process, thereby, creating a business model in which the Company is paid to process the DUF6 and then is able to sell the fluoride products produced from the DUF4.

We were able to put an agreement in place with URENCO in 2010 to process some of their DUF6 waste. In October 2012, we received the 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 and the license does not require us to begin construction of the project by any specific date. Therefore, the NRC license represents a significant competitive barrier and we believe that it provides us with a very valuable asset now and in the future when we are ready to resume formal design and engineering work on the plant.

Due to changes in the nuclear industry near the end of 2013, we placed further engineering work on the proposed uranium de-conversion facility on hold. The changes to market conditions were the result of changes in the outlook for growth in the nuclear industry. When we began pursuing this project, there were several companies planning for construction of new commercial uranium enrichment plants in the U.S. The de-conversion service agreement we had put in place with URENCO USA (UUSA), would have used approximately 50% of the installed processing capacity of our proposed de-conversion facility. Plans to obtain additional contracts with the other enrichment companies that would commit the remaining capacity of the planned facility have continued to be delayed because of the general slowdown in nuclear industry growth.

Further activity within this segment will be deferred until market and industry conditions change and justify resuming design and construction of the facility. In the meantime, we expect to continue to incur some costs associated with the maintenance of licenses, property agreements, and other project investments. Meanwhile, however, the facility operated by UUSA continues to produce and stockpile depleted uranium tails and, therefore, we believe there is still an opportunity to provide commercial depleted uranium de-conversion services at some point in the future. We were also made aware in 2015 that the DOE may have a need for DUF4 material and we are continuing to monitor that additional opportunity. We expect that, either DOE needs for DUF4 material or commercial enrichment needs to process DUF6 waste, will eventually dictate the appropriate time to resume this project.

In connection with the proposed de-conversion facility, Lea County, New Mexico transferred property to the Company under the provisions of the New Mexico Local Economic Development Act, Project Participation Agreement (PPA) as a location for construction of the facility. Under the original agreement, the Company was obligated to meet certain performance objectives. The Company did not meet these objectives, however, in July 2015, the Company executed an amendment to the PPA that extended the due date of the Phase I construction to December 31, 2016, and Phase I completion and hiring at least 75 employees to December 31, 2016. The Company did not meet the December 31, 2016 deadline and management is working with Lea County to execute an additional modification to the agreement to further extend these dates to at least 2020. If the Company does not succeed in extending the commitment dates or in reaching performance dates set forth in a modified agreement then it may either purchase or re-convey the property to Lea County, New Mexico. In addition, if Lea County does not agree to that modification and the Company does not retain title to the property, it could have a material adverse impact on our planned de-conversion and FEP project since another location would need to be selected and evaluated for environmental compliance.

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 reference standard products for one customer, RadQual, which in turn has many distributors who make direct sales around the U.S. and internationally. We directly ship these products to all 50 states and many 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 are certified under ISO-9001:2008 and ISO-13485-2003 quality programs that have allowed us to start selling these products into several foreign countries that require this additional quality certification for manufacturers. We use a small number of suppliers for the isotopes and other materials used in manufacturing these nuclear medicine products, but if we were to lose any of these suppliers, others would be available.

Cobalt Products

Historically, we sold high-activity bulk cobalt to one customer that used it to fabricate several models of sealed sources for medical and industrial applications. In June 2012, a leak of a cobalt target at the ATR 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. Due to this issue, we were forced to discontinue the irradiation of that cobalt target design. Aside from a few shipments in 2014 and 2016 we have not been able to process this old material due to the lack of a suitable transportation container. Therefore, we have not recorded any bulk cobalt sales for the past several years. With some residual high activity cobalt material that we held at our facility and bulk cobalt purchased from another supplier, we were able to manufacture some sealed source products through 2017 and anticipate continued manufacture into 2018 using this alternate cobalt supply.

In 2014, we entered into a new 10-year agreement with the DOE utilizing a new cobalt target design. Because of the lengthy irradiation time required we anticipate that cobalt shipments to customers will resume in late 2018. Our cobalt products are used in applications such as radiation therapy, security devices, radiography examination and in some commercial applications. While there are other technologies available to provide external radiation therapy, there are several new devices just gaining market approval that still depend on cobalt sources for their specialized applications. There are currently no other producers of high specific activity cobalt in the U.S., however, there is one producer of medium specific activity material and there are at least three significant producers of high specific activity material in Canada and other parts of the world. In addition to us, there is only one other company in the U.S. currently licensed to handle large quantities of cobalt.

We manufacture cobalt sources as well as 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 new entrants to this market. We expect steady demand for cobalt sealed source products over the next several years but are currently dependent upon our contract relationship with the DOE for access to its ATR in Idaho for the majority of our cobalt production activities. The interruption to cobalt production experienced in 2012 had a significant negative impact on our cobalt products business segment, and although we currently have a ten-year irradiation contract in place with the DOE, future interruptions in the operation of the ATR could have a negative impact on our cobalt products business segment. With our new cobalt production contract in place with the DOE we anticipate our market position in this business segment will remain strong in future years.

Radiochemical Products

We typically supply radiochemical 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 FDA approved therapy or imaging.

In November 2016, we submitted an aNDA to the FDA for a sodium iodide (I-131) radiopharmaceutical product. The FDA has responded to our submission with various inquiries which will require continued effort and refinement of our submission. We will respond to the FDA s comments and continue the efforts towards FDA approval of this radiopharmaceutical product during 2018.

Fluorine Products and the Planned Depleted Uranium De-conversion Facility

Our Fluorine Products segment was developed 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 de-conversion facility, we believe that in the future there will be a resumption of nuclear growth, driven by recent interest in Small Modular Reactors (SMR s), that could positively impact the front end of the nuclear fuel cycle (i.e. uranium enrichment). 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. We have also seen some interest by the DOE for a possible future supply of DUF4. We intend to continue to monitor these opportunities and maintain our licenses and other necessary project investments so that the project activities can be resumed when market conditions improve.

Radiological Services

Historically, most of our radiological services have been performed in support of gemstone processing for Quali-Tech, Inc. Gemstone processing has fluctuated in recent years but has recently gained traction and has remained a significant contributor to this segment s revenue.

In the past several years, we have seen increased opportunities for radiological field service activities involving installation or decommissioning of radiation devices in hospitals, research institutions, and various other commercial facilities. In 2012, we obtained our first amendment to our NRC license to permit certain field service activities and since that time radiological field service work has become a significant contributor to revenue within the segment. During 2017 and 2016 we were awarded several contracts for field service activities in connection with the DOE s OSRP project as well as contracts through the IAEA. We designed and built a mobile hot cell unit for use in this field service work and in 2014 and 2015 we were granted additional amendments to our NRC license that have allowed us to expand the types of services we can provide. The design of our mobile hot cell allows us to adapt it to work in various source removal situations that would not otherwise be possible. We will continue to use the mobile hot cell to support these expanded services both domestically and internationally. While there are other companies that compete with us for field services work, we believe our mobile hot cell gives us a unique competitive advantage in some of these opportunities. In 2017, we worked to further increase these field service opportunities in the U.S. and abroad and expect that, in future years, field services will be the major source of revenue within this business segment.

Transportation

IITS was formed to support transportation of our own products and to provide for hire transportation services. IITS has specialized in the transportation of hazardous, radioactive materials including large cobalt shipments. These types of shipments face a significant amount of regulation and enhanced security requirements and IITS has been well suited in meeting those requirements. IITS has specially trained drivers and specially equipped vehicles intended to meet the standards for transportation of large cobalt shipments. Over the years the business activities in this segment have been primarily derived from the Company s radiological services and cobalt products business segments. Because of this, Company management believes that combining the transportation services financial reporting within these other segments would provide more qualitative reporting and will begin such reporting in the first period of 2018.

Government Regulation

Licensing

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

As a condition of our NRC licenses in Idaho, we are required to provide financial assurance for decommissioning activities. We fulfill this license requirement with a surety bond which names the NRC as beneficiary and is supported by a restricted cash account held in trust by a third party. In January 2018, we re-evaluated the financial assurance needed to support decommissioning and will be increasing the bond amount and the restricted cash amount during the first quarter of 2018. Similar financial assurances will be required to fund the decommissioning of the proposed de-conversion facility.

In October 2012, we were granted a 40-year construction and operating license by the NRC for our planned depleted uranium de-conversion and fluorine extraction processing facility (the de-conversion facility). The de-conversion facility, is planned to be located in Lea County, New Mexico, and 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 the proposed de-conversion facility was placed on hold in 2013 until additional contracts for utilization could be obtained. There is no specific timeline required by the NRC for the start of construction on this project. The majority of the pre-construction design, licensing and state permitting has already been completed for the project and a ground water permit from the state of New Mexico remains to be obtained before the plant could begin operation.

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 (LLRW) Policy Act (LLRW Act), which requires the safe disposal of mildly radioactive materials. The estimated costs for storage and disposal of these materials have been included in the manufacturing and sales price of our products. 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.

The planned de-conversion facility will produce large quantities of depleted uranium oxide waste. Disposal of depleted uranium waste will be the responsibility of the customers suppling DUF6 to the company for de-conversion. There are proposed changes to some of the regulations for low level radioactive waste disposal that could impact the rules surrounding disposal of large quantities of depleted uranium. The Company will continue to monitor any changes in the regulatory framework that could impact the de-conversion facility project.

Nuclear Regulatory Commission Oversight

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

Other Regulations

We are registered as a medical device manufacturer through the FDA for several of our nuclear medicine 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 to be in compliance with cGMP for our sodium iodide product and are registered with the FDA as an Active Pharmaceutical Ingredient manufacturer and a manufacturing facility. In November 2016, we submitted an aNDA for our sodium iodide product. Once approved the facility will thereafter be subject to periodic and random inspections by the FDA for the continued manufacture of this drug product.

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

Employees

As of December 31, 2017, we had 30 total employees including 28 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 transportation vehicles and personnel 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, and that invoke certain special transportation requirements, we use our own specially trained transportation employees.

Dependence on Customers

Historically, we have been dependent on one customer, RadQual, of which we own 24.5%, for a significant amount of our gross revenue. In August 2017, several affiliates of the Company purchased the remaining 75.5% and at that time, the Company was named as a managing member of RadQual. Our sales to RadQual prior to August 2017 accounted for approximately 17% of total gross revenue for 2017.

Combined sales, on which we are dependent, to our three largest customers, accounted for 31% of our total gross revenues in 2017 and accounted for 43% of our total gross revenues in 2016. 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, to expand distribution of products. The change in ownership of RadQual, and naming the Company as a managing member of RadQual business operations, has significantly reduced any risk associated with RadQual as a single major customer to the Company.

Patents, Trademarks, Licenses and Royalty Agreements

In 2004, we obtained certain patents related to the FEP. 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 and in 2014 the FEP process patent was granted in South Africa. In 2015, the FEP process patents in China and Japan were abandoned and in 2017 the process patent in Canada was abandoned. The applications in the other countries are still in process.

Research and Development

In 2017, we had research and development expenses totaling $376,698, compared with $511,283 in 2016. These expenses were primarily associated with current product development activities related to our sodium iodide product.

Available Information

Our internet website address is http://www.intisoid.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 Company Generally

We have incurred, and may continue to incur, losses. We have incurred net losses for most fiscal periods since our inception. From inception through December 31, 2017, we have generated $104,648,480 in revenues and an accumulated deficit (including preferred stock dividends and returns) in the amount of $125,696,845. 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.

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 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. We have a Surety Bond in place supported by funds in a restricted cash account to provide the financial assurance required by the NRC for our Idaho facility license for decommissioning and a similar mechanism will be required to fund the decommissioning of the proposed new depleted uranium facility. However, if a contamination event occurred within, or outside of, our facility we 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, 2022. 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 factors 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 for the delivery of our goods and services are beyond our control and any disruption or halt in supplies, or rapid escalations in costs could affect our ability to manufacture products or to competitively price our products in the marketplace. For instance, an interruption in the supply of isotopes such as cobalt-57, cobalt-60, or iodine-131 could result in lost sales of nuclear medicine and calibration standards sales, cobalt product 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. For waste that cannot be decayed in storage we must handle this waste pursuant to the Low Level Radioactive Waste Policy Act, which requires the safe disposal of mildly radioactive materials. The estimated costs for storage and disposal of these materials have been included in the manufacturing and sales price of our products. However, actual disposal costs are subject to change at the discretion of the disposal site and are ultimately applied at the time of disposal.

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.

NRC License Enforcement Actions. The NRC may take enforcement action in the event that the Company is found to be in violation of NRC regulations or in violation of any of our license requirements. Consequences of violations depend upon the severity of the violations as well as the adequacy and timeliness of corrective actions implemented by the licensee to investigate and correct the cause of the violation and to prevent reoccurrence. The NRC has discretionary authority in the action they choose to take against license violations, but these actions can include civil penalties and restrictions upon licensee operations or license suspension.

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, 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 have incurred, and expect to continue to incur, capital and operating costs to comply with these laws and regulations. In addition, changes in laws, regulations and enforcement of policies, or the imposition of new clean-up requirements or remedial techniques, could require us to incur costs in the future that would have a negative effect on our financial condition or results of operations.

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

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 products that achieve market acceptance with acceptable margins. Our businesses operate in global markets that are characterized by rapidly changing technologies and evolving industry standards. Accordingly, our future growth rate depends upon 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 or U.S. Food and Drug Administration approval can affect our competitive position and requires the investment of significant resources. These development efforts divert resources from other potential investments in our businesses, and they may not lead to the development of new products on a timely basis or that meet the needs of our customers as fully as competitive offerings. In addition, the markets for our products may not develop or grow as we currently anticipate. The failure of our technologies or products to gain market acceptance due to more attractive offerings by our competitors could significantly reduce our revenues and adversely affect our competitive standing and prospects.

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 ATR 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 radiochemical iodine is supplied to us through two supply sources with a third source expected to become available during 2018. 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 2017 and 2016, sales to RadQual represented 17% and 31%, respectively, of our total gross revenue. Combined sales to our three top customers accounted for 31% of our total gross revenue during 2017, and combined sales to our top three customers accounted for 43% of gross revenue in 2016. 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 providers of radiological field services. Most of our competitors have significantly greater financial resources that could give them a competitive advantage over us.

Risks Related To Our Common Stock

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

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

We are contractually obligated to issue shares in the future, which will dilute your interest in us. As of December 31, 2017, there were approximately 2,750,000 shares of common stock issuable upon exercise of vested stock options outstanding, at a weighted-average exercise price of $.05 per share. An additional 13,625,975 shares were reserved for issuance under our equity plans as of December 31, 2017. Our outstanding preferred stock and certain of our outstanding debt is also convertible into shares of our common stock at the holders option. In addition, we expect to issue additional options to purchase shares of our common stock to compensate employees, consultants and directors, and we may issue additional shares to raise capital to expand our manufacturing capability, develop additional products, or fund 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, 2017, were Series L Warrants for the issuance of 25,000,000 shares of common stock, Series M Warrants for the issuance of 17,165,000 shares of common stock and Series N Warrants for the issuance of 2,925,000 shares of common stock. The weighted average exercise price for all outstanding warrants as of December 31, 2017 was $0.09 per share.

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 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 products using FEP;

effectively manage this new business and its operations;

successfully establish and maintain our intended low-cost structure; and

successfully address the other risks described throughout this Annual Report.

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

We currently have only one contract to provide de-conversion services to an enrichment firm. We currently have only one de-conversion services agreement with UUSA but that agreement is effectively expired since all of the contract milestone dates have passed. The initial term of the agreement was to extend for a period sufficient to cover the first five years of de-conversion services once our planned uranium de-conversion facility is operational, based on operations that were to have started no later than January 1, 2014. UUSA has indicated they are willing to discuss possible modification of the agreement commitment dates once we establish firm dates for start of construction. 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 start of operations 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 at a price determined by DOE. We believe our depleted uranium processing facility will offer the better value to enrichment companies but we cannot assure you that enrichment companies will not select the DOE as their de-conversion service provider. If UUSA terminates our agreement and other enrichment companies do not resume their enrichment facility construction plans, we may not be able to realize the expected economic benefit from our planned de-conversion and FEP production plant.

We may 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. Additionally, the NRC is revising its regulations on the disposal of depleted uranium waste at Low Level Radioactive Waste (LLRW) disposal facilities that accept large 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. Under the original agreement, we were obligated to meet certain performance objectives; namely starting Phase I construction no later than December 31, 2014, completing Phase I and hiring at least 75 employees by December 31, 2015, in order to retain title to the property. We did not meet either of those deadlines. However, in July 2015, we executed an amendment to the PPA that extended the due date of the Phase I construction to December 31, 2016, and Phase I completion and hiring at least 75 employees to December 31, 2017. We did not meet either of those deadlines and we are working with Lea County to execute an additional modification to the agreement to further extend these dates to at least 2020. If we do not succeed in extending the commitment dates or in reaching performance dates set forth in a modified agreement then we may, at our sole option, either purchase or re-convey the property to Lea County, New Mexico. In addition, if Lea County does not agree to that modification and we do not retain title to the property, it could have a material adverse impact on our planned de-conversion and FEP project since another location would need to be selected and evaluated for environmental compliance.

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.

Item 1B.

UNRESOLVED STAFF COMMENTS

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

Item 2.

PROPERTIES

We lease one property which serves as or main corporate headquarters and houses all of our current manufacturing operations for our core business segments. We also hold the conditional title to 640 acres of land in Lea County, New Mexico for the proposed de-conversion facility. The following paragraphs provide a brief summary of these properties.

4137 Commerce Circle, Idaho Falls, Idaho 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.

Land - Lea County, New Mexico In August 2011, we received land from Lea County, New Mexico, pursuant to a PPA, 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 were to begin construction of the de-conversion facility no later than December 31, 2014, and complete Phase I of the project and have hired at least 75 persons to operate the facility no later than December 31, 2015, although commercial operations need not have begun by that date. We did not meet the performance milestones set forth in the PPA and we executed a modification to the agreement extending these due dates to December 31, 2016 and 2017 respectively but did not meet either of those milestones and are working again with Lea County to further extend the commitment dates. If we do not succeed in extending the commitment dates or in reaching performance dates set forth in a modified 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. 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

In 2016, we delivered a Demand for Arbitration letter to Alpha Omega Services (AOS) of Bellflower, California, seeking the recovery of a $255,000 deposit on a shipping container. The demand letter requested arbitration before the American Arbitration Association seeking the recovery of the cash deposit made to AOS plus additional amounts for lost revenue as a result of not owning the container, for a total claim of $1,673,241. Arbitration proceedings took place in 2017. In December 2017, we received notification that we would not recover any damages from AOS through arbitration. Accordingly, we recorded a $255,000 loss on deposited funds which is included in other expenses on the consolidated statements of income.

Item 4.

MINE SAFETY DISCLOSURES

Not applicable.

PART II

Item 5.

MARKET FOR REGISTRANT S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is traded on the OTCQB under the trading symbol INIS . High asked prices and low bid prices reported by the OTCQB 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
2017	1st	$0.12	$0.06
2017	2nd	$0.10	$0.06
2017	3rd	$0.09	$0.05
2017	4th	$0.11	$0.07
2016	1st	$0.11	$0.08
2016	2nd	$0.11	$0.08
2016	3rd	$0.09	$0.06
2016	4th	$0.14	$0.06

As of March 22, 2017, there were 522 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 of our common stock for the foreseeable future.

Item 6.

SELECTED FINANCIAL DATA

We are a smaller reporting company, 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 our results of operations and financial condition should be read in conjunction with the accompanying financial statements and related notes thereto included in Item 8, Financial Statements and Supplementary Data, within this Annual Report.

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, pharmacy compounding, and clinical applications. We also provide a host of transportation, recycling, and processing services on a contract basis for customers. A more detailed description of each of these product lines and services along with a description of our business segments can be found in Item 1, Business within this Annual Report.

During 2017, we focused our efforts on achieving profitability in each of our core business segments and reached several significant goals. During 2017, we:

.

Continued research into the expansion of radiochemical products and performed follow-up work with regard to our 2016 submission of an abbreviated New Drug Application (aNDA) to the U.S. food and Drug Administration for a new generic sodium iodide drug;

.

In February 2017, we issued 3,433 shares of Series C redeemable convertible preferred stock (Series C Preferred Stock) and warrants in which $205,000 of convertible debt was exchanged for shares of the Series C Preferred stock;

.

In March 2017, we amended our 8% convertible notes to provide noteholders with certain additional rights to convert any or all of the convertible debt held into shares of Series C Preferred Stock and warrants and $1,835,000 of debt was retired in early cash redemptions and $780,000 of debt was converted into an aggregate of 780 shares of Series C Preferred Stock;

.

As a result of continued focus on manufacturing practices and procedures in our nuclear medicine product manufacturing area, we maintained a minimum level of wasted and scrapped material in that segment;

.

We were successful in purchasing additional cobalt-60 for customers to stem the shortages in supply that have occurred in the past, and that will continue to occur until the first full cobalt irradiation services are completed in 2018;

.

Following an ownership change of RadQual. we were placed in the position of managing RadQual business operations. This change in management secures the Company s contract manufacturing role and allows the Company to begin accelerated marketing and product development for an expanded RadQual product line;

.

We were awarded several radiological services jobs through the U.S. Department of Energy s (DOE) Orphan Source Recovery Program (OSRP) as well as contracts with the International Atomic Energy Agency (IAEA) in which we were able to use our mobile hot cell; and,

.

We continued to support the essential tasks related to our de-conversion project and continued to pursue opportunities to obtain contracts with other companies for depleted uranium de-conversion services.

Business Strategy and Core Philosophies

Broadly defined, our business strategy is to continue to build our reputation as a leader in the cobalt, radiochemical, field services, and nuclear medicine product industries, as well as seek ways to improve our customer service and expand our market share, with the ultimate goal of providing greater return to our shareholders. Specifically, we are continuously working with our customers to improve and develop products to better serve the needs of the end user which, ultimately, we believe will boost product sales. A key part of our short-term and long-term business strategy is to develop and market additional generic drug products, such as our sodium iodide product, in our core business segments that will offer customers a high quality and desirable product as well as increase our revenues and secure additional customer contracts. In addition, we will pursue financial support that will be structured in such a way to support further expansion of our products and services.

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 providing a safe and high-quality working

environment for our employees. We operate in accordance with an ISO Quality Management System and in accordance with all current Good Manufacturing Practices under which we seek to maintain the highest level of quality and continuously improve our product manufacturing processes.

Results of Operations

Following is a summary of results of operations for 2017:

.

Revenue in 2017 was approximately $7.4 million which is a 13% increase over 2016;

.

Our 2017 sales in our Radiochemical Products, Nuclear Medicine Products, and Radiological Services business segments all increased as compared to 2016;

.

Our 2017 sales in Cobalt Products and Transportation declined as compared to 2016;

.

Our total gross profit rate increased from 43% in 2016 to 44% in 2017; and

.

Our operating costs for 2017 increased approximately 22% as compared to operating costs for 2016 and resulted in an increase in net loss compared to 2016.

Year Ended December 31, 2017 Compared to Year Ended December 31, 2016

The following table presents comparative revenues for the years 2017 and 2016:

Revenues		For the year ended December 31, 2017	% of Total Revenues 2017		For the year ended December 31, 2016	% of Total Revenues 2016
Radiochemical Products	$	2,321,732	31%	$	1,708,120	26%
Cobalt Products		507,904	7%		859,034	13%
Nuclear Medicine Standards		3,232,229	44%		3,093,295	47%
Radiological Services		1,332,662	18%		769,702	12%
Fluorine Products		-	-		-	-
Transportation		25,863	0%		121,998	2%
Total Segments	$	7,420,390	100%	$	6,552,149	100%

Revenues

Total revenues in 2017 were $7,420,390, compared to $6,552,149 in 2016, which represents an increase of $868,241, or approximately 13%. The details of each segment are discussed below.

Revenues		For the year ended December 31, 2017		For the year ended December 31, 2016		$ change	% change
Radiochemical Products	$	2,321,732	$	1,708,120	$	613,612	36%
Cobalt Products		507,904		859,034		(351,130)	-41%
Nuclear Medicine Standards		3,232,229		3,093,295		138,934	4%
Radiological Services		1,332,662		769,702		562,960	73%
Fluorine Products		-		-		-	-
Transportation		25,863		121,998		(96,135)	-79%
Total Segments		7,420,390		6,552,149		868,241	13%
Corporate revenue		-		-		-	-
Total Consolidated	$	7,420,390	$	6,552,149	$	868,241	13%

Radiochemical Products

Sales of radiochemical products accounted for approximately 31% of our total sales revenue in 2017 and approximately 26% of total sales revenue in 2016. Sales in this segment increased by $613,612, or approximately 36% to $2,321,732 as compared to $1,708,120 in 2016. This increase in the year-to-year revenue comparison is primarily the result of increased demand for our products as a result of a major competitor stopping the supply of sodium iodide product in October 2016 resulting in facilities turning to us for their supply of sodium iodide product throughout 2017.

Within this segment, we currently distribute sodium iodide (I-131) as a radiochemical product. This product is being used for a variety of applications including use in investigational and clinical trials for the treatment of breast, lung, prostate, and ovarian cancers. In November 2016, we submitted an aNDA to the FDA for a sodium iodide radiopharmaceutical product. The FDA accepted the application for review in April 2017 and has subsequently provided the Company with some additional comments on the application. The Company is working to address those comments as quickly as possible and the Company expects to application is be approved by the FDA later in 2018.

This is the first of several potential generic drug products we plan to submit to the FDA in the coming years. We believe that the product enhancements we have made, in addition to the generic drug products we plan to submit to the FDA, should increase future sales in this business segment.

Cobalt Products

Cobalt products sales accounted for approximately 7% of our total sales revenue in 2017 and approximately 13% in 2016. Sales in this segment decreased by $351,130 in 2017 to $507,904, as compared to $859,034 in 2016. The decrease is the result of an interruption in cobalt supply from the DOE s ATR and our limited options of alternate cobalt suppliers. Our sealed source manufacturing generates the majority of our revenue within this segment and sealed source sales depend on our ability to produce or procure cobalt material.

Although we have not been able to obtain high specific activity material from the ATR reactor since late 2013, periodically we are able to acquire recycled material that can be used to manufacture sealed sources for customers, and in some instances, our customers have supplied their own cobalt material for source fabrication. In October 2014, we entered into a ten-year agreement with the DOE for the irradiation of cobalt targets. It takes approximately two to three years to irradiate the cobalt targets to the desired level of activity and we anticipate having high specific activity cobalt available for our customers in late 2018, and every year thereafter, through at least 2024. The agreement gives us the ability to purchase the current full capacity of the DOE s ATR throughout the ten-year period.

Also, in March of 2017, we completed a purchase agreement for some additional cobalt material from a supplier and that material was delivered to us in late 2017 and early 2018. Although the limited availability of cobalt material during most of 2017 directly impacted our ability to manufacture high activity sealed sources in this business segment, with the receipt of the material from our alternate supplier, we anticipate significantly increased sales in this business segment during 2018. Additionally, during late 2018 we expect to receive material currently undergoing irradiation at the ATR which should also support strong cobalt product sales in late 2018 and beyond.

In 2015, we entered into cobalt supply agreements with several customers and during 2016, we entered into one additional cobalt-60 supply agreement with a customer. Pursuant to these contracts, we will supply bulk cobalt-60 and, in some cases, these agreements include source manufacturing and installation services. The terms of these cobalt contracts require quarterly progress payments from each customer. The funding received under these contracts has been recorded as unearned revenue under short- and long-term liabilities in our consolidated financial statements. We expect to begin recognizing the revenue when contract performance objectives are met and actual sales begin which is expected to be late 2018.

As of December 2017, we continued to hold many in-progress old design cobalt targets at the ATR. In 2017, in performing year-end analytical procedures, we concluded that the older design targets we hold at the ATR, and that we continue to report as inventory, hold varying but significant market values in excess of their current carrying values and we concluded that no impairment existed at that time. We will periodically continue to review the residual value of this cobalt material for potential impairment and make adjustments as deemed appropriate.

Nuclear Medicine Standards

Sales of nuclear medicine standards accounted for approximately 44% and 47%, of our total sales revenue in 2017 and 2016, respectively. Sales in this segment increased by $138,934, or approximately 4%, to $3,232,229 in 2017, as compared to $3,093,295 in 2016.

In August 2017, affiliates of the Company purchased 75.5% of the member units of RadQual and at that time, the Company was named as one of the managing members of RadQual. Because of this change in member ownership and management, we have consolidated RadQual s operations within the nuclear medicine segment for financial reporting. For purposes of consolidation, all significant intercompany activity has been eliminated in the reporting process. Prior to this change in control, we reported our 24.5% interest in RadQual using the equity method of accounting.

As a result of the change to consolidated reporting, revenue in this segment includes our sales to RadQual prior to August 10, 2017, all sales of RadQual from August 10, 2017 to December 31, 2017 and all sales of TI Services, a 50/50 joint venture that we formed with RadQual in December 2010, to distribute products and services for nuclear medicine, nuclear cardiology and PET imaging. All intercompany sales for the consolidated period have been eliminated.

The table below presents sales for the two years ended December 31, 2017 and December 31, 2016:

	For the year ended December 31, 2017 Consolidated	For the year ended December 31, 2016	$ change	% change
Nuclear Medicine Standards	$ 3,232,229	$ 3,093,295	$ 138,934	4%

Our sales to RadQual for January 1, 2017 to August 10, 2017 were $1,290,482. Sales reported by our nuclear medicine segment for the year ended December 31, 2017, net of intercompany sales, were $3,232,229, and sales for the year ended December 31, 2016, were $3,093,295. This is an increase in sales of $138,934, or approximately 4% for the year ended December 31, 2017 as compared to the same period in 2016. We anticipate that our sales through RadQual will remain strong and that, with the new RadQual member ownership and our management, we will have significant future opportunities to work on product development and customer service improvements. Additionally, we will continue to work closely with TI Services using their expertise in marketing and distribution strategies to boost flood source sales and sales of other medical supplies through TI Services.

Radiological Services

The following table presents radiological services revenue for the two years ended December 31, 2017 and 2016:

Radiological Services	For the year ended December 31, 2017	For the year ended December 31, 2016	$ change	% change
Gemstone Processing	$ 382,264	$ 365,990	$ 16,274	4%
Radiological Field Services	950,398	403,712	546,686	135%
	$ 1,332,662	$ 769,702	$ 562,960	73%

Revenues from our Radiological Services segment accounted for approximately 18% of our total sales revenue in 2017, and approximately 12% in 2016. Sales in this segment increased by $562,960, or approximately 73%, from $769,702 in 2016, to $1,332,662 in 2017. The increase in revenue is attributable to contracts awarded to us under the DOE s OSRP and through the IAEA.

Revenue from field service work performed in connection with both the DOE s OSRP and the IAEA accounts for the majority of revenue in this segment and was $950,398 for the year ended December 31, 2017, and $403,712 for the same period in 2016. In addition to several OSRP jobs performed, in late 2017 we were awarded two jobs for the removal of disused sources in several locations in South America. We recognized revenue from one of these jobs in 2017 after performing contractual milestone obligations. Revenue from the other jobs performed for the IAEA will be recognized in early 2018 as these jobs are completed. Field service contract work offered by the DOE and the IAEA is somewhat sporadic and we expect that, as a result, the revenue comparisons will continue to vary from year-to-year.

Revenue from gemstone processing for the year ended December 31, 2017, was $382,264 compared to $365,990 for the same period in 2016. This is an increase of $16,274, or approximately 4% and is the result of larger volumes of material shipped to us for processing during the year ended December 31, 2017 as compared to the same period in 2016. We believe that these fluctuations are based on current market demand for luxury items such as jewelry and anticipate similar fluctuations to occur in future periods.

Radiological Field Services accounted for approximately 71% of the Radiological Services segment sales in 2017 and approximately 52% in 2016. Gemstone processing accounted for approximately 29% of Radiological Services sales in 2017 and approximately 48% in 2016.

Fluorine Products

There was no revenue to report from the Fluorine Products segment for 2017. We developed our fluorine products in conjunction with the uranium de-conversion project, 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 Fluorine Extraction Process (FEP). 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. From 2004 to 2012, we used a pilot facility to develop production processes for various high-purity products and to test methods of scaling up the size of FEP production in support of a planned de-conversion facility in Lea County, New Mexico. In 2012, we completed our testing of individual components and analytical processes and late in 2013 we closed the pilot plant facility. Also, in 2013, we made the decision to place continued formal design work on the

---

proposed de-conversion facility on hold until such time that we are able to secure additional de-conversion services contracts. Until such time that work resumes on the project we will limit our expenditures to essential items such as maintenance of the NRC license, land use agreements, communication with our prospective FEP product customers, and interface with the State of New Mexico and Lea County officials.

During 2017, we incurred $209,110 of planning and other expenses related to the de-conversion project, as compared to $378,705 in 2016. This is a decrease of $169,595, or approximately 45%, and is the result of costs allocated to this project in 2016 for a one-time radiological waste disposal which was a legacy from the pilot testing program. There was no similar cost allocation in 2017. We expect that our costs in the future will be limited to essential items such as continued interactions with our customers, the state of New Mexico, and Lea County, New Mexico.

Transportation

Revenues from our Transportation segment were $25,863 for the year ended December 31, 2017, and $121,998 for the same period in 2016. There are numerous regulations that apply to, and agencies which monitor, the security and tracking of cobalt shipments and our Transportation segment has historically specialized in the transport of hazardous, radioactive materials, including large cobalt shipments. Over the years the business activities in this segment have been primarily derived from our radiological services and cobalt products business segments. Because of this, we believe that combining the transportation services financial reporting within these other segments would provide more qualitative reporting and we will begin such reporting in the first period of 2018.

Cost of Revenues and Gross Profit

Cost of revenue for 2017 was $4,182,705 as compared to $3,707,558 in 2016, an increase of $475,147, or approximately 13%. Gross profit percentage increased to 44% for 2017, from 43% in 2016. The following table presents revenues and cost of revenues information:

	For the year ended December 31, 2017	% of Total Revenues 2017	For the year ended December 31, 2016	% of Total Revenues 2016
Total Revenues	$ 7,420,390		$ 6,552,149	

Cost of Revenues						
Radiochemical Products	$	1,709,820	23%	$	1,245,809	19%
Cobalt Products		105,055	1%		200,337	3%
Nuclear Medicine Standards		1,827,311	25%		1,927,423	29%
Radiological Services		536,652	7%		307,315	5%
Fluorine Products		-	-		-	-
Transportation		3,867	0%		26,674	1%
Total Segments	$	4,182,705	56%	$	3,707,558	57%

During 2017, we continued to monitor and control direct costs. Raw materials used in both our radiochemical products and our nuclear medicine standards manufacturing represent the bulk of direct costs in each of these business segments and we have purchase agreements in place with suppliers to obtain optimum pricing. Periodically, the cost of these raw materials increases or we may also use alternate supply sources for our material which might not carry pricing as favorable as our contracted suppliers. In our cobalt products segment, we have identified a supplier for cobalt-60 material used in source production which will increase our direct costs in that business segment. We have turned to alternate suppliers for this material until we are able to obtain cobalt from the targets currently undergoing irradiation at the DOE s ATR.

Throughout 2017, in our nuclear medicine product segment, we maintained a low cost of scrapped material as a result of adjustments made in the manufacturing processes in this segment during 2016. In 2017, as part of our monthly procedures, we recorded approximately $1,500 of scrapped raw material in our cobalt products segment and during 2016, as part of our periodic review of raw material inventory, we recorded approximately $47,000 of impairment expense for raw material that no longer held economic value to us. The expense was recorded as cost of sales in our cobalt products segment in both 2017 and 2016. With the exception of the cost of cobalt material, we are not aware of any significant future price increases that may potentially affect our cost of revenues.

Operating Costs and Expenses

Total operating costs and expenses for 2017 were $5,303,258, as compared to $4,347,575 in 2016. This is an increase of $955,683, or approximately 22%.

The following table presents operating costs and expenses for 2017 as compared to 2016:

	For the year ended December 31, 2017	For the year ended December 31, 2016	% change	$ change
Operating Costs and Expenses:				
Salaries and Contract Labor	$ 2,118,257	$ 1,782,774	19%	$ 335,483
General, Administrative and Consulting	2,808,303	2,053,518	37%	754,785
Research and Development	376,698	511,283	-26%	(134,585)
Total operating expenses	$ 5,303,258	$ 4,347,575	22%	$ 955,683

The 22% increase in operating expense noted above, for the year ended December 31, 2017, as compared to the same period in 2016, is largely due to significant legal costs incurred during 2017 and is discussed in more detail below.

Salaries and contract labor expense increased by $335,483, or approximately 19%, which is the result of annual salary and wage increases and periodic performance awards made during the year as well as the addition of personnel. In addition, non-cash equity compensation expense recorded for the year ended December 31, 2017 was $163,873 as compared to $64,785 for the same period in 2016. This is an increase of $99,088, or approximately 153%, and is the result of equity compensation recorded for 11,500,000 stock options granted to employees and non-employees in July 2017. Non-cash equity compensation is calculated based on unexercised and outstanding stock options, warrants, and other equity-based instruments. As these instruments become fully vested, are exercised or expire the related non-cash compensation expense will decrease.

General administrative and consulting expenses increased to $2,808,303 in 2017, as compared to $2,053,518 in 2016, an increase of $754,785, or approximately 37%. This significant increase is the result of legal costs incurred during the year ended December 31, 2017, as compared to the same period in 2016. In March 2016, we submitted a demand for arbitration letter to Alpha Omega Services (AOS) and requested arbitration before the American Arbitration Association in an attempt to recover monies paid to AOS as deposit on a shipping container and for lost revenue as a result of not owning the container. Arbitration proceedings took place on several occasions during 2016 and 2017. The matter was settled in December 2017 when we received notification from the American Arbitration Association that we would not recover any damages. Total legal costs recorded during the year ended December 31, 2017 were approximately $791,000 whereas during the same period in 2016, total legal costs recorded were approximately $263,000.

Also, during the year ended December 31, 2016, we recorded $229,000 of waste disposal costs whereas we had no similar expense during the same period in 2017.

Research and development expense was $376,698 for 2017 as compared to $511,283 for 2016. This is a decrease of $134,585, or approximately 26%. The majority of this decrease in research and development expense is the result of reduction in costs associated with development work being done in our radiochemical products business segment, specifically, reduced consulting costs pertaining to the submittal of the abbreviated new drug application to the FDA. During both 2017 and 2016 we limited further investment in the planned de-conversion facility and limited further spending on the project only for 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 2017 was ($1,656,750) compared to ($392,559) in 2016:

	For the year ended December 31, 2017		For the year ended December 31, 2016	
Other income (expense)	$	(1,203,234)	$	6,605
Equity in net income of affiliate		53,173		73,957
Interest income		3,051		938
Interest expense		(509,740)		(474,059)
Total other (expense)	$	(1,656,750)	$	(392,559)

Other expense was $1,203,234 for 2017 as compared to other income of $6,605 for 2016. For the year ended December 31, 2017, we recorded a loss on the forfeit of an asset, discussed above, in the amount of $255,000. This was the amount that we paid as a cash deposit on the AOS shipping container that we had recorded as an asset on our consolidated balance sheets. When we were informed after arbitration proceedings that we would not recover the deposit we recorded the $255,000 loss as an expense.

In addition, in August 2017, affiliates of the Company, including our Chairman of the Board and Chief Executive Officer, acquired a 75.5% interest in RadQual. As a result of this change in ownership, the Company was named as a managing member of RadQual, and pursuant to GAAP, as of the date of the change in ownership, we have reported the accounts of RadQual in our financial statements on a consolidated basis. Prior to this ownership change, we reported our investment in RadQual on the equity basis and recorded this investment in RadQual as an asset on our consolidated balance sheets in the amount of $1,436,843. At August 10, 2017, the fair market value of the Company s investment in RadQual was determined to be $489,999 and the Company recorded a loss of $946,844 as other expense for the year ended December 31, 2017, to adjust the carrying value to fair value.

During the year ended December 31, 2017, we reported equity in net income of affiliate of $53,173. This amount reflects our 24.5% share of net income reported by RadQual prior to August 10, 2017. We recorded this percentage share of net income as an increase to our asset investment in RadQual and we recorded distributions from RadQual as decreases to the asset.

Interest income in 2017 was $3,051 as compared to $938 in 2016. This increase of $2,113 was due to interest earned on increased cash balances held at banks and other institutions in interest-bearing accounts.

Interest expense increased during 2017, to $509,740, from $474,059 in 2016. This is an increase of $35,681, or approximately 8%. The majority of interest expense recorded in both 2017 and 2016 is related to convertible debentures issued in July 2012, at which time we entered into a securities purchase agreement with certain institutional and private investors to sell convertible debentures for proceeds of $3,069,900. The debentures carried an interest rate of 8% per year and had a maturity date of July 2017. In March 2017, we amended the notes, as discussed in detail below, giving the noteholders additional rights regarding redemption or exchange of the notes. In July 2017 all remaining notes, outstanding plus accrued interest, were paid in full. Interest expense recorded for these notes was $294,382 for the year ended December 31, 2017, and $472,005 for the same period in 2016. In addition, dividends accrued on Series C Preferred Stock, which was issued as a result of the amended notes, totaled $215,358 and was recorded as interest expense for 2017.

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 was originally due June 30, 2014. This note was re-negotiated in June 2014 and the maturity date was extended to December 31, 2017. At the beginning of 2017, this note was further extended to December 31, 2022. In connection with this note payable, we recorded $30,000 of interest expense for 2017 and 2016, and approximately $27,000 and $117,000 of non-cash interest expense related to a debt discount feature on the note for 2017 and 2016, respectively.

In September 2016, we borrowed an aggregate of $360,000 from our Chairman of the Board of Directors and one of our directors. The $360,000 note bears interest at 6%, which is payable upon maturity of the note on March 31, 2017 and was secured by all unencumbered assets. Per the terms of the note, at any time, the lenders may settle any or all of the principal and accrued interest with shares of the Company s common stock, or other securities of the Company, based on the average closing price of the Company s common stock over a 20-day period. In February 2017, all principal plus accrued interest under this note was converted into shares of our Series C Preferred Stock and warrants that we offered through a private placement transaction, as described above.

Net Loss

Our net loss was $3,757,284 in 2017, compared to a net loss of $1,879,112 in 2016. This is an increase in loss of $1,878,172, or approximately 100%. Our increase in net loss is the result of our increased expenditures for operating costs such as legal fees as well as the loss we recorded on our investment in RadQual and the loss recorded on the forfeited deposit on the shipping container.

Liquidity and Capital Resources

On December 31, 2017, we had cash and cash equivalents of $409,338 compared to $315,520 at December 31, 2016. Net cash used in operating activities was $853,199 in 2017, compared to net cash used in operating activities of $324,176 in 2016. This represents an increase in cash used in operating activities of approximately $529,000 and is the result of the increase in net loss reported for 2017 as compared to 2016, as well as decreases in most non-cash expenses in the two-year comparison and increases in prepaid expenses and inventory.

Accounts receivable at December 31, 2017 were $635,026 as compared to $774,275 at December 31, 2016. Historically, we have not written off any accounts receivable, and there were no accounts written off during 2017.

Inventories at December 31, 2017 were $1,951,513 as compared to $1,476,240 at December 31, 2016. The majority of our inventory consists of irradiated material held at the site of the DOE s prime-operating contractor, which controls the ATR located outside of Idaho Falls, Idaho. For 2017, our target inventory accounted for approximately 92% of our work in process inventory, and includes cobalt targets of an older design as well as irradiated cobalt material under a new contract with the DOE. During 2016, our target inventory accounted for approximately 85% of our work in process inventory. In 2017 and 2016, as part of our year-end procedures, we evaluated our older target inventory for impairment and concluded that these older design targets have varying but significant degrees of market value depending on any additional costs we may have to incur to transport them to our facility for processing.

Included in our raw material inventory are the various pellet holders and housings involved in target fabrication, raw cobalt, strontium and other raw elements, completed flood sources, irradiated cobalt and nuclear medicine-related materials and products. Raw material inventory is regularly reviewed for obsolescence, and during 2017 we wrote-off approximately $1,500 to expense for raw material we believed to be of no future value to us.

We incurred a net loss of $3,757,284 for the year ended December 31, 2017, and have an accumulated deficit of $125,696,845 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 provided by investing activities was $77,236 for 2017 and net cash used in investing activities for 2016 was $73,000. During 2017, we used $110,115 to purchase property and equipment and intangible assets and we received member distributions from our investment in RadQual in the amount of $109,111. During 2016, we used $93,603 for the purchase of property, equipment and intangible assets, and received member distributions from RadQual in the amount of $16,104.

Financing activities provided cash of $870,781 for the year ended December 31, 2017. We received proceeds from the sale of common stock in the amount of $15,447 and we recorded proceeds from the issuance of preferred stock, as a result of exchanging Series C Preferred stock for convertible notes, in the amount of $2,860,000 during 2017. In addition, we recorded $32,286 of contributed cash as part of our consolidated reporting of RadQual, and we made principal payments on loans in the amount of $2,096,952. During 2016, financing activities provided cash of $313,741, and we received proceeds from the sale of stock in the amount of $3,993 and made principal payments on loans in the amount of $50,252.

In July 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 Notes). The Notes carried an interest rate of 8% were unsecured and matured July 2017. These Notes were 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 under certain conditions. 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 8% Notes. These warrants were immediately exercisable at a price of $0.30 per share and had a term of five years.

In March 2017, we amended the 8% Convertible Notes discussed above, giving the noteholders certain additional rights (the Amendment). Pursuant to the Amendment, the Notes were modified to provide each holder the right, at the holder s option and exercisable prior to May 12, 2017, to convert all or any portion of the principal amount of the Notes, plus accrued but unpaid interest, into shares of the Company s Series C Preferred Stock at a conversion price of $1,000 per share. Holders that elected to convert their Notes into Series C Preferred Stock received a warrant to purchase up to 3,750 shares of the Company s common stock for each share of Series C Preferred Stock received upon conversion of the Notes, with each warrant having a five-year term, a cashless exercise feature, and an exercise price of $0.10 per share of common stock. As a result of this modification, $780,000 of the Notes was converted to 780 shares of Series C Preferred Stock and 2,925,000 Class N Warrants. Residual interest paid to Note holders who converted was $1,515.

In February 2017, we entered into subscription agreements with certain investors, including two of the Company s directors, for the sale of (i) an aggregate of 3,433 shares of Series C Preferred Stock, and (ii) Class M warrants to purchase an aggregate of 17,165,000 shares of the Company s common stock (Class M Warrants), for gross proceeds of $3,433,000. The Series C Preferred Stock accrues dividends at a rate of 6% per annum, payable annually on February 17th of each year, commencing on February 17, 2018. The Series C Preferred Stock are convertible at the option of the holder at any time into shares of the Company's common stock at an initial conversion price equal to $0.10 per share, subject to adjustment. At any time after February 17, 2019, if the volume-weighted average closing price of the Company s common stock over a period of 90 consecutive trading days is greater than $0.25 per share, the Company may redeem all or any portion of the outstanding Series C Preferred Stock at the original purchase price per share plus any accrued and unpaid dividends, payable in shares of common stock. All outstanding shares of Series C Preferred Stock will be redeemed by the Company on February 17, 2022 at the original purchase price per share, payable in cash or shares of common stock, at the option of the holder. Holders of Series C Preferred Stock do not have any voting rights, except as required by law and in connection with certain events as set forth in the Statement of Designation of the Series C Preferred Stock. The Class M Warrants are immediately exercisable at an exercise price of $0.12 per share, subject to adjustment as set forth in the warrant, and have a term of five years.

In December 2013, we entered into a promissory note agreement with our chairman of the Board and one of our major shareholders pursuant to which we borrowed $500,000. The $500,000 note bears interest at 6% and was originally 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 at a purchase price of $0.06 per share. In June 2014, we renegotiated the terms of this promissory note. Pursuant to the modification, the maturity date was extended to December 31, 2017, and each Lender was granted an additional 7,500,000 warrants to purchase shares of the Company s common stock at $0.06 per share. The warrants were immediately exercisable. In December 2016, the note was modified to extend the maturity date to December 31, 2022, with all remaining terms remaining unchanged.

In March 2016, we entered into a note payable for the purchase of a vehicle. The principal amount financed was $47,513. The term of the note is six years and the note carries an interest rate of 6.66%. Monthly payments are $805 and the note matures April 2022. The note is secured by the vehicle.

In August 2017, we entered into a promissory note agreement with our Chairman of the Board, pursuant to which we borrowed $60,000. The note bears interest at 5% and matures June 30, 2018 and is unsecured.

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

Off-Balance Sheet Arrangements

As of December 31, 2017, we had no material off-balance sheet arrangements or obligations.

Goals for 2018

Based upon the investments we have made in our facilities, projects, and products developed in 2017, we have the following goals for 2018:

.

Support the review and approval of our abbreviated new drug application by the U.S. Food and Drug Administration for our sodium iodide product;

.

Pursue additional field service work through both the DOE s OSRP program and other domestic and international programs utilizing our mobile hot cell and highly experienced personnel;

.

Continue to identify alternate sources of material supply for our radiochemical, nuclear medicine and cobalt products business segments;

.

Begin production development of one or more new generic drug products to further enhance revenue production within our Radiochemical segment and identify additional future generic product opportunities;

.

Expand sales of our nuclear medicine products and increase cash flow by using our management opportunity with RadQual to expand international sales and utilize the marketing expertise of our joint venture, TI Services;

.

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

.

Continue to support essential tasks related to our de-conversion project and continue to pursue any opportunities to obtain additional contracts for depleted uranium de-conversion.

Critical Accounting Policies

Revenue recognition - We recognize revenue when products are shipped or services are performed according to predetermined amounts per customer contract obligations or milestones. We have contracted with several customers for the purchase of cobalt-60 material which is currently undergoing irradiation. We have collected advance payments from these customers for project management and up-front handling and irradiation charges and these prepayments have been recorded as unearned revenue. Our estimated future recognition of this unearned revenue is based on an irradiation completion and shipment schedule and on product shipment dates and service performance dates.

Patents and other intangibles - We amortize our patents and intangibles using the straight-line method over their estimated useful lives. Patents and other intangibles are evaluated for impairment annually or when events or circumstances arise that indicate the existence of impairment. We evaluate the recoverability of intangible assets whenever events or changes in circumstances indicate that an intangible asset s carrying amount may not be recoverable. Such circumstances could include, but are not limited to (1) a significant decrease in the market value of an asset, (2) a significant adverse change in the extent or manner in which an asset is used, or (3) an accumulation of costs significantly in excess of the amount originally expected for the acquisition of an asset. If impairment indicators exist, we measure 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.

Impairment of long-lived assets - As part of our year-end procedures we test our long-lived assets for signs of impairment when indicators of impairment exist. If impairment indicators exist, we measure the carrying value of the asset against its estimated future cash flows. If the expected future value is less than the carrying value of the asset an impairment loss would be recognized.

Critical Accounting Estimates

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

New Accounting Standards

In August 2014, the Financial Accounting Standards Board (FASB) issued ASU 2014-15, Presentation of Financial Statements-Going Concern . The guidance requires management to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about an entity s ability to continue as a going concern within one year after the date financial statements are issued. ASU 2014-15 is effective for the annual period ending after December 31, 2016, and for annual periods and interim periods thereafter, with early application permitted. We have implemented the new standard and have determined that is has no impact on the accompanying financial statements.

In May 2014, the FASB issued Accounting Standards Update (ASU) No. 2014-09, Revenue from Contracts with Customers (Topic 606), which supersedes all existing revenue recognition requirements, including most industry

specific guidance. The new standard requires a company to recognize revenue when it transfers goods or services to customers in an amount that reflects the consideration that the company expects to receive for those goods or services. The FASB has subsequently issued the following amendments to ASU 2014-09 which have the same effective date and transition date of January 1, 2018:

.

In August 2015, the FASB issued ASU No. 2015-14, Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date, which delayed the effective date of the new standard from January 1, 2017 to January 1, 2018. The FASB also agreed to allow entities to choose to adopt the standard as of the original effective date.

.

In March 2016, the FASB issued ASU No. 2016-08, Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations, which clarifies the implementation guidance on principal versus agent considerations.

.

In April 2016, the FASB issued ASU No. 2016-10, Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing, which clarifies certain aspects of identifying performance obligations and licensing implementation guidance.

.

In May 2016, the FASB issued ASU No. 2016-12, Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients related to disclosures of remaining performance obligations, as well as other amendments to guidance on collectability, non-cash consideration and the presentation of sales and other similar taxes collected from customers.

.

In December 2016, the FASB issued ASU No. 2016-20, Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers, which amends certain narrow aspects of the guidance issued in ASU 2014-09 including guidance related to the disclosure of remaining performance obligations and prior-period performance obligations, as well as other amendments to the guidance on loan guarantee fees, contract costs, refund liabilities, advertising costs and the clarification of certain examples.

We have evaluated this guidance, particularly as it pertains to our cobalt products segment where pre-payments are received from customers, and we have determined that this guidance will not have a material impact on our consolidated financial statements. We maintain the practice of identifying performance obligations under customer contracts and recognize revenue only as contractual milestones are met and in an amount that is in accordance with the contract price allocated to that performance obligation. Unearned revenue and pre-payments on contracts are recorded as either a short-term or long-term liability on our consolidated balance sheets with revenue recognized in the future period in which we fulfill the performance obligation.

In February 2016, the FASB issued ASU 2016-02, Leases which was issued to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. The amendments in ASU 2016-02 are effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. We are in the process of completing an assessment and anticipate that ASU 2016-02 will have a material impact on our consolidated Balance Sheets, as we will record significant asset and liability balances in connection with leased property. We have evaluated this standard and believe an adjustment of approximately $800,000 will be made, beginning in 2019, to both our assets and liabilities to recognize a lease related to real estate.

In August 2016, the FASB issued ASU 2016-15, Statement of Cash Flows which was issued to improve uniformity in how certain cash receipts and cash payments are presented and classified in the statement of cash flows. The amendments in ASU 2016-15 are effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. We do not, at this time, expect this guidance to have a material impact on our consolidated financial statements.

In May 2017 the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2017-09, "Compensation Stock Compensation (Topic 718): Scope of Modification Accounting". ASU 2017-09 amends the requirements in GAAP related to accounting in changes to stock compensation awards. The guidance in ASU 2017-09 is effective for annual periods beginning after December 15, 2017, including interim periods within those fiscal years. We are evaluating the impact this guidance will have on our consolidated financial statements and expect the adoption will not have a significant impact on our results of operations, financial position or cash flows.

Item 7A.

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

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

Item 8.

FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The following financial statements are included herewith and are hereby incorporated by reference:

Index to Consolidated Financial Statements

	Page No.
Report of Independent Registered Public Accounting Firm	F-1
Financial Statements:	
Consolidated Balance Sheets as of December 31, 2017 and 2016	F-2
Consolidated Statements of Operations for the years ended December 31, 2017 and 2016	F-3
Consolidated Statement of Shareholders' Equity for the years ended December 31, 2017 and 2016	F-4
Consolidated Statements of Cash Flows for the years ended December 31, 2017 and 2016	F-5
Notes to Consolidated Financial Statements	F-6

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, 2017. Based on that evaluation, our CEO and CFO concluded that our disclosure controls and procedures were effective as of December 31, 2017.

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 U.S. Internal control over financial reporting includes maintaining records that in reasonable detail accurately and fairly reflect our transactions; providing reasonable assurance that transactions are recorded as necessary for preparation of our financial statements; providing reasonable assurance that receipts and expenditures are made in accordance with management authorization; and providing reasonable assurance that unauthorized acquisition, use or disposition of company assets that could have a material effect on our financial statements would be prevented or detected on a timely basis. Because of its inherent limitations, internal control over financial reporting is not intended to provide absolute assurance that a misstatement of our financial statements would be prevented or detected.

Management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework and criteria established in *Internal Control Integrated Framework (2013)*, issued by the Committee of Sponsoring Organizations of the Treadway Commission. This evaluation included review of the documentation of controls, evaluation of the design effectiveness of controls, testing of the operating effectiveness of controls and a conclusion on this evaluation. Based on this evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2017.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended December 31, 2017, that have materially affected, or are reasonable likely to materially affect, our internal control over financial reporting.

Item 9B.

OTHER INFORMATION

None.

PART III.

Item 10.

DIRECTORS, EXECUTIVE OFFICERS, AND CORPORATE GOVERNANCE

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

The other information required by this item is incorporated by reference in our definitive proxy statement for our 2018 annual meeting of shareholders, which will be filed with the SEC within 120 days after December 31, 2017.

Item 11.

EXECUTIVE COMPENSATION

The information required by this item is incorporated by reference to our definitive proxy statement for our 2018 annual meeting of shareholders, which will be filed with the SEC within 120 days after December 31, 2017.

Item 12.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this item is incorporated by reference to our definitive proxy statement for our 2018 annual meeting of shareholders, which will be filed with the SEC within 120 days after December 31, 2017.

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 2018 annual meeting of shareholders, which will be filed with the SEC within 120 days after December 31, 2017.

Item 14.

PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this item is incorporated by reference to our definitive proxy statement for our 2018 annual meeting of shareholders, which will be filed with the SEC within 120 days after December 31, 2017.

Item 15.

EXHIBITS, FINANCIAL STATEMENT SCHEDULES

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

See the index to and the financial statements beginning on page 30, which financial statements are incorporated herein by reference.

(a)(3) Exhibits

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

3.1

Restated Certificate of Formation of the Company, as amended (incorporated by reference to Exhibit 3.1 of the Company s Quarterly Report on Form 10-Q for quarter ended June 30, 2010).

3.2

Statement of Designation of the Series C Convertible Redeemable Preferred Stock of the Company (incorporated by reference to Exhibit 3.1 of the Company s Current Report on Form 8-K filed on February 24, 2017).

3.3

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 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).

4.2

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).

4.3

Form of Class L Warrant (incorporated by reference to Exhibit 4.10 of the Company s Annual Report on Form 10-K for the year ended December 31, 2013).

4.4

Form of Class M Warrant (incorporated by reference to Exhibit 4.1 of the Company s Current Report on Form 8-K filed on February 24, 2017).

4.5

Form of Class N Warrant (incorporated by reference to Exhibit 4.1 of the Company s Current Report on Form 8-K filed on May 18, 2017).

10.1

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).

10.2

International Isotopes Inc. 2015 Incentive Plan (incorporated by reference to Exhibit 10.1 of the Company s Current Report on Form 8-K, filed on July 16, 2015).

10.3

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).

10.4

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).

10.5

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).

10.6

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).

10.7

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).

10.8

Modification #1 to the Agreement, dated November 28, 2016, between the Company and QualiTech, Inc. (incorporated by reference to Exhibit 10.9 of the Company s Annual Report on Form 10-K for the year ended December 31, 2016).

10.9

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).

10.10

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).

10.11

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).

10.12

Registration Rights Agreement, dated February 17, 2017, among the Company and the purchasers named therein (incorporated by reference to Exhibit 10.1 of the Company s Current Report on Form 8-K filed on February 24, 2017).

10.13

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).

10.14

Modification #1 to the Amended and Restated Employment Agreement, dated October 12, 2016, between the Company and Stephen Laflin (incorporated by reference to Exhibit 10.15 of the Company s Annual Report on Form 10-K for the year ended December 31, 2016).

10.15

Promissory Note Agreement, dated December 23, 2013, among the Company, Ralph Richart and John McCormack (incorporated by reference to Exhibit 10.19 of the Company s Annual Report on Form 10-K for the year ended December 31, 2013).

10.16

Modification #1 to the Promissory Note Agreement, dated June 30, 2014, among the Company, Ralph M. Richart and John M. McCormack (incorporated by reference to Exhibit 10.1 of the Company s Quarterly Report on Form 10-Q for the quarter ended June 30, 2014).

10.17

Modification #2 to the Promissory Note Agreement, dated February 3, 2017, among the Company, Ralph M. Richart and John M. McCormack (incorporated by reference to Exhibit 10.18 of the Company s Annual Report on Form 10-K for the year ended December 31, 2016).

10.18

Isotope and Technical Service Order Form, dated October 2, 2014, between the Company and the U.S. Department of Energy (incorporated by reference to Exhibit 10.18 of the Company s Annual Report on Form 10-K for the year ended December 31, 2014).**

10.19

Cobalt-60 Pellet Supply Agreement, dated April 7, 2015, between Nordion (Canada) Inc., as general partner of and on behalf of Nordion Sterilization LP, and International Isotopes Inc. (incorporated by reference to Exhibit 10.1 of the Company s Quarterly Report on Form 10-Q for the quarter ended June 30, 2015).**

10.20

First Modification to Cobalt-60 Pellet Supply Agreement, effective April 21, 2017, between International Isotopes Inc. and Nordion (Canada) Inc., as general partner of and on behalf of Nordion Sterilization LP. (incorporated by reference to Exhibit 10.1 of the Company s Current Report on Form 8-K filed on May 10, 2017).

10.21

Amendment to 8% Convertible Notes, dated March 24, 2017, between Euro Pacific Capital Inc. and they Company (incorporated by reference to Exhibit 10.1 of the Company s Current Report on Form 8-K filed on March 30, 2017).

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.

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, 2017 and 2016, (ii) Consolidated Statements of Operations for the years ended December 31, 2017 and 2016, (iii) Consolidated Statement of Shareholders Equity for the years ended December 31, 2017 and 2016, (iv) Consolidated Statements of Cash Flows for the years ended December 31, 2017 and 2016 and (v) Notes to Consolidated Financial Statements.

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

** Confidential treatment has been granted as to certain portions, which portions were omitted and filed separately with the Securities and Exchange Commission pursuant to a confidential treatment request.

+ Filed herewith.

* Furnished herewith.

Item 16.

FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

International Isotopes Inc.

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

Date: March 30, 2018

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 30, 2018	By: /s/ Steve T. Laflin Steve T. Laflin President, Chief Executive Officer, and Director
March 30, 2018	By: /s/ Laurie McKenzie-Carter Laurie McKenzie Carter Chief Financial Officer, Secretary
March 30, 2018	By: /s/ Robert Atcher Robert Atcher Director

March 30, 2018	By: /s/ Christopher Grosso
	Christopher Grosso
	Chairman of the Board of Directors

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES

CONSOLIDATED FINANCIAL STATEMENTS

TABLE OF CONTENTS

	Page No.
Report of Independent Registered Public Accounting Firm	F-1
Financial Statements	
Consolidated Balance Sheets as of December 31,2017 and 2016	F-2
Consolidated Statements of Operations for the years ended December 31, 2017 and 2016	F-3
Consolidated Statement of Shareholders' Equity for the years ended December 31, 2017 and 2016	F-4
Consolidated Statements of Cash Flows for the years ended December 31, 2017 and 2016	F-5
Notes to Consolidated Financial Statements	F-6

Report of Independent Registered Public Accounting Firm

To the Board of Directors
International Isotopes, Inc. and Subsidiaries
Idaho Falls, Idaho

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of International Isotopes, Inc. and Subsidiaries as of December 31, 2017 and 2016, and the related consolidated statements of operations, stockholders equity, and cash flows, for the years then ended, and the related notes (collectively referred to as the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the International Isotopes, Inc. and Subsidiaries as of December 31, 2017 and 2016, and the results of their operations and their cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

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

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

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

/s/ Eide Bailly LLP

We have served as International Isotopes, Inc. and Subsidiaries auditor since 2014.

Salt Lake City, Utah

March 30, 2018

What inspires you, inspires us. | eidebailly.com

5 Triad Center, Ste. 600 | Salt Lake City, UT 84180-1106 | T 801.532.2200 | F 801.532.7944 | EOE

F-1

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES

Consolidated Balance Sheets

	December 31,			
Assets		**2017**		**2016**
Current assets				
Cash and cash equivalents	$	409,338	$	314,520
Accounts receivable		635,026		774,275
Inventories (Note 4)		1,951,513		1,476,240
Restricted cash - due to former member		387,455		-
Prepaids and other current assets		344,627		736,447
Total current assets		3,727,959		3,301,482
Long-term assets				
Restricted money market account		453,575		450,631
Property, plant and equipment, net (Note 5)		1,935,535		1,948,076
Investment (Note 3)		-		1,492,781
Goodwill (Note 3)		1,376,584		-
Patents and other intangibles, net (Note 6)		4,511,641		4,186,295
Total long-term assets		8,277,335		8,077,783
Total assets	$	12,005,294	$	11,379,265
Liabilities and Stockholders' Equity				
Current liabilities				
Accounts payable	$	1,619,229	$	941,659
Accrued liabilities		1,139,477		568,714
Current portion of unearned revenue		2,688,128		2,608,328
Convertible debt, net of debt discount (Note 7)		-		3,025,165
Current portion of related party notes payable (Note 7)		60,000		360,000
Current installments of notes payable, net of debt discount (Note 7)		7,437		6,953
Total current liabilities		5,514,271		7,510,819
Long-term liabilities				
Related party notes payable, net of current portion and debt discount (Note 7)		419,534		392,712

Notes payable, net of current portion (Note 7)	28,741	36,179
Unearned revenue, net of current portion	688,980	364,440
Obligation for lease disposal costs (Note 12)	478,424	468,974
Mandatorily redeemable convertible preferred stock (Note 9)	4,528,417	850,000
Total long-term liabilities	6,144,096	2,112,305
Total liabilities	11,658,367	9,623,124
Stockholders' equity (Note 9)		
Common stock, $0.01 par value; 750,000,000 shares authorized;		
406,790,703 and 404,999,758 shares issued and outstanding respectively	4,067,907	4,049,998
Additional paid-in capital	120,398,620	119,595,535
Accumulated deficit	(125,696,845)	(121,939,561)
(Deficit) Equity attributable to International Isotopes Inc. stockholders	(1,230,318)	1,705,972
Equity attributable to noncontrolling interest	1,577,245	50,169
Total equity	346,927	1,756,141
Total liabilities and stockholders' equity	$ 12,005,294	$ 11,379,265

See accompanying notes to consolidated financial statements.

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES

Consolidated Statements of Operations

	Years ended December 31, 2017	Years ended December 31, 2016
Sale of product	$ 7,420,390	$ 6,552,149
Cost of product	4,182,705	3,707,558
Gross profit	3,237,685	2,844,591
Operating costs and expenses:		
Salaries and contract labor	2,118,257	1,782,774
General, administrative and consulting	2,808,303	2,053,518
Research and development	376,698	511,283
Total operating expenses	5,303,258	4,347,575
Operating loss	(2,065,573)	(1,502,984)
Other income (expense):		
Other income (expense)	(256,390)	6,605
Loss on equity method investment	(946,844)	-
Equity in net income of affiliate	53,173	73,957
Interest income	3,051	938
Interest expense	(509,740)	(474,059)
Total other (expense)	(1,656,750)	(392,559)
Net loss	(3,722,323)	(1,895,543)
Income (loss) attributable to noncontrolling interest	34,961	(16,431)
Net loss attributable to International Isotopes Inc.	$ (3,757,284)	$ (1,879,112)
Net loss per common share - basic and diluted	$ (0.01)	$ (0.00)
Weighted average common shares outstanding - basic and diluted	406,361,656	403,302,425

See accompanying notes to consolidated financial statements.

INTERNATIONAL ISOTOPES INC AND SUBSIDIARIES

Consolidated Statement of Stockholders' Equity

Years ended December 31, 2017 and 2016

	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, 2015	402,242,994	$ 4,022,430	$ 119,554,325	$ (120,060,449)	$ 3,516,306	$ 66,600	$ 3,582,906
Shares issued under employee stock purchase plan	57,654	577	3,416	-	3,993	-	3,993
Shares issued for exercise of employee stock options	2,531,250	25,312	(25,312)	-	-	-	-
Stock grant	167,860	1,679	(1,679)	-	-	-	-
Stock based compensation	-	-	64,785	-	64,785	-	64,785
Net loss	-	-	-	(1,879,112)	(1,879,112)	(16,431)	(1,895,543)
Balance December 31, 2016	404,999,758	4,049,998	119,595,535	(121,939,561)	1,705,972	50,169	1,756,141
Shares issued under employee	93,865	938	5,177	-	6,115	-	6,115

stock purchase plan							
Increase in noncontrolling interest through consolidation accounting	-	-	-	-	-	1,492,115	1,492,115
Shares issued for exercise of employee stock options	1,487,255	14,873	(5,540)		9,333	-	9,333
Warrants issued with preferred C shares	-	-	641,673	-	641,673	-	641,673
Stock grant	209,825	2,098	(2,098)	-	-	-	-
Stock based compensation	-	-	163,873	-	163,873		163,873
Net loss	-	-	-	(3,757,284)	(3,757,284)	34,961	(3,722,323)
Balance December 31, 2017	406,790,703	$ 4,067,907	$ 120,398,620	$ (125,696,845)	$ (1,230,318)	$ 1,577,245	$ 346,927

See accompanying notes to consolidated financial statements.

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES

Consolidated Statements of Cash Flows

	Years ended December 31, 2017	2016
Cash flows from operating activities:		
Net loss	$ (3,722,323)	$ (1,895,543)
Adjustments to reconcile net loss to net cash (used in) provided by operating activities:		
Net income in equity method investment	(53,173)	(73,957)
Depreciation and amortization	241,436	226,856
Gain on disposal of property, plant and equipment	-	(4,500)
Loss on adjustment of investment	946,844	-
Accretion of obligation for lease disposal costs	9,450	9,263
Accretion of beneficial conversion feature	5,112	9,657
Equity based compensation	163,873	64,785
Noncash interest expense	173,534	185,867
Changes in operating assets and liabilities:		
Accounts receivable	539,759	310,665
Restricted cash	(387,455)	-
Prepaids and other current assets	391,784	(193,354)
Inventories	(475,273)	(364,670)
Unearned revenues	404,340	1,423,028
Accounts payable and accrued liabilities	908,893	(22,273)
Net cash (used in) operating activities	(853,199)	(324,176)
Cash flows from investing activities:		
Restricted money market account	(2,944)	(1)
Proceeds from sale of property, plant, and equipment	-	4,500
Cash acquired through consolidation accounting	81,184	-
Dividends received from equity method investment	109,111	16,104
Purchase of property, plant and equipment	(110,115)	(93,603)
Net cash provided by (used in) investing activities	77,236	(73,000)
Cash flows from financing activities:		
Proceeds from sale of stock	15,447	3,993
Proceeds from issuance of debt - related party	60,000	360,000
Cash contributed to consolidated entity	32,286	-
Proceed from sale of preferred stock	2,860,000	-
Principal payments on notes payable	(2,096,952)	(50,252)

Net cash provided by financing activities		870,781		313,741
Net change in cash and cash equivalents		94,818		(83,435)
Cash and cash equivalents at beginning of year		314,520		397,955
Cash and cash equivalents at end of year	$	409,338	$	314,520
Supplemental disclosure of cash flow activities:				
Cash paid for interest	$	354,206	$	242,721
Supplemental disclosure of noncash financing and investing transactions:				
Dealer financing for the purchase of a new vehicle	$	-	$	47,513
Decrease in preferred stock and increase in equity for amounts allocated to warrants issued with preferred stock	$	641,674	$	-
Decrease in accrued interest and increase in preferred stock for conversion of debentures	$	13,100	$	-
Decrease in debt and increase in preferred stock for conversion of debentures	$	1,339,900	$	-
Assets reported through consolidation:				
Cash	$	81,184		
Accounts receivable	$	400,509		
Goodwill	$	1,376,584		
Patents and other intangible assets	$	444,126		
Accounts payable	$	352,575		
Equity	$	1,949,828		

See accompanying notes to consolidated financial statements.

INTERNATIONAL ISOTOPES INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEARS ENDED DECEMBER 31, 2017 AND 2016

NOTE 1 DESCRIPTION OF BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES

Description of Business International Isotopes Inc. (the Company or INIS) was incorporated in Texas in November 1995. The accompanying consolidated financial statements are presented in conformity with accounting principles generally accepted in the United States of America (GAAP) and include all operations and balances of the Company and its wholly-owned subsidiaries, International Isotopes Idaho Inc., International Isotopes Fluorine Products, Inc., and International Isotopes Transportation Services, Inc. The consolidated financial statements also include the accounts of TI Services, LLC, (TI Services), and RadQaul, LLC (RadQual). TI Services is headquarted in Youngstown, Ohio and was formed between the Company and RadQual in December 2010 to distribute products and services for nuclear medicine, nuclear cardiology and Positron Emission Tomography (PET) imaging. RadQual is a global supplier of molecular imaging quality control devices, and is now headquartered in Idaho Falls, Idaho, in which the Company has a 24.5% interest. In August 2017, affiliates of the Company purchased the remaining 75.5% of RadQual and at that time the Company was named as one of two managing members of RadQual. As a result of this ownership change, the Company has significant influence in management decisions with regard to RadQual s business operations.

Nature of Operations INIS and its subsidiaries, TI Services and RadQual (collectively, the Company, we, our or manufacture a full range of nuclear medicine calibration and reference standards, cobalt teletherapy sources and other sealed sources. The Company also distributes a varied selection of radioisotopes and radiochemicals for various medical or clinical research applications. The Company provides a host of transportation, recycling, and radiological field services on a contract basis for customers and holds several patents for a fluorine extraction process that it plans to use in conjunction with a proposed commercial depleted uranium de-conversion facility planned to be located in Lea County, New Mexico (the De-Conversion Facility). The Company s business consists of six major business segments: Nuclear Medicine Standards, Cobalt Products, Radiochemical Products, Fluorine Products, Radiological Services, and Transportation. The Company s headquarters and all operations, with the exception of TI Services, are located in Idaho Falls, Idaho.

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

Principles of Consolidation The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries, as well as its 24.5% interest in RadQual, and its 50% owned joint venture, TI Services. Because the Company controls a greater than 50% direct and indirect ownership interest in TI Services, the operating results and financial condition of TI Services, are consolidated with those of the Company. In addition, because the Company can exercise significant management control over RadQual s operations, all of RadQual s operating results and financial condition are consolidated. All significant intercompany accounts and transactions have been eliminated during consolidation.

Significant Accounting Policies

a)

Financial instruments and cash equivalents

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

Cash and cash equivalents, totaling $409,338 and $314,520 at December 31, 2017 and 2016, respectively, consist of operating accounts and money market accounts. For purposes of the consolidated statements of cash flows, the Company considers all highly-liquid financial instruments with original maturities of three months or less at date of purchase to be cash equivalents.

At December 31, 2017 and 2016, the Company had pledged cash on deposit in a money market account valued at $453,575 and $450,631, respectively, as security for a surety bond. The surety bond is required as part of the Company s operating license agreement with the Nuclear Regulatory Commission (NRC).

In addition, at December 31, 2017, the Company reported restricted cash in the amount of $387,455 which represents a cash contingency held by RadQual as a result of a sale of membership units in RadQual in August 2017. The purchasing members of RadQual stipulated that a cash contingency be created to cover expenses and other debt incurred by the prior managing member of RadQual. Once the final determination of outstanding debt is made, RadQual will distribute all remaining contingent cash to the prior member. Because the Company owns 24.5% of RadQual and reports its investment in RadQual on a consolidated basis, the restricted cash contingency has been included as a short-term asset on the consolidated balance sheets as of December 31, 2017.

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

b)

Accounts receivable

The Company sells products mainly to recurring customers, wherein the customer s ability to pay has previously been evaluated. The Company generally does not require collateral. The Company periodically reviews accounts receivable for amounts considered uncollectible and allowances are provided for uncollectible accounts when deemed necessary. At December 31, 2017 and 2016, the Company recorded no allowance for uncollectible accounts.

c)

Inventories

Inventories are carried at the lower of cost or net realizable value. Cost is determined using the first in, first out method. Work in progress inventory contains product that is undergoing irradiation and this irradiation process can take up to three years to reach high specific activity (HSA) levels. When indicators of inventory impairment exist, the Company measures the carrying value of the inventory against its market value, and if the carrying value exceeds the market value, the inventory value is adjusted down accordingly. For the years ended December 31, 2017 and 2016, no cobalt inventory impairment was recorded. During 2017, $1,500 of raw material inventory was determined to be obsolete and was written off to expense and in 2016, during performance year-end procedures, approximately $47,000 of raw material inventory was determined to have no future value to the Company and was recorded as expense at that time.

d)

Property, plant and equipment

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

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

e)

Goodwill and other intangibles

Goodwill is not amortized but is tested for impairment at least annually. Goodwill represents the excess of the purchase price over the fair value of net tangible and identifiable intangible assets recorded as a result of the change in ownership of RadQual. As of December 31, 2017, there has been no impairment of goodwill.

Patents and other intangibles are amortized using the straight-line method over their estimated useful lives and are evaluated for impairment at least annually or when events or circumstances arise that indicate the existence of impairment. The Company evaluates the recoverability of identifiable intangible assets whenever events or changes in circumstances indicate that an intangible asset s carrying amount may not be recoverable. Such circumstances could include, but are not limited to: (1) a significant decrease in the market value of an asset, (2) a significant adverse change in the extent or manner in which an asset is used, or (3) an accumulation of costs significantly in excess of the amount originally expected for the acquisition of an asset. When indicators of impairment exist, the Company measures the carrying amount of the asset against the estimated undiscounted future cash flows associated with it. Should the sum of the expected future cash flows be less than the carrying value of the asset being evaluated, an impairment loss would be recognized. The impairment loss would be calculated as the amount by which the carrying value of the asset exceeds its fair value. The evaluation of asset impairment requires the Company to make assumptions about future cash flows over the life of the asset being evaluated. These assumptions require significant judgment and actual results may differ from assumed and estimated amounts. During the years ended December 31, 2017 and 2016, the Company had no impairment losses related to intangible assets.

f)

Impairment of long-lived assets

Long-lived assets are reviewed for impairment annually, or when events or circumstances arise that indicate the existence of impairment, using the same evaluation process as described above for patents and other intangibles. There was no impairment recorded during the years ended December 31, 2017 and 2016.

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. Amounts received as prepayment on future products or services are recorded as unearned revenues and recognized as income when the product is shipped or service performed.

j)

Research and development costs

Research and development costs are expensed as incurred and totaled $376,698 and $511,283 for the years ended December 31, 2017 and 2016, respectively. These research and development costs pertained to continued costs incurred to maintain our planned de-conversion facility licenses and to costs incurred in our radiochemical products segment.

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, 2017 and 2016, the Company recognized share-based compensation expense of $163,873 and $64,785, respectively, related to stock options, warrants and stock grants. This expense is included as part of salaries and contract labor in 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, 2017 and 2016, 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,	
	2017	**2016**
Stock options	32,250,000	23,316,667
Warrants	45,090,000	27,419,172
850 Shares of Series B redeemable convertible preferred stock	425,000	425,000
4,213 Shares of Series C redeemable convertible preferred stock	42,130,000	-
	119,895,000	51,160,839

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)

Recent accounting standards

In August 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2014-15, Presentation of Financial Statements-Going Concern . The guidance requires management to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about an entity s ability to continue as a going concern within one year after the date financial statements are issued. ASU 2014-15 is effective for the annual period ending after December 31, 2016, and for annual periods and interim periods thereafter, with early application permitted. We have implemented the new standard and have determined that it has no impact on the accompanying financial statements.

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606), which supersedes all existing revenue recognition requirements, including most industry specific guidance. The new standard

requires a company to recognize revenue when it transfers goods or services to customers in an amount that reflects the consideration that the company expects to receive for those goods or services. The FASB has subsequently issued the following amendments to ASU 2014-09 which have the same effective date and transition date of January 1, 2018:

.

In August 2015, the FASB issued ASU No. 2015-14, Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date, which delayed the effective date of the new standard from January 1, 2017 to January 1, 2018. The FASB also agreed to allow entities to choose to adopt the standard as of the original effective date.

.

In March 2016, the FASB issued ASU No. 2016-08, Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations, which clarifies the implementation guidance on principal versus agent considerations.

.

In April 2016, the FASB issued ASU No. 2016-10, Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing, which clarifies certain aspects of identifying performance obligations and licensing implementation guidance.

.

In May 2016, the FASB issued ASU No. 2016-12, Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients related to disclosures of remaining performance obligations, as well as other amendments to guidance on collectability, non-cash consideration and the presentation of sales and other similar taxes collected from customers.

.

In December 2016, the FASB issued ASU No. 2016-20, Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers, which amends certain narrow aspects of the guidance issued in ASU 2014-09 including guidance related to the disclosure of remaining performance obligations and prior-period performance obligations, as well as other amendments to the guidance on loan guarantee fees, contract costs, refund liabilities, advertising costs and the clarification of certain examples.

The Company has evaluated this guidance, particularly as it pertains to its cobalt products segment where pre-payments are received from customers, and has determined that this guidance will not have a material impact on its consolidated financial statements. The Company maintains the practice of identifying performance obligations under customer contracts and recognizes revenue only as contractual milestones are met and in an amount that is in accordance with the contract price allocated to that performance obligation. Unearned revenue and pre-payments on contracts are recorded as either a short-term or long-term liability on the Company s consolidated balance sheets with revenue recognized in the future period in which the Company fulfills the performance obligation.

In February 2016, the FASB issued ASU 2016-02, Leases which was issued to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. The amendments in ASU 2016-02 are effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. The Company is in the process of completing its assessment and anticipates that ASU 2016-02 will have a material impact on its consolidated Balance Sheets, as the Company will record significant asset and liability balances in connection with leased property. The Company has evaluated this standard and believes an adjustment of approximately $800,000 will be made, beginning in 2019, to both the assets and liabilities of the Company to recognize a lease related to real estate.

In August 2016, the FASB issued ASU 2016-15, Statement of Cash Flows which was issued to improve uniformity in how certain cash receipts and cash payments are presented and classified in the statement of cash flows. The amendments in ASU 2016-15 are effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. The Company does not, at this time, expect this guidance to have a material impact on its consolidated financial statements.

In May 2017 the FASB issued ASU No. 2017-09, "Compensation Stock Compensation (Topic 718): Scope of Modification Accounting". ASU 2017-09 amends the requirements in GAAP related to accounting in changes to stock compensation awards. The guidance in ASU 2017-09 is effective for annual periods beginning after December 15, 2017, including interim periods within those fiscal years. The Company is evaluating the impact this guidance will have on its consolidated financial statements and expects the adoption will not have a significant impact on the results of operations, financial position or cash flows of the Company.

NOTE 2 BUSINESS CONDITION AND LIQUIDITY

The Company has a history of recurring losses with an accumulated deficit of $125,696,845 at December 31, 2017, and a net loss of $3,757,284 for the year then ended. The Company s working capital, which includes inventory that will not be sold for up to three years, has increased by $2,423,025 from the prior year. The Company has used cash flows from operations of $853,199. During 2017, the Company sought to improve future cash flows from operating activities through execution of new sales agreements, improving operating cost control measures, making

improvements in current manufacturing processes, pursuing new service contracts, and developing new products. The Company s net loss was $3,757,284 in 2017, compared to a net loss of $1,879,112 in 2016. This is an increase in net loss of $1,878,172.

As discussed in note 3, net loss for the year ended December 31, 2017 includes loss related to a change from the equity method of accounting to the consolidation method of accounting for the Company s interest in RadQual. The related loss totals $946,844 and is included in other expenses.

Also included in net loss for the year ended December 31, 2017, is the loss of a $255,000 deposit made to Alpha Omega Services (AOS) for a shipping container. In 2016, the Company delivered a Demand for Arbitration letter to AOS seeking the recovery of the deposit plus additional damages for a total claim of $1,673,241. Arbitration proceedings took place during 2017. In December 2017, the Company received notification that it would not recover any damages from AOS. Accordingly, the Company recorded a $255,000 loss on deposited funds which is included in other expenses.

During the year ended December 31, 2017, the Company continued to focus on its long-standing core business segments, which consist of its radiochemical products, cobalt products, nuclear medicine standards, and radiological services segments. In November 2016, the Company submitted an abbreviated new drug application (aNDA) to the U.S. Food and Drug Administration for sodium iodide. Additionally, in August 2017 at the time of a membership change in RadQual, the Company became the managing member of RadQual operations.

In October 2014, the Company secured a ten-year cobalt production agreement with the United States Department of Energy (DOE). The agreement provides the Company with access to the currently available cobalt production positions in the DOE s Advanced Test Reactor (ATR) located at the Idaho National Laboratory in Idaho Falls, Idaho. The ATR is the only DOE reactor in the United States (U.S.) capable of producing large quantities of high specific activity cobalt.

In addition to the cobalt production agreement with the DOE, the Company entered into supply agreements in 2015 with several customers for the purchase of cobalt-60. Because it takes approximately two to three years to irradiate cobalt targets to the desired level of activity, the shipment of cobalt-60 product to these customers is anticipated to begin in mid to late 2018. Pursuant to these cobalt-60 supply agreements, the Company will not only supply cobalt-60 to the customers but, in some instances, will also provide on-going services with respect to manufacturing and selling cobalt sources. Each contract requires quarterly progress payments to be paid by customers to the Company.

Due to changes in the nuclear industry over the past few years, the Company s plans for the design and construction of a large-scale uranium de-conversion and fluorine extraction facility were placed on hold. The Company expects that further activity on this project will remain on hold until the market and industry conditions change to justify resuming design and construction of the facility. The Company will continue to incur some costs associated with the maintenance of licenses and other necessary project investments for the proposed facility, and the Company expects to continue to keep certain agreements in place to support resumption of project activities at the appropriate time. In July 2015, the Company announced that it executed an amendment to its Project Participation Agreement (PPA) with the Lea County, New Mexico Board of Commissioners. The PPA granted to the Company direct and indirect assistance for locating its proposed depleted UF6 de-conversion facility in Hobbs, New Mexico. The principal component of assistance was the conveyance of approximately 640 acres of land for construction and operation of the proposed facility. The conveyance of the land was contingent upon the Company commencing construction on Phase 1 of the facility by December 31, 2014 and hiring a certain number of employees by December 31, 2015. Under the amendment to the PPA, the Lea County, New Mexico Board of Commissioners agreed to extend those dates to December 31, 2016 and December 31, 2017, respectively. The Company did not meet the deadlines set forth in the amended PPA, but is in discussions with the Lea County, New Mexico Board of Commissioners to further extend the milestone dates. If the Company does not succeed in extending the commitment dates or in reaching performance dates set forth in a modified 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.

The Company holds a Nuclear Regulatory Commission (NRC) construction and operating license for the depleted uranium facility as well as the property agreement with Lea County, New Mexico, where the plant is intended to be constructed. The NRC license for the de-conversion facility is a forty (40) year operating license and is the first commercial license of this type issued in the United States. There are no other companies with a similar license application under review by the NRC. Therefore, the NRC license represents a significant competitive barrier and the Company believes that it provides it with a very valuable asset. During the year ended December 31, 2017, the Company incurred costs of approximately $209,000 to maintain licenses and other necessary project investments. During the same period in 2016, the Company incurred costs of approximately $379,000 for planning and development activities on the project.

The Company expects that cash from operations and its current cash balance will be sufficient to fund operations for the next twelve months. Future liquidity and capital funding requirements will depend on numerous factors, including, contract manufacturing agreements, commercial relationships, technological developments, market factors, available credit, and voluntary warrant redemption by shareholders. There is no assurance that additional capital and

financing will be available on acceptable terms to the Company or at all.

NOTE 3 PURCHASED ASSET AND INVESTMENTS

Interest in RadQual, LLC

The Company owns a 24.5% interest in RadQual, with which the Company has an exclusive manufacturing agreement for nuclear medicine products. On August 10, 2017, affiliates of the Company, including the Company s Chairman of the Board and the Chief Executive Officer, acquired the remaining 75.5% interest in RadQual. As a result of this change in ownership, the Company was named as a managing member and gained the ability to exercise significant management control over the operations of RadQual. Because of this increased management ability, and pursuant to GAAP, the Company has consolidated the accounts of RadQual into its financial statements beginning as of August 10, 2017. Prior to August 10, 2017, the Company reported its 24.5% ownership of RadQual as an asset with a balance of $1,436,843 and was using the equity method of accounting for this asset. At August 10, 2017, the fair market value of the Company s investment in RadQual was determined to be $489,999 and the Company reported as other expense a loss of $946,844 for the year ended December 31, 2017, to adjust the carrying value to fair value under ASC 805. Upon recording the fair value of the assets and liabilities of RadQual, $441,126 was assigned to patents and intangible assets that were acquired and $1,376,584 was recorded as Goodwill. Goodwill may be adjusted, as allowed by ASC 805, within a one-year time period if the fair value of assets and liabilities is determined to be different than originally recorded by the Company.

For the year ended December 31, 2017, member distributions from RadQual received prior August 10, 2017, totaled $109,111 and were recorded as a reduction of the investment in RadQual. During the same period, earnings allocated to the Company from RadQual prior to August 10, 2017, totaled $53,173, and were recorded as equity in net income of affiliate on the Company s condensed consolidated statements of operations and as a reduction to the investment on the consolidated balance sheets, prior to consolidation.

Acquisition of Interest in TI Services, LLC

In December 2010, the Company together with RadQual, formed a 50% owned joint venture, TI Services. TI Services is engaged in the distribution and selling of products related to the nuclear medicine industry. Because the Company controls more than a 50% direct and indirect ownership interest in TI Services, the assets and liabilities of TI Services are consolidated with those of the Company, and RadQual s non-controlling interest in TI Services is included in the Company s financial statements as a non-controlling interest.

NOTE 4 INVENTORIES

Inventories consisted of the following for the years ended December 31:

		2017		2016
Raw materials	$	42,911	$	44,455
Work in progress		1,906,377		1,425,056
Finished goods		2,225		6,729
	$	1,951,513	$	1,476,240

Included in raw material inventory are the various pellet holders and housings involved in target fabrication, raw cobalt, strontium and other raw elements, completed flood sources, irradiated cobalt and nuclear medicine-related materials and products. Raw material inventory is regularly reviewed for obsolescence. During 2017, $1,500 of raw material was determined to have no future value and was written off to expense and during the year ended December 31, 2016, the Company determined that some older material used in product fabrication was no longer of value to the Company and wrote-off approximately $47,000 of raw material inventory.

Work in process includes cobalt-60 targets that are located in the ATR located outside of Idaho Falls, Idaho. These targets are owned by the Company and contain cobalt-60 material at various stages of irradiation. The carrying value

of the targets is based on accumulated irradiation and handling costs which have been allocated to each target based on the length of time the targets have been held and processed at the reactor. At December 31, 2017, the remaining cobalt target inventory had a carrying value of $425,159, and at December 31, 2016, the inventory was valued at $442,759.

Work in process also includes costs to irradiate cobalt-60 material under a contract with the DOE. This material has been placed in the reactor exclusively for purchase by the Company, and at December 31, 2017 and 2016, the amount of accumulated irradiation charges reported as inventory was $1,323,540 and $766,080, respectively. The Company has contracted with several customers for the purchase of this cobalt-60 material and has collected advance payments for project management, up-front handling and irradiation charges. These payments have been recorded as unearned revenue. The revenue and the costs associated with irradiation will be recognized as the targets are completed and shipped to the customer, which is expected to begin in 2018.

NOTE 5 PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment are summarized as follows at December 31, 2017 and 2016:

					Estimated
		2017		**2016**	**Useful Lives**
Furniture and fixtures	$	175,387	$	126,650	3 - 5 years
Transportation equipment		122,874		122,874	5 - 10 years
Plant and improvements		496,154		463,754	5 years
Production equipment		3,510,389		3,497,112	5 - 10 years
		4,304,804		4,210,390	
Accumulated depreciation		(2,369,269)		(2,262,314)	
	$	1,935,535	$	1,948,076	

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

Depreciation expense was $108,434 and $114,134 for the years ended December 31, 2017 and 2016, respectively.

NOTE 6 PATENTS AND OTHER INTANGIBLE ASSETS

The Company owns certain patents and patents pending related to a fluorine extraction process and patents for various uses of some fluoride gases as fluorinating agents. 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 and in 2014 the FEP process patent was granted in South Africa. In 2015, the FEP process patents in China and Japan were abandoned and in 2017 the process patent in Canada was abandoned. The applications in 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 October 2012, the NRC issued the Company a 40-year construction and operating license for the de-conversion facility. Capitalized costs associated with the licensing and planning process for this license are being amortized over the 40-year life of the license.

The following table summarizes the patent and intangible activity for the years ended December 31, 2017 and 2016:

	2017	**2016**
Beginning	$ 4,909,019	$ 4,897,850
Additions	457,738	11,169
Disposals	-	-
Ending	5,366,757	4,909,019
Accumulated amortization	(855,116)	(722,724)
	$ 4,511,641	$ 4,186,295

During the year ended December 31, 2017 the Company recognized $132,392 of amortization expense, and during the year ended December 31, 2016, the Company recognized $112,722 of amortization expense.

Included in additions are $433,243 allocated to patents and $10,883 of intangible assets brought on from the change to consolidation accounting in relation to RadQual. The patents acquired pertain to products that will be manufactured in the Company s nuclear medicine business segment.

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,	
2018	$ 160,544
2019	160,544
2020	160,544
2021	160,544
2022	160,544
Thereafter	3,708,921
	$ **4,511,641**

NOTE 7 CONVERTIBLE DEBENTURES AND NOTES PAYABLE

Convertible debentures

In July 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 had a stated interest rate of 8% per annum which was payable semi-annually. The debentures were 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 under certain conditions. 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 were immediately exercisable at a price of $0.30 per share with a five-year life and matured in July 2017.

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 was accreted to interest expense over the five-year life of the debentures. During the periods ended December 31, 2017, $42,169 of the allocated fair value of the warrants was accreted to interest expense and $2,566 of the beneficial conversion feature was accreted to interest expense. For the same period in 2016, $73,352 of the allocated fair value of the warrants was accreted to interest expense and $5,131 of the beneficial conversion feature was 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 were recorded as offering costs and were amortized to expense over the life of the underlying debentures.

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

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

Notes payable

In December 2013, the Company borrowed $500,000 from the Company s Chairman of the Board of Directors (the Board) and one of the Company s major shareholders. The $500,000 note bears interest at 6% and was originally due June 30, 2014. According to the terms of the note, at any time, the lenders may settle any or all of the principal and

accrued interest with shares of the Company s common stock. In connection with the note, each of the two lenders was issued 5,000,000 warrants to purchase shares of the Company s common stock. In June 2014, the Company renegotiated the terms of this promissory note. Pursuant to the modification, the maturity date was extended to December 31, 2017, and each Lender was granted an additional 7,500,000 warrants to purchase shares of the Company s common stock at $0.06 per share. The warrants were immediately exercisable. The fair value of these warrants was $384,428 and was recorded as a debt discount and will be amortized to interest expense over the new life of the promissory note. The Company calculated a beneficial conversion feature of $15,464 which will be accreted to interest expense over the new life of the note. As a result, the Company recorded non-cash interest expense in 2017 of $26,822 and $117,042 of non-cash interest was recorded in 2016. In February 2017, the due date of the note was extended to December 31, 2020, with all other terms of the note remaining unchanged.

In September 2016, the Company borrowed an aggregate of $360,000 from the Company s then Chairman of the Board of Directors and one of the Company s Directors. The $360,000 note carried stated interest at 6%, which was payable upon maturity of the note on March 31, 2017. Per the terms of the note, at any time, the lenders could settle any or all principal and accrued interest with shares of the Company s common stock or other securities of the Company. The note was secured by all unencumbered assets. In February 2017, in connection with the offering of series C Preferred Stock and warrants described in Note 9 below, all outstanding principal and accrued interest was converted by the holders into shares of the Series C Preferred Stock and warrants.

In August 2017, the Company borrowed $60,000 from its Chairman of the Board of Directors pursuant to a promissory note. The note accrues interest at 5% per year, which is payable upon maturity of the note. The note is unsecured and matures on June 30, 2018.

Notes payable as of December 31, 2017 and 2016 consist of the following:

		2017		2016
Note payable to related parties bearing interest at 6% all principal and interest due on March 31, 2017, secured by all assets of the company not otherwise encumbered	$	-	$	360,000
Note payable to a financial institution bearing interest at 6.75%				
Monthly installments of $805, secured by vehicle		36,179		43,132
Note payable to a related party bearing interest at 5% all principal and interest due June 30, 2018 unsecured		60,000		-
Convertible notes payable, net of unamortized debt discount and debt issuance costs of $44,735 at December 31, 2016, bearing interest at 8%, matured July 27, 2017		-		3,025,165
Note payable to related parties net of unamortized debt discount of $80,466 and $107,288 at December 31, 2017 and 2016, respectively, bearing interest at 6% all principal and interest due on December 31, 2020, secured by all assets not otherwise encumbered as collateral for purchase of AOS shipping container		419,533		392,712
Total notes payable		515,712		3,821,009
Less: current maturities		(67,437)		(3,392,118)
Notes payable, net of current installments and debt discount	$	448,275	$	428,891

Maturities of convertible debt and notes payable, excluding debt discount and debt issuance costs, at December 31, 2017, are as follows:

Years ending December 31,		
2018	$	67,437
2019		7,956
2020		508,502
2021		9,086
2022		3,197
	$	596,178
Discount		(80,466)
	$	515,712

NOTE 8 LEASE OBLIGATIONS

Operating leases

The Company currently leases office space under a ten-year operating lease that expires in 2021. Rental expense under the leases for the years ended December 31, 2017 and 2016 was $136,313 each year.

The following is a schedule by years of the currently held operating lease as of December 31, 2017:

Years ending December 31,		
2018	$	136,313
2019		136,313
2020		136,313
2021		45,318
	$	454,257

NOTE 9   SHAREHOLDERS   EQUITY, 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 received a common stock purchase warrant to purchase such number of shares of the Company   s 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 possible number of shares of common stock that could be issued under the warrants was 4,502,520. The warrants were immediately exercisable at a price of $0.30 per share and expired in July 2017.

In December 2013, the Company entered into a promissory note agreement with the Company s former chairman of the Board and one of the Company s major shareholders pursuant to which the Company borrowed $500,000. The $500,000 note bears interest at 6% and was originally 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 at a purchase price of $0.06 per share. Pursuant to an amendment to the promissory note on June 30, 2014, the maturity date was extended to December 31, 2017 and each lender was granted an additional 7,500,000 warrants, which are immediately exercisable, to purchase shares of the Company s common stock at $0.06 per share. In December 2016, the note was further modified to extend the maturity date to December 31, 2022, with all remaining terms unchanged.

The following table summarizes warrant activity for the years ended December 31, 2017 and 2016:

Warrants	Outstanding Shares	Weighted Average Exercise
Outstanding at December 31, 2015	42,257,951	$ 0.18
Granted		
Exercised	-	
Forfeited	(14,838,779)	0.38
Outstanding at December 31, 2016	27,419,172	0.08
Granted	20,090,000	0.12
Exercised	-	-
Forfeited	(2,419,172)	0.30
Outstanding at December 31, 2017	45,090,000	$ 0.09

Mandatorily Redeemable Convertible Preferred Stock

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

At December 31, 2017 and 2016, there were 850 shares of the Series B Convertible Redeemable Preferred Stock (the Series B Preferred Stock) outstanding with a mandatory redemption date of May 2022 at $1,000 per share, or $850,000 in aggregate redemption value. The Series B Preferred Stock is 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 consolidated balance sheets.

On February 17, 2017, the Company entered into subscription agreements with certain investors, including two of the Company s directors, for the sale of (i) an aggregate of 3,433 shares of Series C Preferred Stock, and (ii) Class M warrants to purchase an aggregate of 17,165,000 shares of the Company s common stock (the Class M Warrants), for gross proceeds of $3,433,000. The Series C Preferred Stock accrues dividends at a rate of 6% per annum, payable annually on February 17th of each year, commencing on February 17, 2018. The Series C Preferred Stock are convertible at the option of the investors at any time into shares of the Company's common stock at an initial conversion price equal to $0.10 per share, subject to adjustment. At any time after February 17, 2019, if the volume-weighted average closing price of the Company s common stock over a period of 90 consecutive trading days is greater than $0.25 per share, the Company may redeem all or any portion of the outstanding Series C Preferred Stock at the original purchase price per share plus any accrued and unpaid dividends, payable in shares of common stock. All outstanding shares of Series C Preferred Stock will be redeemed by the Company on February 17, 2022 at the original purchase price per share, payable in cash or shares of common stock, at the option of the holder. Holders of Series C Preferred Stock do not have any voting rights, except as required by law and in connection with certain events as set forth in the Statement of Designation of the Series C Preferred Stock.

The Class M Warrants are immediately exercisable at an exercise price of $0.12 per share, subject to adjustment as set forth in the warrant, and have a term of five years.

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

The fair value of the Class M Warrants, determined using the Black-Scholes Option Pricing Model, was calculated using the following assumptions: risk-free interest rate of 1.92%, expected dividend yield of 0%, expected volatility of 66%, and an expected life of five years.

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

The Class N Warrants are immediately exercisable at an exercise price of $0.10 per share, subject to adjustment as set forth in the warrant, and have a term of five years.

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

The fair value of the Class N Warrants, determined using the Black-Scholes Option Pricing Model, was calculated using the following assumptions: risk-free interest rate of 1.93%, expected dividend yield of 0%, expected volatility of 66%, and an expected life of five years.

Employee Stock Purchase Plan

In September 2004, the Company s Board approved an employee stock purchase plan for an aggregate of up to 2,000,000 shares of the Company s common stock. The plan allows employees to deduct up to 15% of their salary or wages each pay period to be used for the purchase of common stock at a discounted rate. The common shares will be purchased at the end of each three-month offering period or other period as determined by the Board. The plan is intended to qualify as an employee stock purchase plan under Section 423 of the Internal Revenue Code.

During 2017 and 2016, the Company issued 93,865 and 57,654 shares of common stock to employees for proceeds of $6,115 and $3,993, respectively, in accordance with the employee stock purchase plan.

2015 Incentive Plan

In April 2015, the Board approved the International Isotopes Inc. 2015 Incentive Plan (the 2015 Plan ,) which was subsequently approved by the Company s shareholders in July 2015. The 2015 Plan provides for the grant of incentive and non-qualified stock options, stock appreciation rights, restricted stock, restricted stock units, performance shares and units, and other stock or cash-based awards. The 2015 Plan amends and restates the Company s Amended and Restated 2006 Equity Incentive Plan (the 2006 Plan).

The 2015 Plan authorizes the issuance of up to 60,000,000 shares of common stock, plus 11,089,967 shares authorized, but not issued under the 2006 Plan. Unless earlier terminated, the 2015 Plan will terminate on July 13, 2025. At December 31, 2017, there were 12,922,267 shares available for issuance under the 2015 Plan.

Non-Vested Stock Grants

Pursuant to an employment agreement with the Company s Chief Executive Officer, the Company issued 350,000 shares of fully-vested Company stock in February 2017. The number of shares awarded was based on a $28,000 stock award using a price of $0.08 per share. The original agreement stated that the number of shares issued would 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. In October 2016, the employment agreement was modified to state that the number of shares issued will be based on the average closing price of common stock for the 20 trading days prior to issue date but not less than $0.05 per share. Compensation expense recorded pursuant to this transaction was $28,000, which was determined by multiplying the number of shares awarded by the average closing price of the stock for the preceding 20 trading days, which was $0.08 per share. The Company withheld 140,175 shares to satisfy the employee s payroll tax liabilities in connection with this issuance. The net shares issued on February 28, 2017 totaled 209,825 shares.

Pursuant to an employment agreement with the Company s Chief Executive Officer, the Company issued 280,000 in fully vested shares of common stock in February 2017. 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 was based on the average closing price of common stock for the 20 trading days prior to the issue date but not less than $0.10 per share. Compensation expense recorded pursuant to this stock grant was $28,000, which was determined by multiplying the number of shares awarded by the closing price of common stock on February 28, 2017, which was $0.08 per share. The Company withheld 140,175 shares to satisfy the employee s payroll tax liabilities in connection with this issuance. The net shares issued on February 28, 2017 totaled 209,825 shares.

Stock Options

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

Options	Outstanding Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life	Average Intrinsic Value
Outstanding at December 31, 2015	27,950,000	$ 0.04		
Granted	-	-		
Exercised	(4,500,000)	0.04		$ 202,500
Forfeited	(133,333)			
Outstanding at December 31, 2016	23,316,667	0.06		$ 1,883,667
Granted	11,500,000	0.06		
Exercised	(2,566,667)	0.04		$ 108,500
Forfeited	-			
Outstanding at December 31, 2017	32,250,000	$ 0.06	6.3	
Exercisable at December 31, 2017	22,750,000			

The total intrinsic value of stock options outstanding at December 31, 2017 was $1,069,500. The intrinsic value for stock options outstanding is calculated as the amount by which the quoted price of $0.08 of the Company s common stock as of the end of 2017 exceeds the exercise price of the options.

The Company recognized $147,087 and $49,677 of compensation expense related to these options for the years ended December 31, 2017 and 2016, respectively. At December 31, 2017, the remaining compensation expense was $211,481 and will be recognized over 1.98 years.

On July 11, 2017 and August 2, 2017, the Compensation Committee granted an aggregate of 8,000,000 incentive stock options to executive officers and employees with an exercise price of $0.06 per share. Also, the Compensation Committee granted 500,000 nonqualified stock options to a consultant and 3,000,000 nonqualified stock options to members of the Board. All of the stock options were granted with an exercise price of $0.06 per share with the exception of 1,000,000 options issued to a board member with an exercise price of $0.08 per share. The employee and consultant options vest one fifth per year beginning one year from the grant date and expire on July 11, 2027. Executive officer and board member options vest one fourth immediately and one fourth each subsequent year and expire on July 11, 2027. The options had a fair value of $450,298 as estimated on the date of issue using the Black-Scholes options pricing model with the following weighted-average assumptions: risk free interest rate of 1.92% to 2.18%, expected dividend yield rate of 0%, expected volatility of 70.31% to 73.67% and an expected life between 5.53 and 7.53 years.

During the year ended December 31, 2017, 2,300,000 stock options were exercised under cashless exercises. The Company withheld 1,079,412 shares to satisfy the exercise price and issued 1,220,588 shares of common stock.

During the year ended December 31, 2017, 266,667 non-qualified stock options were exercised. The Company received $9,333 in cash to satisfy the exercise price and issued 266,667 shares of common stock.

In June 2016, 500,000 qualified stock options, with an intrinsic value of $22,500, were exercised under a cashless exercise. The Company withheld 218,750 shares to satisfy the exercise price and issued 281,250 shares of common stock.

In August 2016, 4,000,000 non-qualified stock options, with an intrinsic value of $180,000, were exercised under a cashless exercise. The Company withheld 1,750,000 shares to satisfy the exercise price and issued 2,250,000 shares of common stock.

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 2017 and 2016. Income tax benefit on losses differed from the amounts computed by applying the recently enacted U.S. federal income tax rate of 21% to pretax losses as a result of the following:

		2017		2016
Income tax benefit	$	(789,030)	$	(618,284)
Nondeductible expenses		(7,455)		4,827
State taxes net of federal benefit		(278,039)		(83,650)
Change in effective tax rate		3,620,117		-
Change in valuation allowance		(2,545,593)		697,107
	$	-	$	-

The tax effects of temporary differences that give rise to significant portions of the Company s deferred tax assets (liabilities) as of December 31, 2017 and 2016 are presented below:

		2017		2016
Deferred income tax asset	$	-	$	-
Net operating loss carryforward		9,890,479		12,961,241
Valuation allowance		(9,678,454)		(12,224,047)
Total deferred income tax asset		212,025		737,194
Deferred income tax liability - depreciation		(212,025)		(737,194)
Deferred tax asset (liability)	$	-	$	-

At December 31, 2017, the Company had net operating losses of approximately $36,837,000 that will begin to expire in 2021. The valuation allowances for 2017 and 2016 have been applied to offset the deferred tax assets in recognition of the uncertainty that such benefits will be realized.

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

consolidated statements of operations.

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

NOTE 11 COMMITMENTS AND CONTINGENCIES

Dependence on Third Parties

Sales to RadQual for January 1, 2017 to August 10, 2017 were $1,290,482 which represents approximately 17% of the Company s total gross revenue for 2017. Sales during 2017 to the Company s top three customers was approximately 31% of its total gross revenue. The Company is making efforts to reduce its dependency on a small number of customers by expanding both domestic and foreign markets and through the establishment of the joint venture, TI Services to expand the distribution of products.

The production of HSA Cobalt is dependent upon the DOE, and its prime operating contractor, which controls the reactor and laboratory operations at the ATR located outside of Idaho Falls, Idaho. On October 2, 2014, the Company signed a ten-year contract with the DOE for the irradiation of cobalt targets for the production of cobalt-60. The Company will be able to purchase cobalt targets for a fixed price per target and with an annual 5% escalation in price. The contract term is October 1, 2014, through September 30, 2024. However, the DOE may end the contract if it determines termination is necessary for the national defense, security or environmental safety of the U.S. If this were to occur, all payments made by the Company would be refunded.

Contingencies

Because all the Company s business segments involve the handling or use of radioactive material, the Company is required to have an operating license from the NRC and specially trained staff to handle these materials. The Company has amended this operating license numerous times to increase the amount of material permitted within the Company s facility. Although this license does not currently restrict the volume of business operation performed or projected to be performed in the upcoming year, additional processing capabilities and license amendments could be implemented that would permit processing of other reactor-produced radioisotopes by the Company. The financial assurance required by the NRC to support this license has been provided for with a surety bond and a restricted money market account, in the amount of $450,630, held with North American Specialty Insurance Company and Merrill Lynch, respectively.

In August 2011, we received land from Lea County, New Mexico, pursuant to a PPA, 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 were to begin construction of the de-conversion facility no later than December 31, 2014, and complete Phase I of the project and have hired at least 75 persons to operate the facility no later than December 31, 2015, although commercial operations need not have begun by that date. In 2015 the Company negotiated a modification to the PPA agreement that extended the start of construction date to December 31, 2015, and the hiring milestone to December 31, 2016. Those dates were not met and the Company is currently in the process of renegotiating a second modification to the agreement to further extend those dates. If we do not succeed in reaching an amendment to extend the performance 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. 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.

Defined Contribution Pension Plan

The Company has a 401(k) defined-contribution pension plan (the 401(k) Plan). Employees are eligible to participate in the Plan after completing six months of full-time service. Participants, under provision of Internal Revenue Code § 401(k), may elect to contribute up to $18,000 of their compensation to the 401(k) 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 2017 or 2016. All amounts withheld for employee contributions for 2017 were paid into the 401(k) Plan. The employer reserves the right to terminate the 401(k) Plan at any time.

NOTE 12 ASSET RETIREMENT OBLIGATION

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

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

The following summarizes the activity of the asset retirement obligation for the years ended December 31, 2017 and 2016:

		Obligation for Lease Disposal Cost
Balance at December 31, 2015	$	459,711
Increase in lease disposal costs		-
Accretion expense/amortization expense		9,263
Balance at December 31, 2016		468,974
Increase in lease disposal costs		-
Accretion expense/amortization expense		9,450
Balance at December 31, 2017	$	478,424

NOTE 13   FAIR VALUE MEASUREMENTS

At December 31, 2017 and 2016, the Company had no assets 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:

.

The Nuclear Medicine Standards segment consists of the manufacture of sources and standards associated with 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, and the consolidated reporting of the Company s 50/50 joint venture with RadQual.

.

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

.

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 predominant radiochemical sold in this segment and an abbreviated new Drug Application (aNDA) has been submitted to the U.S. Food and Drug Administration to market this as a generic drug product upon approval.

.

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

.

The 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.

.

The Transportation segment has historically provided transportation services for the Company s products and has offered for hire transportation services of hazardous and non-hazardous cargo materials. Over the years the business activities in this segment have been primarily derived from the Company s radiological services and cobalt products business segments. Because of this, Company management believes that combining the transportation services financial reporting within these other segments would provide more qualitative reporting and will begin such reporting in the first period of 2018.

The following presents certain segment information as of and for the years ended December 31, 2017 and 2016:

Sale of product		2017		2016
Radiochemical products	$	2,321,732	$	1,708,120
Cobalt products		507,904		859,034
Nuclear medicine standards		3,232,229		3,093,295
Radiological services		1,332,662		769,702
Fluorine products		-		-
Transportation		25,863		121,998
Total segments		7,420,390		6,552,149
Corporate revenue		-		-
Total consolidated	$	7,420,390	$	6,552,149

Depreciation and amortization		2017		2016
Radiochemical products	$	8,015	$	6,995
Cobalt products		35,790		43,802
Nuclear medicine standards		27,932		12,888
Radiological services		38,920		34,019
Fluorine products		113,691		112,053
Transportation		10,934		10,429
Total segments		235,282		220,186
Corporate depreciation and amortization		6,154		6,670
Total consolidated	$	241,436	$	226,856

Segment income (loss)		2017		2016
Radiochemical products	$	402,158	$	355,448
Cobalt products		229,954		472,890
Nuclear medicine standards		627,832		680,004
Radiological services		608,396		371,228
Fluorine products		(209,110)		(378,705)
Transportation		(62,582)		(34,374)
Total segments		1,596,648		1,466,491
Corporate loss		(5,353,932)		(3,345,603)
Total consolidated	$	(3,757,284)	$	(1,879,112)

Expenditures for segment assets		2017		2016
Radiochemical products	$	40,863	$	-
Cobalt products		-		-
Nuclear medicine standards		2,940		12,682
Radiological services		13,277		56,677
Fluorine products		14,223		11,170
Transportation		-		53,631
Total segments		71,303		134,160
Corporate purchases		38,812		6,956
Total consolidated	$	110,115	$	141,116

Segment assets		2017		2016

Radiochemical products	$	282,971	$	267,920
Cobalt products		1,813,356		1,414,240
Nuclear medicine standards		2,214,061		502,361
Radiological services		166,148		171,354
Fluorine products		5,702,159		5,801,627
Transportation		32,289		49,706
Total segments		10,210,984		8,207,208
Corporate assets		1,794,310		3,172,057
Total consolidated	$	12,005,294	$	11,379,265

NOTE 15 SUBSEQUENT EVENTS

In January 2018, the Company s Chief Executive Officer exercised 1,000,000 stock options granted under the 2015 Incentive Plan (previously the 2006 Equity Incentive Plan). The options were granted in 2009 and carried an exercise price of $.035 per share. As a result of the cashless exercise, 388,889 shares were tendered to cover the cost of exercise and 611,111 shares were issued to the employee.

In February 2018, 1,000,000 stock options were award to an employee under the Company s 2015 Incentive Plan. The options carry an exercise price of $0.08 per share, expire in February 2028, and vest 20% upon the first anniversary date and 20% each year thereafter until February 2023 at which time they become fully vested.

Pursuant to an employment agreement with the Company s Chief Executive Officer, the Company issued 350,000 shares of fully-vested Company stock in February 2018. The number of shares awarded was based on a $28,000 stock award using a price of $0.08 per share. The original agreement stated that the number of shares issued would 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. In October 2016, the employment agreement was modified to state that the number of shares issued will be based on the average closing price of common stock for the 20 trading days prior to issue date but not less than $0.05 per share. Compensation expense recorded pursuant to this transaction was $28,000, which was determined by multiplying the number of shares awarded by the average closing price of the stock for the preceding 20 trading days, which was $0.08 per share. The Company withheld 140,175 shares to satisfy the employee s payroll tax liabilities in connection with this issuance. The net shares issued on February 28, 2018 totaled 209,825 shares.

In February 2018 the U.S. FDA issued additional comments to the Company in regard to the abbreviated New Drug Application for sodium iodide that the Company had originally submitted to the FDA in November 2016. The Company plans to address the FDA comments and submit our amendment to the application as quickly as possible in 2018.