

FOR THE PERIOD ENDING OCTOBER 31, 2008

ANNUAL INFORMATION FORM



Progress. Opportunity. **Moving forward.**

  
*Science advancing health*

**MDS INC.**  
**ANNUAL INFORMATION FORM**  
**FOR THE YEAR ENDED OCTOBER 31, 2008**

January 27, 2009  
Toronto, Canada

**MDS INC.**  
**ANNUAL INFORMATION FORM**

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The following are trademarks or registered trademarks of MDS Inc. or its subsidiaries:

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Azedra™	Molecular Insight Pharmaceuticals, Inc.
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Zemiva™	Molecular Insight Pharmaceuticals, Inc.
Zevalin®	Cell Therapeutics, Inc.

**MDS INC.**  
**ANNUAL INFORMATION FORM**

**INTERPRETATION**

In this Annual Information Form (AIF), “we”, “us”, “our”, “MDS”, and “the Company” refer to MDS Inc., its subsidiaries and joint ventures. In this AIF, all references to specific years are references to the fiscal year ended October 31. All references to “\$” or “dollars” are references to U.S. dollars and all reference to C\$ are to Canadian dollars, unless otherwise specified.

Certain terms and abbreviations used in this AIF are defined in Appendix II - Definitions.

**ITEMS AFFECTING THE COMPARABILITY OF FINANCIAL INFORMATION OF PRIOR YEARS**

All financial references in this document exclude our discontinued generic radiopharmaceuticals operations, our diagnostic laboratories business, certain early-stage pharmaceutical research services operations, and our interests in Source Medical Corporation (Source), unless otherwise indicated. All financial references for the prior years have been restated to reflect this treatment.

MDS historically prepared its consolidated financial statements in accordance with Canadian generally accepted accounting principles (GAAP) and provided reconciliation to U.S. GAAP. The Company adopted U.S. GAAP effective with the reporting of its fiscal 2007 annual results as its primary reporting standard for its consolidated financial statements. MDS has adopted U.S. GAAP to improve the comparability of its financial information with that of its competitors, the majority of whom are U.S.-based multinational companies. All figures for prior years have been revised to reflect the adoption of U.S. GAAP as our reporting standard. All financial statements and Management’s Discussion and Analysis (MD&A) filed by the Company since its 2007 Annual Reports, including those filed for interim reporting purposes during 2008, were prepared in accordance with U.S. GAAP.

Following a detailed review of the MAPLE Facilities, we have determined that our accounting treatment of the MAPLE Facilities in fiscal 2006, 2007 and for the interim periods of 2008 was incorrect. As a result, we have restated our results for prior years and the interim periods for 2008. We do not intend to restate and re-file our previously filed interim and annual financial reports. Details of the restatement are discussed in the Company’s 2008 MD&A.

## **DOCUMENTS INCORPORATED BY REFERENCE**

The following sections of the MDS 2008 Annual Report Financial Review (2008 Financial Review) are incorporated by reference into this AIF:

1. The audited consolidated financial statements of MDS Inc. for the years ended October 31, 2008, October 31, 2007 and October 31, 2006, reported on by Ernst & Young LLP, Chartered Accountants (2008 Financial Statements) on pages 45 to 50 of the 2008 Financial Review; and
2. Management's Discussion and Analysis of financial condition and results of operations of MDS Inc. for the fiscal year ended October 31, 2008 (2008 MD&A) contained on pages 1 to 44 of the 2008 Financial Review.

Also incorporated by reference is the Management's Proxy Circular dated January 7, 2009 with respect to the March 12, 2009 Annual and Special Meeting of Shareholders.

## **CAUTION REGARDING FORWARD-LOOKING STATEMENTS**

From time to time, we make written or oral forward-looking statements within the meaning of certain securities laws, including the "safe harbour" provisions of applicable Canadian securities regulation and the United States Private Securities Litigation Reform Act of 1995. This document contains such statements, and we may make such statements in other filings with regulators in Canada and the United States Securities and Exchange Commission (SEC), in reports to shareholders or in other communications, including public presentations and press releases. These forward-looking statements include, among others, statements with respect to our objectives for 2009 and beyond, our medium-term goals, and strategies to achieve those objectives and goals, as well as statements with respect to our beliefs, plans, objectives, expectations, anticipations, estimates and intentions. The words "may", "could", "should", "would", "suspect", "outlook", "believe", "plan", "anticipate", "estimate", "expect", "intend", "forecast", "objective", "optimistic", and words and expressions of similar import, are intended to identify forward-looking statements.

By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific, which give rise to the possibility that predictions, forecasts, projections and other forward-looking statements will not be achieved. We caution readers not to place undue reliance on these statements as a number of important factors could cause our actual results to differ materially from the beliefs, plans, objectives, expectations, anticipations, estimates and intentions expressed in such forward-looking statements. These factors include, but are not limited to: management of operational risks; the strength of the global economies, in particular the economies of Canada, the United States, the European Union, and the other countries in which we conduct business; the stability of global equity markets; the cost and availability of financing and our ability to obtain such financing given the restrictions in our Senior Unsecured Notes and bank credit facilities; our ability to secure a reliable supply of raw materials, particularly cobalt and critical medical isotopes; the impact of the movement of certain currencies relative to other currencies, particularly the U.S. dollar, Canadian dollar and the euro; changes in interest-rate policies of the Bank of Canada and the Board of Governors of the Federal Reserve System in the United States; the effects of competition in the markets in which we operate; the timing and technological advancement of new products introduced by us or by our competitors; our ability to manage our research and

development; the impact of changes in laws, trade policies and regulations, and enforcement thereof; regulatory actions; judicial judgments and legal proceedings; our ability to maintain adequate insurance; our ability to successfully realign our organization, resources and processes; our ability to retain key personnel; our ability to have continued and uninterrupted performance of our information technology systems; our ability to complete strategic transactions and to execute them successfully; our ability to compete effectively; the risk of environmental liabilities; our ability to maintain effectiveness of our clinical trials; new accounting standards that impact the methods we use to report our financial condition; uncertainties associated with critical accounting assumptions and estimates; the possible impact on our businesses from third-party special interest groups, certain of our employees subject to collective-bargaining, environmental and other regulations, natural disasters, public-health emergencies, international conflicts and other developments including those relating to terrorism; other risk factors described in section 3.10 hereof, and our success in anticipating and managing these risks.

We caution that the foregoing list of important factors that may affect future results is not exhaustive. When relying on our forward-looking statements to make decisions with respect to the Company, investors and others should carefully consider the foregoing factors and other uncertainties and potential events. We do not undertake to update any forward-looking statement, whether written or oral, that may be made from time to time by us or on our behalf, except as required by law.

## **1. CORPORATE STRUCTURE**

### **1.1 Jurisdiction of Incorporation**

MDS Inc. was incorporated on April 17, 1969 under the laws of the Province of Ontario under the name Medical Data Sciences Limited. The Company changed its name to MDS Health Group Limited in April of 1973 and to MDS Inc. in November 1996. The Company was continued under the *Canada Business Corporations Act* (CBCA) in October 1978 and remains subject to that statute.

The head office of MDS, and its principal place of business, is located at 2700 Matheson Boulevard East, Suite 300, West Tower, Mississauga, Ontario, Canada, L4W 4V9.

### **1.2 Current Organization**

Significant operating subsidiaries and partnerships are defined as those companies/partnerships that contribute 10% or more of the consolidated revenues or consolidated operating income of the Company, or account for 10% or more of the consolidated total assets of the Company. The significant operating subsidiaries and partnerships of the Company are set forth below.

- MDS (Canada) Inc., a Canadian (CBCA) corporation;
- MDS Analytical Technologies (US) Inc., a Delaware corporation;
- MDS Pharma Services (US) Inc., a Nebraska corporation;
- Applied Biosystems/MDS Analytical Technologies Instruments partnership, an Ontario partnership.

MDS beneficially owns, directly or indirectly, 100% of the shares of each of the above-named operating subsidiaries and a 50% interest in the above-named partnership.

The entities outlined above are consolidated in the financial statements of MDS and are referred to hereafter as subsidiaries, with the exception of Applied Biosystems/MDS Analytical Technologies Instruments, which is accounted for on an equity basis.

Until February 26, 2007, the Company conducted the majority of its diagnostic laboratories business through the following partnerships:

- MDS Laboratory Services, L.P., a partnership established under the laws of Ontario in which MDS held an indirect 99.6% interest, and
- Metro-McNair Clinical Laboratories Limited Partnership (Metro-McNair), a limited partnership established under the laws of British Columbia in which MDS held a 75% interest.

On February 26, 2007, the Company sold its interest in its diagnostic laboratories business, including its interest in these partnerships, to Borealis Infrastructure Management Inc. (see **Section 2.1 - General Development of the Businesses of MDS: Overview**).

In addition to its subsidiaries, including its ownership interests previously described, the Company owns: a 99.6% non-controlling equity interest in LPBP Inc., an Ontario corporation, through which it held its former indirect interest in the Ontario diagnostic laboratories business; and a 45% interest in Lumira Capital Corp. (formerly MDS Capital Corp.). Lumira Capital Corp. is described under the heading **3.6 - Significant Investees**.

## **2. GENERAL DEVELOPMENT OF THE BUSINESSES OF MDS**

### **2.1 Overview**

MDS is a global life sciences company that provides market-leading products and services that our customers need for the development of drugs and the diagnosis and treatment of disease. We are a leading global provider of pharmaceutical research services, medical isotopes for molecular imaging, sterilization technologies, radiotherapeutics and analytical instruments.

MDS operates in three business units within the life sciences industry: MDS Pharma Services, MDS Nordion and MDS Analytical Technologies.

In 2005, the Company announced a strategic plan to focus on the global life sciences market. In November 2005, the Company sold its interest in Source to Cardinal Health Inc. for C\$79 million, and in April 2006, the Calgary Health Region in Calgary, Canada exercised its option to acquire the Company's partnership interest in Calgary Laboratory Services (CLS) for C\$21 million, (see **Section 2.4.3 – Divestitures, Discontinuances and Other Transactions**).

On February 26, 2007, the Company completed another significant step in this strategic plan by selling its remaining diagnostic laboratories businesses to Borealis Infrastructure Management Inc. for gross proceeds of C\$1.3 billion, (see **Section 2.4.3 – Divestitures, Discontinuances and Other Transactions**).

In line with the Company's strategic plan, on March 20, 2007, MDS finalized the acquisition of Sunnyvale, U.S.-based Molecular Devices Corporation (MDC), a leading provider of high-performance measurement tools for high-content screening, cellular analysis, and biochemical testing for \$621 million (see **Section 2.4.2 - Acquisitions**).

In 2007, MDS carried out restructuring activities and took steps to further optimize the global footprint of MDS Pharma Services. During 2007, the Company finalized the sale of its Phase I clinical facility in Hamburg, Germany, transferred its Liquid Chromatography/Mass Spectrometry (LC/MS) bioanalytical, and drug metabolism and pharmacokinetics (DMPK) operations from Montreal, Canada to its Lincoln, U.S. and Bothell, U.S. sites, respectively. The Company also consolidated central laboratory operations from Hamburg, Germany into Baillet, France and transferred bioanalytical operations in Sittingbourne, U.K. to its Zurich, Switzerland site. To further accelerate growth, the Company has invested in new customer-facing IT systems, expanded Central Laboratory operations in Beijing, China and initiated a 300-bed expansion at its Phase I facility in Phoenix, U.S. The latter opened in January 2008.

In 2008, the Company continued to execute its strategic plan by further focusing its portfolio, optimizing its global footprint and driving operational efficiencies in its businesses. During the year, the Company closed several MDS Pharma Services offices, reduced headcount in various businesses and continued to transition MDS Analytical Technologies' primary manufacturing base to Asia. In May 2008, MDS completed the sale of its non-core external beam therapy and self-contained irradiator products lines. In June 2008, the Company acquired California-based Blueshift Biotechnologies, Inc., a developer of screening platforms for life sciences research.

### **2.1.1 Life Sciences**

The Company has three life sciences business units: MDS Pharma Services, which provides pharmaceutical research services; MDS Nordion, which provides medical isotopes for molecular imaging, sterilization technologies and radiotherapeutics; and MDS Analytical Technologies, which designs, manufactures and sells analytical instruments.

In 1981, MDS entered the analytical instruments business with the acquisition of Sciex (acronym for SCIENTIFIC EXPORT). In 2007, MDS expanded its analytical instruments business with the acquisition of Molecular Devices (MDC).

In 1991, pursuant to a privatization initiative by the Government of Canada and under the *Nordion and Theratronics Divestiture Authorization Act*, a statute of the Government of Canada, MDS entered into the medical-isotope manufacturing and distribution business with the acquisition of an 83% interest in Nordion International Inc. (Nordion) from the Canadian Development Investment Corporation. In 1995, the Company increased its ownership interest in Nordion to 100%.

Also in 1995, MDS entered into the contract research business with the acquisition of several privately held companies in the United States and, in fiscal 2000, acquired Phoenix International Life Sciences Inc., a public company based in Montreal, Canada with additional operations in the United States and Europe. These pharmaceutical research services businesses collectively operate globally under the name MDS Pharma Services.

### **2.1.2 Diagnostic Laboratories**

Until February 2007, the Company also operated in the health-care industry primarily through its diagnostic laboratories business, MDS Laboratory Services, in Canada. The diagnostic laboratories business was the largest operator of private-sector clinical diagnostics laboratories in Canada. Services provided by the Company included clinical laboratory testing for physicians and non-hospital health-care institutions, management of hospital laboratories under contract and other support services for clinical diagnostics. MDS completed the sale of the diagnostic laboratories business to Borealis Infrastructure Management Inc. on February 26, 2007 as disclosed in **Section 2.4.3 – Divestitures, Discontinuances and Other Transactions.**

### **2.1.3 Customers**

Customers of the Company's life sciences businesses include a broad range of manufacturers of medical products including pharmaceutical manufacturers, biotechnology companies, manufacturers of medical supplies and devices, plus academic and government institutions. The Company also provides products and services to food and environmental testing industries, which are referred to as the Applied Market. These customers are located in virtually all major international markets.

Through its former Canadian diagnostic laboratories business, MDS provided products and services directly to health-care providers, including physicians and hospitals.

No single customer accounted for more than 10% of the consolidated revenues of the Company for the fiscal year ended October 31, 2008.

The Company's business and customer base are global. MDS's total revenues, including reimbursement revenue, as invoiced to customers in 2008 were approximately 49% U.S., 30% Europe, 11% Asia, 8% Canada, and 2% rest of world.

#### **2.1.4 Employees**

As at October 31, 2008, MDS had more than 5,000 employees in 29 countries.

### **2.2 Recent Industry Developments**

MDS serves the life sciences industry including pharmaceutical, biotechnology, academic, government and other research and industrial markets, as well as the health-care market. MDS's businesses have been affected by a number of events that affect the life sciences industry in general. They include:

- (i) growth in the global demand for drugs;
- (ii) intensifying pressure to accelerate drug development and contain costs;
- (iii) rapid progress in new technologies leading to innovation, increasing the availability of advanced research and analysis tools and sophisticated drug treatment options;
- (iv) heightened regulatory scrutiny worldwide - particularly concerning drug, food and water safety; and
- (v) the state of the global economy including the equity and financial markets.

#### ***i) Increased Demand for Drugs***

As the population expands and ages, there has been a corresponding increase in the global demand for therapeutics. In addition, demand from such emerging markets as India and China is increasing as these economies grow stronger.

#### ***ii) Pressure for Drug Development Acceleration and Cost Containment***

Looming patent expiration of large market drugs and the escalating investment necessary to bring a drug to market has led to pressure to speed the development of new drugs and reduce costs.

Loss of patent protection on a significant number of large market drugs is expected in the near future. Off-patent drugs often lose a substantial portion of their market share to generic alternatives in less than one year. To replace these lost revenues and sustain the levels of growth enjoyed in the past, large pharmaceutical and biotechnology companies must improve the effectiveness of existing drug development budgets. This has also led to the need to reduce development costs while continuing to fill the pipeline with potential new products.

This has, in turn, helped to fuel the growth of the contract research organization industry. In efforts to reduce costs and shorten the time to market, drug development companies have been expanding their use of contract research organizations to fulfill their pre-clinical and clinical research needs. Many large pharmaceutical companies have rationalized their workforces and facilities, and/or increased outsourcing to concentrate on their internal expertise and resources in early drug discovery, while continuing to advance their most promising products through the development pipeline.

In addition to more focused research spending, these developments have led to continued mergers of significant size within the pharmaceutical and biotechnology industries. Mergers are expected to continue, and are likely to reduce drug development budgets. They are also expected to lead to more focused research spending by the merged entities, including more concentration of spending within particular therapeutic areas of focus. Cost-containment efforts have also led to an expanded shift of drug development activities to such lower cost geographies as China, India and Eastern European countries.

### ***iii) Rapid Progress in New Technologies Leading to Innovation***

Advances in life sciences, including developments in the areas of genomics and proteomics, have created a better understanding of the field both at a molecular level and within a biological system. This has led to new and improved methods of drug discovery and development such as high throughput technologies. These technologies increase the number of new drug leads and enable earlier identification of promising candidates. In addition, researchers can eliminate unpromising candidates before investing in further development.

It is anticipated that these technological advances may lead to more targeted, personalized and effective medicines. In addition, these technologies are expected to lead to more accurate diagnosis at an earlier disease stage, which, in turn, is expected to lead to more effective treatment. Advancements include improved molecular-imaging technologies that may provide innovative diagnostic and therapeutic treatments in the future.

### ***iv) Heightened Regulatory Scrutiny***

The withdrawal of high-profile drugs from the market due to safety concerns, along with concerns about food and water contamination, has resulted in heightened regulatory scrutiny worldwide. In turn, there has been a reduction over the past decade in the frequency of drugs gaining approval. This has propelled the need for more effective tools and services for drug discovery and development, as well as the development of new testing methodologies to enhance the safety of food and water supplies. In addition, concerns surrounding the spread of infectious disease and recent incidents of contaminated food have driven a growing demand for sterilization technologies.

### ***v) State of the Global Economy***

The recent downturn in the equity markets, combined with the turmoil in the financial markets, is expected to negatively impact many industries including life sciences. It is expected that these events will cause customers to curtail capital expenditures and adjust their research and development pipelines to concentrate funding on their most critical projects. At this time, the severity or length of this economic downturn is undetermined.

## **2.3 Business Focus of MDS**

MDS's business is focused on the global life sciences markets. The life sciences markets are some of the fastest growing markets in the world, driven by long-term trends in population demographics and the way therapeutics are developed and disease is treated. The Company is focused in the areas of pharmaceutical research services through MDS Pharma Services, molecular imaging, sterilization technologies and radiotherapeutics through MDS Nordion, and life sciences instruments and tools through MDS Analytical Technologies. From time to time, MDS may supplement organic growth in its three life sciences businesses with selected strategic transactions.

**MDS Pharma Services** (see **Section 3.2**) offers global pharmaceutical research services with a focus on building global scale and delivering quality, on-time studies through uniform global quality practices and procedures. The Company is the sixth-largest publicly held contract research organization (CRO) globally (based on revenues), and one of the largest CROs in early-stage research (Discovery through Phase IIa). The current focus of MDS Pharma Services is on improving the growth and profitability of this operating segment across its areas of business and regions.

**MDS Nordion** (see **Section 3.3**) is a global leader in supplying more than half of the world's medical isotopes for molecular imaging to help diagnose and treat disease. MDS Nordion is also the leading provider of sterilization technologies for disease prevention and radiotherapeutics for targeted treatments. Securing reliable sources of supply for key isotopes and building safe, dependable logistics capability are key strategic objectives for this business. MDS Nordion is also focused on identifying new uses for medical isotopes and building the necessary manufacturing and development capabilities to be the provider of choice for companies that are developing new products with applications employing isotopes.

**MDS Analytical Technologies** (see **Section 3.4**) is a global leader in certain key life sciences tools and products which are sold to pharmaceutical, biotechnology and academic customers. This business unit relies heavily on leading-edge research and engineering, as well as extensive expertise in molecular and cell biology and chemistry to develop mass spectrometers and bioanalytical measurement instruments that target a clear advantage over competitive offerings.

## **2.4 Financial and Other Developments**

Factors affecting the comparability of the Company's financial data for fiscal years 2006 through 2008 include the following:

### **2.4.1 Capital Structure**

- In December 2002, the Company completed a private placement of \$311 million of Senior Unsecured Notes. The Senior Unsecured Notes bear interest at rates between 5.52% and 6.19% per annum and have maturities ranging from December 2008 to December 2014. The Company repaid \$79 million in December 2007, and has now repaid \$84 million over the life of the Senior Unsecured Notes.
- In July 2005, the Company entered into a C\$500 million, five-year committed, revolving credit facility with a syndicate of lenders. This facility is scheduled to expire July 14, 2010. As at October 31, 2008, the facility was undrawn.

- In April 2007, MDS completed a substantial issuer bid and repurchased approximately 22.8 million Common shares for \$441 million at a price of C\$21.90 per share, reducing the number of Common shares outstanding from approximately 144 million to 122 million.
- In 2008, under the Company's Normal Course Issuer Bid, it repurchased approximately 2.9 million shares, reducing the number of Common shares outstanding to approximately 120 million. As a result of MDS's cumulative net loss as of October 31, 2008, a restricted payments covenant under our Senior Unsecured Notes will restrict us from further share repurchases for the foreseeable future.

#### **2.4.2 Acquisitions**

- On March 20, 2007, MDS finalized the acquisition of Sunnyvale, California-based Molecular Devices Corporation (MDC), a leading provider of high-performance measurement tools for high-content screening, cellular analysis, and biochemical testing. The total cost of the acquisition was \$621 million, including the cost of the tender offer, the cost to acquire outstanding in-the-money options held by MDC employees, and transaction costs. Upon completion of this acquisition, MDS established a new business unit, MDS Analytical Technologies, which combined MDS Sciex with MDC.
- In the third quarter of fiscal 2008 MDS Analytical Technologies acquired Blueshift Biotechnologies Inc. of Sunnyvale, California. The major product suite is the IsoCyte™ benchtop laser scanning cytometer technology which compliments our microarray product line within the BioResearch line of business.

#### **2.4.3 Divestitures, Discontinuances and Other Transactions**

- In 2005, the Company announced a strategic plan to focus on the global life sciences market. During 2005, the Company's interest in Source was classified as a discontinued operation, and as stated previously, in November, 2005, the Company disposed of its interest in Source. In addition, during 2006, the Company's partner in CLS exercised its right to buy out the Company's partnership interest.
- In 2005, the Company approved a plan to divest of its pharmaceuticals, fermentation biopharmaceuticals/biosafety, and *in vitro* Pharmacology operations within the MDS Pharma Services business unit. These businesses were classified as discontinued operations. During 2006, these businesses were either sold or shut down.
- In February 2006, MDS and Atomic Energy of Canada Limited (AECL) reached an agreement on disputes related to the MAPLE facilities, which resulted in MDS exchanging its ownership of the uncompleted MAPLE Facilities for a long-term capital lease of the MAPLE Facilities and a long-term isotope supply contract, (See **Section 3.3. – MDS Nordion: NRU and MAPLE Facilities**).
- On October 5, 2006, the Company entered into a series of agreements to sell its Canadian diagnostics laboratory businesses, MDS Diagnostic Services, to Borealis Infrastructure Management Inc. for gross proceeds of C\$1.3 billion. The sale was completed on February 26, 2007.

- On May 1, 2008 MDS Nordion sold its external beam therapy and self-contained irradiator product lines to Best Medical International Inc.

#### 2.4.4 Strategic Considerations

The Board of Directors and management continue to review the Company's strategy against potential strategic options with a firm commitment to deliver shareholder value. In reviewing potential strategic options, the Board and management consider, amongst other things, current economic and market conditions, relevant valuations, the relative strength of the businesses, available opportunities, and business, financial, tax, legal, regulatory and other considerations impacting the Company as a whole or its individual businesses. Certain contracts, arrangements and regulations affect the Company's considerations and include those discussed below.

MDS Analytical Technologies markets certain of its high-sensitivity mass spectrometers under joint ventures with Applied Biosystems, Inc. (Applied Biosystems - now part of Life Technologies Corporation) and with PerkinElmer, Inc. (PerkinElmer). In both joint ventures, MDS Analytical Technologies develops and manufactures the instruments, while the joint venture partners manage the sales and service of such instruments. Under agreements that govern each of the joint ventures, a change of control at one of the joint venture partners would, absent the consent of the other joint venture partner, entitle the other joint venture partner to terminate the joint venture.

If MDS or any of its assets were to be the subject of an acquisition or merger transaction with a third party, such transaction would need to comply with competition statutes in Canada, the U.S. and other jurisdictions in which we carry on business to assess whether the transaction is likely to substantially prevent or lessen competition in one or more markets. In addition, *The Investment Canada Act* provides that acquisitions by "non-Canadians" of control of Canadian businesses are subject to, amongst other things, review and approval according to a "net benefit to Canada" test. Further, as a participant in the nuclear industry, MDS Nordion is subject to the *Nordion and Theratronics Divestiture Authorization Act* (Canada). This Act effectively imposes restrictions on the beneficial ownership or control of voting shares of MDS (Canada) Inc., a wholly owned subsidiary of MDS and the entity which holds the Nordion assets, by "non-residents" of Canada (as such term is defined in the Act).

Under the 2006 Interim and Long-Term Supply Agreement (2006 Agreement) between MDS (Canada) Inc., on behalf of MDS Nordion, and AECL, MDS (Canada) Inc. has granted rights of first offer and first refusal in favour of AECL in the event that MDS (Canada) Inc. proposes to transfer all or a substantial portion of its isotopes business to certain designated third parties.

The Company's Senior Unsecured Notes contain a number of financial and other covenants of MDS, including restrictions on asset sales, debt incurrence and the Company's ability to consolidate, merge or amalgamate with another corporation, or transfer all or substantially all of the Company's assets.

The Company's C\$500 million revolving credit facility requires the Company to offer to prepay all amounts outstanding under the facility and also provides the lenders the right to discontinue further commitments under the facility before any person acquires beneficial ownership of, or control or direction over, 50% or more of the issued and outstanding voting shares of MDS. In addition, the

credit facility contains a number of financial and other covenants of MDS. As at October 31, 2008, no amounts were drawn down under the facility.

### **3. NARRATIVE DESCRIPTION OF THE BUSINESSES OF MDS**

#### **3.1 Reportable Operating Segments**

The Company operates under the following three business units:

<b>MDS Pharma Services</b>	A leading global provider of pharmaceutical research services, providing solutions from pre-clinical development to Phase IV clinical trials for innovative and generic pharmaceutical and biotechnology companies, as well as consumer product and drug delivery companies.
<b>MDS Nordion</b>	A leading global provider of medical isotopes for molecular imaging, technologies for the sterilization of medical and other products as well as contract manufacturing for the radiotherapeutics industry.
<b>MDS Analytical Technologies</b>	A leading global supplier of life sciences tools. This business unit is focused on the research, design, manufacture and marketing of state-of-the-art tools and services for mass spectrometry, drug discovery and bioresearch.

Prior to February 26, 2007, as disclosed in **Section 2.4.3 – Divestitures, Discontinuances and Other Transactions**, the Company was, through various operating business units, the leading provider of diagnostic laboratory services in Canada.

#### **3.2 MDS Pharma Services**

MDS operates as a global contract research organization (CRO) through MDS Pharma Services. MDS Pharma Services is one of the top global CROs, and has been highly rated for customer service and quality by CenterWatch, a leading industry publication. MDS Pharma Services is a full-service provider of drug discovery and development services to the pharmaceutical, biotechnology and generic industries. MDS Pharma Services operates as a CRO in 29 countries.

##### Industry Background

During the 1970s, integrated pharmaceutical companies conducted the majority of research leading up to development of pharmaceutical products in-house. At that time, the only significant research function that was contracted out was pre-clinical toxicology screening.

The drug development process is extremely expensive due to the cost of the infrastructure required to support the full range of processes necessary for drug development and the long period of time required to achieve full regulatory approval of a new compound. On average, it takes 10 to 12 years

and over \$800 million to bring a new pharmaceutical from discovery through Phases I to III of clinical trials and make it available to consumers. Since patent protection for new products extends for only 17 to 20 years, the profitability of a new compound can be greatly enhanced by reducing the total cost of development and by shortening the elapsed period over which development occurs.

As a result, companies began to outsource to meet the occasional surge in internal demand that could not be addressed with in-house capabilities. In an effort to reduce both time and costs, major drug companies began outsourcing portions of the development work to companies that provide specialized research services. These companies have become known as Contract Research Organizations, or CROs. Individual CROs tend to specialize in particular stages of the drug development process and, therefore, develop expertise in those areas. Reliance on CRO expertise can enable the pharmaceutical and biotech companies to achieve cost efficiencies and to shorten the research time for that stage of the development process while avoiding capital investments.

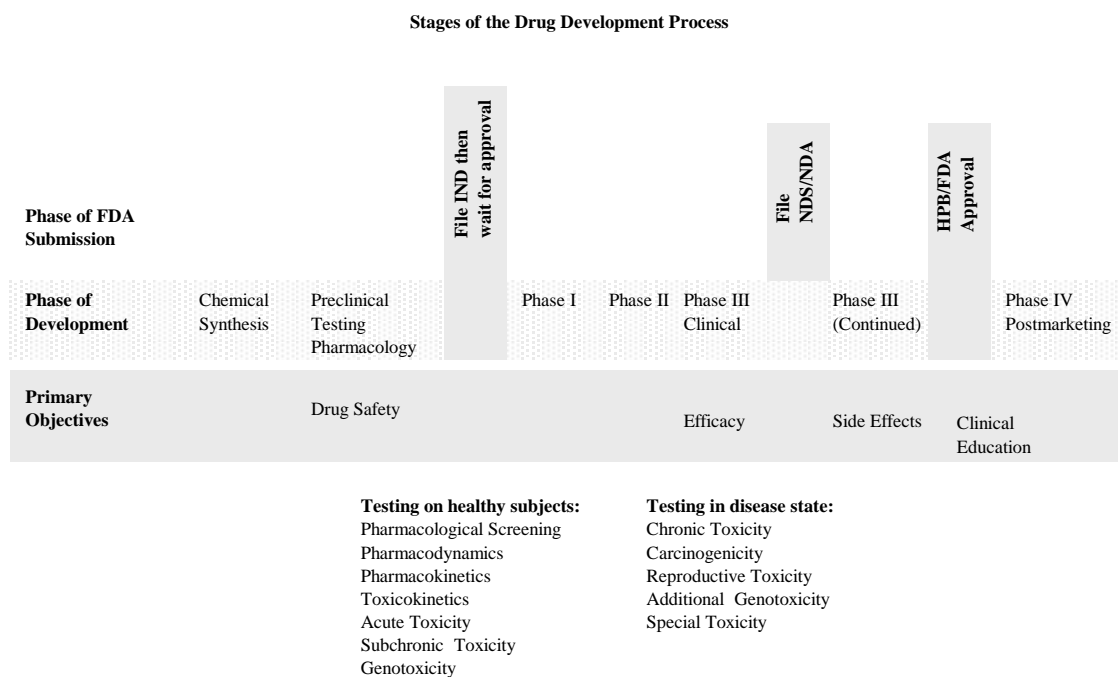
The decision by MDS to enter the CRO business in 1995 was influenced by a number of key trends that were beginning to affect the industry. The Company believes that these trends remain in place. In particular, corporate mergers and cost-containment pressures at pharmaceutical companies are expected to continue to lead to downsizing of in-house research and development capabilities and pharmaceutical companies are anticipated to continue to focus increasingly on marketing and product distribution. Outside suppliers will increasingly be relied upon to provide services previously secured from in-house departments. Aside from reducing infrastructure costs for the pharmaceutical companies, outsourcing is expected to lead to reduced cycle time for development.

Globalization of pharmaceutical markets driven by ongoing mergers of major international pharmaceutical companies has influenced the selection of a CRO. Those with an international presence and the ability to conduct trials in multiple jurisdictions and emerging countries, such as China and India, have greater chances of becoming preferred providers or strategic partners. The growth of the biotechnology industry is also significantly influencing the growth of CROs, as many smaller biotechnology companies elect not to build the infrastructure to conduct the various phases of the development of their products in-house.

More recently, the decline in the global stock market and valuations, and reduction in available credit in 2008 resulted in reduced availability of funds which may reduce the market for outsourcing particularly in the biotech sector, and may lead to consolidation of clients. In particular, small biopharma companies may become more appealing acquisition targets by large pharmaceutical companies due to reduced capitalizations.

As a CRO, we provide our customers with services throughout the process of drug discovery and development. During this process, certain compounds will fail to meet the desired effectiveness or safety level and our customers will stop development work on these compounds. If this occurs during a trial or test that we are performing, the contract may be cancelled by the customer. In these situations, we normally are paid for work completed up to the time of cancellation and in certain cases receive a cancellation fee.

A general overview of the drug development process is provided in the diagram below:



### Overview of Business

Headquartered in King of Prussia, U.S., MDS Pharma Services is focused on being a full-service provider of drug discovery and development services to the pharmaceutical, biotechnology, and generic industries. MDS has provided services to pharmaceutical manufacturers since 1992, beginning as a centralized support laboratory providing testing services in connection with Phase III clinical trials. MDS is now one of the largest and most integrated CROs in the pre-clinical and early clinical segment of the market, and is a developing competitor in late-stage clinical trials.

The pharmaceutical research process can be broken down into three primary components: laboratory-based research, clinic-based testing, and out-patient-based testing. MDS includes most laboratory-based research and clinic-based research in early-stage and the Company has been the leading competitor in this phase of research based on the installed base of mass spectrometers and on the number of available clinic beds. The Company's significant capacity in each of these areas enables it to take on client work on very short notice and to develop the necessary expertise in these fields to participate in the most complex studies. The drug discovery and development process takes place over many years for a given compound, and therefore our business does not appear to be cyclical and does not demonstrate a significant seasonal pattern.

Key service lines for this business include:

- **Pre-clinical**, in which the Company's vast library of assays is applied to study the effects of compounds on living organisms and in-vitro targets and in which advanced understanding of drug safety and toxicology is obtained under strict Good Laboratory Practices (GLP) regulated conditions.

- **Bioanalysis**, in which advanced technology and analytical science is applied to biological fluids to gain an understanding of the drug's absorption, distribution, metabolism and elimination.
- **Early-stage clinical or first-in-man testing (Phase I)**, in which new investigational drugs are tested for the first time in healthy participants to assess drug safety and to determine how the drugs are processed by the body.
- **Late-stage clinical or traditional clinical trials (Phase II – IV)**, in which investigational drugs are tested in patients exhibiting the condition for which the drug is intended to determine the relative efficacy of the drug under study.
- **Central laboratory**, a support service for late-stage trials, through which samples taken from study participants are run against standard assays to determine the safety and effectiveness of the drug.

Significant pre-clinical and early clinical operations are in Montreal, Canada; Lincoln, U.S.; Phoenix, U.S.; Bothell, U.S.; Belfast, Northern Ireland; Zurich, Switzerland; Lyon, France and Taipei, Taiwan. These facilities include clinic locations and diagnostics laboratories, as well as other facilities.

Management of late-stage clinical trials on behalf of clients is conducted globally. Significant clinical offices include King of Prussia, U.S.; Irvine, U.S.; Paris, France and Winnersh, U.K., along with smaller offices in a number of other countries. In addition, the Company has central laboratory locations in Toronto, Canada; North Brunswick, U.S.; Baillet, France; Hamburg, Germany; Beijing, China and Singapore, Singapore.

During 2004, 2006 and 2007, MDS Pharma Services received written communication from the United States Food and Drug Administration (FDA) related to certain generic bioequivalence studies carried out at MDS Pharma Services' bioanalytical laboratory facilities in Montreal, Canada.

In January 2007, the FDA issued statements that outlined steps that those customers of our Montreal bioanalytical facilities would be required to take to resolve any outstanding issues. The FDA directed the sponsors of approved and pending generic drug submissions containing study data produced in these facilities during the period between January 2000 and December 2004 to take actions to address FDA concerns about the accuracy and validity of these bioanalytical studies. In addition, the FDA wrote to sponsors of innovator submissions and requested that they advise the FDA of any submissions containing data from those facilities during the affected period.

In their letter to generic sponsors, the FDA imposed a six-month time limit to complete the generic work. This time has since passed, and we believe we have substantially completed all related generic site audits. We continue to receive a limited number of study audit requests from innovator customers, and expect that we may continue to receive these requests in low numbers in 2009.

We have responded to questions from European regulators about the nature of the work that was done for the FDA. The European regulators have reviewed studies in Montreal that are representative of the work done at that site, and issued a final report indicating that they have no significant concerns.

MDS Pharma Services is dependent on staff with highly specialized skills. Individuals with the requisite credentials – including MD and PhD designations - are recruited on a global basis. Globally, approximately 3,300 employees work in MDS Pharma Services of which approximately 580 staff are located in Canada, 1,070 in the U.S., 1,390 in Europe, 210 in Asia, and 60 in the other geographies.

### Strategy

MDS Pharma Services is currently one of the leading CROs in the world. Management expects to focus on organic growth, and will assess transactions to focus the business and to expand its global capabilities and increase profitability. In addition, LeanSigma and other operational improvements will be utilized to enhance our ability to serve customers and also drive profitability. The Company continues to focus this business in areas that extend leadership in key fields and build on existing strengths in order to enhance the services we offer our customers. From time to time, acquisitions may add capabilities, scale or geographic reach in our key lines of business. Where MDS Pharma Services' operations do not meet the Company's expected returns or do not fit with the strategic markets in which the Company has chosen to compete, MDS seeks to divest such businesses. During 2006 and 2007, MDS sold or closed a number of smaller, non-strategic lines of business, and consolidated operations to a reduced number of larger facilities.

In 2008, MDS Pharma Services launched its Quality On Time™ brand to highlight its leadership in providing quality, compliance and client service. As well, MDS Pharma Services has developed strong customer relationships and, through customized processes and proprietary software solutions, has focused on delivering the services and information that fully meet our customer's requirements throughout the drug discovery and development process.

### Competition

The growth of the pharmaceutical research services industry has been dependent on the increase in outsourcing by pharmaceutical and biotechnology companies. The market has experienced high growth rates and has become highly competitive. Competition for individual research contracts often includes in-house research departments of pharmaceutical and biotechnology companies, as well as universities, teaching hospitals, and other CROs. Industry consolidation and globalization have affected pharmaceutical companies as well as CROs resulting in the use of fewer, larger CROs. The Company believes that outsourcing will continue to grow as an economically attractive alternative to in-house research.

Companies active in this industry, including MDS, may improve their competitive position by building scale. This enhances the ability to service clients with consistent global quality in their preferred location or in a more timely fashion, and internal operating efficiencies, which translates into sound and predictable execution and opportunity to expand profitability. In addition, we believe that our expertise and capabilities result in a unique offering that contributes to our competitive position. MDS Pharma Services' strength in Pharmacology, Phase I and bioanalytical services and

its broad configuration, allows it to integrate its offerings under complete drug development programs to help biotech firms move their compounds through the development stages more rapidly by having one provider take compounds through multiple stages of development.

The majority of competitors have been focused primarily on later stages of the drug development process (Phase II-IV clinical research). Late-stage competitors include several multinational companies such as Quintiles Transnational Corp., Parexel International, Corp., PPD, Inc., and PharmaNet Development Group, Inc. Early-stage (pre-clinical to Phase IIa) competitors include Covance, Inc. and Charles River Laboratories Inc. Some of the Company's CRO competitors are significantly larger than MDS and may have greater financial and technical resources. While there are hundreds of small CROs with either functional specialties or local geographic presence, the market continues to consolidate with share being gained by the large, global, diversified CROs.

### **3.3 MDS Nordion**

Through MDS Nordion, MDS is a world leader in medical isotopes for molecular imaging; sterilization technologies for medical products and food safety; and the development and manufacture of radiotherapeutics. MDS Nordion distributes its products in over 50 countries.

#### Industry Background

Medical isotopes can be used in molecular imaging and radiotherapy. In molecular imaging, isotopes are used because of their ability to assist in diagnostic procedures such as Single Photon Emission Computed Tomography (SPECT) and Positron Emission Tomography (PET). When formulated with chemical compounds that are attracted to, or accumulate in, particular types of tissue, these isotopes can aid physicians in the identification and treatment of certain diseases. Certain other isotopes can be used to deliver direct radiation therapy to cancerous cells. Using the same principles of targeted therapy isotopes in radiotherapeutics can be conjugated to anti-cancer antibodies, incorporated into microspheres (or seeds) or used in nanoparticle delivery systems to place radiation directly, or in, or near diseased tissue such as a tumour.

Processing raw isotopes into a form suitable for the intended medical use is highly complex. Many medical isotopes have a limited half-life. This imposes constraints on the manufacturing process and the logistics procedures needed to deliver refined product to an end-user. Security of supply is a key customer concern due to the short lifespan of the products; hence, efficient and safe transportation systems are vital components of the business.

Molecular imaging is a growing market. Aging populations worldwide are expected to increase demand for the procedures which medical isotopes make possible. In addition, considerable research is under way to identify new diagnostic and therapeutic uses for existing isotopes.

Sterilization of medical products is a relatively mature industry with 4%-7% annual market growth. Alternate applications for this technology are continuously under investigation. The FDA has approved the use of irradiation for microbial control of pathogens (e.g. *E.coli*) and as a quarantine treatment for fruit and vegetables to eliminate agricultural pests. To date, the commercial use of irradiation has largely been limited to spices, some red meat, poultry, and certain fresh fruits and vegetables.

Spices have been irradiated for over a decade in the U.S. and millions of pounds are sterilized every year. Food irradiation in the U.S. and around the world continues to strengthen and evolve. The technology is endorsed by the World Health Organization (WHO), United Nations Food and Agriculture Organization, the FDA, National Aeronautics and Space Administration (NASA) and the American Medical Association (AMA). Globally, food irradiation has been adopted by as many as 40 countries that are focused on both safety of their food supply and export (i.e. countries in Asia and South America).

Entry into the molecular imaging, sterilization and radiotherapeutics businesses require significant capital investment, extensive process development and access to limited supplies of raw materials. The manufacture of raw isotopes is dependent upon the availability of capacity in acceptable types of nuclear reactors and cyclotrons. Processing facilities such as those operated by MDS are centralized, capital intensive, and expensive to operate. In addition, due to the nature of the materials handled by the facilities, government and environmental regulation are significant factors in the business.

### Overview of Business

MDS Nordion manufactures, processes and repackages isotopes to produce products that include:

- medical isotopes that are used alone or coupled to target molecules for use in clinical research, diagnosis of cardiac function, and other diseases and treatment of diseases such as cancer;
- industrial isotopes and production irradiators for the sterilization of disposable medical products and for treating food; and
- new products developed in collaboration with our partners for the diagnosis and treatment of disease.

MDS Nordion purchases reactor-produced medical isotopes, principally from AECL, such as Molybdenum-99 ( $\text{Mo}^{99}$ ), Iodine-131 ( $\text{I}^{131}$ ), Iodine-125 ( $\text{I}^{125}$ ) and Xenon-133 ( $\text{Xe}^{133}$ ) in an unfinished, non-purified form, and transports them to its own facilities in Ottawa, Canada for further processing. MDS Nordion also manufactures cyclotron-produced isotopes such as Iodine-123 ( $\text{I}^{123}$ ), Thallium-201 ( $\text{Tl}^{201}$ ), Palladium-103 ( $\text{Pd}^{103}$ ) and Yttrium-90 ( $\text{Y}^{90}$ ) at its facilities in Vancouver, Canada and Fleurus, Belgium, and refines these materials in its adjacent processing facilities. In addition, MDS Nordion also has a joint venture with the University of Liege in Belgium to manufacture and distribute an isotope used in PET imaging.

The purified forms of these isotopes are incorporated by pharmaceutical companies into radiopharmaceuticals used to diagnose and treat numerous serious disease states, such as coronary artery disease and cancer.  $\text{Mo}^{99}$  decays into Technetium-99 ( $\text{Tc}^{99\text{m}}$ ), which is the most widely used diagnostic isotope in the world. Approximately 130 million scans are performed each year and 80% use a  $\text{Tc}^{99\text{m}}$  radiopharmaceutical. This number is expected to grow as the population in developed countries ages and as the use of molecular imaging in the management of coronary artery disease expands. MDS Nordion is the world's leading supplier of  $\text{Mo}^{99}$ .

MDS Nordion is the world's principal supplier of Cobalt-60 ( $\text{Co}^{60}$ ). The majority of raw  $\text{Co}^{60}$  material is produced under long-term supply contracts with nuclear power suppliers such as Bruce Power, Quebec Hydro, Ontario Power Generation and Rosenergoatom (the utility operator responsible for Russia's nuclear power plants). MDS Nordion further processes the raw  $\text{Co}^{60}$  into a finished form for commercial use at its Ottawa, Canada facilities. The resulting processed material, or gamma source, is

delivered to customers using approved transport containers and procedures. Customers include major sterilization contractors, as well as large medical product manufacturers who maintain their own in-house sterilization facility.

MDS Nordion also markets related equipment and services such as industrial scale production irradiators. Delivery or construction of this equipment is usually accompanied by an initial shipment (“loading”) of a gamma source. Re-supply or replenishment of the gamma source is required from time to time as the radioactivity level of Co<sup>60</sup> declines over time at a rate of approximately 12% per year.

MDS Nordion is also focused on the development and manufacture of radiotherapeutics. For the treatment of inoperable liver cancer, MDS Nordion manufactures and markets TheraSphere®. TheraSphere involves injecting tiny irradiated glass beads that target cancerous tumours in the liver. In targeting liver cancer cells, the impact on the patient’s healthy tissues is minimized.

In addition, MDS Nordion is working towards identifying new uses for medical isotopes and building the necessary manufacturing and development capabilities to be the provider of choice for companies that are developing new products with applications employing isotopes. In collaboration with commercial partners, MDS Nordion is developing radiopharmaceuticals to diagnose Alzheimer’s disease with Avid Radiopharmaceuticals, Inc.; Altropane® to diagnose Parkinson’s disease with Alseres Pharmaceuticals, Inc.; Zemiva™ to detect cardiac ischemia and Azedra™ to treat neuroblastoma and pheochromocytoma with Molecular Insight Pharmaceuticals, Inc.; Neuradiab™ for the treatment of glioblastoma multiform with Bradmer Pharmaceuticals, Inc., and Iotrex® for the treatment of certain brain tumors with Hologic, Inc. MDS Nordion contract manufactures two commercially available radiotherapeutics; they are Bexxar® and Zevalin® for GlaxoSmithKline, Inc. and Cell Therapeutics, Inc., respectively. Both products are based on monoclonal antibodies and are used to treat non-Hodgkin’s lymphoma. ZEVALIN uses Y<sup>90</sup> as the active agent while BEXXAR uses I<sup>131</sup>. MDS Nordion has added an 80,000-square-foot manufacturing facility at its Ottawa, Canada site that is utilized on a partnership basis in the development, and later, the direct manufacture of radiotherapeutics.

The nature of MDS Nordion’s products, and the highly regulated environment in which we operate, requires compliance with a multitude of regulations as well as legislation governing radioactive material transportation. The receipt, processing, handling, shipping and use of radioisotopes is highly regulated, and MDS Nordion proactively complies with all existing and new security requirements from multiple authorities around the world. MDS Nordion uses these regulations as a minimum standard and applies its own controls and procedures, over and above the required protocols. The logistics system at MDS Nordion can process isotopes, deliver them to manufacturers and then on to hospitals or treatment centres within only a few days.

Regulatory standards include the following:

- Transport Canada regulations for the Transportation of Dangerous Goods
- Canadian Nuclear Safety Commission regulations for Transport of Radioactive Materials, Import/Export controls and source tracking requirements
- International Atomic Energy Agency’s (IAEA) Code of Conduct
- International Transport Regulations for Radioactive Materials (Safety Series and Safety Standards for transportation of radioactive materials)
- International Civil Aviation Organization (ICAO) and International Maritime Organization (IMO) requirements for safe transport by air and sea respectively

- U.S. Department of Transportation requirements
- U.S. Nuclear Regulatory Commission requirements
- Member state requirements for the transportation of radioactive materials

MDS Nordion commits to complying with all environmental, health, and safety (EH&S) laws and regulations relevant to its operations. Our Ottawa, Canada facility has received ISO 14001 (environmental management systems) certification from an external authority. In addition, MDS Nordion maintains a comprehensive EH&S program including training for employees and contractors. MDS Nordion protects the natural environment by using environmentally sound operation practices, including ALARA (as low as reasonably achievable), which is designed to keep radiation doses at a minimum for workers and the public. MDS Nordion maintains insurance coverage for third-party claims relating to bodily injury or property damage arising from the release of pollutants or exposure to isotopes.

MDS Nordion is dependent on staff with specialized skills and knowledge necessary to operate a highly regulated processing facility for radioactive materials. Some technical and production employees of MDS Nordion belong to the Public Service Alliance of Canada, a collective bargaining agent representing, among others, certain employees of the Government of Canada. Labour relations are judged to be good with the unions. Globally, MDS Nordion employs approximately 600 people.

#### National Research Universal Reactor and MAPLE Facilities

MDS Nordion's principal source of Mo<sup>99</sup> is the existing National Research Universal (NRU) reactor located in Chalk River, Canada, which is owned and operated by AECL. The NRU reactor is currently licensed until 2011. The Government of Canada announced in May 2008 that it had asked AECL to pursue the extension of the NRU operation beyond 2011. This license, if renewed, is typically renewed for a five-year period. While the Government of Canada has publicly stated a commitment to support license renewal, there can be no assurance of renewal or of the time period of such a renewal. It is critical that AECL obtain an extension of the site license to maintain supply of medical isotopes in the near to mid term.

In 1991, MDS acquired the Nordion business from the Government of Canada. At that time, MDS assumed an existing 1988 isotope supply agreement (the 1988 Agreement) between Nordion and the Atomic Energy of Canada Limited (AECL), a Canadian Crown corporation. The 1988 Agreement provided for the supply of isotopes from AECL to Nordion for a maximum of 23 years. The isotopes were being produced at the AECL's National Research Universal (NRU) reactor and were eventually to be produced from a new AECL-owned reactor called MAPLE X which was to be constructed and operated within this period to provide MDS Nordion with the assurance of a long-term supply of isotopes. The obligation to build MAPLE X became the subject matter of a dispute between MDS, AECL, and the Government of Canada in 1993 to 1994, which resulted in the entering into a new agreement between AECL and MDS in 1996 (the 1996 Agreement).

The 1996 Agreement replaced the 1988 Agreement, provided for ongoing interim supply from the NRU, and provided for AECL to design, develop, construct and operate two nuclear reactors and a processing centre (the MAPLE Facilities) which were to be owned by MDS. The project was intended to replace the majority of the isotope-producing capacity of AECL's NRU reactor, and to also provide a back-up source of supply. AECL agreed to provide interim supply of medical

isotopes from NRU until the MAPLE Facilities were operational. The MAPLE Facilities were required to achieve certain operational criteria by the year 2000 at a planned cost to MDS of C\$145 million.

By 2005, the project had not yet been completed and the costs had more than doubled, with MDS's investment exceeding C\$350 million. To address those issues, in March 2005, the Company entered into mediation with AECL related to disputes arising from the 1996 Agreement. In February 2006, both parties agreed to a new agreement (the 2006 Agreement) under which MDS exchanged all of its ownership rights and obligations in the MAPLE Facilities for a new 40 year long-term supply of isotopes to be produced in the now AECL-owned MAPLE Facilities. AECL also acquired \$46 million of raw material inventory (Moly-99 targets) and consumable fuel bundles (highly enriched uranium) from MDS which are used to produce medical isotopes. In return, MDS received a cash payment of \$22 million and a non-interest bearing note receivable for \$46 million. In addition, the interim supply agreement in the 1996 Agreement was exchanged for essentially the same interim supply agreement in the 2006 Agreement. Under the 2006 Agreement, AECL assumed complete ownership of the MAPLE Facilities and took responsibility for all costs associated with completing the facilities and all associated ownership responsibilities including maintenance, repair, production of isotopes, and decommissioning of the MAPLE Facilities. The MAPLE Facilities were required to meet certain operational criteria by October 31, 2008 as specified in the 2006 Agreement. The parties retained certain rights related to existing claims. The terms of this agreement are the subject of the Company's current dispute with AECL as discussed below.

On May 16, 2008, AECL and the Government of Canada announced their intention to discontinue AECL's work on the MAPLE Facilities located at its Chalk River laboratories, effective immediately. MDS was neither consulted nor informed in advance by AECL or the Government of Canada about their decision. Prior to its May 16, 2008 announcement, AECL had consistently maintained in regular project review meetings with the Company that it would complete the MAPLE Facilities. AECL's announcement and position represents a different perspective on AECL's obligations than that held by MDS.

On July 8, 2008, MDS served AECL with Notice of Arbitration proceedings seeking an order to compel AECL to fulfill its contractual obligations under the 2006 Agreement, and, in the alternative and in addition to such order, seeking significant monetary damages. MDS concurrently filed a court claim against AECL and the Government of Canada. MDS is seeking against AECL (i) damages in the amount of C\$1.6 billion for negligence and breach of contract relating to the 1996 Agreement; and (ii) interim, interlocutory and final orders directing AECL to continue to supply radioisotopes under a certain agreement, i.e., the 2006 Agreement, pending any final judgment and completion of the MAPLE Facilities; and, against the Government of Canada, MDS is seeking (i) damages in the amount of C\$1.6 billion for inducing breach of contract and interference with economic relations in respect to the 2006 Agreement; (ii) an order that MDS Nordion may set-off the damages owing to it by the Government of Canada as a result of the Government's conduct set out herein against any amounts owing by MDS Nordion to the Government of Canada under the Facilities Development and Construction Funding Agreement (FDCFA), a loan agreement between the Government of Canada and MDS for C\$100 million of which C\$68 million is outstanding; and (iii) an interim and interlocutory order suspending any payments that may be owing to the Government of Canada under the FDCFA pending the determination of the issues in this litigation and an interim or interlocutory order requiring the return of all security instruments delivered in connection with the FDCFA.

AECL and the Government of Canada also announced on May 16, 2008 that their decision to discontinue the MAPLE Facilities project would not impact the current supply of medical isotopes; that AECL would continue to supply medical isotopes using the NRU reactor; and that AECL would pursue an extension of the NRU operation beyond the expiry date of its current license of October 31, 2011. While MDS supports the decision to pursue an extension of the license, the Company believes the approach does not adequately address long-term supply. It is the Company's position that AECL has breached its contract with MDS, and the Company believes that it has a strong case against AECL and the Government of Canada with respect to the 2006 Agreement, which we continue to actively pursue. However, given the present stage and complex nature of the proceedings, the uncertainty in projecting the probability of any particular outcome of a dispute of this nature, the range of remedies that may be awarded under the arbitration and/or lawsuit if MDS is successful in its claim, the Company is unable to project a specific outcome related to the resolution of this dispute.

MDS has and continues to receive payments from AECL related to the non-interest bearing note associated with the MAPLE-related inventories.

### Strategy

MDS Nordion is a global leader in the international supply of key isotopes. Revenue growth for isotopes generally has historically been in line with the overall increase in health-care spending and population growth - both of which have an impact on the growth in the utilization of diagnostic tests and the use of disposable medical products. Sales of medical isotopes do not follow any notable seasonal or other cycles and demand is relatively constant. The short half-life of the isotopes used for medical purposes limits the ability of any market participant to build significant inventories.

Security of supply is a significant objective for the majority of the Company's customers. MDS Nordion has developed a strong supply and logistics network to meet these demands. In addition, the Company is developing new and complementary lines of business based on its expertise with isotopes. For example, the cancer treatment market is expected to develop rapidly over the next several years, particularly in emerging economies. Many of these countries are now able to afford modern cancer therapies and are expected to make significant investments in this technology as their health-care systems develop. Furthermore, MDS Nordion is building its radiopharmaceutical capabilities targeting drug manufacturers who may not wish to incur the capital cost or regulatory delays associated with building their own facilities, and who may want to leverage MDS Nordion's highly specialized expertise in radiopharmaceutical development, clinical and commercial manufacturing.

MDS Nordion's sterilization technologies are used to sterilize more than 40% of the world's single-use medical supplies, such as bandages, catheters and syringes. It has been estimated that 80% of all surgical gloves in the world are sterilized using Co<sup>60</sup>. A vast array of consumer products, including contact lens solution, cosmetics, and certain foods are also sterilized with MDS Nordion technology. It is expected that the need to safely and effectively sterilize products will continue to grow.

In January 2007, MDS Nordion announced that the FDA had approved the use of TheraSphere® to treat patients with hepatocellular carcinoma (HCC), who have partial or branch portal vein thrombosis (PVT) and have been identified as suitable candidates by their physicians. HCC is the most common form of primary liver cancer. Portal vein thrombosis is a blockage, by a blood clot, of

the portal vein, which brings blood to the liver. TheraSphere® is the first medical device approved in the U.S. to treat primary liver cancer patients with this condition. This expanded use extends the current approval of TheraSphere® as a Humanitarian Use Device for the treatment of HCC.

In February 2007, MDS Nordion established four Centers of Excellence in Europe for TheraSphere®, its innovative liver cancer treatment. The Centers, located in Spain, France, Germany, and Italy, will serve to train and educate oncology professionals on the use of the innovative technique. The Centres of Excellence are: BCLC Group Hospital Clinic, Barcelona, Spain; Centre Eugene Marquis, Rennes, France; University-Hospital Essen, Essen, Germany; and University of Pisa, Pisa, Italy.

In March 2007, MDS Nordion began to invest approximately \$6 million to expand its production facility in Fleurus, Belgium to meet the growing demand for a medical imaging agent used in cancer diagnosis and treatment. The agent, Fluorine-18 Fluorodeoxyglucose or FDG, is marketed and distributed by MDS Nordion under the name GlucoTrace®. GlucoTrace® is used in PET, a highly sensitive medical imaging technique. As cancer rates continue to rise in Europe, the use of PET is increasing to diagnose cancer and monitor patient progress while in treatment. GlucoTrace® is a time-sensitive diagnostic pharmaceutical with a limited lifespan. As a result, it is critical to have the ability to reliably supply GlucoTrace® to hospitals and clinical sites on time. With this expansion, MDS Nordion expects to be able to serve more customers within France and the Benelux Economic Union (Belgium, Netherlands and Luxembourg). The new facility is expected to be operational in the first half of 2009.

In June 2007, MDS Nordion entered into a collaboration with the University of Ottawa Heart Institute, Canada's largest cardiovascular health centre, to establish a Molecular Imaging Centre of Excellence to advance cardiology research. Molecular imaging is an emerging technology that differs from traditional medical imaging as it examines changes at the molecular level within the body to support early disease detection and treatment assessment. MDS Nordion has invested over \$2 million in this new centre, which will be equipped with a research and development radiochemistry laboratory to support cardiology research. This collaboration represents a unique opportunity to expand MDS Nordion's molecular imaging business.

In October 2007, MDS Nordion signed a 17-year contract for the supply of Co<sup>60</sup> with Rosenergoatom, the operating utility of Russia's nuclear power plants. This contract expands upon the 2005 agreement providing for an increased and more consistent supply of Co<sup>60</sup> to MDS Nordion until 2024.

### Competition

There is significant capital and logistics investments required to successfully compete in the molecular imaging market, making the Company's established position a competitive advantage. Since Mo<sup>99</sup> is the most significant isotope on world markets, the majority of competition faced by the Company is in this product. Major competitors are: Covidien Ltd.; Institute National des Radioelements (IRE) of Belgium; and the NTP Radioisotopes (Pty) Ltd. (a wholly owned subsidiary of Nuclear Energy Corporation of South Africa).

Competition in the sterilization technologies market is different from the medical isotopes market due to the substantially different half-life of the products. Co<sup>60</sup> is often bought and sold in large quantities

and can be produced by any of several nuclear power reactors around the world. While delivery and logistics expertise remains an MDS Nordion advantage, the most significant competition in the sterilization market and Co<sup>60</sup> supply comes from Reviss Services Ltd. which acquires cobalt from Russian and Argentine sources. Competition for sterilization spending also comes from alternative technologies, the most significant of which are Ethylene Oxide (EtO) and electron-beam. Balchem Corporation is the most substantial EtO supplier, and Ion Beam Applications, S.A. is the major manufacturer of electron-beam sterilization technologies. The Company believes that gamma-based sterilization technologies continue to enjoy advantages over these competitive technologies in some applications. In addition, there is a significant installed base of industrial irradiators that should ensure that gamma irradiation remains a key technology in this market.

Isotopes used for sterilization tend to be somewhat more cyclical, due primarily to the length of time required to convert Cobalt-59 (Co<sup>59</sup>) into Co<sup>60</sup> and the limited number of facilities in which this can be done economically. During 2007, the Company took steps to increase its supply of cobalt, signing an extension to its 2005 long-term contract with Rosenergoatom. This extension is expected to provide for a 30% increased supply of Co<sup>60</sup> to MDS Nordion by 2016.

### **3.4 MDS Analytical Technologies**

MDS provides life sciences tools and services to customers around the world through MDS Analytical Technologies. Applications include drug discovery and development, bioresearch and mass spectrometry. MDS Analytical Technologies designs, develops, manufactures, and markets high-performance bioanalytical measurement systems acquired through the 2007 acquisition of Molecular Devices (MDC). In addition, it designs, develops and manufactures high-end mass spectrometers that are marketed through our joint venture partners Applied Biosystems (LC/MS high-end mass spectrometers) and PerkinElmer (ICP/MS high-end mass spectrometers).

#### Industry Background

In recent years, research in the life sciences industry has accelerated. This expansion of research activity has yielded discoveries that are currently fuelling a revolution in our understanding of human health and disease. With a better understanding of biology at the level of genes, proteins and cells, researchers hope to discover the underlying causes of human disease and determine ways to treat them.

Drugs typically fight illness by binding to proteins, known as “targets”, and modify their behaviour to reduce their disease-causing effects. Once a protein’s link to a disease is understood, the task of finding a drug that acts on the protein and treats the disease is undertaken primarily by pharmaceutical and biotechnology companies. Drug manufacturers typically own libraries of potential drug candidates comprising hundreds of thousands, or even millions, of chemical compounds from which they screen against known targets. As life sciences research continues to unveil new targets, the task of screening large libraries of compounds against these targets represents both a great opportunity and a technological challenge for pharmaceutical and biotechnology companies.

Drug compounds that progress and become potential drug candidates for in-man use are rigorously tested for, among other factors, safety, absorption, distribution, metabolism and excretion (ADME),

efficacy and pharmacokinetics. High-sensitivity and high-resolution instruments are necessary to quantify and analyze the physical and biological properties of substances and metabolites.

In the race to develop new and improved drugs to treat diseases, our customers are constantly looking for the latest in instruments, software, consumables and services to increase productivity and provide high-quality data that enables decision-making in the high-cost drug discovery and development process.

### Overview of Business

MDS first entered the analytical instruments industry in 1981 with the acquisition of Sciex and, in 1988, introduced the first liquid chromatography mass spectrometer for use on organic compounds to take advantage of the significant opportunities that exist in drug discovery and pharmaceutical research services outsourcing for drug development companies.

To strengthen its leadership position as one of the top global providers of life sciences solutions, MDS acquired Molecular Devices (MDC) in 2007. MDC brings to MDS a portfolio of high-performance measurement tools for high-content screening, cellular analysis, and biochemical testing. MDC'S flagship product lines such as SpectraMax® and FLIPR® are considered industry standard instruments in liquid handling and high-throughput screening respectively.

MDS Analytical Technologies also supplies the life sciences industry with high-sensitivity mass spectrometers under the Sciex brand name. Sciex mass spectrometers are marketed through partnerships with Applied Biosystems and PerkinElmer Canada Inc. (PerkinElmer) to a global customer base; sales outside of Canada account for more than 95% of revenues from MDS'S Sciex products. Total revenues from transactions with these joint venture partners during fiscal 2008 were \$149 million. For both partnerships, MDS Analytical Technologies is responsible for manufacturing and has primary responsibility for research and development. The Company'S partners are responsible for marketing, sales and service. The partnerships are structured so that each partner shares equally in the full profit margin generated once a piece of equipment is sold to an end-user. On November 21, 2008 Applied Biosystems merged with Invitrogen Corporation to form Life Technologies Corporation (Life).

MDS has been a major innovator of technologically sophisticated mass spectrometry instrumentation. In each of its product lines, MDS has been a pioneer. Accomplishments include the introduction of the first triple-quad mass spectrometers, inductively coupled plasma mass spectrometers, and techniques for detecting ultra-trace amounts of small or large molecules by atmospheric pressure ionization (electrospray). Most of these products have evolved through multiple generations and continue to hold significant shares of their market segments.

The pharmaceutical and biotechnology markets are the major users of technology based on the principles of liquid chromatography coupled with mass spectrometry (LC/MS) for detecting organic compounds. Early models of this equipment revolutionized many of the processes that were fundamental limitations in the search for new drugs or biotechnology products. Productivity and sensitivity improvements remain the primary basis for product differentiation for MDS equipment.

MDS Analytical Technologies and its partner, Applied Biosystems, are the market leader in high-sensitivity LC/MS equipment and have consistently delivered technological innovation within this industry. This innovation is a result of significant research and development spending each year.

A smaller portion of the Company's mass spectrometry market is outside of the pharmaceutical industry and relies on similar equipment for the detection of inorganic compounds. For this group of customers, the Company produces the ELAN® Inductively Coupled Plasma Mass Spectrometer (ICP/MS) that provides high sensitivity with extremely high specificity for a wide range of elements in the analysis of a single sample. The range of market areas that are addressed with the ELAN® is broad and includes environmental monitoring (drinking and wastewater analysis), toxicology (role of trace metals in human disorders), semiconductors (trace impurities), and the nuclear industry (impurities in uranium). These machines are marketed on a worldwide basis through a partnership with PerkinElmer.

The following table summarizes the mass spectrometers offered by the Applied Biosystems/MDS Analytical Technologies and PerkinElmer Sciex Instruments joint ventures. MDS Analytical Technologies introduced a newly designed mass spectrometry platform with the launch of two new systems in October 2008, the AB SCIEX QTRAP® 5500 and the AB SCIEX Triple Quad™ 5500.

<u>Instrument Name</u>	<u>Joint Venture Partner</u>
API 5000™ LC/MS/MS System	Applied Biosystems
API 4000™ LC/MS/MS System	Applied Biosystems
API 3200™ LC/MS/MS System	Applied Biosystems
API 2000™ LC/MS/MS System	Applied Biosystems
QSTAR® Elite LC/MS/MS System	Applied Biosystems
QSTAR® XL Hybrid LC/MS/MS System	Applied Biosystems
4000 QTRAP® LC/MS/MS System	Applied Biosystems
3200 QTRAP® LC/MS/MS System	Applied Biosystems
4800 MALDI TOF/TOF™ Analyzer	Applied Biosystems
AB SCIEX QTRAP® 5500 LC/MS/MS System	Applied Biosystems
AB SCIEX Triple Quad™ 5500 LC/MS/MS System	Applied Biosystems
ELAN® DRC II ICP-MS System	PerkinElmer
ELAN® DRC-e ICP-MS System	PerkinElmer
ELAN® 9000 ICP-MS System	PerkinElmer

MDS also offers a full range of high-performance bioanalytical tools, including automated systems for pharmaceutical screening, and a variety of general-purpose research instruments under the MDC brand, which are grouped into two families: BioResearch and Drug Discovery.

BioResearch products include microplate detection products, microarray scanners, laser-capture microdissection, cellular imaging and analysis, microplate washers and Threshold® product lines. Our

microplate detection products consist of the SpectraMax®, Maxline and FlexStation® lines of advanced microplate readers; they address the increasing need for the acquisition and processing of large quantities of biochemical and biological data. The GenePix® family of products is a complete line of instruments and software for analyzing microarrays, which enable the high-throughput identification of large numbers of genes. For cellular imaging and analysis, the Company offers the ImageXpress® line of products for high-throughput and cell-based screening and the MetaMorph®, MetaFluor® and MetaVue™ systems for cellular imaging in the research environment. The Arcturus® products are laser-capture microdissection products, which help researchers to visualize and extract individual cells or groups of cells from tissue samples with minimal damage. As well, the AquaMax is a line of state-of-the-art microplate washers and other related tools, including cell harvesters, to the bioresearch product family. The Threshold® system emerged from a need by biopharmaceutical companies for more sensitive and reproducible methods to detect contaminants in biopharmaceuticals during the manufacturing and quality control processes.

Drug Discovery products are used to screen large numbers of chemical compounds to assess their effects on disease targets. Drug discovery products include: FLIPR® system and reagent kits, the label-free based CellKey™ platforms, automated electrophysiology systems, Cellular Neuroscience amplifiers, data acquisition systems and software, and the Analyst system and reagent kits. Since its introduction in 1995, the FLIPR® system has become the industry standard for the automated testing of compounds in live cells. FLIPR® instrumentation is complemented by FLIPR® reagent kits for calcium and membrane potential measurement, which use a proprietary technology to reduce the number of steps involved in live cell testing. Automated electrophysiology products are automated systems that obtain the same high-quality information from cells as conventional patch clamping, but at a much faster rate and requiring far less operator skill.

The CellKey™ System uses patented impedance based measurements to enable the measurement of endogenous receptors for more biorelevant screening data. In June 2008 the Company introduced the CellKey™384 system. The instrument is deployed in the drug discovery market and offers a label-free technology for biological screening. To efficiently visualize cellular events, our high-throughput imaging systems provide automation of image capture and analysis to allow tens of thousands of microscopic cellular assays to be performed in a single day. The Analyst family of products provides industry-leading flexibility and throughput for a wide range of biochemical assays. For cellular neurosciences research, the Company offers a range of products for voltage recording, current and voltage clamping and patch clamping. In the fiscal year, several new software introductions were delivered to the market across all business areas.

MDC also provides services to its installed base of customers on both a contract, and time and materials basis, as well as a variety of post-warranty contract options for all instrument offerings.

MDS Analytical Technologies' business is dependent on a staff with highly specialized skills and knowledge in various branches of physics, chemistry and biology. Individuals with the requisite credentials are recruited on a global basis and their knowledge is further developed by in-house training. Approximately 1,200 people are directly employed by MDS Analytical Technologies globally. As a technology-delivery organization within scientific instruments, a significant percentage of staff in the research and development area of MDS Analytical Technologies are post graduate-qualified to Masters and/or PhD level. We include amongst our senior research staff a number of thought leaders in their respective fields.

### Strategy

MDS Analytical Technologies is a leading global provider of top-of-line life sciences research and analysis solutions, with a particular focus on the application of these technologies within the drug discovery and development process.

One of MDS Analytical Technologies' core strength is designing products to meet customers' need to outperform based on sensitivity and speed. We invest in research and development to continually fuel our pipeline of new innovative products to help accelerate the complex process of discovering and developing new drug compounds. Expertise in engineering, molecular and cell biology and chemistry contributes to the recognition of strong brands.

Our customers also expect MDS Analytical Technologies to deliver high-quality instruments at the right price. To meet these expectations, MDS Analytical Technologies is accelerating the shift of our manufacturing base and our supply chain to Asia. We are on track with our product transfer plan, and are now driving to increase our local purchases through our Asia supply chain team which is located at our Singapore, Singapore and Shanghai, China facilities. These teams are working with local suppliers to source high-quality component parts and sub-assemblies with ongoing commitments to quality and productivity improvements annually.

MDS Analytical Technologies' products are sold into global markets. The Sciex brand products are also sold globally but through our partnerships with Applied Biosystems and PerkinElmer. The current key markets are the U.S., Western Europe and Japan, reflecting the sophistication of the drug development industry in each of those areas. The fastest growing global markets include China and India.

### Competition

The Company's principal competitors in the life sciences tools market include: Agilent Technologies Inc.; Alpha Innotech Corp.; Becton, Dickinson and Company; Biotek Instruments, Inc.; Bruker Daltonics, Inc.; General Electric Company; Hamamatsu Photonics K.K.; Innopsys SA; Leica Microsystems GmbH; Applied Biosystems Corp; Nikon Corp.; PerkinElmer, Inc.; Sophion Inc.; Tecan Group Ltd.; Thermo Fisher Scientific Inc.; Waters Corporation; Carl Zeiss, Inc. Competition includes other manufacturers selling similar technology and also companies that sell competing but different technologies for certain applications.

Since technological superiority is a key product differentiator, MDS Analytical Technologies, along with our partners, seeks to take necessary actions to protect and defend our intellectual property. The Company owns numerous United States, Canadian and foreign patents and have patent applications pending in the U.S., Canada and abroad. In addition to our patent portfolio, we possess a wide array of unpatented proprietary technology and know-how. We also own numerous United States, Canada and foreign trademarks and trade names for a variety of our product names, and have applications for the registration of trademarks and trade names pending in the U.S., Canada and abroad. We believe that patents and other proprietary rights are important to develop and maintain the competitive position of our business.

In 2006, MDS leased and built out a 10,000-square-foot manufacturing facility in Singapore, Singapore in an effort to improve the cost base of its instrumentation and materials, and position the Company to take advantage of the increasing importance of the Asian market with respect to future

sales growth. To date, the manufacturing of three high-volume mass spectrometer product lines have been transferred to Singapore, Singapore and the site has been expanded to 30,000 square feet.

The majority of MDS Analytical Technologies' infrastructure, manufacturing and research and development reside in North America: Concord, Canada and Sunnyvale, U.S. However, in addition to the Singapore facility the Company has manufacturing operations in Shanghai, China as well as a global network of sales offices throughout Europe, Asia and Latin America.

The operations of MDS Analytical Technologies to a certain degree have been and could be impacted by the cyclical nature of the pharmaceutical industry, the investment cycle in the biotech industry and the government regulation of environmental issues.

### **3.5 Diagnostic Laboratories**

Until 2006, the Company also operated in the health-care industry primarily through its Canadian diagnostic laboratories business, MDS Diagnostic Services. The diagnostic laboratories business was the largest operator of private sector clinical diagnostics laboratories in Canada. Services provided by the Company included clinical laboratory testing for physicians and non-hospital healthcare institutions, management of hospital laboratories under contract and other support services for clinical diagnostics.

The diagnostic laboratories business was determined not to be consistent with the Company's strategic focus and was sold to Borealis Investment Management. This transaction was completed on February 26, 2007 as disclosed under **Section 2.4.3 – Divestitures, Discontinuances and Other Transactions**.

### **3.6 Significant Investees**

#### **3.6.1 Lumira Capital Corp. (formerly MDS Capital Corp.)**

Lumira Capital Corp., in which MDS has a 45% interest, is a venture capital and fund management company focused on the health-care and life sciences industry. Lumira Capital Corp. earns management fees from the management of investment funds, including incentive fees based on the overall success of the funds. In 2006, Lumira Capital Corp. sold its retail funds management business.

### **3.7 Principal Facilities**

The following were the principal operating facilities of the Company as at October 31, 2008:

<u>Location of Facility</u>	<u>Type of Facility</u>	<u>Owned/ Leased</u>	<u>Business Unit</u>	<u>Approximate Square Footage</u>
Ottawa, Canada	Manufacturing Plant	Owned	MDS Nordion	337,300
Concord, Canada	Manufacturing Plant	Owned	MDS Analytical Technologies	147,500
Sunnyvale, U.S.	Manufacturing/Office	Leased	MDS Analytical Technologies	143,100
Lyon, France	Research Facility	Owned	MDS Pharma Services	134,200

Lincoln, U.S.	Clinical Trials Facility	Owned	MDS Pharma Services	130,200
Montreal, Canada	Research Laboratory and Clinical Trials Facility	Leased	MDS Pharma Services	125,400
Tempe, U.S.	Clinical Trials Facility	Owned	MDS Pharma Services	104,500
Bothell, U.S.	Research Laboratory	Leased	MDS Pharma Services	95,600
Mississauga, Canada	Research Laboratory and Kit Preparation	Leased	MDS Pharma Services	63,000
Vancouver, Canada	Manufacturing Plant	Leased	MDS Nordion	54,800
King of Prussia, U.S.	Division Office	Leased	MDS Pharma Services	47,100
Toronto, Canada	Corporate Offices	Leased	MDS Corporate	43,000
Zurich, Switzerland	Research Laboratory	Leased	MDS Pharma Services	40,200
Neptune, U.S.	Clinical Trials Facility	Leased	MDS Pharma Services	39,700
Taipei, Taiwan	Research Laboratory	Owned	MDS Pharma Services	39,500
Paris, France	Research Laboratory	Leased	MDS Pharma Services	37,600
Fleurus, Belgium	Manufacturing Plant	Leased	MDS Nordion	36,200
Singapore	Manufacturing Plant	Leased	MDS Analytical Technologies	30,200
Belfast, N. Ireland	Clinical Trials Facility	Owned	MDS Pharma Services	28,500
Downingtown, U.S.	R&D	Leased	MDS Analytical Technologies	27,900
Baillet, France	Research Laboratory	Leased	MDS Pharma Services	26,400
Irvine, U.S.	Division Office	Leased	MDS Pharma Services	24,200
Beijing, China	Research Laboratory	Leased	MDS Pharma Services	24,200
Hamburg, Germany	Division Office & Kit Preparation	Leased	MDS Pharma Services	23,300
Baillet, France	Research Laboratory	Owned	MDS Pharma Services	23,091
Shanghai, China	Manufacturing Plant	Leased	MDS Analytical Technologies	18,900
Winnersh, U.K.	Division Office	Leased	MDS Analytical Technologies	14,000
Blackhorse, U.S.	Research Laboratory	Leased	MDS Pharma Services	13,500
Mississauga, Canada	Corporate Head Offices	Leased	Corporate	13,400

Winnersh, U.K.	Office	Leased	MDS Pharma Services	12,500
Singapore, Singapore	Research Laboratory & Kit Preparation	Leased	MDS Pharma Services	6,800

### **3.8 Research and Development**

MDS carries on various research and development (R&D) programs largely focused on product development at MDS Analytical Technologies and, to a lesser extent, at MDS Nordion. Accounting for R&D is described in Note 3 to the 2008 Financial Statements, which are incorporated by reference into this AIF.

### **3.9 Environmental Compliance**

MDS has established a series of policies to facilitate compliance with applicable environmental laws and regulations. The policies require that business units conduct regular environmental assessments of Company activities, establish remedial and contingency plans to deal with any incidents, and establish processes to report to senior corporate management and to the Board through the Environment, Health & Safety Committee of the Board on the environmental status of the Company and its subsidiaries. MDS uses an independent third party environmental auditing firm to conduct regular regulatory audits of MDS operations. MDS believes its approach to environmental compliance meets the regulated requirements. It is not expected that this policy will have a significant impact on capital expenditures, consolidated earnings, or our competitive position.

### **3.10 Other Business Matters**

#### **3.10.1 Risk Factors**

The businesses in which MDS operates are subject to a number of risks and uncertainties discussed below and under the heading “Risks and Uncertainties” on pages 31 to 33 of the 2008 MD&A. Additional risks and uncertainties not presently known to the Company or that the Company does not currently anticipate may be material, and may impair the Company’s business operations. If any such risks occur, the Company’s business, financial condition and results of operations could be materially adversely affected.

***Our business, financial condition, and results of operations could be subject to significant fluctuation, and we may not be able to adjust our operations to effectively address changes we do not anticipate.***

We cannot reliably predict future sales and profitability. Changes in competitive, market and economic conditions may require us to adjust our operations, and we may not be able to make those adjustments or to make them quickly enough to adapt to changing conditions. A high proportion of our costs are fixed and thus, small declines in sales could disproportionately affect our business, financial condition, and results of operations in any particular quarter.

Factors that may negatively affect our sales and operating results include:

- global or regional economic downturns including instability of equity markets and financial markets;
- lack of demand for, or market acceptance of, our products and services;
- adverse changes in industries on which we are dependent, such as the pharmaceutical and biomedical industries;
- changes in the volume or timing of product or service orders;
- our access to supplies of key materials, such as nuclear isotopes, required to deliver products to our markets;
- delays in delivering/completing clinical trials or testing as a result of changes in scheduling by our customers;
- the cancellation of clinical trials or testing by our customers as a result of the failure of a drug compound to meet desired efficacy;
- inability of our customers to obtain regulatory approval or funding to continue the development of certain drug compounds;
- changes in the portions of our sales represented by our various products, services and customers;
- delays or problems in the introduction of new products or services;
- our competitors' announcement or introduction of new products, services or technological innovations;
- competitive pressures resulting in lower selling prices;
- changes in foreign exchange rates;
- increased costs of raw materials or supplies;
- delays or problems sourcing product inputs, especially in circumstances where there are limited suppliers;
- changes in import licenses or duties changes; or
- changes in the financial stability of our customers or suppliers, including their ability to obtain financing at a reasonable cost.

We believe that operating results for any particular quarter are not necessarily a meaningful indication of future results. While fluctuations in our quarterly operating results could negatively or positively affect the market price of our Common shares, these fluctuations may not be related to our future overall operating performance.

***We are subject to complex and costly regulation.***

Governmental agencies throughout the world strictly regulate the drug development process. Our facilities devoted to pharmaceutical development are subject to regular inspection by the FDA, Health Canada, the European Medicines Agency (EMA) and other regulatory agencies. Our customers also are subject to periodic review by drug approval authorities, principally the FDA in the United States. In addition, the terms of a typical CRO contract provide that our customers can request that our facilities be subjected to the same levels of review by the authorities. Our failure, or any of our customers' failure, to pass an inspection conducted by the FDA, Health Canada, the EMA, and any other regulatory body could result in disciplinary action leading to increased cost and/or reduced customer demand that would have a material adverse affect on our business, financial condition or results of operations.

All of our facilities that handle or store radioactive material are also government regulated and inspected. Operating licenses related to radioactive materials could be subject to cancellation under certain circumstances. Failure to obtain or maintain future operating licenses could adversely affect our business, financial condition, or results of operations.

The health and life sciences industries are subject to extensive and frequently changing international and United States federal, state and local laws and regulations. If we fail to comply with applicable laws and regulations, we could suffer civil and criminal damages, fines and penalties, loss of various licenses, certificates and authorizations necessary to operate our business, as well as incur liabilities from third-party claims, all of which could have a significant adverse effect our business.

***An interruption in the supply of reactor-produced isotopes could have a material adverse effect on our financial results.***

To provide greater security for the future supply of molybdenum-99 and other reactor-produced radioisotopes commonly used in nuclear medicine, in 1996 we contracted with Atomic Energy of Canada Limited (AECL) for the construction and operation of two special-purpose reactors and a processing facility, the MAPLE Facilities, to produce such isotopes.

In May 2008, AECL and the Government of Canada announced their intention to discontinue the MAPLE project without prior notice to or consultation with MDS.

In July 2008, MDS served AECL with Notice of Arbitration proceedings seeking an order to compel AECL to fulfill its contractual obligations under the 2006 Agreement, and, in the alternative and in addition to such order, seeking significant monetary damages. MDS concurrently filed a court claim against AECL and the Government of Canada. MDS is seeking against AECL (i) damages in the amount of C\$1.6 billion for negligence and breach of contract relating to the 1996 Agreement; and (ii) interim, interlocutory and final orders directing AECL to continue to supply radioisotopes under a certain agreement, i.e., the 2006 Agreement, pending any final judgment and completion of the MAPLE Facilities; and, against the Government of Canada, MDS is seeking (i) damages in the amount of C\$1.6 billion for inducing breach of contract and interference with economic relations in respect to the 2006 Agreement; (ii) an order that MDS Nordion may set-off the damages owing to it by the Government of Canada as a result of the Government's conduct set out herein against any amounts owing by MDS Nordion to the Government of Canada under the Facilities Development and Construction Funding Agreement (FDCFA), a loan agreement between the Government of Canada and MDS for C\$100 million of which C\$68 million is outstanding; and (iii) an interim and interlocutory order suspending any payments that may be owing to the Government of Canada under the FDCFA pending the determination of the issues in this litigation and an interim or interlocutory order requiring the return of all security instruments delivered in connection with the FDCFA.

MDS believes that it has a strong case against AECL and the Government of Canada with respect to the MAPLE agreement, which the Company continues to actively pursue. However, given the present stage and complex nature of the proceedings, the uncertainty in projecting the probability of any particular outcome of a dispute of this nature, the range of remedies that may be awarded under the arbitration and/or lawsuit if we are successful in our claim, the Company is unable to project a specific outcome for this dispute. An unfavourable outcome would have an adverse effect on our business, financial condition, and results of operations which could be material.

In the absence of the MAPLE Facilities, we depend upon the NRU reactor operated by AECL in Chalk River, Canada for the supply of a majority of our reactor-produced radioisotopes. The NRU reactor is 50 years old and its current license extends to 2011. There is no assurance that the license will be extended past 2011. There is no assurance that the NRU reactor will not experience other planned or unplanned shutdowns in the future. Further prolonged planned or unplanned shutdowns would have an adverse effect on our business, financial condition, and results of operations which could be material.

***An interruption in our ability to manufacture our products or deliver our services or an inability to obtain key components or raw materials may adversely affect our business.***

A number of our products are manufactured at single locations, with limited alternate facilities. Any event including, a labour dispute, natural disaster, fire, power outage, security, regulatory, health or other issue that results in a prolonged business disruption or shutdown to one or more of our facilities, could create conditions that prevent us from manufacturing products at previous levels or at all.

In addition, we purchase certain components and raw materials from sole suppliers and we may not be able to quickly establish additional or replacement sources for certain components or materials at acceptable prices. A reduction or interruption in manufacturing, or an inability to secure alternative sources of raw materials or components, could have a material adverse effect on business, financial condition or results of operations.

***We face significant competition and we may not be able to compete effectively.***

MDS competes with many companies ranging from multinationals to start-up companies. Competition takes many forms, including aggressive pricing for products or services that are comparable to our own, and development of new products or services that are more cost-effective, or have superior performance than our current products or services. Our products or services can be rendered obsolete or uneconomical as a result of this competition. Failure to compete effectively could cause us to lose market share to our competitors and have a material adverse effect on our business, financial condition and results of operations.

We also face competition for marketing, distribution and collaborative development agreements, for establishing relationships with academic and research institutions, and for licenses to intellectual property. In addition, academic institutions, governmental agencies and other public and private research organizations also may conduct research, seek patent protection and establish collaborative arrangements for discovery, research, clinical development and marketing of products or services similar to ours. These companies and institutions compete with us in recruiting and retaining qualified scientific and management personnel as well as in acquiring necessary product technologies.

Globalization of our industries also impacts our competitiveness. As competitors and new entrants establish operations in lower-cost labour markets, pricing in our industries may be reduced resulting in lower revenues and profitability.

***Changes in government and regulatory policies may reduce demand for our products and services, and increase our expenses.***

We compete in markets in which we, or our customers, must comply with federal, state, local, and foreign regulations, such as environmental, health and safety, and food and drug regulations. These

regulations may also create or impact market demand for our products and services. Because of the high cost to develop, configure, and market our products and services to meet customer needs, any significant change in these regulations could reduce demand for our products or services or increase our costs of producing these products and services.

In addition, if government health-care reimbursement policies were changed, it could have a significant impact on spending decisions of certain of our customers. In recent years the United States Congress and U.S. state legislatures have considered various types of health-care reform in order to control growing health-care costs. Similar reform movements have occurred in Europe and Asia. Implementation of health-care reform legislation to reduce costs could limit the profits that can be made from the development of new drugs. This could adversely affect research and development expenditures by pharmaceutical and biotechnology companies which could in turn decrease the business opportunities available to us both in the U.S. and abroad.

***Changes in trends in the pharmaceutical and biotechnology industries could adversely affect our operating results.***

Industry trends and economic and political factors that affect pharmaceutical and biotechnology companies and academic and government entities that sponsor clinical research, also affect our business. For example, the practice of many companies in these industries and government organizations has been to hire companies to conduct large development projects. Research and development budgets fluctuate due to changes in global and regional economic conditions, availability of resources, availability of financing or funding, mergers of pharmaceutical and biotechnology companies, spending priorities and institutional budgetary policies. Our business could be adversely affected by any significant decrease in life sciences research and development expenditures by pharmaceutical and biotechnology companies, as well as by academic institutions, government laboratories or private foundations.

***We may be unable to effectively introduce and market new products and services, or may fail to keep pace with advances in technology.***

We sell many of our products and services in industries characterized by rapid technological change, frequent new product and service introductions, and evolving industry standards. Without the timely introduction of new products and enhancements, our products could become technologically obsolete over time, in which case our business, financial condition and results of operations would suffer. Our new product offerings will not succeed if we are unable to:

- accurately anticipate customer needs;
- accurately anticipate evolving government and regulatory policies;
- innovate and develop new technologies and applications;
- successfully commercialize new technologies in a timely manner;
- price our products competitively;
- source, manufacture and deliver high-quality products in sufficient volumes and on time; or
- differentiate our product offerings from our competitors' product offerings.

Developing new products may require significant investments before we can determine the commercial viability of the new product. We may invest heavily in research and development of products that do not become commercially viable.

In addition, some of our licensed technology is subject to contractual restrictions, limiting our ability to develop or commercialize products for some applications. For example, some of our license agreements are limited to the field of life sciences research, and exclude clinical diagnostics applications.

***The volatility and disruption of the capital and credit markets and adverse changes in the global economy may negatively impact our business, short-term liquidity and our ability to access financing.***

We have exposure to many different industries and counterparties, including commercial banks, investment banks, suppliers and customers (which include distributors, governments and health-care organizations) that may experience liquidity issues in the current economic environment. Any such issues may impact these parties' ability to fulfill contractual obligations to us or might limit or place burdensome conditions upon future transactions with us.

Customers may also reduce spending during times of economic uncertainty, and it is possible that suppliers may be negatively impacted. Decreased consumer spending levels, increased difficulty in collecting accounts receivable and increased pressure on prices for our products and services could all result in decreased revenues and have a material adverse effect on our business, financial condition and results of operations.

In addition, although we intend to finance ongoing operations, capital expenditures and restructuring projects with existing cash, cash flow from operations and borrowing under our existing credit facilities, we may require additional financing to support our continued growth. Due to the existing uncertainty in the capital and credit markets, our access to capital may not be available on terms acceptable to the Company or at all. Further, general economic conditions have resulted in severe downward pressure on the stock and credit markets, which could reduce the investment return available on surplus cash, reduce the return on investments under pension plans thereby potentially increasing funding obligations, and introduce greater risk of impairment to the value of assets and our investment portfolio, all of which, if severe and sustained, could have a material adverse effect on our business, financial condition and results of operations.

The health of the global economy could also impact interest rates. Our Senior Unsecured Notes bear interest at fixed rates between 5.52% and 6.19% per annum and have maturities ranging from December 2008 to December 2014. Interest rates on our committed revolving line of credit which is currently undrawn and which expires in July 2010 are at floating rates. Interest rate volatility can have a direct impact on both our short-term cash flows and earnings.

***Restrictions in our Senior Unsecured Notes and bank credit facilities and other debt instruments may limit our activities.***

Our Senior Unsecured Notes issued in fiscal 2003, as well as our revolving credit facility, contain restrictive covenants limiting our ability to engage in certain activities. The note purchase agreement that governs our Senior Unsecured Notes includes restrictions on our ability and the ability of our subsidiaries to:

- pay dividends (see **Section 4.2 – Dividends**);
- repurchase Common shares (see **Section 4.3 – Capital Structure**);
- invest in businesses that the Company does not control;
- sell assets;

- incur obligations that restrict the ability of our subsidiaries to pay dividends or other amounts to us;
- guarantee or secure indebtedness;
- enter into transactions with affiliates;
- consolidate, merge, or transfer all or substantially all of our assets and the assets of our subsidiaries on a consolidated basis; or
- initiate refinancing of debt

We are also required to meet specified financial ratios under the terms of the note purchase agreement relating to our Senior Unsecured Notes and our revolving credit facility. Our failure to comply with these financial restrictions may result in an event of default under the note purchase agreement, which could result in acceleration of our indebtedness under our Senior Unsecured Notes and require us to prepay our Senior Unsecured Notes before their scheduled due date. Non-compliance with certain debt covenants could also impair our ability to draw funds on our revolving credit facility. Future debt instruments to which we may become subject could also contain similar provisions.

Under a restricted payments covenant in our Senior Unsecured Notes, we are currently unable to pay dividends or repurchase Common shares which may limit our access to new capital and may negatively affect our share price.

***Foreign currency exchange rates may adversely affect our results.***

We derive a large portion of our net revenues from international operations. For the year ended October 31, 2008, we derived approximately 52% of our total revenues, including reimbursement revenues, from outside the U.S. Our financial statements are denominated in U.S. dollars. Our international operations typically use their local currency as the functional currency for that entity, thereby incurring foreign-exchange exposure to all other currencies in which they may transact business. For example, in certain circumstances, we may incur costs in one currency related to our services or products for which we are paid in a different currency. As a result, factors associated with international operations, including changes in foreign currency exchange rates, could significantly affect our business, financial condition and results of operations.

As a global company, our exposure to foreign-exchange rate changes includes but is not limited to, the following:

- Costs and revenues incurred in foreign currencies, when translated into U.S. dollars for financial reporting purposes, can fluctuate due to exchange rate movements.
- Embedded derivatives based on the currency of certain contracts we enter into with customers and suppliers are valued at market rates. We may report significant gains or losses based on changes in current and expected future, or commonly referred to as forward, exchange rates.
- Our foreign subsidiaries, on occasion, invoice third-party customers in foreign currencies other than the functional currency in which they primarily conduct business. Movements in the invoiced currency, compared with their functional currency, can result in either realized or unrealized transaction losses that directly impact our cash flows and our results of operations.

- Certain long-term contracts with suppliers or customers may experience significant fluctuations in foreign exchange rates over several years thereby impacting our cash flows and our results of operations.
- Our manufacturing and distribution organization is multinational in nature resulting in a variety of intercompany transactions that are billed and paid in many different currencies. Our cash flows and our results of operations are therefore directly impacted by volatility in these currencies.
- The cash flow needs of each of our foreign subsidiaries vary over time. Accordingly, there may be times when a subsidiary is on the receiving side or the lending side of a short-term advance from either the Company or one of our subsidiaries. These advances, being denominated in currencies other than a particular entity's functional currency, can expose us to volatility in exchange rates that can adversely impact both our cash flows and results of operations.
- To repay debt or take advantage of tax saving opportunities, we may remit cash from our foreign locations to Canada. When this occurs, we are liquidating foreign-currency net asset positions and converting them into Canadian or U.S. dollars. Our cash flows and our results of operations may therefore be adversely impacted by these transactions.

***We continue to implement restructuring actions in various parts of our business and may be required to incur additional charges in the future to implement additional restructuring.***

We operate in markets in which demand for products and services may vary on a global basis. As a result of these factors, we may implement restructuring programs to better align our workforce and facilities to match demand and to maintain or improve our mid- to long-term profitability. Significant restructuring actions and consequent workforce reductions could have the effect of reducing our talent pool and available resources. Consequently this could have long-term effects on our business by decreasing or slowing improvements in our products, thereby affecting our ability to respond to customer demand, and limiting our ability to hire and retain key personnel. In addition, restructuring costs may have a negative impact on our operations, and these actions may not achieve the desired improvement in profitability.

***We are dependent upon the services of key personnel.***

Our success depends, to a significant extent, upon the continued service of our executive officers and key management and technical personnel - particularly our scientific, technical and sales staff - and our ability to continue to attract, retain, develop and motivate qualified personnel. The competition for these employees is intense. The loss of the services of one or more of our key personnel could have a material adverse effect on our operating results. The investment required to retain key staff, including the provision of compensation packages that are competitive, could have an impact on the profitability of our business. We do not maintain key person life insurance policies on any of our officers or employees.

***Our business depends on the continued and uninterrupted performance of our information technology systems and the communication systems that support those systems, including the Internet.***

Our business depends, in part, on the continued and uninterrupted performance of our information technology systems. Sustained system failures or interruptions could disrupt our ability to perform many of the functions that are critical to our business, including processing customer orders, transportation of our raw materials and finished products, manufacturing of products, processing

laboratory requisitions, and timely invoicing and collections. In performing testing of samples or the examination from clinical trials, we are required to deliver the results of testing within certain preset time intervals. If we fail to deliver the results of testing on time, or the integrity of results are compromised, this could impact the safety of clinical trial participants and affect the success of the client's clinical trial. Our business, results of operations and financial condition could be adversely affected by a prolonged system failure.

Our computer systems are vulnerable to damage from a variety of sources, including telecommunications failures, malicious human acts, and natural disasters. Additionally, unanticipated problems affecting our systems could cause interruption in our information technology systems. Our insurance policies may not adequately compensate us for any losses that may occur due to any failures in our information technology systems.

***We may not be able to successfully execute strategic transactions.***

We may be unable to complete the acquisition of promising businesses, divestitures of all or portions of businesses or license technologies for many reasons, including:

- global market conditions and lack of credit availability;
- the need for regulatory and other approvals;
- the inability by us, or others, to raise capital to fund transactions;
- current valuations of businesses and technologies;
- restrictions in the instruments governing our indebtedness, including our Senior Unsecured Notes and our revolving credit facility;
- restrictions in contracts with joint venture partners; or
- regulatory or statutory restrictions including foreign ownership of shares of MDS (Canada) Inc. (see **Section 2.4.4 - Strategic Considerations**).

In addition, any business we may seek to acquire or technology we may seek to license may fall short of expectations or may prove to be unprofitable. Accordingly, the earnings or losses from any such business that is acquired or technology that is licensed may dilute our earnings.

***We may not be able to integrate acquired businesses or licensed technologies into our existing business, or make acquired businesses or licensed technologies profitable.***

We may be unable to integrate acquired businesses or licensed technologies in to our existing business, or make the acquired businesses or licensed technologies profitable for various reasons including:

- our ability to retain key employees;
- our ability to integrate business information systems and processes;
- our ability to complete the development of products and sell them into the market; or
- incompatible management or other cultural differences.

***From time to time during the normal course of business, the Company and its subsidiaries are subject to litigation.***

From time to time, we may be the plaintiff or defendant in litigation, including potential litigation regarding products and services we provide or products and services we expect or receive from others. Lack of success in such litigation may expose the Company to financial loss or prevent us from enforcing rights that are important to the Company, thereby having an adverse effect on our

business or results of operations. Material litigation that is not covered by our insurance policies, or falls within our retained liability under our policies, could have a material adverse impact on our results and our financial position.

***Our insurance coverage may not be adequate in all circumstances. There can be no assurance that such coverage will continue to be available at rates and on terms acceptable to the Company.***

We maintain a global liability insurance policy covering all of our operating units. The policy provides coverage for normal operating risks and includes annual liability coverage of up to US\$50 million for MDS Analytical Technologies and US\$100 million for MDS Pharma Services and MDS Nordion. We also maintain a global policy covering property and business interruption risks with a total insured value of US\$ 1.9 billion and directors' and officers' insurance having a limit of US\$120 million. There is no certainty that the amount of coverage is adequate to protect us in all circumstances or that we will be able to acquire such insurance on an ongoing basis at rates acceptable to us.

***We are subject to a number of risks due to the fact that we carry on business in several countries.***

Our operations are subject to the risks of carrying on business in certain countries in North America, Europe, Asia and Latin America. Accordingly, our future results of operations could be adversely affected by a variety of factors including, but not limited to:

- changes in a country's or region's political or economic conditions - particularly in developing or emerging markets;
- exposure to foreign-exchange rate fluctuations between currencies;
- tax consequences and/or other potential restrictions on the transfer of funds between subsidiaries;
- longer payment cycles of foreign customers and difficulty of collecting receivables in foreign jurisdictions;
- trade protection measures and import or export licensing requirements;
- potential nationalization of industries, properties or assets that we rely on;
- differing tax laws and changes in those laws including investment tax credits, or changes in the countries in which we are subject to tax;
- differing cultural and business practices associated with foreign operations;
- difficulty in staffing and managing widespread operations;
- differing labour laws, including being subject to certain European regulations relating to work counsels and changes in those laws;
- differing protection of intellectual property and changes in that protection; or
- differing regulatory requirements and changes in those requirements.

***Our access to cash for ongoing operations or for strategic transactions may be restricted due to the cost or availability of financing, government regulations and/or the expiry of our revolving credit facilities in 2010.***

While we intend to finance ongoing operations, capital expenditures and restructuring projects from existing cash, cash flow from operations, and borrowing from our existing credit facilities, cash required for large strategic transactions or unexpected operating needs may prove costly, and difficult or impossible to obtain. In addition, a portion of our existing cash is held in foreign

subsidiaries and our ability to effectively access that cash through loans or dividends may be affected by tax consequences, government regulations or other factors which might cause us to incur additional costs to repatriate it. As well, we periodically utilize our revolving credit facilities for short-term cash requirements and this credit facility is not available after June 2010. If we are unable to negotiate a new credit facility on terms acceptable to us, or if we can not access cash from foreign subsidiaries, our short-term liquidity may be affected.

***We could be subject to tax reassessment and may be required to pay additional income taxes.***

Our tax filings are subject to audit and review by government tax authorities who may disallow certain deductions or disagree with our interpretation of tax laws, which may result in our having to pay additional taxes and incur additional tax expense.

***Our cost of research and development could increase in the event certain tax credits were to become unavailable.***

Most of the research and development activities that we conduct in Canada - both for our own account and for defined groups of arm's length customers - are eligible for tax credits. Elimination or significant reduction of these tax credits would have a material impact on the cost of our research and development, which would have a material adverse effect on our business, financial condition, or results of operations.

***An increase in the price of our Common shares may result in an increase in operating costs as certain of our incentive compensation programs are linked to the price of our Common shares.***

We have performance-based share units which are paid to employees in cash or shares if certain performance targets are met. The value of the incentive payouts are based on the number of units awarded which is determined by actual or projected achievement of specific performance targets, multiplied by the current or projected average share price. As our share price increases, the amount of incentive compensation expense will increase resulting in lower profitability and higher cash outflows.

***We may bear financial risk if we under price our contracts or overrun cost estimates.***

Since our contracts are often structured as fixed price or fee-for-service with a cap, we bear the financial risk if we initially under price our contracts or otherwise overrun our cost estimates. Certain contracts may also involve foreign exchange risk when costs are incurred in a different currency than revenue. As a result, under pricing or significant cost overruns, or foreign exchange risk could have a material adverse effect on our business, results of operations, financial condition, and cash flows.

***The terms of MDS Pharma Services' contracts entitle clients to cancellation rights, which, if exercised, could adversely affect our business, financial condition, and results of operations.***

The majority of the revenues earned by MDS Pharma Services are under contracts that typically run several months for drug discovery through Phase I clinical trials and as much as several years for Phase III/IV clinical trials. Terms of most contracts entered into by MDS Pharma Services entitle clients to cancellation rights that may be exercised by the client in the event of regulatory delays or if unexpected results are encountered at any stage of the development program. The cancellation of contracts by these customers could have a material adverse effect on MDS Pharma Services' business, financial condition and results of operations.

***If we are unable to attract suitable participants for our clinical trials, our business might suffer.***

The clinical research studies that we run rely on the ready accessibility and willing participation of subjects. Our clinical research activities could be adversely affected if we are unable to attract suitable and willing participants on a consistent basis.

***We could be subject to claims as a result of product failure in clinical trials testing.***

During clinical trials testing, we will typically administer pharmaceutical products owned and developed by others to individuals acting as test subjects. The terms of the contracts we enter into with the sponsor of the product vary and do not prevent individuals to whom the products have been administered from filing claims against us even though we may be indemnified in these circumstances. Furthermore, the indemnity obligations established under these contracts are not secured and it is possible that the indemnifying party may not have the financial ability to meet its obligations to us in the case of an adverse event.

***Contract research services create a risk of liability.***

In contracting to work on drug development trials and studies, we face a range of potential liabilities, including:

- errors or omissions that create harm during a trial to study volunteers or after a trial to consumers of the drug after regulatory approval of the drug;
- general risks associated with clinical pharmacology facilities, including negative consequences from the administration of drugs to clinical trial participants or the professional malpractice of clinical pharmacology medical care providers; and
- errors and omissions during a trial or study that may undermine the usefulness of a trial or data from the trial or study, or impact customers' regulatory submissions.

We also contract with physicians, also referred to as investigators, to conduct the clinical trials to test new drugs on human volunteers. These tests can create a risk of liability for personal injury or death to volunteers, resulting from negative reactions to the drugs administered or from professional malpractice by third party investigators. We believe that our risks in this area are generally reduced by the following:

- contract provisions entitling us to be indemnified or entitling us to a limitation of liability;
- insurance maintained by our clients, investigators, and by us; and
- our efforts to comply with various regulatory requirements we must follow in connection with our business.

MDS adheres to Canadian, European Union and other applicable laws regulating the handling of confidential personal information. This is accomplished through the implementation of a comprehensive program that encompasses globally recognized information protection practices. MDS continually monitors our compliance with applicable privacy and data protection regulations. Contractual indemnifications and some limitations may not generally protect us against liability arising from certain of our own actions, such as negligence or misconduct. We could be materially and adversely affected if we were required to pay damages or bear the costs of defending any claim which is not covered by a contractual indemnification provision or in the event that a party who must indemnify us does not fulfill its indemnification obligations or which is beyond the level of our

insurance coverage. There can be no assurance that we will be able to maintain such insurance coverage on terms acceptable to us.

***Failure to gain FDA acceptance of Study Review could have a continuing material adverse effect on the financial results of MDS Pharma Services bioanalytical operations.***

During 2004, 2006 and 2007, MDS Pharma Services received written communication from the FDA related to certain generic bioequivalence studies carried out at MDS Pharma Services' bioanalytical laboratory facilities in Montreal, Canada.

The communication resulted from inspections carried out by the FDA in 2003 and 2004, a subsequent FDA audit in March 2006, and the FDA's review of our responses to the audit and related communications. The communications from the FDA outlined concerns in certain studies about unexpected results in a limited number of study samples, the standard procedures in place at that time to investigate the root cause of the unexpected results, and the policies and procedures in place to address such results.

In January 2007, the FDA issued statements that outlined certain steps that those customers of our Montreal bioanalytical facilities would be required to take to resolve any outstanding issues. The FDA directed sponsors of approved and pending generic drug submissions or Abbreviated New Drug Applications (ANDA) containing study data produced in these facilities between January 2000 to December 2004 to take one of three actions within six months to address FDA concerns about the accuracy and validity of these bioanalytical studies: 1) repeat their bioanalytical studies; 2) re-analyze their original study samples at a different bioanalytical facility; or 3) independently audit original study results. In addition, the FDA wrote to sponsors of innovator submissions and requested that they advise the FDA of any submissions containing data from those facilities from the affected period. In some instances, the FDA also required these innovator sponsors to validate their studies by also choosing one of the three requested approaches.

We have responded to questions from European regulators about the nature of the work that was done for the FDA. The European regulators have reviewed studies in Montreal that are representative of the work done at that site, and issued a final report indicating that they have no significant concerns.

While our support for generic and innovator clients is substantially completed, there can be no assurance that further work will not be required, or that there will not be further impact from the work, such as the failure of clients' studies to gain FDA clearance. Such results could impact our ability to attract and retain work, cause us to incur further support or reimbursement expenses, or lead to other adverse results which could have a material adverse effect on the overall financial results of the Company.

***Operating licenses related to handling and storage of radioactive materials could be subject to cancellation by the Canadian Nuclear Safety Commission (CNSC) under certain circumstances.***

All of our facilities that handle or store radioactive materials are government regulated and inspected. Failure to obtain future operating licenses could impact our ability to receive, store, process or ship products and could adversely affect our business, financial condition, or results of operations.

***Our operations may be affected by a disruption to air or ground transportation.***

Our business relies heavily on both air and ground transportation, including the highly regulated, time sensitive transport of isotopes. In addition, shipment of radioactive materials is also subject to international regulations which are subject to changes over time. Any material disruption to air or ground transportation systems or significant change to international shipping regulations could have a material adverse effect on our business. Contingency plans might not be effective or sufficient to avert such a material adverse effect.

***We are dependent upon access to nuclear power reactors to install or remove cobalt and such access is dependent upon third parties.***

We purchase Cobalt<sup>59</sup> (Co<sup>59</sup>) as a commodity. The processed Co<sup>59</sup> is inserted into nuclear reactors for approximately 18 - 60 months to convert it to Co<sup>60</sup>. Access to these nuclear reactors to either install or remove cobalt is based on the routine maintenance schedule for the reactor facility as determined by the reactor owner. Any significant change in a maintenance schedule to install or remove cobalt could have a material impact on the availability of Co<sup>60</sup> in any given quarter or year. This could have an adverse effect on our business, financial condition, and results of operations.

***Certain of our businesses are exposed to attention from special interest groups and are subject to related political risks.***

Among our products and services are those that involve radioactive materials for medical isotopes or sterilization technologies, and drug safety services which involve the testing of drug compounds in animals as required by drug regulators. From time to time, these have garnered negative attention from special interest groups and are therefore at risk of disruption as a result of such attention. A significant disruption could have a material adverse effect on our business, financial condition, or results of operations.

***Our business could suffer if we are unsuccessful in negotiating new collective bargaining agreements.***

Certain Company sites employ personnel subject to collective bargaining agreements. If we are unable to negotiate acceptable agreements with the association(s) representing our employees upon expiration of existing contracts, we could experience strikes or work stoppages. Even if we are successful in negotiating new agreements, the new agreements could call for higher wages or benefits paid to members, which would increase our operating costs and could adversely affect our profitability. We are currently in negotiations with the Public Service Alliance of Canada with regard to a new collective agreement for certain unionized employees at our MDS Nordion site in Ottawa, Ontario.

***Labour disruptions within the companies that supply our isotopes or other sole source raw materials could have a material adverse affect on our financial results.***

We are dependent upon certain suppliers as our primary source of isotopes. In addition, other MDS business units utilize certain suppliers as the sole source for specialized raw materials. The majority of our isotope suppliers employ unionized personnel. Any labour disruptions or other prolonged disruption at any critical supplier could have a material adverse effect on our business, financial condition, and results of operations.

***Potential changes to regulations regarding the export and use of highly enriched uranium could cause supply disruptions.***

Certain purchased medical isotopes are produced in reactors and are by-products of the decay of the uranium fuel in the reactor. AECL obtains the majority of its uranium from the United States. The U.S. Department of Energy (DOE) strictly controls exports of highly enriched uranium (HEU). Delays in obtaining HEU could cause supply disruption for certain isotopes. Currently the DOE must approve each shipment of HEU. There is political pressure by the U.S. Government on medical isotope manufacturers to convert to low-enriched uranium (LEU). Any conversion to LEU, should such conversion become technologically, commercially and economically viable, could require significant additional capital investment to convert both reactors and related processing facilities, and could impact the profitability and potential viability of our isotope business.

***Our operations are exposed to risk of material environmental liabilities, litigation and violations.***

We are subject to numerous environmental protection and health and safety laws in jurisdictions in which we carry on business governing, among other things:

- the generation, use, transportation, storage and disposal of hazardous materials;
- emissions or discharges of substances into the environment;
- investigation and remediation of hazardous substances or materials at various sites; and
- the health and safety of our customers, participants and employees.

We may not have been, or we may not at all times be, in compliance with all environmental and health and safety laws. If we violate these laws, we could be fined, criminally charged or otherwise sanctioned by regulators.

Certain materials we handle can have a significant and pernicious impact on the environment. As a result, we are exposed to risk of costs associated with environmental clean-up, as well as exposure to claims from others who have suffered a loss as a result of an environmental spill or accident.

Although the Company maintains liability insurance coverage, material losses or litigation that is not covered by our insurance policies or that falls within our retained liability under our policies could have a material adverse impact on our results and our financial position.

***We depend on joint venture partners for sales of our mass spectrometers.***

Essentially all sales of mass spectrometry products are made through partnerships with Applied Biosystems (now a part of Life Technologies Inc.) and PerkinElmer. The relationships are governed by partnership agreements that define the rights and responsibilities of each party. While each partnership is for a fixed term, both agreements extend automatically in the absence of any notice to terminate the agreements. Our mass spectrometry business at MDS Analytical Technologies focuses primarily on the development and manufacturing of analytical instruments while our partners focus primarily on marketing, sales, and service. Failure by either partner to carry out its respective obligations could adversely affect our mass spectrometry business, financial condition, or results of operations.

***Under agreements that govern each of our joint ventures in MDS Analytical Technologies, a change of control at one of the joint ventures would entitle the other joint venture party to terminate the joint venture.***

We are party to joint venture agreements with Applied Biosystems, (now a part of Life Technologies) and PerkinElmer. The agreements governing these joint ventures provide termination rights in various circumstances, including a right in favour of each party to terminate the joint venture, absent the consent of the other party, and subject to certain transition rights of both parties, in the event of a change of control of the other party. Any early termination of either joint venture could adversely affect our working relationship with the partner of the terminated joint venture and adversely impact our business.

***If we are unable to renew our licenses or otherwise lose our licensed rights, we may have to stop selling products or we may lose a competitive advantage.***

If we lose the rights to a patented or other proprietary technology, we may be forced to stop selling products incorporating that technology and possibly other products, or third parties may obtain the right to sell products incorporating such technology in competition with us. We may need to redesign our products, thereby incurring significant cost and/or losing a competitive advantage. Competitors could in-license technologies that we fail to license and erode our market share leading to lower revenue and profitability.

Our licenses typically subject us to various economic and commercialization obligations. If we fail to comply with these obligations, we could lose important rights under a license, such as the right to exclusivity in a market. In some cases, we could lose all rights under the license. In addition, rights granted under the license could be lost for reasons out of our control. For example, the licensor could lose patent protection for a number of reasons, including invalidity of the licensed patent, or a third party could obtain a patent that curtails our freedom to operate under one or more licenses.

***Patent protection for our proprietary products, processes, and technologies may be difficult and expensive to obtain or maintain, and may not result in sufficient protection for our technology.***

We have applied, or intend to apply, for additional patents to cover our newest products. We may not obtain issued patents from any pending or future patent applications owned by or licensed to us. Of the U.S. and foreign patents we currently hold, the claims allowed may not be broad enough to protect our technology. In addition, competitors may design around our technology or develop competing technologies. Intellectual property rights may also be unavailable or limited in some foreign countries, which could make it easier for some of our competitors to capture increased market position.

***Third parties may seek to challenge, invalidate or circumvent issued patents owned by us, or claim that our products and operations infringe on their patent or other intellectual property rights.***

In addition to our patents, we possess an array of unpatented proprietary technologies and know-how. We also license intellectual property rights to and from third parties. The measures that we employ to protect these technologies and these rights may not be adequate. Moreover, in some cases, the licensor can terminate a license or convert it to a non-exclusive arrangement if we fail to meet specified performance targets.

We may incur significant expense in any legal proceedings to protect our proprietary rights or to defend infringement claims by third parties. In addition, claims of third parties against us could result in awards of substantial damages or court orders that could effectively prevent us from

manufacturing, using, importing or selling our products in the U.S. or in any other country. It could also, depending on the quantum of damages awarded, have a significant adverse affect on our financial results.

***Our reported results of operations will be adversely affected if the intangible assets or goodwill we acquired as part of acquisitions are determined to be impaired.***

As at October 31, 2008, our total assets included approximately \$452 million of goodwill and \$155 million of intangible assets. Goodwill represents the value we paid to acquire a business in excess of its tangible and intangible assets and liabilities. We review these assets for potential impairment on a regular basis.

Adverse changes in the global economy, our business or the failure to grow our business may result in impairment of our goodwill and/or intangible assets. A corresponding write-down could adversely affect our reported operating income and capitalization (See Note 11 - Goodwill in the Notes to Consolidated Financial Statements).

***We make accounting estimates and judgements in preparing our financial statements. If these are incorrect, our operations may be adversely affected.***

The preparation of the consolidated financial statements requires management to make estimates and assumptions. These estimates and assumptions affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of revenue and expenses during the reported period. The Company's estimates are based on the facts and circumstances available at the time estimates are made, historical experience, risk of loss, general economic conditions and trends, and the Company's assessments of the probable future outcomes of these matters. Actual results could differ from those estimates and as a result, future liabilities and associated cash outflows may be higher than those reflected in our consolidated statement of financial position.

In the past two years, we have had to restate our results twice due to incorrect application of U.S. GAAP. A significant restatement could impact our performance relative to debt covenants and therefore, our liquidity position. As well, during a period while a restatement is being completed, we may not be able to complete certain strategic transactions.

### **3.10.2 Legal Proceedings and Regulatory Actions**

On July 8, 2008, MDS served AECL with Notice of Arbitration proceedings seeking an order to compel AECL to fulfill its contractual obligations under the 2006 Agreement, and, in the alternative and in addition to such order, seeking significant monetary damages. MDS concurrently filed a court claim against AECL and the Government of Canada. MDS is seeking against AECL (i) damages in the amount of C\$1.6 billion for negligence and breach of contract relating to the 1996 Agreement; and (ii) interim, interlocutory and final orders directing AECL to continue to supply radioisotopes under a certain agreement, i.e., the 2006 Agreement, pending any final judgment and completion of the MAPLE Facilities; and, against the Government of Canada, MDS is seeking (i) damages in the amount of C\$1.6 billion for inducing breach of contract and interference with economic relations in respect to the 2006 Agreement; (ii) an order that MDS Nordion may set-off the damages owing to it by the Government of Canada as a result of the Government's conduct set out herein against any amounts owing by MDS Nordion to the Government of Canada under the Facilities Development and Construction Funding Agreement (FDCFA), a loan agreement between the Government of Canada and MDS for C\$100 million of which C\$68 million is outstanding; and

(iii) an interim and interlocutory order suspending any payments that may be owing to the Government of Canada under the FDCFA pending the determination of the issues in this litigation and an interim or interlocutory order requiring the return of all security instruments delivered in connection with the FDCFA. MDS believes that it has a strong case against AECL and the Government of Canada with respect to the MAPLE agreement, which the Company continues to actively pursue. However, given the present stage and complex nature of the proceedings, the uncertainty in projecting the probability of any particular outcome of a dispute of this nature, and the range of remedies that may be awarded under the arbitration and/or lawsuit if we are successful in our claim, the Company is unable to project a specific outcome for this dispute. An unfavourable outcome would have an adverse effect on our business, financial condition, and results of operations which could be material.

The Company is a defendant in certain other litigation which, net of insurance coverage and amounts reserved, is not anticipated at this time to have a material impact on the results of operations.

### **3.10.3 Interest of Management and Others in Material Transactions**

No director or executive officer of MDS nor any associate or affiliate of any of the foregoing, and, to the knowledge of the directors and executive officers of MDS, no person or company that is the direct or indirect beneficial owner of, or who exercises control or direction over, more than 10 percent of our Common shares or any of such person or company's associates or affiliates, has had an interest in any material transaction entered into by the Company since November 1, 2003.

### **3.10.4 Transfer Agent and Registrar**

The transfer agent of the Company is CIBC Mellon Trust Company, Toronto, Canada.

### **3.10.5 Material Contracts**

The following are the only material contracts, other than contracts entered into in the ordinary course of business, which have been entered into by the Company within the most recently completed fiscal year, or were entered into before the most recently completed fiscal year and are still in effect, deemed to be material:

- (a) The Note Purchase Agreement governing our Senior Unsecured Notes issued on December 18, 2002. The Senior Unsecured Notes bear interest at rates between 5.15% and 6.19% and have various terms between five and twelve years, (See **Section 2.4.1 – Capital Structure**).
- (b) A C\$500 million, five-year committed, revolving credit facility provided on July 14, 2005, (see **Section 2.4.1 – Capital Structure**).
- (c) Interim and Long-term Supply Agreement between Atomic Energy Canada Limited and MDS (Canada) Inc., (see **Section 3.3 – MDS Nordion: NRU and MAPLE Facilities**).

- (d) ValueAct and Associates Agreement - April 21, 2008
- (e) Obrem Capital Offshore Master, L.P. and Obrem Capital (QP), L.P. Agreement – November 19, 2008

The terms of our Senior Unsecured Notes and credit facility are typical for debt instruments of this nature (see **3.10.1 - Risk Factors**).

### **3.10.6 Experts**

The 2008 Financial Statements have been audited by Ernst & Young LLP, Box 251, 222 Bay Street, Toronto, Ontario, M5K 1J7. During fiscal 2008, MDS's Audit Committee obtained written confirmation from Ernst & Young LLP confirming that they are independent with respect to the Company within the meaning of the Rules of Professional Conduct of the Institute of Chartered Accountants of Ontario.

## **4. SELECTED CONSOLIDATED FINANCIAL INFORMATION**

### **4.1 Summary Annual Information (Year to October 31)**

(amounts in US\$ millions except per share amounts)	<b>2008</b>	<b>2007</b> (restated)	<b>2006</b> (restated)
<b>Consolidated Statements of Operations</b>			
<small>(U.S. GAAP)</small>			
Total revenues	1,315	1,210	1,060
Operating loss	(693)	(108)	(20)
(Loss) Income from continuing operations	(644)	(44)	30
Net (loss) income	(553)	781	150
(Loss) earnings per share – basic	(4.54)	5.93	1.04
(Loss) earnings per share – diluted	(4.54)	5.92	1.04
	<b>2008</b>	<b>2007</b> (restated)	<b>2006</b> (restated)
<b>Consolidated Statements of Financial Position</b>			
<small>(U.S. GAAP)</small>			
Total assets	1,872	3,243	2,448
Long-term debt	282	384	394
Total shareholders' equity	1,090	1,941	1,384
Weighted average shares outstanding	122	132	144
Long-term debt/shareholders' equity	26%	20%	28%

	<b>2008</b>	<b>2007</b> (restated)	<b>2006</b> (restated)
<b>Consolidated Statements of Cash Flows</b>			
(U.S. GAAP)			
Cash from (used in) continuing operating activities	(18)	176	20
Capital assets purchased	(52)	(71)	(51)
Cash from discontinued operations, net	-	(56)	104
Net issue (repayment) of long-term debt	(89)	(18)	(7)

Items on the pre-tax basis that impact the comparability of operating income include:

- Results for the year ended October 31, 2008, reflect the \$246 million write-off of the MAPLE Facilities, \$320 million MDS Pharma Services goodwill write-down, and \$13 million of restructuring charges.
- Results for the year ended October 31, 2007 reflect a \$791 million net gain from the sale of our diagnostics businesses, operating results of Molecular Devices from date of acquisition, March 20, 2007, \$61 million of charges related to assisting clients in respect to the FDA review, and \$37 million of restructuring charges.

## **4.2 Dividends**

The declaration of dividends is at the discretion of the Board of Directors. Both the Company's credit facility and Senior Unsecured Notes contain provisions which could restrict the amount of any dividend payment. However, as noted below, the Company has discontinued the payment of dividends.

Prior to October 2004, dividends were declared payable in April and October. Effective for the October 2004 dividend, the Company adopted a policy of paying quarterly dividends. Pursuant to the policy, dividends, when declared, were paid in January, April, July and October. In the past three years, MDS has paid the following cash dividends:

<u>Fiscal Year</u>	<u>Aggregate Dividend Amount per Common Share</u>
2006	C\$0.1300
2007	C\$0.0325
2008	C\$0.0000

On October 5, 2006, the Company announced that it would discontinue paying dividends following completion of the sale of the diagnostics laboratory business. The final dividend was declared on December 12, 2006 and was paid January 8, 2007 to shareholders of record on December 20, 2006.

As a result of MDS's cumulative net loss as of October 31, 2008, a certain debt covenant under our Senior Unsecured Notes will restrict us from further share repurchases for the foreseeable future.

### **4.3 Capital Structure**

MDS uses a combination of equity and long-term debt to finance its business. The Company has one class of Common shares authorized and outstanding. As at October 31, 2008, there were 120,137,229 Common shares outstanding.

The Common shares entitle the holder thereof to receive notice of, to attend, and to vote at all meetings of holders of Common shares. Each Common share entitles the holder thereof to one vote per share and to share rateably in the assets of the Company on liquidation or dissolution.

The Company's share capital has been restructured or converted several times from Common shares in 1973 to Class A Common and Class B Non-Voting in 1980 and back to Common shares in March 2000. Under the terms of the 2000 conversion, each Class A share was converted into 1.05 Common shares and each Class B non-voting share was converted into 1.0 Common share.

The Company's shares have been split on a two-for-one basis four times, on the following dates: September 26, 1980, July 13, 1983, March 15, 1990, and, November 15, 1996. In addition, on September 14, 2000, the directors of the Company declared a one-for-one share dividend paid on October 10, 2000 to shareholders of record on September 26, 2000. This share dividend had the same effect as a two-for-one stock split.

MDS currently has a Normal Course Issuer Bid (NCIB) in place to purchase up to 4,136,766 Common shares that expires on July 2, 2009. As at October 31, 2008, 1,417,900 Common Shares had been purchased in 2008 under this NCIB, and an additional 1,485,300 shares were repurchased in fiscal 2008 under our prior NCIB. The Company repurchased no Common shares under an NCIB in fiscal 2006 or fiscal 2007. In the second quarter of 2007, the Company conducted a substantial issuer bid and repurchased approximately 22.8 million Common shares at a price of C\$21.90 per share on April 9, 2007. As a result of MDS's cumulative net loss as of October 31, 2008, a certain debt covenant under our Senior Unsecured Notes will restrict us from further share repurchases for the foreseeable future.

The Company has Senior Unsecured Notes payable totalling \$227 million, has a defeased non-interest bearing government loan, and has various other forms of long-term credit, mostly associated with the purchase of specific assets. At October 31, 2008, the value of all of the Company's outstanding debt was \$282 million. In addition, the Company has available C\$500 million of undrawn committed term credit facilities at October 31, 2008.

## **5. MANAGEMENT'S DISCUSSION AND ANALYSIS**

Please refer to the disclosure contained on pages 1 to 44 of the 2008 Annual Financial Review under the heading "Management's Discussion and Analysis" which is incorporated by reference into this AIF.

## 6. MARKET FOR SECURITIES

The outstanding Common shares are listed for trading on the Toronto Stock Exchange (TSX: MDS) and the New York Stock Exchange (NYSE: MDZ). The following table sets forth the price ranges and volume of Common shares traded on the Toronto Stock Exchange and the New York Stock Exchange for each month of fiscal 2008.

Month	TSX (C\$)			NYSE (US\$)		
	Volume (Total Month)	High Price	Low Price	Volume (Total Month)	High Price	Low Price
Nov 2007	7,177,230	21.29	19.56	2,319,760	22.55	19.87
Dec 2007	7,581,060	20.40	18.25	3,500,100	20.32	18.29
Jan 2008	12,060,660	19.57	16.43	4,622,985	19.76	16.34
Feb 2008	11,105,865	17.15	16.15	2,707,766	17.18	15.68
Mar 2008	15,219,789	20.00	16.23	3,490,176	19.48	16.33
Apr 2008	10,773,300	20.88	19.79	3,064,755	20.60	19.42
May 2008	8,798,903	20.43	18.13	2,879,493	20.22	18.29
Jun 2008	11,432,195	18.89	15.75	7,221,255	18.75	15.39
Jul 2008	11,712,712	16.45	13.81	3,887,745	16.54	13.52
Aug 2008	8,171,208	16.65	14.10	4,825,086	15.68	13.64
Sep 2008	11,381,891	16.55	11.58	6,536,930	15.42	11.13
Oct 2008	9,316,350	13.45	10.50	6,582,093	12.41	8.54

Other than the Common shares, no other class of securities of the Company is traded or quoted on any exchange or market.

## 7. DIRECTORS AND OFFICERS

### 7.1 Directors

Each director of the Company is elected to serve until the next Annual Meeting of the Company or until their successor is elected or appointed. The disclosure under the heading “Election of Directors” in the Company’s Management Proxy Circular dated January 7, 2009 contains information about each director of the Company and is incorporated herein by reference.

## 7.2 Executive Officers

The Company's Executive Management team currently comprises the following individuals:

Executive Officer Name	Position with MDS	Province or State and Country of Residence
Andrew W. Boorn	President MDS Analytical Technologies	Ontario, Canada
Stephen P. DeFalco	President and Chief Executive Officer (CEO)	Ontario, Canada
Mary E. Federeau	Executive Vice-President, Global Human Resources	Ontario, Canada
Thomas E. Gernon	Executive Vice-President, Information Technology and Chief Information Officer (CIO)	Ontario, Canada
Kenneth L. Horton	Executive Vice-President, Corporate Development and General Counsel	Massachusetts, U.S.
Janet Ko	Senior Vice-President, Communications	Ontario, Canada
Douglas S. Prince	Executive Vice-President, Finance and Chief Financial Officer (CFO)	Ontario, Canada
David Spaight	President MDS Pharma Services	Pennsylvania, U.S.
Steven M. West	President MDS Nordion	Ontario, Canada

Andrew W. Boorn, Mary E. Federeau, and Steven M. West have held their present positions or other senior positions with MDS Inc. or its subsidiaries during the past five years. The executive officers listed below have not held their present positions or other senior positions with MDS or its subsidiaries for the last five years and their previous occupations are as follows:

- a) **Stephen DeFalco** joined MDS in 2005 and was previously Chairman and CEO of U.S. Genomics and prior to that role served as President of PerkinElmer Instruments and Senior Vice-President of PerkinElmer, Inc.
- b) **Thomas E. Gernon** joined MDS in 2005, was previously Chief Operating Officer of D2Hawkeye Inc., a healthcare software development company and held CIO positions at both PerkinElmer, Inc. and J.P. Morgan Investments.

- c) **Kenneth L. Horton** joined MDS in December 2005 and was previously Vice President, Acquisitions, Ventures and General Counsel for the Life and Analytical Sciences business unit at PerkinElmer, Inc. and previously an attorney at Ropes & Gray LLP.
- d) **David Spaight** joined MDS in April 2006 and was previously Senior Vice-President, Global Sales and Marketing at Fisher Scientific Products (Fisher). Prior to joining Fisher, Mr. Spaight held the role of Vice-President, Global Sales and Marketing for the Life and Analytical Sciences business unit at PerkinElmer, Inc.
- e) **Douglas S. Prince** joined MDS in 2007 and was previously Vice-President, Enterprise Risk Management at PerkinElmer, Inc. He also served as Vice-President and CFO for the Life and Analytical Sciences business unit at PerkinElmer, Inc.
- f) **Janet Ko** was appointed Senior Vice-President, Communications, in April 2008. Since joining MDS in November 2003, she has held increasingly senior roles in Communications and Organizational Development. Prior to joining MDS, she was head of communications for Pharmacia Canada, and held senior communications posts at GlaxoSmithKline and Ontario's Ministry of the Attorney General.

To the knowledge of MDS, the directors and executive officers of MDS, as a group, beneficially own, directly or indirectly, or exercise control or direction over an aggregate of 62,023 MDS Common shares representing 0.05% of MDS's issued and outstanding Common shares.

### **7.3 Additional Disclosure for Directors and Executive Officers**

To the knowledge of MDS, no director or executive officer of MDS (a) is at the date hereof or has been, in the last ten years before the date hereof, a director, chief executive officer (CEO) or chief financial officer (CFO) of any company, including MDS that, while that person was acting in that capacity, (i) was the subject of a cease trade order, similar order or an order that denied the company or MDS access to any exemptions under securities legislation, for a period of more than 30 consecutive days, (ii) was subject to an order that was issued, after that person ceased to be a director, CEO or CFO and which resulted from an event that occurred while that person was acting in that capacity as a director, CEO or CFO, (b) is at the date hereof or has been in the ten years before the date hereof, a director or executive officer of a company, including MDS that, while that person was acting in that capacity or within a year of that person ceasing to act in that capacity became bankrupt, made a proposal under any bankruptcy or insolvency legislation or became subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver or manager or trustee appointed to hold assets or (c) has within the last ten years become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangements or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold the assets of any director, or executive officer except for Mr. Robert Luba, a director of MDS who was an independent director of Safety-Kleen Corp., a New York Stock Exchange listed company, which filed for bankruptcy in 2000.

## 8. AUDIT COMMITTEE INFORMATION

### 8.1 Composition of the Audit Committee

The Audit Committee of MDS is composed of the following five members: William D. Anderson (Chair), William G. Dempsey, Robert W. Luba, Richard H. McCoy, and Kathleen M. O'Neill. The responsibilities and duties of the Committee are set out in the Committee's charter, the text of which is set forth in Appendix I to this AIF.

The Board of Directors believes that the composition of the Audit Committee reflects a high level of financial literacy and expertise. Each member of the Audit Committee has been determined by the Board to be "independent" and "financially literate" as such terms are defined under Canadian and United States securities laws and the NYSE Corporate Governance Listing Standards. In addition, the Board has determined that each of William D. Anderson, Robert W. Luba, and Kathleen M. O'Neill is an "Audit Committee Financial Expert" as such term is defined under United States securities laws. The Board has made these determinations based on the education and breadth and depth of experience of each member of the Committee. The following is a description of the education and experience of each member of the Committee that is relevant to the performance of his or her responsibilities as a member of the Audit Committee:

**William D. Anderson**, a Chartered Accountant, is a Corporate Director, having retired in 2005 after serving 14 years with BCE Inc. (a global communications company headquartered in Montreal, Canada). From 2001 to 2004, Mr. Anderson was President of BCE Ventures and from 1997 to 2000 was Chief Financial Officer of BCE Inc. Mr. Anderson currently serves on the public boards of TransAlta Corporation and Gildan Activeware Inc. He serves on the audit committees of TransAlta Corporation and Gildan Activeware Inc.

**William G. Dempsey** was appointed to the Board in 2008. Mr. Dempsey was an executive with Abbott Laboratories for 25 years, prior to his retirement in 2007. His assignments included Executive Vice President of the Pharmaceutical Products Group and Senior Vice-President of International Operations. He currently serves on the public Board of Landaeur, Inc.

**Robert W. Luba**, a Chartered Accountant, is President of Luba Financial Inc. (an investment company in Toronto, Canada). Prior to 1994, he was President and Chief Executive Officer of Royal Bank Investment Management Inc., President and Chief Financial Officer (CFO) of Crown Life Insurance Company and Senior Vice-President and CFO of John Labatt Limited. Mr. Luba currently serves on the public boards of Invesco Trimark Funds and Softchoice Corporation. He also serves as the Chairman and on the audit committee of Softchoice Corporation.

**Richard H. McCoy** is a Corporate Director. He was in the investment banking business for over 35 years. Prior to retiring in 2003, he was Vice-Chairman, Investment Banking at TD Securities Inc. (one of Canada's largest investment firms in Toronto, Canada). Mr. McCoy currently serves on the public boards of ACE Aviation Holding Inc.; Aberdeen Asia-Pacific Income Investment Company Limited; Gerdau Amersteel Corp.; Jazz Air Income Fund; Pizza Pizza Royalty Income Fund; and Uranium Participation Corporation. He also serves on the audit committees of Ace Aviation Holdings Inc., Aberdeen Asia-Pacific Income Investment Company Limited and Uranium Participation Corporation.

**Kathleen M. O’Neill** is a Corporate Director and was an Executive Vice-President with BMO Bank of Montreal (a major Canadian chartered bank) until January 2005. Prior to joining BMO Bank of Montreal in 1994, Ms. O’Neill was a partner at PricewaterhouseCoopers. Ms. O’Neill is a Fellow of the Institute of Chartered Accountants (FCA) of Ontario. In 2005, Ms. O’Neill was accredited to the ICD/Rotman School of Management Directors Education Program. Ms. O’Neill is also a director of Canadian Tire Bank. Ms. O’Neill is Chair of St. Joseph’s Health Centre Foundation and a past-Chair of the Board of St. Joseph’s Health Centre in Toronto and is also active on several other non-profit boards. Ms. O’Neill currently serves on the public boards of Finning International Inc. and TMX Group Inc. She also serves on the audit committees of Finning International Inc. and TMX Group Inc.

## 8.2 Auditor Service Fees

The fees for all services performed by the auditors for the years ended October 31, 2008 and October 31, 2007 are set out below.

	2008 (US\$'000s)	2007 (US\$'000s)
Audit services	\$6,100	\$ 6,274
Audit-related services	872	650
Tax services	271	341
Total	<u>\$7,243</u>	<u>\$ 7,265</u>

**Audit Services** – an audit engagement is one in which Ernst & Young LLP, or a foreign affiliate, has been hired to render an audit opinion on a set of financial statements or related financial information. These engagements include the opinion issued on the consolidated financial statements of MDS, the opinions issued on subsidiaries of MDS as required by statute in certain jurisdictions, and opinions issued on the financial statements of subsidiaries or entities over which MDS exercises management discretion. The latter category includes audit opinions issued on Pension Plans established for the benefit of MDS employees.

**Audit-Related Services** – an audit-related engagement is one in which some sort of assurance is provided that is not an audit opinion or one which supports the ability of Ernst & Young LLP to render an audit opinion in an indirect manner. Such engagements include reviews of the interim financial statements, the reports of which are provided to the Audit Committee, accounting assistance and advice and translation services related solely to our filed financial reports. From time to time, Ernst & Young LLP may also be engaged to provide audit-related services in connection with acquisitions, including audits of transaction-date balance sheets and similar services.

**Tax Services** – a tax engagement is one in which Ernst & Young LLP has been engaged to provide tax services, including assistance with tax compliance and tax advice and planning. Tax compliance assistance is generally provided to the foreign subsidiaries of MDS and to certain entities that are controlled by MDS but in which there are other minority interests. Tax compliance services include assistance with the preparation and filing of tax returns, and assistance in dealing with tax audits. Tax advice and planning services are provided to the Company and many of its subsidiaries and relate to both income taxes and sales and use taxes.

### **8.3 Pre-Approval Policy for External Auditor Services**

The Audit Committee has adopted processes for the pre-approval of engagements for services of its external auditors. The Audit Committee's policy requires pre-approval of all audit and non-audit services provided by the external auditor. The policy identifies three categories of external auditor services and the pre-approval procedures applicable to each category, as follows:

- (1) Audit and audit-related services – these are identified in the annual audit service plan presented by the external auditor and require annual approval. Changes to these fees are reported to the Audit Committee at least quarterly.
- (2) Pre-approved list of non-audit services – non-audit services which are reasonably likely to occur have been identified and receive general pre-approval of the Audit Committee, and as such, do not require specific pre-approvals. The term of any general pre-approval is 12 months from approval unless otherwise specified. The Audit Committee annually reviews and pre-approves the services on this list.
- (3) Other proposed services – all proposed services not categorized above are brought forward on a case-by-case basis and specifically pre-approved by the Audit Committee.

All fees paid to the independent auditors for 2008 were approved in accordance with the pre-approval policy.

## **9. ADDITIONAL INFORMATION**

Additional information about MDS is available on the Company's web site at [www.mdsinc.com](http://www.mdsinc.com), on SEDAR (System for Electronic Document Analysis and Retrieval) at [www.sedar.com](http://www.sedar.com), and on the U.S. Securities and Exchange web site at [www.sec.gov](http://www.sec.gov).

Additional information, including directors' and executive officers' remuneration and indebtedness, principal holders of the Company's securities and securities authorized for issuance under equity compensation plans is contained in the Management Proxy Circular dated as of January 7, 2009 prepared in connection with the Company's Annual and Special Meeting of Shareholders to be held on March 12, 2009.

Additional financial information is provided in the 2008 Financial Statements and the 2008 MD&A, each included in the 2008 Annual Report Financial Review of MDS for its fiscal year ended October 31, 2008.

Copies of this AIF, as well as copies of the 2008 Annual Report Financial Review of MDS for the year ended October 31, 2008 and the Management Proxy Circular dated January 7, 2009 may be obtained from:

#### **Peter Brent**

Senior Vice-President Legal & Corporate  
Secretary, MDS Inc.

Telephone: 416-213-4082

Fax: 416-213-4222

Email: [peter.brent@mdsinc.com](mailto:peter.brent@mdsinc.com)

2700 Matheson Blvd., Suite 300, West Tower  
Mississauga, Ontario, L4W 4V9  
Canada

## **APPENDIX I – MDS INC. AUDIT COMMITTEE CHARTER**

### **Purpose**

The primary function of the audit committee (the “Audit Committee”) of the Board of Directors (the “Board”) of MDS Inc. (the “Corporation”) is to assist the Board in fulfilling its oversight responsibilities for the financial reporting process including responsibility for overseeing:

- the integrity of the Corporation’s financial statements and financial reporting process, including the system of internal control over financial reporting, the audit process and the processes for identifying, evaluating and managing the Corporation’s principal risks impacting financial reporting;
- compliance with legal and regulatory requirements, other than those otherwise assigned from time to time by the Board;
- financial oversight of Pension Plan management;
- the qualifications and independence of the independent auditor; and
- the Corporation’s internal audit function.

Consistent with these functions, the Audit Committee should encourage continuous improvement of, and should foster adherence to, the Corporation’s policies, procedures and practices.

### **Approval of Charter**

This Charter and any future changes to this Charter require approval by the Board.

### **Structure and Composition**

The Audit Committee shall consist of no fewer than three members from among the Board.

Each member of the Audit Committee shall: (i) be free from any relationship that, in the opinion of the Board, would reasonably be expected to interfere with the exercise of his or her independent judgment as a member of the Audit Committee; and (ii) meet the independence and financial literacy requirements of all applicable corporate, exchange and securities statutes, rules and regulations in Canada and the United States (the “Regulations”).

Each member of the Audit Committee shall be financially literate as contemplated by applicable regulations and as determined by the Board in its business judgment.

At least one member of the Audit Committee shall be an “audit committee financial expert” as such term is defined by the Regulations. The Board shall make determinations as to whether any particular member of the Audit Committee satisfies this requirement.

The members of the Audit Committee shall be appointed by the Board annually on the recommendation of the Nominating and Corporate Governance Committee or until successors are duly appointed.

The Board shall normally designate the Chair of the Audit Committee. In the event that a Board designation is not made, the members of the Audit Committee shall elect a Chair by majority vote of the full Audit Committee.

In the event that the Chair of the Audit Committee does not attend a meeting of the Audit Committee, the members of the Audit Committee shall elect a temporary Chair for such meeting by majority vote of the members in attendance at the meeting.

Once appointed, Audit Committee members shall cease to be a member of the Audit Committee only upon:

- (a) resignation from the Audit Committee or the Board,
- (b) death,
- (c) disability, as determined by an independent physician retained by the Board; or
- (d) not being re-appointed pursuant to the annual appointment process described above.

Members of the Audit Committee shall not simultaneously serve on the audit committees of more than three public companies, including the Corporation, unless the Board determines that such simultaneous service would not impair the ability of such member to effectively serve on the Audit Committee.

### **Meetings**

The Audit Committee shall meet at least quarterly and more frequently as circumstances dictate.

A majority of Audit Committee members is required for meeting quorum.

The Audit Committee shall meet separately at their quarterly meetings with management, the Internal Auditor and the independent auditor in separate committee sessions.

The Chief Executive Officer, Chief Financial Officer, Chief Accounting Officer, Vice President Tax and Treasury, Vice President Financial Planning and Analysis, Vice President Internal Audit and Risk and Corporate Secretary of the Corporation and representatives of the independent auditor shall normally attend meetings of the Audit Committee. The Audit Committee may request any officer or employee of the Corporation or the Corporation's outside counsel or independent auditor to attend a meeting of the Audit Committee or to meet or provide consultations to the Audit Committee or any member thereof. Others may also attend meetings as the Audit Committee may request.

Notice of all meetings of the Audit Committee shall be sent to all Audit Committee members and to those persons referred to in the preceding paragraph.

## **Chair**

The Chair of the Committee shall have the duties and responsibilities set forth in Appendix "A".

## **Resolutions**

Resolutions of the Audit Committee shall require approval by a simple majority of members voting on such resolution.

## **Responsibilities and Duties**

### ***(i) Minutes and Reporting to the Board***

The Audit Committee shall prepare written minutes of all of its meetings. The Audit Committee shall make regular reports to the Board, but not less frequently than quarterly. In addition, after each meeting of the Audit Committee, the Chair of the Audit Committee or designate shall report to the Board on the significant matters addressed by the Audit Committee at such meeting and a copy of the minutes shall be made available to all members of the Board.

### ***(ii) Selection, Evaluation and Oversight of Independent Auditor***

With respect to the Corporation's independent auditor the Audit Committee shall:

- have the sole authority to recommend to the Board the appointment, retention or replacement of the independent auditor (subject, if applicable, to shareholder approval)
- be directly responsible for establishing the compensation of the independent auditor
- have the independent auditor report directly to the Audit Committee and otherwise be directly responsible for overseeing the work of the independent auditor
- have the authority to communicate directly with the independent auditor
- meet with the independent auditor prior to the annual audit to discuss the planning, scope and staffing of the audit and approve the selection of the coordinating partner having primary responsibility for the audit
- provide for the periodic rotation of the coordinating partner having primary responsibility for the audit and the audit partner responsible for reviewing the audit as required by law
- at least on an annual basis, evaluate the qualifications, performance and independence of the independent auditor and the senior audit partners having primary responsibility for the audit
- obtain and review a report from the independent auditor at least annually regarding: (i) the independent auditor's internal quality-control procedures, (ii) any material issues raised by the most recent internal quality-control review, or peer review, of the firm, or raised by any

inquiry or investigation by governmental or professional authorities within the preceding five years respecting one or more independent audits carried out by the firm, (iii) any steps taken to deal with any issues, (iv) all relationships between the independent auditor and the Corporation, and (v) the independence of the independent auditor as required by the Regulations

- review and approve the Corporation's hiring policies regarding partners, employees and former partners and employees of the present and former independent auditor
- obtain confirmation from management that the Corporation has not hired employees or former employees of the independent auditor who have participated in any capacity in the audit of the Corporation for the immediately previous 12 month period
- pre-approve all auditing services and permitted non-audit services (including fees and terms thereof) to be performed for the Corporation or its subsidiaries by the independent auditor

***(iii) Internal Audit***

With respect to the Corporation's lead of internal audit (the "Internal Auditor"), the Audit Committee shall:

- have the authority to approve the appointment and termination of the Internal Auditor
- have the Internal Auditor report directly on a functional basis to the Audit Committee (although the Internal Auditor may report administratively to the CEO or the CFO)
- have the authority to communicate directly with the Internal Auditor
- meet with the Internal Auditor to discuss the planning, scope and staffing of the internal audit plan
- approve the internal audit mandate and annual plan, including the responsibilities, budget, compensation and staffing of the Corporation's internal audit function, through inquiry with the Corporation's independent auditor, management and the Corporation's internal auditing department

***(iv) Financial Reporting of Quarterly Financial Results***

With respect to the Corporation's reporting of unaudited quarterly financial results, the Audit Committee shall:

- prior to their public release and filing with securities regulatory agencies, review and discuss with management, the internal auditor and the independent auditor:
  - earnings press release
  - financial statements and notes thereto
  - management's discussion and analysis

The review of the Corporation's unaudited quarterly financial results shall include:

- critical accounting policies and practices
- significant financial reporting issues and judgments (e.g. estimates and reserves) made in the preparation of the Corporation's financial statements, including any significant changes in the Corporation's selection or application of accounting principles
- the extent to which changes or improvements in financial or accounting practices, as approved by the Audit Committee, have been implemented
- results of the independent auditor's review
- any written communications between the independent auditor and management (e.g. management letters, schedule of unadjusted differences)
- any significant disagreements among management and the independent auditor in connection with the preparation of financial statements
- adequacy of internal controls over financial reporting and any major issues as to the adequacy of the Corporation's internal controls and any special steps adopted in light of material control deficiencies
- management certifications of reports filed by the Corporation pursuant to applicable regulations
- the effect of regulatory and accounting initiatives as well as off-balance sheet structures on the Corporation's financial statements
- the Corporation's use of "pro forma" or "adjusted" non-GAAP information
- the Corporation's use of forward-looking financial guidance
- any correspondence with, or published reports by, regulators or governmental agencies which raise material issues regarding the Corporation's financial statements or accounting policies
- approve the unaudited quarterly financial statements of the Corporation

**(v) Financial Reporting of Year-End Financial Results**

With respect to the Corporation's annual audit, the Audit Committee shall:

- prior to their public release and filing with securities regulatory agencies, review and discuss with management, the internal auditors and the independent auditor the:
  - earnings press release
  - financial statements and notes thereto
  - management's discussion and analysis
  - results of the independent auditor's audit

The review of the Corporation's audited financial results shall include:

- all matters described above under "Financial Reporting of Quarterly Financial Results"
  - results of the independent auditor's audit
  - discussions with the independent auditor on the matters required to be discussed by Statement on Auditing Standards No. 61, including significant adjustments, management judgments and accounting estimates, significant new accounting policies, any difficulties encountered in the course of the audit work, any restrictions on the scope of activities or access to requested information, and any significant disagreements with management
  - a report from the independent auditor describing (i) all critical accounting policies and practices to be used, (ii) all alternative treatments of financial information within generally accepted accounting principles that have been discussed with management, ramifications of the use of such alternative disclosures and treatments, and the treatment preferred by the independent auditor and (iii) other material communications between the independent auditor and management, such as the annual management letter or schedule of unadjusted differences
- recommend to the Board whether the audited consolidated financial statements of the Corporation should be approved by the Board

**(vi) Financial Oversight of Pension Plan Management**

With respect to the Corporation's management of Pension Plans, the Audit Committee shall fulfill duties related to financial oversight of pension plan management including funding, asset management, and reporting.

The review of the Corporation's Pension Plan's shall include:

- External Auditor reports and financial statements of the plans, including compliance with pension reporting regulations

- Actuarial valuations and contribution and funding policies
- Plan solvency and compliance with pension legislation
- Review of the investment fund strategy and performance and investment manager selection

***(vii) Regulatory Filings and Guidance***

The Audit Committee shall:

- consider the effectiveness of the procedures that are in place for the review of the Corporation's public disclosure of financial information extracted or derived from the Corporation's financial statements, other than management's discussion and analysis and annual and interim earnings press releases, and shall periodically assess the adequacy of those procedures
- issue any reports required of the Audit Committee to be included in the Corporation's annual proxy statement
- prior to their public release or filing with securities regulatory agencies, review and recommend to the Board the approval of the following documents:
  - Annual Information Form
  - Annual Report on Form 40-F
  - prospectuses
- review financial information and review and approve annual earnings guidance provided by the Corporation to analysts and rating agencies or which the Corporation or any of its officers or employees intends to publicly disclose by way of press release (other than press releases referred to under "Financial Reporting of Quarterly Financial Results" and under "Financial Reporting of Year-End Financial Results") or otherwise (which review may be done generally (i.e., discussion of the types of information to be provided or disclosed and type of presentations to be made); the Audit Committee need not discuss in advance each instance in which the Corporation may provide or disclose earnings guidance)

***(viii) Related Party Transactions and Off-Balance Sheet Structure***

The Audit Committee shall:

- review all proposed related-party transactions including those between the Corporation and its officers or directors and, if deemed appropriate, recommend approval of any particular transaction to the Board
- review all material off-balance sheet structures which the Corporation is a party to

***(ix) Internal Controls, Risk Management and Legal Matters***

The Audit Committee shall:

- consider the effectiveness of the Corporation's internal controls over financial reporting
- discuss with management the Corporation's major financial risk exposures and the steps management has taken to monitor and control such exposures, including the Corporation's risk assessment and risk management policies including the use of derivative financial instruments. Areas to be considered in this respect include:
  - insurance coverage
  - foreign currency exposure
  - interest rate exposure
- review with management at least annually reports demonstrating compliance with risk assessment and with risk management policies
- review quarterly with management, and if necessary, the Corporation's counsel, any legal matter which could reasonably be expected to have a material impact on the Corporation's financial statements or accounting policies
- review the yearly report prepared by management, and attested to by the Corporation's independent auditor, assessing the effectiveness of the Corporation's internal control over financial reporting and stating management's responsibility for establishing and maintaining adequate internal control over financial reporting prior to its inclusion in the Corporation's annual filings under applicable securities laws
- review quarterly with the Chief Executive Officer, Chief Financial Officer, Chief Accounting Officer, Internal Auditor and Independent Auditor, periodically, the following:
  - all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Corporation's ability to record, process, summarize and report financial information; and
  - any fraud, whether or not material, that involves management or other employees who have a significant role in the Corporation's internal control over financial reporting
- review and approve the Corporation's disclosure policy

***(x) Capital Structure, Investment and Cash Management Policies, Disclosure Policy***

The Audit Committee shall:

- review and approve any changes to the Corporation's capital structure

- review and approve the Corporation's treasury management policies
- review and approve the Corporation's disclosure policy

***(xi) "Whistle Blower" and Related Procedures***

The Audit Committee shall oversee the establishment of procedures for the receipt, retention and treatment of complaints received by the Corporation regarding accounting, internal controls, auditing matters or fraud, and for the confidential and/or anonymous submission by employees of the Corporation of concerns regarding questionable accounting auditing matters, internal control failures or fraud, which procedures shall include the requirement to advise the Audit Committee of all such complaints received.

***(xii) Review of Charter and Self Assessment***

The Audit Committee shall:

- review and reassess annually the adequacy of this Charter
- review annually the Audit Committee's own performance

***(xiii) Other Activities***

The Audit Committee shall carry out such other activities consistent with this Charter, the Corporation's by-laws and governing law, that the Audit Committee or the Board deems necessary or appropriate.

**Resources and Authority**

The Audit Committee shall have the authority to retain independent legal, accounting or other advisors, including consulting with the national office of the independent auditor, as it determines necessary to carry out its duties. The Corporation shall provide for appropriate funding, as determined by the Audit Committee, for payment of compensation to the independent auditor for the purpose of rendering or issuing an audit report or performing other audit, review or attest services and to any advisors employed by the Audit Committee and for ordinary administrative expenses of the Audit Committee.

The Audit Committee shall have the authority to conduct any investigation necessary and appropriate to fulfilling its duties and in connection therewith, to inspect all books and records of the Corporation and its subsidiaries and to discuss such books and records and any matters relating to the financial position, risk management and internal controls of the Corporation and its subsidiaries with the officers of the Corporation and with the independent auditor.

**Limitations on Committee's Duties**

It is recognized that members of the Audit Committee are not full-time employees of the Corporation and do not represent themselves to be accountants or auditors by profession. Each

member of the Audit Committee shall be entitled to rely on (i) the integrity of those persons and organizations within and outside the Corporation from whom such member receives information, and (ii) the accuracy of the financial and other information provided to the Audit Committee by such persons or organizations absent actual knowledge to the contrary.

While the Audit Committee has the responsibilities and power set forth in this Charter, it is not the duty of the Audit Committee to plan or conduct audits or to determine that the Corporation's financial statements and disclosures are complete and accurate and are in accordance with generally accepted accounting principles and applicable rules and regulations. These are the responsibilities of either management and/or the independent auditor.

In discharging its duties, each member of the Committee shall be obliged only to exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances. Nothing in this Charter, including designating any member of the Committee as an "audit committee financial expert" is intended, or should be determined to impose on any member of the Committee a standard of care or diligence that is in any way more onerous or extensive than the standard to which all members of the Board are subject.

The essence of the Committee's responsibilities is to monitor and review the activities described in this Charter to gain reasonable assurance (but not to ensure) that such activities are being conducted properly and effectively by the Corporation.

## APPENDIX "A" TO MDS INC. AUDIT COMMITTEE CHARTER

### POSITION DESCRIPTION: CHAIR OF THE AUDIT COMMITTEE

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In addition to the duties and responsibilities set out in the Board of Directors Charter and the Charter of the Audit Committee, the chair (the "Chair") of the Audit Committee (the "Committee") of MDS Inc. (the "Company") has the duties and responsibilities described below. The Committee Chair will:

1. Provide overall leadership to enhance the effectiveness of the Committee, including:
  - a. Recommend and oversee the appropriate structure, composition, membership and activities delegated to the Committee;
  - b. Chair all meetings of the Committee and manage agenda items so appropriate consideration can be given to agenda items;
  - c. Encourage Committee members to ask questions and express viewpoints during meetings;
  - d. Schedule and set the agenda for Committee meetings with input from other Committee members, the Chair of the Board of Directors and management as appropriate;
  - e. Facilitate the timely, accurate and proper flow of information to and from the Committee;
  - f. Arrange for management, internal personnel, external advisors and others to attend and present at Committee meetings as appropriate;
  - g. Arrange sufficient time during Committee meetings to fully discuss agenda items; and
  - h. Carry out the responsibilities and duties of the Committee, as outlined in its Charter and review the Charter and duties and responsibilities with Committee members on an annual basis;
2. Foster ethical and responsible decision-making by the Committee and its individual members.
3. Provide for in-camera sessions at the quarterly meetings of the Committee and at such times as required.

4. Following each meeting of the Committee, report to the Board of Directors on the activities, findings and any recommendations of the Committee.
  
5. Carry out such other duties as may reasonably be requested by the Board of Directors.

## APPENDIX II - DEFINITIONS

### Acronyms:

AECL	Atomic Energy of Canada Limited
	A nuclear technology and services company providing services to utilities worldwide. AECL delivers a range of nuclear services including R&D support, construction management, design and engineering to specialized technology, waste management and decommissioning in support of CANada Deuterium Uranium (CANDU) reactor products.
CBCA	Canadian Business Corporations Act
	The law applicable to business corporations incorporated to carry on business throughout Canada.
CLS	Calgary Laboratory Services
	A medical diagnostic laboratory that offers a full range of laboratory services to the Calgary, Canada region.
CNSC	Canadian Nuclear Safety Commission
	An independent federal government agency that regulates the use of nuclear energy and material to protect health, safety, security and the environment and to respect Canada's international commitments on the peaceful use of nuclear energy.
Co <sup>59</sup> and Co <sup>60</sup>	Cobalt-59 and Cobalt-60
	Cobalt-59 is the stable form of cobalt. Cobalt-60 is a <i>radioisotope</i> with a <i>half-life</i> of 5.2 years.
CRO	Contract Research Organization
	A company that conducts research on behalf of a pharmaceutical or biotechnology company.
DMPK	Drug Metabolism and PharmacoKinetics
	Measuring the movement of drugs in the body, including the processes of absorption, distribution, localization in tissues, biotransformation and excretion.

EMEA	European Medicines Agency
	A decentralized body of the European Union whose main responsibility is the protection and promotion of public and animal health, through the evaluation and supervision of medicines for human and veterinary use.
FDA	Food and Drug Administration
	The U.S. regulatory agency charged with maintaining the safety of food, drugs, and cosmetics.
FDCFA	Facilities Development and Construction Funding Agreement
	A loan agreement between the Government of Canada and MDS for C\$100 million of which C\$68 million is outstanding.
FDG	Fluorine-18 Fluorodeoxyglucose
	A short-lived isotope of fluorine used predominantly in PET scans.
GAAP	Generally Accepted Accounting Principles
	The standard framework of guidelines for financial accounting. It includes the standards, conventions, and rules accountants follow in recording and summarizing transactions, and in the preparation of financial statements.
GCP and GLP	Good Clinical Practices and Good Laboratory Practices
	Standards for the conduct of clinical trials (including laboratory studies), the data from which are expected to be submitted to a regulatory agency such as the FDA. In the case of GLP these practices are defined by regulation. GCP have arisen from general accepted clinical practices within the industry.
HCC	Hepatocellular Carcinoma
	The most common primary malignant tumour of the liver.
HEU	Highly Enriched Uranium
	Uranium that contains the <i>isotope</i> uranium 235 in a concentration of 20% or more. Naturally occurring uranium has a uranium <sup>235</sup> content of about 0.7%.

ICP/MS	Inductively Coupled Plasma Mass Spectrometry	A type of mass spectrometry that combines inductively coupled plasma as a method of producing ions with a mass spectrometer as a method of separating and detecting the ions in order to determine the contents of a sample.
LC/MS	Liquid Chromatography/Mass Spectrometry	A type of mass spectrometry that combines the physical separation capabilities of liquid chromatography with a mass spectrometer as a method of determining the specific contents of a sample.
LEU	Low Enriched Uranium	Uranium that contains the isotope uranium <sup>235</sup> in a concentration 20% or less.
MALDI	Matrix-Assisted Laser Desorption/Ionization	A form of mass spectrometer that uses this technology to give a more detailed measure of the molecular mass of a sample.
MD&A	Management Discussion and Analysis	A section of a company's financial report in which management discusses numerous aspects of the company, both past and present.
MDC	Molecular Devices Corporation	An analytical tools company acquired by MDS in 2007.
Mo <sup>99</sup>	Molybdenum-99	A radioactive chemical formed by nuclear reactions during the fission of uranium which decays into <i>Technetium-99m</i> ( <i>Tc<sup>99m</sup></i> ).
NCE	New Chemical Entity	A chemical compound being studied for possible use as a drug. Compounds are generally referred to as NCEs until a NDA is filed.

NCIB	Normal Course Issuer Bid
	The action of a company buying back its own outstanding shares from the market so it can cancel them.
NDA	New Drug Application
	An NDA is submitted to the FDA reporting the results of clinical trials and must be approved by the FDA before marketing can begin.
PET	Positron Emission Tomography
	A diagnostic imaging technology that uses positron emission to measure in detail the functioning of distinct areas of the human brain while the patient is comfortable, conscious and alert.
SPECT	Single Proton Emission Computed Tomography
	A diagnostic imaging technology that allows a physician to see a three-dimensional image of a particular organ or body system. A SPECT scan is often used to visualize the brain cerebral blood flow, and thereby indicate metabolic activity patterns in the brain.
Tc <sup>99m</sup>	Technetium-99m
	Tc <sup>99m</sup> is the metastable nuclear form of Technetium-99. Metastable refers to the stable nature of this element in that it does not change into another element as it decays over time. It emits <i>gamma rays</i> and is used in radioactive medical isotope tests.
TOF	Time Of Flight
	A form of mass spectrometry that uses differences in the transit times of molecules through a known distance to determine their molecular weight.
<b>Technical Terms:</b>	
Assay	Analysis of biological fluids or structure to determine how much or how little drug has been absorbed into the fluid or structure.
Bioanalytical	Methods for determining the concentration of drugs in biological samples such as blood.
Bioequivalence	The study of different formulations of the same drug to determine if the metabolic effects are equivalent.

Biomarker	A distinctive biochemical or physiological indicator of a biological process or event.
Biopharmaceuticals	Pharmaceutical products (drugs) developed using biotechnology instead of chemical synthesis.
Biotechnology	The scientific manipulation of living organisms, especially at the molecular genetic level, to produce useful products.
Clinical Trials	Broadly, the regulated process by which new drugs proceed after discovery through to acceptance for marketing to patients. The term most correctly refers to the period during which new compounds are tested in human subjects and encompasses the following broad phases:
Phase I	Segment of clinical trials research allocated to assessing the safety, tolerance, and pharmacokinetics of a NCE generally using otherwise healthy study subjects.
Phase II	Segment of clinical trials research allocated to assessing the safety and efficacy of a NCE in selected disease states using patients having the condition.
Phase III	Segment of clinical trials research allocated to assessing the safety and efficacy of a NCE often in comparison with standard therapies, conducted in an expanded, multi-centre manner using patients having the condition.
Phase IV	Follow-on clinical studies completed after the FDA has approved the NCE for marketing.
Cobalt-60	A radioactive isotope of cobalt containing one additional neutron (electrically neutral particle) compared with cobalt in its natural state.
Cyclotron	A form of particle accelerator that can be used to produce radioisotopes.
Decay	A spontaneous radioactive process by which the number of radioactive atoms in a material decreases over time resulting in the release of a defined amount of radiant energy.
E. coli	A member of the family of microorganisms called coliforms. Many strains of E. coli live peacefully in the gut; however, one strain (E. coli 0157:H7) has been identified as the cause of a specific form of gastroenteritis characterized by abdominal cramps and bloody diarrhea, leading to kidney failure and sometimes death.

Efficacy	Capacity for producing a desired result or effect.
Electron (or E) Beam	A type of particle accelerator that creates a stream of high-energy electrons.
Gamma Radiation	Very high-energy electromagnetic radiation that is released from the decay of radioactive sources.
Genome	The entire genetic information present in a particular organism.
Genomics	The study of the organization, structure and function of the genome
Half-life	The time required for radioisotopes to decay to one-half the level of radioactivity originally present.
Humanitarian Use Device	A device that is intended to benefit patients in the treatment and diagnosis of diseases or conditions that affect or is manifested in fewer than 4,000 individuals in the United States per year.
Ionization	The process by which neutral atoms become electrically charged by the loss of one or more electrons (electrically negative particles).
Investigator	The individual from a clinic site who is ultimately in charge of a study, typically a physician.
Irradiation	The process of exposing product to gamma radiation, or X-rays, or electrons under controlled conditions.
Isotope	A form of an element having the same number of protons (electrically positive particles) but a different number of neutrons from its ordinary state. Most elements exist in more than one form of isotope, and most isotopes are stable (unchanging). Isotopes are typically identified by an element name followed by a number (e.g. <i>Molybdenum-99</i> ).
Liquid Chromatography	A separation technique in which the sample is injected into a liquid stream pumped at high pressure through a column packed with materials which absorb the components of the sample to varying extents, such that over the length of the column the components of the sample become separated and are detected sequentially by the mass spectrometer.
Mass Spectrometry	The science that measures the masses and relative concentrations of atoms and molecules to determine the make-up of the substance.

Molybdenum-99	The most common isotope used for medical purposes. It is processed into technetium-99m for these purposes.
Particle Accelerator	A machine that increases the kinetic energy of electrons or protons by accelerating them through electric fields.
Pharmacology	The study of drugs and their origins, nature, properties, and effects on living organisms.
Pre-clinical Studies	Designates those studies generally completed prior to human clinical trials.
Proteomics	The study of protein location, interaction, structure, and function that aims to identify and characterize the proteins present in normal versus diseased states in biological samples.
Radioisotopes	An isotope that is unstable and returns to a stable state through the release of energy in a process called decay. MDS processes and distributes radioisotopes for use in medical applications and for sterilization processing.
Radiopharmaceuticals	A specially designed pharmaceutical having as part of its ingredients a minute amount of a radioisotope. After injection or ingestion, the radiopharmaceutical is designed to collect in specific organs or types of cells such as tumour cells.
Synthesis	The process of creating a molecule through chemical reaction.
Target	The cells, tissues, or structures that a drug is intended to interact with as part of its pharmacological effect.
Toxicology (also called Safety Pharmacology)	Toxicology in the biomedical area is primarily concerned with the prediction of adverse effects in humans resulting from exposure to drugs as well as the demonstration of safety or hazard associated with their use.