



**Fission**  
URANIUM CORP.

**FISSION URANIUM CORP.**

**ANNUAL INFORMATION FORM**

**FOR THE YEAR ENDED DECEMBER 31, 2021**

**March 18, 2022**

**FISSION URANIUM CORP.  
ANNUAL INFORMATION FORM  
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**ANNUAL INFORMATION FORM  
FISSION URANIUM CORP.**

**PRELIMINARY NOTES**

The information contained in this Annual Information Form (“**AIF**”) is presented as of March 18, 2022 unless otherwise stated herein. Unless the context otherwise requires, all references to the “**Company**” or “**Fission**” shall mean Fission Uranium Corp.

You should read this AIF in conjunction with the audited annual financial statements and accompanying notes of Fission for the fiscal year ended December 31, 2021 and the management’s discussion and analysis (“**MD&A**”) thereon, which are available on Fission’s SEDAR profile at [www.sedar.com](http://www.sedar.com). The Company presents its financial statements and MD&A in Canadian dollars and in accordance with International Financial Reporting Standards (“**IFRS**”).

**Currency**

Unless otherwise specified, all references in the AIF to “dollars” or to “\$” are to Canadian dollars and all references to “US dollars” or to “US\$” are to United States of America dollars.

**Metric Equivalents**

For ease of reference, the following factors for converting metric measurements into imperial equivalents are provided:

<b>To Convert From Metric</b>	<b>To Imperial</b>	<b>Multiply by</b>
Hectares	Acres	2.471
Metres	Feet (ft.)	3.281
Kilometres (km.)	Miles	0.621
Tonnes	Tons (2000 pounds)	1.102
Grams/tonne	Ounces (troy/ton)	0.029

**Special Note Regarding Forward-Looking Statements**

This AIF and the documents incorporated into this AIF by reference, contain “forward-looking statements” within the meaning of applicable Canadian securities legislation (forward-looking information and forward-looking statements being collectively herein after referred to as “forward-looking statements”) that are based on expectations, estimates and projections as at the date of this AIF or the dates of the documents incorporated herein by reference, as applicable. These forward-looking statements include but are not limited to statements and information concerning: statements relating to the business and future activities of, and developments related to Fission after the date of this AIF; market position, and future financial or operating performance of Fission; liquidity of the Common Shares; the ability of Fission to develop the PLS Property; anticipated developments in operations; the future price of uranium; CGN Mining’s purchase of U<sub>3</sub>O<sub>8</sub> production through the PLS Property; the timing and amount of estimated future production; costs of production and capital expenditures; mine life of mineral projects, the timing and amount of estimated capital expenditure; costs and timing of exploration and development and capital expenditures related thereto; operating expenditures; success of exploration activities, estimated exploration budgets; currency fluctuations; requirements for additional capital; government regulation of mining operations; environmental risks; unanticipated reclamation expenses; title disputes or claims; limitations on insurance coverage; the timing and possible outcome of pending litigation in future periods; the timing and possible outcome of regulatory and permitted matters; goals; strategies; future growth; planned exploration activities and

planned future acquisitions; the adequacy of financial resources; and other events or conditions that may occur in the future.

Any statements that involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions or future events or performance (often but not always using phrases such as "expects", or "does not expect", "is expected", "anticipates" or "does not anticipate", "plans", "budget", "scheduled", "forecasts", "estimates", "believes" or "intends" or variations of such words and phrases or stating that certain actions, events or results "may" or "could", "would", "might", or "will" be taken to occur or be achieved) are not statements of historical fact and may be forward-looking statements and are intended to identify forward-looking statements, which include statements relating to, among other things, the ability of Fission to continue to successfully compete in the market.

These forward-looking statements are based on the beliefs of Fission's management, as well as on assumptions which such management believes to be reasonable based on information currently available at the time such statements were made. However, there can be no assurance that the forward-looking statements will prove to be accurate. By their nature, forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Fission to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements, including, without limitation: risks related to Fission's limited business history; unknown environmental risks arising from past activities on Fission's properties; the limited number of exploration prospects relied on; risks related to future acquisitions and joint ventures, such as new geographic, political, operating, financial and geological risks or risks related to assimilating operations and employees; risks related to the prior business of Alpha; the potential for additional financings and dilution of the equity interests of Fission's shareholders; risks related to CGN Mining's anti-dilution rights in future financings of Fission; that Fission has no history of mineral production or mining operations; risks related to the nature of mineral exploration and development; discrepancies between actual and estimated mineral resources; risks caused by factors beyond Fission's control, such as uranium market price volatility, supply and demand for U<sub>3</sub>O<sub>8</sub> production; recovery rates of minerals from mined ore and demand for nuclear power; risks related to competition in the mineral industry; that Fission has no history of dividends; risks related to regulatory requirements, including Environmental Laws and regulations and liabilities, risks related to obtaining permits and licences and future changes to Environmental Laws and regulations; risks related to Fission's inability to obtain insurance for certain potential losses; risks related to Indigenous Peoples land claims; risks related to the effects of climate change; risk related to uranium industry competition and international trade restrictions; the potential deregulation of the electrical utility industry; risks related to the public acceptance and perception of nuclear power; competition of nuclear power with other energy sources; environmental risks and hazards, including unknown environmental risks related to past activities; risks related to current or future litigation which could affect Fission's operations; risks related to political developments and policy shifts; risks related to costs of land reclamation; risks related to Fission's title to the PLS Property; risks related to dependence on key personnel; risks related to amendments to laws; risks related to the involvement of some of the directors and officers of Fission with other natural resource companies active in the same region as the PLS Property; risks related to the influence of third party stakeholders on the exploration and development of the PLS Property; risks related to cybersecurity; risks related to the market value of the Common Shares; changes in labour costs or other costs of production; labour disputes; delays in obtaining governmental approvals or financing or in the completion of development or construction activities; the ability to renew existing licenses or permits or obtain required licenses and permits; increased infrastructure and/or operating costs; and risks of not meeting exploration budget forecasts. Some of the important risks and uncertainties that could affect forward-looking statements are described further under the heading "*Risk Factors*".

Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements. These forward-looking statements are made as of the date of this AIF and, other than as required by applicable securities laws, the Company assumes no obligation to update or revise them to reflect new events or circumstances.

#### **Cautionary Note to U.S. Investors Regarding Mineral Reserve Estimates**

Disclosure of mineral resource estimates and mineral classification terms herein are made in accordance with the NI 43-101. NI 43-101 is a rule established by the Canadian Securities Administrators that sets the standards for all public disclosure by issuers regarding scientific information and technical data concerning mineral projects. These standards differ from the requirements of the SEC set out in the SEC's rules that are applicable to domestic United States reporting companies. Consequently, mineral reserves and mineral resources information included in this AIF may not be comparable to similar information that would generally be disclosed by domestic U.S. reporting companies subject to the reporting and disclosure requirements of the SEC. Accordingly, information concerning mineral deposits set forth herein may not be comparable with information made public by companies that report in accordance with U.S. standards.

## GLOSSARY OF NON-TECHNICAL TERMS

In the AIF or materials incorporated by reference, unless otherwise defined or unless there is something in the subject matter or context inconsistent therewith, the following terms have the meanings set forth herein or therein:

“**AIF**” or “**Annual Information Form**” means this annual information form and any appendices, schedules or attachments hereto;

“**Alpha**” means Alpha Minerals Inc.;

“**Artisan**” means Artisan Consulting Services Ltd.;

“**BGC**” means BGC Engineering Inc.;

“**Cameco**” means Cameco Corporation;

“**CanOxy**” means Canadian Occidental Petroleum Ltd.;

“**BCBA**” means the *Canada Business Corporations Act*, and the regulations made thereunder, as now in effect and as they may be promulgated or amended from time to time;

“**CGN Mining**” means CGN Mining Company Limited;

“**Clifton**” means Clifton Engineering Group Inc.;

“**CNSC**” means Canadian Nuclear Safety Commission;

“**Common Shares**” has the meaning ascribed to that term in this AIF under the heading “*Corporate Structure – Name, Address and Incorporation*”;

“**EA**” means environmental assessment;

“**EIA**” means environmental impact assessment;

“**ERA**” means environmental risk assessment;

“**Environmental Laws**” means all laws, imposing obligations, responsibilities, liabilities or standards of conduct for or relating to: (a) the regulation or control of pollution, contamination, activities, materials, substances or wastes in connection with or for the protection of human health or safety, the environment or natural resources (including climate, air, surface water, groundwater, wetlands, land surface, subsurface strata, wildlife, aquatic species and vegetation); or (b) the use, generation, disposal, treatment, processing, recycling, handling, transport, distribution, destruction, transfer, import, export or sale of hazardous substances;

“**Fission**” or the “**Company**” has the meaning ascribed to that term in this AIF under the heading “*Preliminary Notes*”;

“**Fission 3.0**” means Fission 3.0 Corp.;

“**Fission Board**” means the board of directors of Fission;

“**Fission Option Plan**” means the Fission Stock Option Plan dated December 15, 2016;

“**Fission Shareholder**” means a holder of Common Shares;

“**IFRS**” has the meaning ascribed thereto in this AIF under “*Preliminary Notes*”;

“**MD&A**” has the meaning ascribed to that term in this AIF under the heading “*Preliminary Notes*”;

“**Melis**” means Melis Engineering Ltd.;

“**MSZ**” means the Main Shear Zone;

“**Newmans**” means Newmans Geotechnique Inc.;

“**NI 43-101**” means National Instrument 43-101 “*Standards of Disclosure for Mineral Projects*” of the Canadian Securities Administrators;

“**NI 52-110**” means National Instrument 52-110 “*Audit Committees*” of the Canadian Securities Administrators;

“**NPV**” means net present value;

“**Options**” means options to purchase Common Shares;

“**OTCQX**” means OTCQX International exchange operated by OTC Markets Group Inc.;

“**PEA**” means a preliminary economic assessment;

“**PERA**” means preliminary environmental risk assessment;

“**PFS**” means a pre-feasibility study;

“**PLS Property**” or “**Property**” or “**Project**” means the Patterson Lake South property located in the Athabasca Basin region of Saskatchewan, Canada, which, as of the date of this AIF, is Fission’s only property;

“**PLS Property Hybrid Mining Method Technical Report**” means the NI 43-101 Technical Report prepared by Jason J. Cox, P.Eng, of RPA, David M. Robson, P.Eng., MBA, of RPA, Mark B. Mathisen, C.P.G. of RPA, Mark Wittrup, M.Sc., P.Eng., P.Geo., CMC, of Clifton Associates and Paul M. O’Hara P.Eng., of Wood Canada Limited entitled “Technical Report on the Pre-Feasibility Study of the Patterson Lake South Property, Northern Saskatchewan, Canada” with an effective date of April 15, 2019 and available under Fission’s profile on SEDAR at [www.sedar.com](http://www.sedar.com);

“**PLS Property Technical Report**” means the NI 43-101 Technical Report prepared by Jason J. Cox, P.Eng, of RPA, David M. Robson, P.Eng., MBA, of RPA, Mark B. Mathisen, C.P.G. of RPA, Mark Wittrup, M.Sc., P.Eng., P.Geo., CMC, of Clifton Associates, and Charles R. Edwards, P.Eng., of Wood Canada Limited entitled “Technical Report on the Pre-Feasibility Study on the Patterson Lake South Property Using Underground Mining Methods, Northern Saskatchewan, Canada” with an effective date of September 19, 2019 and available under Fission’s profile on SEDAR at [www.sedar.com](http://www.sedar.com);

“**Private Placement**” – means the private placement completed on January 26, 2016, between Fission and CGN Mining of 96,736,540 Common Shares at a price of \$0.85 per Common Share, for gross proceeds of \$82,226,059 equal to 19.99% of the issued and outstanding Common Shares upon closing. In addition, under the terms of the Subscription Agreement, CGN Mining appointed two members to the Fission Board and will have certain anti-dilution rights in future equity financings of Fission;

“**QFBG-GN**” means quartz-feldspar-biotite-garnet;

“**RPA**” means Roscoe Postle Associates Inc., now part of SLR Consulting (Canada) Ltd.;

“**SEC**” means the United States Securities and Exchange Commission;

“**SEDAR**” means the System for Electronic Document Analysis and Retrieval as outlined in NI 13-101, which can be accessed online at [www.sedar.com](http://www.sedar.com);

“**Subscription Agreement**” means the subscription agreement dated January 11, 2016 between CGN Mining and Fission pursuant to which CGN Mining agreed to subscribe for 96,736,540 Common Shares at a price of \$0.85 per Common Share, for gross proceeds of \$82,226,059 equal to 19.99% of the issued and outstanding Common Shares upon closing of the Private Placement;

“**TMCC**” means Thyssen Mining Construction of Canada;

“**TMF**” means tailings management facility;

“**Triple R**” means the high grade uranium deposit associated with the PLS Property;

“**TSX**” means the Toronto Stock Exchange;

“**TSX-V**” means the TSX Venture Exchange;

“**Wood**” means Wood Canada Limited; and

“**United States**” or “**U.S.**” means the United States of America, its territories and possessions, any State of the United States, and the District of Columbia.



## GLOSSARY OF MINING TERMS AND ABBREVIATIONS

In this AIF or materials incorporated by reference, unless otherwise defined or unless there is something in the subject matter or context inconsistent therewith, the following terms have the meanings set forth herein or therein:

<b>Assay</b>	The chemical analysis of mineral samples to determine the metal content.
<b>Capital Expenditure</b>	All other expenditures not classified as operating costs.
<b>CCD</b>	Counter-current decantation, one step in the uranium recovery process.
<b>Concentrate</b>	A metal-rich product resulting from a mineral enrichment process such as gravity concentration or flotation, in which most of the desired mineral has been separated from the waste material in the ore.
<b>Cut-off Grade</b>	The grade of mineralized rock, which determines as to whether or not it is economic to recover its content by further concentration.
<b>Dip</b>	Angle of inclination of a geological feature/rock from the horizontal.
<b>EM</b>	Electro-magnetic; a type of geophysical survey used in mineral exploration.
<b>Grade</b>	The measure of concentration within mineralized rock.
<b>ha</b>	Hectares.
<b>km</b>	Kilometre.
<b>kt</b>	Kilotonne.
<b>lb</b>	Pound.
<b>m</b>	Metre.
<b>Mineral Claim</b>	A lease area for which mineral rights are held.
<b>RMR<sub>76</sub></b>	Rock Mass Rating; a geotechnical system of classifying the condition of an underground rock mass.
<b>Strike</b>	Direction of line formed by the intersection of strata surfaces with the horizontal plane, always perpendicular to the dip direction.
<b>UCS</b>	Unconfined Compressive Strength; a measurement of rock strength.
<b>U<sub>3</sub>O<sub>8</sub></b>	Triuranium octoxide.

## CORPORATE STRUCTURE

### Name, Address and Incorporation

Fission was incorporated pursuant to the CBCA on February 13, 2013. Fission is a reporting issuer in each of the provinces and territories of Canada, and files its continuous disclosure documents with the relevant Canadian securities regulatory authorities. Such documents are available on Fission's profile on

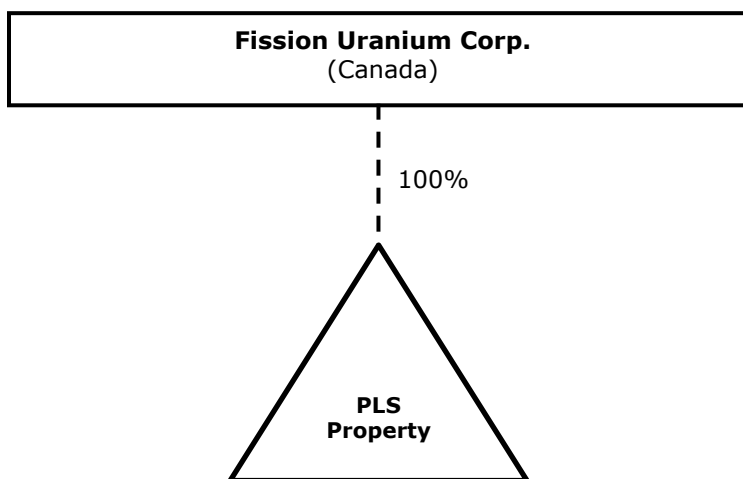
the SEDAR website at [www.sedar.com](http://www.sedar.com). The authorized capital of Fission is an unlimited number of common shares without par value (the "**Common Shares**").

The head and registered office of Fission is located at Suite 700 – 1620 Dickson Avenue, Kelowna, British Columbia, V1Y 9Y2.

The Company's Common Shares are listed on the TSX under the trading symbol "FCU", on the OTCQX marketplace in the U.S. under the symbol "FCUUF" and on the Frankfurt Stock Exchange under the symbol "2FU".

### **Intercorporate Relationships**

The Company's corporate structure is set out below.



### **DESCRIPTION AND GENERAL DEVELOPMENT OF THE BUSINESS**

Fission is a junior resource issuer primarily engaged in the growth and advancement of its core asset, the PLS Property, located in Saskatchewan, Canada. The management of Fission considers the PLS Property to be its only material property for the purposes of NI 43-101.

#### **Three Year History**

##### **Year Ended December 31, 2019**

On May 30, 2019 Fission announced that it filed a technical report on the Triple R Deposit at its PLS Property in Canada's Athabasca Basin. The PLS Property Hybrid Mining Method Technical Report summarized a PFS-level study, which highlighted the robust economics and long-term potential of the Triple R deposit. Mineral reserves were estimated for the Project, based on a hybrid (underground plus open pit) approach to production at PLS.

The PLS Property Hybrid Mining Method Technical Report also recognized the potential for an underground-only approach, which was completed to PEA level and showed important advantages, including lower CAPEX and shorter construction time.

On July 23, 2019 Fission announced that it had commenced a PFS to fully analyze an underground-only mining approach.

On November 7, 2019 Fission announced that it filed a technical report on the Triple R Deposit at its PLS Project in Canada's Athabasca Basin, pursuant to National Instrument 43-101 "Standards of

Disclosure for Mineral Projects". The report summarized the underground-only PFS, and forms the basis for the technical information in this AIF.

### **Year Ended December 31, 2020**

On February 20, 2020 Fission announced that it is on track to commence the EA phase for its PLS Property in Canada's Athabasca Basin region. This follows the recent completion of the PFS for the Project. The Company plans to submit a project description and a draft of the terms of reference to the province of Saskatchewan. The submission of these documents will initiate the EA process.

In anticipation of submitting a project description and a draft terms of reference to the province of Saskatchewan, the Company has met with the key federal and provincial regulatory authorities; Canadian Nuclear Safety Commission and Natural Resources Canada, and the Saskatchewan Ministry of Environment for Environmental Assessment and Climate Change, and Saskatchewan's Government Relations, Aboriginal Consultation Group.

On April 7, 2020, Fission announced that it had closed a US\$10 million credit facility (the "**Sprott Facility**") with Sprott Resource Lending II (Collector) L.P. ("**Sprott**"). In connection with the Sprott Facility, the Company issued 20,666,667 common share purchase warrants to Sprott and its affiliates (the "**Sprott Warrants**").

On November 17, 2020, Fission announced that it had closed a \$17.07 million bought deal offering (the "**Bought Deal Offering**"). Pursuant to the Bought Deal Offering, Fission issued 62,090,303 units of the Company (the "**Units**") at a price of \$0.275 per Unit, with each Unit consisting of one Common Share and one half of one Common Share purchase warrant (each whole warrant, a "**Warrant**"), with each whole Warrant exercisable to purchase one Common Share at a price of \$0.41 for a period of 24 months following the closing of the Bought Deal Offering. The net proceeds of the Bought Deal Offering are being used to fund the further development of the Triple R deposit, to repay certain amounts owing under the Sprott Facility and for working capital and general corporate purposes.

On December 21, 2020, Fission announced that it had closed a \$7.0 million bought deal offering (the "**FT Offering**"). Pursuant to the FT Offering, Fission issued 17,073,171 flow-through units (the "**FT Units**") at a price of \$0.41 per FT Unit consisting of one flow-through common share and one half of one Warrant (each whole warrant a, "**FT Warrant**"), with each FT Warrant exercisable to purchase one Common Share at a price of \$0.50 per Common Share for a period of 24 months following the closing of the FT Offering. The proceeds from the sale of the FT Units will be used to incur "Canadian Exploration Expenses" as defined in subsection 66.1(6) of the *Income Tax Act* (Canada) (the "**Tax Act**") and "flow through mining expenditures" as defined in subsection 127(9) of the Tax Act.

### **Year Ended December 31, 2021**

On February 1, 2021 Fission announced drilling plans for 2021 which include a 43-hole (12,640 m) program at its PLS Property. The Company also announced that it is planning to advance the PLS project with a feasibility study beginning in 2021.

On March 25, 2021, the Company announced that it entered into an engagement and capacity agreement (the "Agreement") with the Clearwater River Dene Nation ("CRDN"). Fission's PLS project is within the CRDN's traditional land use area in the Athabasca Basin.

On May 11, 2021 Fission announced that it had closed a \$34.5 million bought deal offering (the "**2021 Bought Deal Offering**"). Pursuant to the 2021 Bought Deal Offering, Fission issued 57,500,000 Units at a price of \$0.60 per Unit, with each Unit consisting of one Common Share and one-half of one Warrant, with each whole Warrant exercisable to purchase one Common Share at a price of \$0.85 for a period of 36 months following closing of the 2021 Bought Deal Offering. The net proceeds will be used to fund further development of the Triple R deposit and for working capital and general corporate purposes.

On June 10, 2021 Fission announced that it had commenced a feasibility study (the "**Feasibility Study**") for the PLS Project. Phase 1 of the Feasibility Study is expected to be completed in Q2, 2022.

In July 2021, the Company announced assays from its winter 2021 drill program on the R780E zone. All 20 holes returned wide intercepts in multiple stacked intervals in each hole, with 15 holes hitting high-grade intervals.

On August 30, 2021, the Company announced scintillometer results from its summer 2021 “resource upgrade” drill program on the 840W zone. All 25 holes hit mineralization, with 19 intercepting significant intervals of >10,000 cps radioactivity.

On September 7, 2021, the Company announced scintillometer results from its summer 2021 “metallurgical & geotechnical testwork” drilling on the R840W zone. Four metallurgical holes and three geotechnical holes had been completed as part of the Phase 1 feasibility study field work. All seven holes intersected mineralization with all four metallurgical and two geotechnical holes intersecting wide intervals of strong mineralization.

On September 27, 2021, the Company announced the completion of a 72-hole geotechnical drill program. Preliminary data assessment indicates that the location of proposed infrastructure, including the decline, ventilation shafts, stockpiles, tailings management facility (“TMF”), and mill buildings, is optimal. Further laboratory testwork will be required to confirm the initial assessment.

On November 10, 2021, the Company filed a short form base shelf prospectus with the securities commissions or similar regulatory authorities in each of the provinces and territories of Canada. The base shelf prospectus will allow Fission to offer up to \$250,000,000 of common shares, subscription receipts, units, debt securities, warrants and share purchase contracts from time to time over a 25 month period. The terms of any future offerings, if any, will be established at the time of such offerings. At the time any securities covered by the shelf prospectus are offered for sale, a prospectus supplement containing specific information about the terms of any such offering will be filed with applicable Canadian securities regulatory authorities.

On December 1, 2021 Fission announced that the Saskatchewan Ministry of Environment had formally accepted a Project Description that had been submitted by Fission for the PLS Project. With the acceptance, Fission had commenced the Environmental Assessment as per the requirements of The Saskatchewan Environmental Assessment Act (the “Act”). Fission has requested approval under Section 15 of the Act and is looking for a determination from the Saskatchewan Minister of Environment that the PLS Project is a “Development”. The result of this is that Fission will be required to produce an environmental impact assessment for the PLS Project.

### **Recent Developments Subsequent to December 31, 2021**

On January 25, 2022, the Company announced the continuation of its field work as a part of the Feasibility Study of the Triple R deposit and the PLS property.

On January 31, 2022, the Company announced assay results of its 25 hole drill program targeting the R840W zone. All 25 holes hit mineralization, with nineteen intercepting significant intervals of high-grade mineralization.

On February 24, 2022, the Company announced additional technical and operation team employee hires. These additional, full-time personnel will provide support for senior management in the areas of regulatory and permitting, geology, operations, and northern business opportunities.

## **NARRATIVE DESCRIPTION OF THE BUSINESS**

### **Summary of the Business**

Fission is focused on advancing its core asset, the PLS Property, a uranium exploration property located in the Athabasca Basin region of Saskatchewan, Canada.

The management of Fission considers the PLS Property to be its only material property for the purposes of NI 43-101. For more information on the PLS Property, see "*Mineral Properties*" and the PLS Property Technical Report available under Fission's profile on SEDAR at [www.sedar.com](http://www.sedar.com).

### **Competitive Conditions**

The uranium exploration and mining business is a competitive business. The Company competes with numerous other companies and individuals in the search for and the acquisition of attractive mineral properties. The success of the Company will depend not only on its ability to operate and develop its properties but also on its ability to select and acquire suitable properties or prospects for development or mineral exploration. See "*Risk Factors - Uranium Industry Competition and International Trade Restrictions*".

### **Employees**

As at December 31, 2021, Fission has 14 employees and 11 people working on a consulting basis. The operations of Fission are managed by its directors and officers. Fission engages reputable consulting firms from time to time for technical and environmental services as required to assist in evaluating its interests and recommending and conducting work programs. See "*Risk Factors - Dependence on Key Personnel*".

### **Environmental Protection**

The Company's operations are subject to environmental regulations promulgated by government agencies from time to time. Environmental legislation provides for restrictions and prohibitions of spills, releases or emissions of various substances related to mining industry operations, which could result in environmental pollution. A breach of such legislation may result in imposition of fines and penalties. In addition, certain types of operations require submissions to and approval of environmental impact assessments. Environmental legislation is evolving, which means stricter standards and enforcement, and fines and penalties for non-compliance are becoming more stringent. Environmental assessment of proposed projects carries a heightened degree of responsibility for companies and directors, officers and employees. There is no assurance that future changes in environmental regulation, if any, will not adversely affect the Company's operations, including its capital expenditures and competitive position. See "*Risk Factors - Environmental Risks and Hazards*".

### **Foreign Operations**

The Company is incorporated pursuant to the laws of Canada and is a reporting issuer in each of the provinces and territories of Canada. The Company's material asset is its 100% interest in the PLS Property located in Saskatchewan, Canada. The Company is not dependent on any foreign operations.

## **MINERAL PROPERTIES**

### **General**

The Company's only mineral property is the PLS Property. Jason J. Cox, P.Eng, David M. Robson, P.Eng., MBA, Mark B. Mathisen, C.P.G., Mark Wittrup, M.Sc., P.Eng., P.Geo., CMC, and Charles R. Edwards, P.Eng., the authors of the PLS Property Technical Report, are independent qualified persons under National Instrument 43-101 and have approved of the summary of the PLS Property Technical Report provided below.

**The following summary is extracted from the PLS Property Technical Report, dated November 7, 2019. The PLS Property Technical Report is incorporated by reference in this AIF, a copy of which is available under the Company's profile on the SEDAR website at [www.sedar.com](http://www.sedar.com) and on the Company's website at [www.fissionuranium.com](http://www.fissionuranium.com).**

## Summary

RPA, BGC, Wood, Clifton, Melis, Artisan, Newmans, and TMCC were retained by the Company to prepare an underground PFS on the PLS Property, located in northern Saskatchewan, Canada. The purpose of the PLS Property Technical Report is to summarize the results of the underground PFS. The PLS Property Technical Report conforms to NI 43-101.

Wood is responsible for the process plant and infrastructure. Clifton is responsible for environmental and tailings management design. BGC has provided inputs in the areas of geotechnical and hydrogeological design. Newmans and Artisan have provided inputs to the crown pillar recovery using horizontal directional drilling and artificial ground freezing, and TMCC has assisted RPA by providing cost estimates and schedules for some of the underground mine development. RPA has responsibility for geology, mining, and the overall compilation of the report.

Fission is a Canadian exploration company, which is primarily engaged in the acquisition, evaluation, and development of uranium properties with a view to commercial production. It holds a 100% interest in the PLS Property.

Currently, the major asset associated with the PLS Property is the high grade Triple R uranium deposit.

The underground PFS is based on using underground mining methods, and processing of 1,000 tonnes per day via acid leaching, solvent extraction, and precipitation. The Project has the potential to produce up to 15 million pounds of  $U_3O_8$  per year in the form of yellowcake. The underground PFS presents an alternative scenario to the combined open pit and underground plan presented in April 2019.

## Conclusions

In RPA's opinion, the PFS indicates that positive economic results can be obtained for the Project.

The economic analysis shows an after-tax internal rate of return of 25%, and an after-tax NPV at a discount rate of 10% of \$561 million at a long term price of US\$50/lb  $U_3O_8$  and an exchange rate of \$1.00/US\$0.75.

RPA offers the following conclusions by area:

### *Geology and Mineral Resources*

The Triple R deposit is a large, basement hosted, structurally controlled, sub-vertical, near surface, high grade uranium deposit. Drilling has outlined mineralization with three-dimensional (3-D) continuity, with size and grades that can potentially be extracted economically. Fission's protocols for drilling, sampling, analysis, security, and database management meet industry standard practices. The drill hole database was verified by RPA and is suitable for mineral resource estimation work.

RPA estimated mineral resources for the Triple R deposit using drill hole data available as of October 23, 2018. At a cut-off grade of 0.25%  $U_3O_8$ , indicated mineral resources total 2.22 million tonnes at an average grade of 2.1%  $U_3O_8$  for a total of 102.4 million pounds  $U_3O_8$ . Inferred mineral resources total 1.22 million tonnes at an average grade of 1.22%  $U_3O_8$  for a total of 32.8 million pounds  $U_3O_8$ . Estimated grades are based on chemical assays only. Gold grades were also estimated and average 0.61 g/t for the indicated mineral resources and 0.50 g/t for the inferred mineral resources. Revenue from the recovery of gold is excluded from the economic analysis. Mineral resources are reported inclusive of mineral reserves.

The Triple R deposit is located within Fission's PLS Property, which is part of the largest mineralized trend in the Athabasca Basin region. Mineralization is known to occur at five on-strike locations on the PLS Property and all five constitute the Triple R deposit. From west to east, zones of the Triple R deposit are: 1) R1515W, 2) R840W, 3) R00E, 4) R780E, and 5) R1620E. The R780E is the most significant of the zones, as it hosts higher grade, thicker, and more continuous mineralization compared to other

areas as defined by current drilling. Mineralization remains open along strike between the individual zones and down dip.

#### *Mining and Geotechnical Considerations*

The Triple R deposit is contained primarily within metamorphosed basement lithologies and, to a much lesser extent, within overlying Meadow Lake Formation sedimentary rocks. Bedrock is overlain by 50 m to 100 m of sandy overburden, with the high grade mineralization located near the bedrock-overburden contact. Although the bedrock is generally competent, rock strengths in the mineralization have been degraded by radiological alteration. The deposit extends under Patterson Lake, and a key technical challenge to developing the operation will be water control related to Patterson Lake and saturated sandy overburden.

The mining method will be longhole retreat mining in both transverse and longitudinal methods, and some localized drift and fill mining based on current block model information. The mining will progress from the bottom levels to the top, and from the southwest to northeast.

The mine will be accessed using a decline originating to the west of the R00E deposit. The decline will include a box cut into the overburden, and a portal face collared in the overburden. The first stage of the decline will be developed through overburden for approximately 405 m. Following this, the decline will transition through weak bedrock for an additional 133 m, until reaching the competent bedrock.

A key component of the underground design is the concept of using artificial ground freezing to extract some of the crown pillar – the mineralized material that approaches the overburden layer. This will be done using horizontal directional drilling from the shore of Patterson Lake and then pumping a refrigerated brine solution through the drill holes to effectively freeze the ground in the areas of stopes.

Over the life of mine, mineral reserves totaling 2.3 million tonnes grading 1.61%  $U_3O_8$  containing 81.4 million pounds  $U_3O_8$  are mined. The Project has a three year construction period, followed by six years of mining, while the process plant operates for an additional half year after the mine ends. Mineral reserves are estimated using an average long term uranium price of US\$50/lb  $U_3O_8$ , and an exchange rate of \$1.00/US\$0.75.

#### *Mineral Processing and Metallurgical Testing*

Metallurgical test work completed to date indicates that a uranium recovery of 96.7% is a reasonable assumption for the underground PFS. The metallurgical test program included a bench test program.

The process flowsheet developed by Wood for the Project is based on unit processes commonly used effectively in uranium process plants in northern Saskatchewan and globally. Over the life of mine, the process plant is projected to produce a total of 78.7 million pounds  $U_3O_8$ . No major deleterious elements or elemental concentrations have been identified to date.

While the Triple R deposit contains gold values that may be recoverable, a high level economic analysis by RPA has shown this to have negligible impact on overall Project economics at current market conditions and gold recovery was thus excluded from the design. Should market forces change in the future, gold recovery could be reasonably easily engineered into the existing design and constructed without impacting throughput of the uranium process plant.

#### *Environmental and Sociological Considerations*

In support of the underground PFS, a review of the licensing, permitting, and environmental aspects of the Project, including bio-physical, social, and governance, was completed through a literature search, examination of the appropriate Acts and Regulations, review of the PFS design of the Project, discussions with Fission Uranium and the PFS team, examination of selected documents, and a site visit.

The preliminary baseline work has described typical northern Saskatchewan terrain of the Athabasca Basin region and has not identified anything that should significantly delay the Project if proper planning and mitigations are incorporated into the Project design. Such mitigations would include, but not be limited to, habitat compensation for any fish habitat disturbed by the Project, possibly terrestrial habitat compensation for woodland caribou habitat, and sufficient consultation with local First Nations and communities. The primary environmental goal will be the protection of Patterson Lake and the downstream water quality in the Clearwater River system as this will likely be a focus of concern under the underground mining only scenario.

Overall, the Project appears to be following applicable regulations governing exploration, drilling, and land use, and Fission Uranium staff and contractors are aware of their duties with respect to environmental and radiation protection. Early in the exploration program, there were some issues related to excess clearing of trails and nearby water bodies, however, Fission Uranium has worked to repair and reclaim these areas. Operations are neat and orderly, with the level of clearing and disturbance now commensurate with similar projects in northern Saskatchewan. The Project is frequently visited by Saskatchewan Conservation officers to ensure compliance.

A high level, PERA was completed to assess potential interactions of the Project with the environment. Under the underground PFS scenario, the main area of concern is development and operation of the tailings management facility. The mitigations proposed for the TMF appear protective of the environment in the long term post decommissioning.

The TMF will use the proven sub-aqueous deposition and pervious surround methodologies, and it will require sufficient detail to demonstrate that the proposed hybrid facility (partially excavated and partially above ground) will be protective. The hybrid TMF design is optimized to the existing geological and hydrogeological conditions and avoids widespread dewatering during operation, although it does require a slight draw on the local groundwater to eliminate contaminant flux. The potential for impacts on Patterson Lake will be much lower in the underground PFS scenario than anticipated in the original open pit/under ground PFS scenario and the mitigations will be largely related to protecting the water quality. This will need to be demonstrated in the EIA.

Most of the identified environmental risks are typical of existing uranium operations, which, in the modern era, have been demonstrated to have minimal impact on the local and regional environments.

To date, the environmental baseline detail has been sufficient for the local environment to be included in the EIA, however, the far field, downstream of Patterson Lake area, required additional work ahead of the EIA to support pathways modelling. This additional baseline work was completed with work in 2019/20. Canada North Environmental Services Limited has reviewed the baseline program against what is necessary to support the pathways modelling required for the EIA and CNSC licensing, and any identified gaps were addressed in the additional work. Some level of ongoing monitoring will be required to maintain the integrity of the baseline data.

The level of environmental review was commensurate with a PFS; it was not an exhaustive examination of all documentation and did not include modelling or a compliance audit. The interpretation relies on the authors more than 40 years of experience with Saskatchewan uranium projects and familiarity with mining and the federal and provincial requirements that accrue to such projects. The Project is at a stage where, with proper planning, areas of concern can be addressed in a timely fashion within an orderly project approvals process.

Consultation in support of the EIA will need to be undertaken in a manner that does not materially affect Project timing. This will require ongoing consultation with the CNSC and the Saskatchewan government to ensure that Fission Uranium meets the expected level of First Nations, Métis, and stakeholder consultation. Fission Uranium's level of governance continues to be adequate for the level of work on site, however, it will require significant improvement to support the policy-driven management systems employed at uranium projects, particularly for their safety and control areas.



## Risks and Uncertainties

RPA, Wood, BGC, Clifton, TMCC, Artisan, and Newmans have assessed critical areas of the Project and identified key risks associated with the technical and cost assumptions used. In all cases, the level of risk refers to a subjective assessment as to how the identified risk could affect the achievement of the Project objectives. The risks identified are in addition to general risks associated with mining projects, including, but not limited to:

- general business, social, economic, political, regulatory, and competitive uncertainties;
- changes in project parameters as development plans are refined;
- changes in labour costs or other costs of production;
- adverse fluctuations in commodity prices;
- failure to comply with laws and regulations or other regulatory requirements;
- the inability to retain key management employees and shortages of skilled personnel and contractors.

The following definitions have been employed by RPA in assigning risk consequence factors to the various aspects and components of the Project:

1. **Low** – Risks that are considered to be average or typical for a deposit of this nature and could have a relatively insignificant impact on the economics. These generally can be mitigated by normal management processes combined with minor cost adjustments or schedule allowances.
2. **Minor** – Risks that have a measurable impact on the quality of the estimate but not sufficient to have a significant impact on the economics. These generally can be mitigated by normal management processes combined with minor cost adjustments or schedule allowances.
3. **Moderate** – Risks that are considered to be average or typical for a deposit of this nature but could have a more significant impact on the economics. These risks are generally recognizable and, through good planning and technical practices, can be minimized so that the impact on the deposit or its economics is manageable.
4. **Major** - Risks that have a definite, significant, and measurable impact on the economics. This may include basic errors or substandard quality in the basis of estimate studies or project definition. These risks can be mitigated through further study and expenditure that may be significant. Included in this category may be environmental/social non-compliance, particularly in regard to Equator Principles and International Finance Corporations performance standards.
5. **High** - Risks that are largely uncontrollable, unpredictable, unusual, or are considered not to be typical for a deposit of a particular type. Good technical practices and quality planning are no guarantee of successful exploitation. These risks can have a major impact on the economics of the deposit including significant disruption of schedule, significant cost increases, and degradation of physical performance. These risks cannot likely be mitigated through further study or expenditure.

The following definitions have been employed by RPA in assigning risk probability factors to the various aspects and components of the Project:

1. **Rare** – The risk is very unlikely to occur during the Project life.
2. **Unlikely** – The risk is more likely not to occur than occur during the Project life.
3. **Possible** – There is an increased probability that the risk will occur during the Project life.
4. **Likely** – The risk is likely to occur during the Project life.
5. **Almost Certain** - The risk is expected to occur during the Project life.

A summary of key Project related risks is shown in Table 1-1, and Table 1-2.

**TABLE 1-1 RISKS AND UNCERTAINTIES  
Fission Uranium Corp. - Patterson Lake South Property**

<b>LIKELIHOOD</b>	<b>Almost Certain</b>					
	<b>Likely</b>					
	<b>Possible</b>			2, 3, 8, 9	6	
	<b>Unlikely</b>		5, 10	7	1, 4	
	<b>Rare</b>					
	<b>Low</b>	<b>Minor</b>	<b>Moderate</b>	<b>Major</b>	<b>High</b>	
	<b>CONSEQUENCE</b>					

**TABLE 1-2 RISKS AND UNCERTAINTIES  
Fission Uranium Corp. - Patterson Lake South Property**

<b>Project Element</b>	<b>Issue</b>	<b>Risk Number</b>	<b>Risk Consequence</b>	<b>Risk Level</b>	<b>Mitigation</b>
Geology	Resource tonnage and/or metal grade are over-estimated	1	Major	Unlikely	Infill drilling is required in areas classified as inferred. There is upside potential to increase resources along strike and at depth.
Mining	Thickness and nature of overburden sediments, and its impact on ground freezing	2	Moderate	Possible	Continue geotechnical assessment.
Mining	Overburden characteristics, and impact on decline development method	3	Moderate	Possible	Continue geotechnical assessment.
Mining	Ground conditions within the radiologically altered rock cause unmanageable ground conditions	4	Major	Unlikely	Geotechnical drilling and analysis will further refine ground support requirements.
Process	Uranium recovery does not meet expectations	5		Unlikely	Test work supports recovery assumption. Additional test work will allow optimization of flowsheet.
Environment and Permitting	Permitting is not achieved	6	Major	Possible	Begin the environmental assessment process and wider consultation.
Environment and Permitting	Management of exposure to radiation is not achieved	7	Moderate	Unlikely	Issues are well-understood for North Saskatchewan operations.

<b>Project Element</b>	<b>Issue</b>	<b>Risk Number</b>	<b>Risk Consequence</b>	<b>Risk Level</b>	<b>Mitigation</b>
Construction Schedule	Decline development is slower than anticipated	8	Moderate	Possible	Requires detailed planning and control. Further information on geotechnical conditions will refine schedule estimates.
Pre-production Capital Cost Estimate	TMF construction is delayed by geotechnical factors	9	Moderate	Possible	Geotechnical data collection and analysis will result in refined cost estimates.
Operating Cost Estimate	Cost of key materials and supplies is underestimated	10	Minor	Unlikely	Close management of purchasing and logistics.

## **Recommendations**

RPA recommends that Fission advance the Project to a feasibility study. RPA offers the following recommendations by area:

### *Geology and Mineral Resources*

- The PLS Property hosts a significant uranium deposit and merits considerable exploration and development work. The primary objectives are to advance engineering work, expand the Triple R resource, upgrade inferred mineral resources to indicated classification, and explore elsewhere on the Property.
- To upgrade a sufficient quantity of inferred mineral resources to indicated to result in a 10 year Project life would require approximately 37,000 m of diamond drilling targeting R780E and R840W. This would cost approximately \$20 million to \$25 million.
- RPA has reviewed the proposed drilling with Fission technical staff and agrees with the placement and purpose of advancing the Project. RPA has recommended that the proposed drilling at R1515W be closer spaced to ensure that the inferred mineral resources are properly tested and evaluated.

### *Mining and Geotechnical Considerations*

- Continue the geotechnical investigation of soil mechanics to support the crown pillar stabilization, with a primary focus on assessing the viability of artificial ground freezing using horizontal directional drilling.
- Continue the geotechnical investigation of rock mechanics to support the underground design. The program will require drilling of approximately ten oriented core geotechnical holes in rock: four for the main pit, four for the underground (two for the crown and two for the rock mass), and two short holes for a small separate zone (the R00E pit). The total length is estimated at 2,000 m for the program.
- Carry out an assessment of alternative decline development methods.
- Collect geotechnical data on the mineralized zones that are not included in the current PFS (R1515W, R800W, and R1620E).

- Carry out an assessment of systems such as ventilation on demand and equipment automation.

*Mineral Processing and Metallurgical Testing*

- Optimize the post-leaching solid-liquid separation by considering centrifuging, pressure filtration, and vacuum filtration versus the PFS design which utilizes thickeners.
- Optimize gypsum precipitation to minimize the concentration of uranium co-precipitated with the gypsum and to maximize the underflow solids of the gypsum thickener.
- Conduct testing to confirm that molybdenum removal in carbon columns is not required to produce on-spec yellowcake.

*Infrastructure*

- Perform a logistics study for the Project. Emphasis should be placed on the three traffic bridges on route to site to define the allowable load sizes and weights that the bridges can accommodate.
- Perform an aggregate study to determine if there are suitable quantities of aggregate available to meet the different needs of the Project.

*Environmental and Sociological Considerations*

- Continue the engagement and consultation process, expanding it to reflect the changes in Project scale and progress.
- Carry out a detailed environmental risk assessment (ERA) to ensure that all reasonable mitigations are included in the EIA and the Project design.
- Ongoing assessment and liason to ensure all appropriate information is being collected to support the environmental modelling required for the EIA and CNSC licensing.
- Continue bio-physical monitoring to maintain the currency of the existing environmental database.
- Continue to explore options to reduce the footprint of the TMF and the underground mine.
- Explore shared services options with other companies operating in the area (e.g., environmental data sharing, infrastructure, etc.).
- Continue to participate in the woodland caribou discussions for two zones in Saskatchewan: SK1, the Boreal Shield, which includes the Athabasca Basin, and SK2W, the Boreal Plain.
- Ensure that future work on site is of sufficient detail (feasibility level at a minimum) to support the EIA and CNSC licensing process.

*Budget*

RPA, Wood, BGC, Clifton, TMCC, Artisan, and Newmans propose the following budget for work carrying through to the completion of a FS, including completing an EA and licensing process (Table 1-3).

**TABLE 1-3 PROPOSED BUDGET  
Fission Uranium Corp. - Patterson Lake South Property**

<b>Item</b>	<b>\$ M</b>
Geotechnical Studies	7.1

Metallurgy Studies	1.0
FS Engineering	9.8
Exploration Drilling	24.0
Social Permitting	3.5
EA and Licensing	20.0
<b>Total</b>	<b>65.4</b>

## Economic Analysis

The economic analysis was prepared using the following assumptions:

- No allowance has been made for cost inflation or escalation.
- No allowance has been made for corporate costs.
- The capital structure is assumed to be 100% equity, with no debt or interest payments.
- The model is assessed in constant Canadian dollars (\$), based in the third quarter of 2019.
- No allowance for working capital has been made in the financial analysis.
- The Project has no salvage value at the end of the mine life.

### *Economic Criteria*

Table 1-4 presents a summary of cash flow for the Project based on the underground only PFS report. Economic criteria that were used in the cash flow model include:

- Long term price of uranium of US\$50/lb U<sub>3</sub>O<sub>8</sub>, based on long term forecasts.
- 100% of uranium sold at a long term price.
- The recovery and sale of gold was excluded from the cash flow model.
- Exchange rate of \$1.00/US\$0.75.
- Mineral Reserves for life of mine show Probable Reserves of 2,299,000 t grading 1.61% U<sub>3</sub>O<sub>8</sub> with 81.4M lbs U<sub>3</sub>O<sub>8</sub> total contained metal, using stope shapes generated with a 0.25% minimum grade.
- Nominal 350,000 t of processed material per year during steady state operations.
- Processing life of six and a half years.
- Overall recovery of 96.8%, based on test work.
- Total recovered yellowcake of 78.7 million pounds U<sub>3</sub>O<sub>8</sub> averaging 13.1M lbs U<sub>3</sub>O<sub>8</sub> per year for the first 5 years.
- Transportation costs assumed to be covered by the buyer, FOB mine gate.
- Royalties calculated in accordance with "Guideline: Uranium Royalty System, Government of Saskatchewan, June 2014". Consisting of:

- \$381 million in gross revenue royalties
  - \$436 million in profit based royalties
- Unit operating costs of \$328/t of processed material, or \$9.57/lb U<sub>3</sub>O<sub>8</sub>.
- Pre-production capital costs of \$1,177 million, spread over three years.
- Sustaining capital costs (including reclamation) of \$282 million, spread over the mine life.
- Corporate income taxes at a rate of 27% totalling \$653 million net of deductions.

## Cash Flow Analysis

Based on the economic criteria discussed previously, a summary of the cash flow is shown in Table 1-4.

**TABLE 1-4 SUMMARY OF CASH FLOW**  
**Fission Uranium Corp. – Patterson Lake South Property**

<b>Description</b>	<b>Units</b>	<b>Value</b>
Gross Revenue	\$ millions	5,250
Less: Transportation	\$ millions	-
Net Smelter Return	\$ millions	5,250
Less: Provincial Revenue Royalties	\$ millions	(381)
Net Revenue	\$ millions	4,869
Less: Total Operating Costs	\$ millions	(753)
Operating Cash Flow	\$ millions	4,116
Less: Capital Costs	\$ millions	(1,459)
Pre-Tax Cash Flow	\$ millions	2,656
Less: Provincial Profit Royalties	\$ millions	(436)
Less: Taxes	\$ millions	(653)
After-Tax Cash Flow	\$ millions	1,568

Based on the input parameters, a summary of the PLS Property economics is shown in Table 1-5.

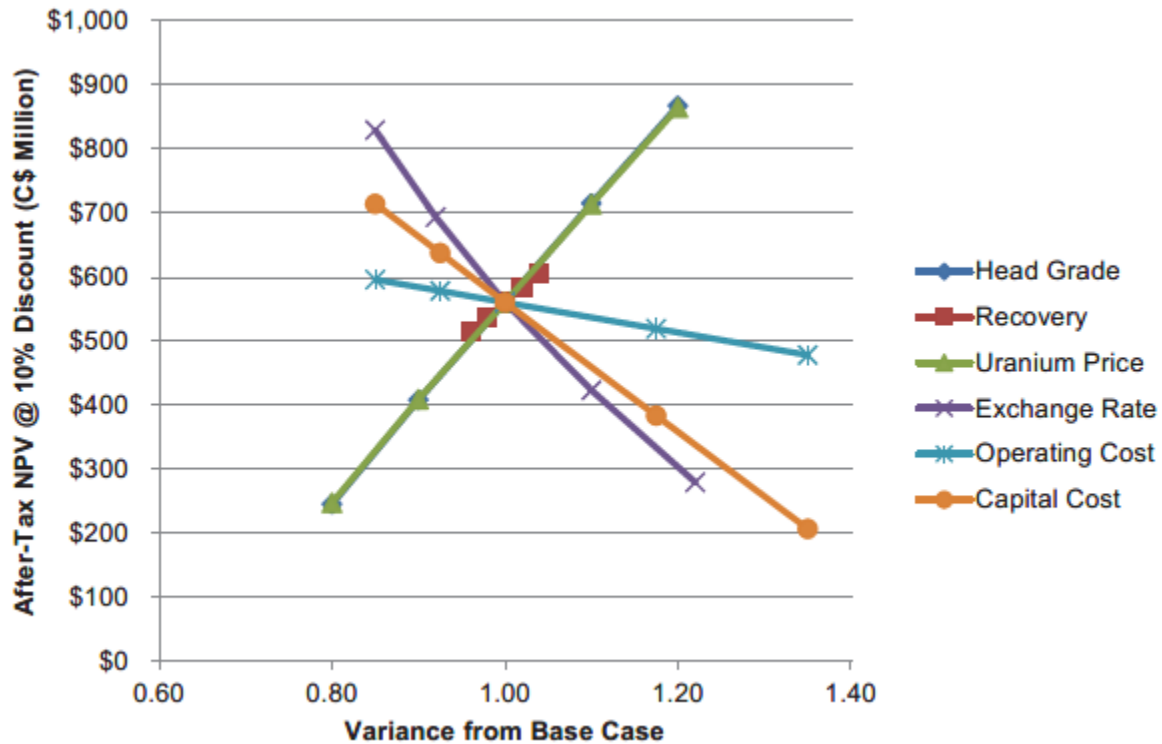
**TABLE 1-5 SUMMARY OF ECONOMIC RESULTS**  
**Fission Uranium Corp. – Patterson Lake South Property**

<b>Description</b>	<b>Units</b>	<b>Value</b>
<b>Pre-Tax</b>		
Net Present Value at 8%	\$ millions	1,334
Net Present Value at 10%	\$ millions	1,117
Net Present Value at 12%	\$ millions	932
Internal Rate of Return	%	34
Payback Period	years	2.2
<b>After-Tax</b>		
Net Present Value at 8%	\$ millions	702
Net Present Value at 10%	\$ millions	561
Net Present Value at 12%	\$ millions	441
Internal Rate of Return	%	25
Payback Period	years	2.5

### *Sensitivity Analysis*

The cash flow model was tested for sensitivity to variances in head grade, process recovery, input price of yellowcake, \$/US\$ exchange rate, overall operating costs, and overall capital costs. The resulting after-tax NPV at a 10% discount rate sensitivity is shown in Figure 1-1 and Table 1-6.

**FIGURE 1-1 SENSITIVITY ANALYSIS**



As shown in Figure 1-1, Project cash flow is most sensitive to the price of uranium, head grade, and process recovery. Yellowcake is primarily traded in US\$, whereas capital and operating costs for the Project are generally priced in \$. Therefore, the \$/US\$ exchange rate also exerts significant influence over Project economics. An extended sensitivity analysis was undertaken solely on uranium price. The results are displayed in Table 1-7 and Figure 1-2.

**TABLE 1-6 SUMMARY OF SENSITIVITY ANALYSIS  
Fission Uranium Corp. – Patterson Lake South Property**

Description	Units	Low Case	Mid-Low Case	Base Case	Mid-High Case	High Case
<b>Adjustment Factor</b>						
Head Grade	%	-20%	-10%	N/A	10%	20%
Overall Recovery	%	-3%	-2%	N/A	1%	3%
Uranium Price	%	-20%	-10%	N/A	10%	20%
Exchange Rate	%	-15%	-8%	N/A	10%	22%
Operating Costs	%	-15%	-8%	N/A	18%	35%
Capital Cost	%	-15%	-8%	N/A	18%	35%
<b>Resulting Input Factor</b>						
Head Grade	%	1.28%	1.44%	1.61%	1.77%	1.93%
Overall Recovery	%	93.9%	95.3%	96.8%	98.2%	99.7%
Uranium Price	\$ / lb U <sub>3</sub> O <sub>8</sub>	\$53	\$60	\$67	\$73	\$80
Exchange Rate	\$/US\$	0.64	0.69	0.75	0.83	0.92



Operating Costs	\$/lb	8.1	8.9	9.6	11.2	12.9
Total Capital Cost	\$ millions	1,240	1,350	1,459	1,715	1,970

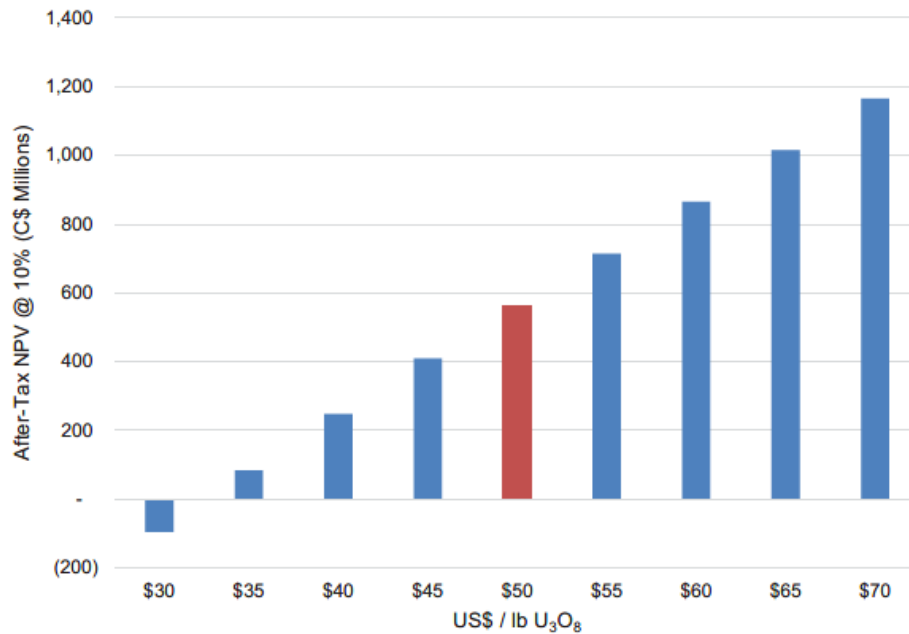
**Output – After-Tax NPV @ 10%**

Head Grade	\$ millions	246	409	561	715	868
Overall Recovery	\$ millions	515	538	561	584	607
Uranium Price	\$ millions	248	410	561	714	865
Exchange Rate	\$ millions	829	694	561	423	280
Operating Costs	\$ millions	596	579	561	520	479
Capital Cost	\$ millions	715	638	561	384	207

**TABLE 1-7 URANIUM PRICE SENSITIVITY ANALYSIS  
Fission Uranium Corp. – Patterson Lake South Property**

Uranium Price (US\$ / lb U <sub>3</sub> O <sub>8</sub> )	Uranium Price (\$ / lb U <sub>3</sub> O <sub>8</sub> )	Post-Tax NPV @ 10% (\$ Millions)
30	40	(95)
40	47	84
50	53	248
60	60	410
65 (Base Case)	<b>67</b>	<b>561</b>
70	73	714
80	80	865
90	87	1,015
100	93	1,165

**FIGURE 1-2 SENSITIVITY ANALYSIS**



## **Property Description**

The PLS Property is located in northern Saskatchewan, approximately 550 km north-northwest of the city of Prince Albert and 150 km north of the community of La Loche. The Property is accessible by vehicle along all-weather gravel Highway 955, which bisects the Property in a north-south direction.

The Universal Transverse Mercator co-ordinates for the approximate centre of the Property are 600,000mE, 6,387,500mN (NAD83 Universal Transverse Mercator Zone 12N). The geographic co-ordinates for the approximate centre of the Property are 57°37' N latitude and 109°22' W longitude. The Property is located within 1:50,000 scale NTS map sheets 74F/11 (Forrest Lake) and 74F/12 (Wenger Lake). It is irregularly shaped and extends for approximately 29 km in the east-west direction and for approximately 19 km in the north-south direction. The approximate centre of the Triple R deposit is located at Universal Transverse Mercator coordinates 598,000mE, 6,390,000mN (NAD83 Universal Transverse Mercator Zone 12N).

## **Existing Infrastructure**

With the exception of the all-weather gravel Highway 955, which traverses the Property, there is no permanent infrastructure on the Property.

## **History**

The Property was geologically mapped as part of a larger area by the Geological Survey of Canada in 1961.

In 1969, Wainoco Oil and Chemicals Ltd. completed photogeologic mapping and airborne radiometric and magnetic surveys. No interesting structures or anomalies were detected.

CanOxy completed extensive exploration on and around the Property from 1977 to 1981 including an airborne electromagnetic survey; ground electromagnetic and magnetic, geological, geochemical, alphameter (radon), and radiometric surveys; and diamond drilling.

In 1977, CanOxy discovered a very strong six station alphameter (radon) anomaly with dimensions of 1.2 km by 1.7 km on current claim S-111375. This anomaly coincides with high uranium in soil values and anomalous scintillometer (radiometric) values. It was suggested that this alphameter anomaly was responding to radioactive exotic boulders within the till of the Cree Lake Moraine, however, no follow-up work was done.

CanOxy's ground electromagnetic survey delineated the Patterson Lake Conductor Corridor that cuts across the middle of Patterson Lake on claim S-111376, and extends onto claim S-111375. Several disrupted conductors and inferred cross cutting features were identified as priority 1, 2, and 3 drill targets on claim S-111376.

CanOxy drill tested an airborne electromagnetic conductor on the west shore of Patterson Lake within claim S-111376. Drill hole CLU-12-79 intersected a 6.1 m wide sulphide-graphite "conductor" that contained anomalous uranium, copper, and nickel concentrations. Strong hematite and chlorite alteration was observed in the regolith and basement rock, and two curious spikes in radioactivity were detected in the fresh basement.

## **Geology and Mineralization**

The east-west elongate Athabasca Basin lies astride two subdivisions of the Western Churchill Province, the Rae Subprovince on the west and the Hearne Subprovince to the east. These are separated by the northeast trending Snowbird Tectonic Zone, which beneath the Athabasca Basin is called the Virgin River-Black Lake shear zone. In the western Athabasca Basin, where the Property is located, lithologies belonging to the Lloyd Domain of the Talston Magmatic Zone underlie the Athabasca Basin. The Talston Magmatic Zone is dominated by a variety of plutonic rocks and an older basement complex. The

basement complex varies widely in composition from amphibolites to granitic gneisses to high grade pelitic gneisses.

The PLS Property lies within the northeastern limits of the Cretaceous Mannville Group which covers a large portion of western Saskatchewan. The Mannville Group consists of interbedded non-marine sands and shales overlain by a thin, non-marine calcareous member which is overlain by marine shales, glauconitic sands, and non-marine salt-and-pepper sands. The marine sequence is overlain by a paralic and non-marine sequence having a diachronous contact with the marine sequence.

The PLS Property is covered by a thick layer of sandy to gravelly quaternary glacial material. The quaternary material ranges in thickness from less than 10 m in the south east portion of the property to greater than 100 m directly west of Patterson Lake. No outcrop has been discovered on the Property to date.

To date, no Athabasca Group sediments have been intersected on the Property, although it may be possible that "islands" of Athabasca sandstone exist within the northeast extent of the Property.

To date, drilling at the PLS Property has been focused on the basement rocks of the Taltson Domain. In the vicinity of PLS mineralization (i.e., along the PLG-3B EM conductor), the basement rocks are comprised of a northeast trending belt of variably altered and sheared pyroxene bearing orthogneisses bounded to the northwest and southeast by an apparently thick package of quartz-feldspar-biotite-garnet gneiss. The pyroxene bearing orthogneisses and QFBG-GN are intruded by numerous sheared, fine grained granite lenses.

Uranium mineralization at the PLS Property is hosted primarily within metamorphosed basement lithologies and, to a much lesser extent, within overlying Meadow Lake Formation sedimentary rocks.

Basement hosted mineralization at the PLS Property occurs in a wide variety of styles, the most common of which appears to be fine grained disseminated and fracture filling uranium minerals strongly associated with hydrocarbon/carbonaceous matter within the MSZ. Uranium minerals, where visible, appear to be concordant with the regional foliation and dominant structural trends identified through oriented core and fence drilling (i.e., steeply dipping to the southeast). Typically, mineralization within the MSZ is associated with pervasive, strong, grey-green chlorite and clay alteration. The dominant clay species identified through PIMA analysis are kaolinite and magnesium-chlorite interpreted to be sudoite. The pervasive clay and chlorite alteration eliminate the primary mineralogy of the host rock with only a weakly defined remnant texture remaining. Locally, intense rusty limonite-hematite alteration in the orthogneisses strongly correlates with high grade uranium mineralization and a "rotten", wormy texture.

Less common styles of uranium mineralization within the MSZ which are often associated with very high grade uranium include: semi-massive and hydrocarbon rich; intensely clay altered (kaolinite) with uranium-hydrocarbon buttons; and massive metallic mineralization. These zones of very high grade mineralization generally occur along the contact of the MSZ and intensely silicified QFBG-GN and comprise a high grade mineralized spine. This spine may represent a zone of intense structural disruption which has been completely overprinted by alteration and mineralization. However, drill holes which undercut the strongly mineralized spine have failed to show signs of significant structural damage. Particularly well mineralized drill holes are often associated with thin swarms of dravite-filled breccia.

Uranium mineralization within the north and south QFBG-GN which bound the MSZ generally occurs as fine grained disseminations and is almost always associated with pervasive whitish-green clay and chlorite alteration with local pervasive hematite. The mineralized zones within the QFBG-GN are interpreted to be stacked structures parallel to the MSZ strike and dip along the PLG-3B conductor.

## **Mineral Resources**

RPA prepared the Mineral Resource estimate for the Triple R deposit using drill hole data available to October 23, 2018 (Table 1-8). Estimated block model grades are based on chemical assays only. Gold grades were also estimated. Mineral resources are reported inclusive of mineral reserves.

**TABLE 1-8 MINERAL RESOURCE STATEMENT – SEPTEMBER 19, 2019**  
**Fission Uranium Corp. – Patterson Lake South Property**

Category	Tonnes (000 t)	Metal Grade		Contained Metal	
		% U <sub>3</sub> O <sub>8</sub>	g/t Au	Pounds U <sub>3</sub> O <sub>8</sub>	Ounces Au
Indicated	2,216	2.10	0.61	102.4	43.1
Inferred	1,221	1.22	0.50	32.8	19.6

Notes:

1. Canadian Institute of Mining, Metallurgy and Petroleum definitions were followed for mineral resources.
2. Mineral resources are reported at a cut-off grade of 0.25% U<sub>3</sub>O<sub>8</sub>.
3. Mineral resources are reported at a cut-off grade of 0.25% U<sub>3</sub>O<sub>8</sub>.
4. The cut-off grades are based on price of US\$50/lb U<sub>3</sub>O<sub>8</sub> and an exchange rate of \$1.00/US\$0.75.
5. A minimum mining width of 1.0 m was used.
6. Numbers may not add due to rounding.

A set of cross sections and level plans were interpreted to construct 3D wireframe models for a number of mineralized zones at a minimum grade of 0.05% U<sub>3</sub>O<sub>8</sub>. Wireframes of the High Grade domain were created at a minimum grade of approximately 5% U<sub>3</sub>O<sub>8</sub>. The HG domain consists of two lenses within the R840W zone and 16 lenses within the R780E Main Zone, the largest continuous zone within the Triple R area. Prior to compositing to two metre lengths, high U<sub>3</sub>O<sub>8</sub> assays were cut to 55% in the High Grade domain, and to 7%, 10%, 20%, and 35% U<sub>3</sub>O<sub>8</sub> in the Low Grade domain.

Grade interpolations for U<sub>3</sub>O<sub>8</sub> and gold were carried out using inverse distance cubed in a single pass with a minimum of two to a maximum of seven composites per block estimate. The search ellipse orientation varied slightly by domain. Block densities were estimated from the density measurements using inverse distance cubed and a similar search strategy as used for uranium grade from more than 16,000 measurements. Unlike most deposits in the Athabasca Basin, the high grade uranium mineralization at the Triple R deposit has relatively low density values. Uranium grade ranges of 20% U<sub>3</sub>O<sub>8</sub> to 70% U<sub>3</sub>O<sub>8</sub>, within the Athabasca Basin, more commonly exhibit density values ranging from 3.0 g/cm<sup>3</sup> to 6.0 g/cm<sup>3</sup> correlated with grade. Triple R high grade mineralization is often associated with carbon which may account for the lower than expected density values. In general, the average density of mineralization ranges from 2.25 t/m<sup>3</sup> to 2.41 t/m<sup>3</sup>. Classification into the Indicated and Inferred categories was guided by the drill hole spacing and the continuity of the mineralized zones.

The current PFS contemplates an underground only mining scenario, while the previous resource estimates were based on a hybrid mine approach consisting of both open pit and underground techniques reported in May 2019. Due to an increase in the cut-off grade from 0.15% U<sub>3</sub>O<sub>8</sub> to 0.25% U<sub>3</sub>O<sub>8</sub> as a result of converting open pit resources to underground resources, Indicated Mineral Resources have decreased by 1.4%, or approximately 1.4 Mlb of U<sub>3</sub>O<sub>8</sub> with a grade increase from 1.85% U<sub>3</sub>O<sub>8</sub> to 2.10% U<sub>3</sub>O<sub>8</sub>. Inferred mineral resources remain relatively unchanged with a decrease of 0.2%, or approximately 72,000 pounds of U<sub>3</sub>O<sub>8</sub> with a small increase in grade from 1.20% U<sub>3</sub>O<sub>8</sub> to 1.22% U<sub>3</sub>O<sub>8</sub>.

RPA is not aware of any environmental, permitting, legal, title, taxation, socioeconomic, marketing, political, or other relevant factors that could materially affect the current mineral resource estimate.

**Mineral Reserves**

Mineral Reserves for Triple R are based on the mineral resources as of September 19, 2019 and include detailed mine designs and modifying factors such as external dilution and extraction factors. Table 1-9 summarizes the mineral reserves.

**TABLE 1-9 MINERAL RESERVE STATEMENT – SEPTEMBER 19, 2019**  
**Fission Uranium Corp. – Patterson Lake South Property**

<b>Category</b>	<b>Tonnes (000 t)</b>	<b>Grade (% U<sub>3</sub>O<sub>8</sub>)</b>	<b>Contained Metal (Mlb U<sub>3</sub>O<sub>8</sub>)</b>
<b>Probable</b>			
R00E Zone	15	2.03	0.7
R780E Zone	2,283	1.60	80.7
<b>Total Probable</b>	<b>2,299</b>	<b>1.61</b>	<b>81.4</b>

Notes:

1. CIM (2014) definitions were followed for mineral reserves.
2. Mineral reserves are estimated using an average long term uranium price of US\$50/lb U<sub>3</sub>O<sub>8</sub>, and an exchange rate of C\$1.00/US\$0.75.
3. Underground mineral reserves were estimated by creating stope shapes using a stope optimizing tool. The stope optimizer was run using a cut-off grade of 0.25% U<sub>3</sub>O<sub>8</sub>, with a minimum mining width of 3.0 m (including hanging wall and footwall dilution), on 20 m vertical stope heights.
4. A mining extraction factor of 95% was applied to the underground stopes, while underground development assumed a 100% mining extraction factor.
5. The density varies according to the block model. Waste density was estimated to be 2.42 t/m<sup>3</sup>.
6. By-product credits were not included in the estimation of mineral reserves.
7. Numbers may not add due to rounding.

Mineral resource to mineral reserve conversion was moderate within the R780E and R00E zones, with mining losses (part of the "modifying factors" that differentiate mineral reserves from mineral resources) consisting of:

- Sterilization of material in the vicinity of the bedrock contact
- Underground resource blocks not included in designed stopes due to grade or lack of continuity with other mineral blocks

Mineral reserves are contained only within the R780E and R00E zones. PLS's other three zones (R1515W, R840W, and R1620E) were not considered for inclusion as mineral reserves.

RPA is not aware of any mining, metallurgical, infrastructure, permitting, or other relevant factors that could materially affect the mineral reserve estimate.

### **Mining Methods and Geotechnical Considerations**

The Project hosts the Triple R deposit, a structurally controlled northeast-southwest trending sub-vertical high grade uranium deposit. The deposit is overlain by 50 m to 100 m of sandy overburden, with the high grade mineralization located near the bedrock-overburden contact.

The deposit extends under Patterson Lake.

The mining method for the underground will be longhole retreat mining in both transverse and longitudinal methods, and some localized drift and fill mining based on current block model information. The mining will progress from the bottom levels to the top, and from the southwest to northeast. Mining is planned at nominally 1,000 tpd ore.

The mine will be accessed using a decline originating to the west of the R00E deposit. The decline will include a box cut into the overburden, and a portal face collared in the overburden. The first stage of the decline will be developed through overburden for approximately 405 m, using the New Austrian Tunneling Method, also known as Sequential Excavation Method, or Sprayed Concrete Liner. Following this, the decline will transition through weak bedrock for an additional 133 m, until reaching the competent bedrock.

The ventilation system will be a push-pull system with one fresh air raise and one exhaust air raise. The ventilation system also includes a fresh air drift and internal fresh air raises that distribute the air to all of the mine workings, and an exhaust air drift and internal exhaust raises that collect the exhaust air and discharge it out of the mine. The ventilation in the underground workings will be used once in the ore production areas and could possibly be reused from waste headings. Push-pull ventilation systems have been used extensively in uranium mines in the Athabasca Basin.

A key component of the underground design is the concept of using artificial ground freezing to extract some of the crown pillar – the mineralized material that approaches the overburden layer. This will be done using horizontal directional drilling from the shore of Patterson Lake and then pumping a refrigerated brine solution through the drill holes to effectively freeze the ground in the areas of stopes.

#### *Geotechnical Conditions*

The majority of previous geotechnical design work was oriented toward the open pit and underground hybrid option, and most of the previous data is still relevant for the underground mining concept. Geotechnical analysis and design were carried out by BGC and other groups.

#### *505 Cut and Box Cut*

The 505 cut is planned to include the fresh air raise, exhaust air raise, propane farm and heater house for the fresh air intake, refrigeration plant, well heads for the freeze holes, and electrical substation. The 505 cut is accessed by a road from the process plant. All infrastructure on the 505 cut is offset from the shore of Patterson Lake by a minimum of 100 m.

The box cut is accessed by a road from the process plant and includes an area known as the "Forward Staging Area" which will serve as the launching point for the underground portal and decline. The Forward Staging Area is a level area approximately 40 m by 40 m and is intended to house some parking for mobile equipment, temporary ventilation infrastructure, and other mine services required for decline development. A larger mine laydown area is located several hundred metres away from the box cut. The second aspect of the box cut is the portal area, which includes extensive ground support requirements to ensure the long term stability of the decline.

#### *Portal and Decline*

The portal is situated within the box cut. The face of the portal is perpendicular to the gradient of the decline, while the sidewalls "fade away" from the face slope to the slope of the box cut. The portal face and sidewalls require extensive ground support to ensure stability throughout the life of mine. A series of soil nails, spilings, mesh, and shotcrete is all planned to ensure the stability of the portal face in advance of excavation. The ground support will be installed in 1.5 m vertical lifts. Drainage is planned so that precipitation is directed away from the slopes of the box cut and portal.

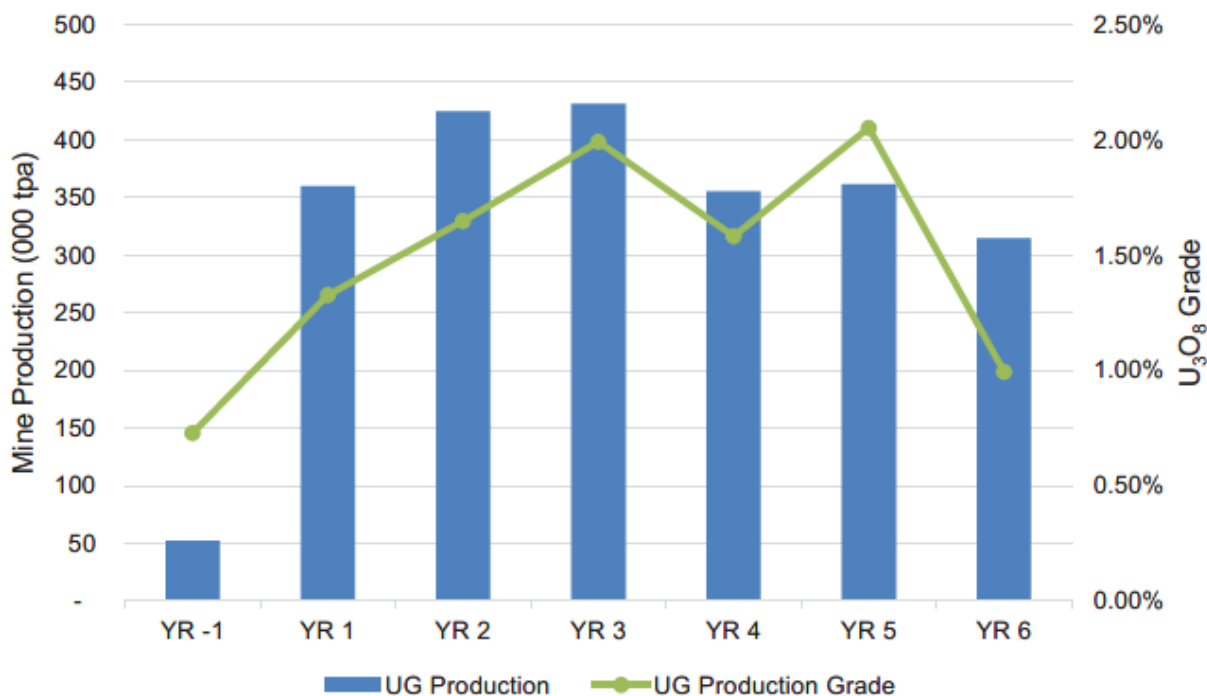
The area around the decline will be dewatered prior to excavation. The decline will be developed on an east-west alignment at a gradient of -15%. The first component of the decline is through overburden, followed by development through transition bedrock, and development through competent bedrock. To develop through overburden, a tunneling method known as the New Austrian Tunneling Method will be utilized.

#### *Life of Mine Plan*

A three year pre-production period is envisaged for the Project. The critical path for completing construction revolves around completing the decline through overburden, establishing the ventilation system, and developing in the ore. In Year -3, the box cut, and portal will be collared, along with starting development in the overburden. An area referred to as the "505 Cut" will also be completed. Year -2 will see the continuation of the decline, along with two ventilation raises. Year -3 will include underground development in hard rock, and development in ore drifts in advance of steady-state production.

RPA has envisaged a life of mine plan where ore is mined beginning in pre-production Year -1 and continuing over six years of operations. The large amount of overburden moved in Year -3 refers to the 505 cut and box cut.

**FIGURE 1-2 LIFE OF MINE PRODUCTION SCHEDULE**



### Mineral Processing

Wood completed design and costing for the process plant and related infrastructure facilities for the PFS. The process flowsheet selected for the Project is based on unit processes commonly used effectively in uranium process plants in northern Saskatchewan, while utilizing some new innovations in some of these unit process designs to optimize plant performance.

While the Triple R deposit contains gold values that may be recoverable, a high level economic analysis by RPA has shown this to have limited impact on overall project profitability at current market conditions and gold recovery was thus excluded from this design. Should market forces change in the future, gold recoveries could be reasonably easily engineered into the existing design and constructed without harming throughput or recovery from the uranium process plant.

The conceptual mill design will have a nominal feed rate of 350,000 tpa, operate 350 days per year, and be able to produce nominally 15.0 million pounds per year of U<sub>3</sub>O<sub>8</sub>. The mill design will have an estimated recovery ranging from 95% to 97% and is designed in a manner that can accommodate fluctuations in ore grade that are expected when mining moves from higher grades to lower grades, or vice versa.

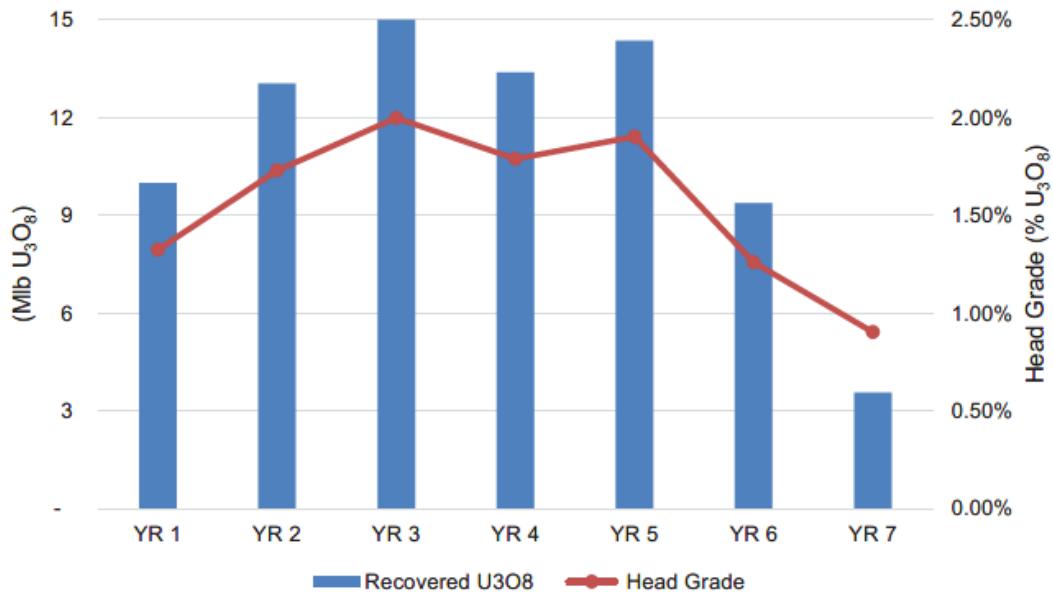
The unit processes for uranium recovery are:

- Grinding
- Acid leaching using sodium chlorate as oxidant
- Counter current decantation and clarification
- Solvent extraction using strong acid stripping

- Molybdenum removal from the pregnant aqueous solution
- Gypsum precipitation
- Yellowcake precipitation
- Yellowcake calcining and packaging
- Tailings neutralization
- Effluent treatment with monitoring ponds to confirm quality of effluent discharge

The process schedule and recovered uranium schedule are shown in Figure 1-3.

**FIGURE 1-3 RECOVERED URANIUM SCHEDULE**



### Project Infrastructure

The Project is located adjacent to Patterson Lake, approximately 550 km north-northwest of the city of Prince Albert and approximately 150 km north of the community of La Loche, Saskatchewan. The Property is accessible by vehicle along all-weather Highway 955 which bisects the Property in a north-south direction. The site will be operated as a remote, fly-In/fly-out operation.

The key infrastructure contemplated for the Project includes:

- Underground mine with access from a box cut and portal
- Mine infrastructure including material handling systems, ventilation, dewatering, maintenance facilities
- Artificial ground freezing system for partial recovery of the crown pillar mineralization
- Site support infrastructure for the mine, including explosive magazine, liquid natural gas storage facilities, liquid natural gas power plant, and electrical and communications facilities
- Process plant and associated analytical laboratory
- TMF
- Surface waste rock storage facility for benign waste rock, non-benign waste rock (either mineralized or otherwise harmful to the environment), and benign overburden
- Permanent and construction accommodation camps
- Mine support buildings, including maintenance, warehouse, and security buildings
- Water management facilities, including storm water runoff pond and six process ponds
- Airstrip



## **Environmental, Permitting, and Social Considerations**

The PLS area represents a new mining region with several discoveries in the area with the potential to be developed, and as such the Triple R deposit will garner additional scrutiny as one of the first new projects on the west side of the province since the now decommissioned Cluff Lake mine. The potential impacts from a uranium project in northern Saskatchewan are well known, and with regulatory oversight from both the federal and provincial governments, the actual performance of modern uranium mines has been very good. Environmental protection will continue to be a key focus for project success.

### *Preliminary Environmental Risk Assessment*

A PERA was conducted for the PLS Property and was designed to incorporate a level of detail consistent with the pre-feasibility stage of the project. It examines what is projected regarding site facilities, areas of physical disturbance, effluent releases, emissions to the environment, and makes an estimate of the potential impacts after mitigations. While the project is conceptual, preferred options are presented and included in the PFS, and these preferred options are highlighted in the PERA.

The following tables (Tables 1-10 to 1-146) provide a summary of the PERA for the proposed project.

**TABLE 1-10 PROJECT PERA SUMMARY TABLE — TERRAIN AND HABITAT DISTURBANCE**  
**Fission Uranium Corp. — Patterson Lake South Property**

<b>Disturbance</b>	<b>Description</b>	<b>Mitigations</b>	<b>Discussion</b>
Ground clearing	Clearing for all facilities including:		
	<ul style="list-style-type: none"> <li>• Roads</li> <li>• Re-alignment of HWY 955</li> <li>• Mill pad</li> <li>• Waste/ore stockpiles</li> <li>• Camp</li> <li>• Shore for dyke construction/mine access</li> <li>• Airstrip</li> <li>• TMF</li> <li>• Aggregate quarries</li> </ul>	<ul style="list-style-type: none"> <li>Minimization of clearing</li> <li>Reclamation of unused areas</li> <li>Keeping facilities as compact as possible</li> </ul>	Remains a major impact to the areas cleared but can be remediated at decommissioning. The goal is to minimize the amount of area disturbed. Provide a Caribou protection plan. Minimize impact on natural drainage.
TMF	TMF will be required. Will produce a large amount of excavated material.	Preferred method is hybrid design to use water table properly. Design: sub-aqueous deposition with pervious surround and underdrain system. Immediate reclamation of berms and waste excavation piles. Diversion of fresh water around TMF	TMF designed to minimize footprint, minimize flux to environment. ease of decommissioning. Long term stability. Sub-aqueous design eliminates radioactive dust and radon. Will require a TMF Management Program and design assessment per current standards (e.g. MAC Tailings Guidance)
TMF Operation	Should be few impacts from TMF operation as long sub-aqueous development with underdrain.	Should be lithe impact. May need some dust control for vehicles. Collected water from underdrain for treatment and disposal. Secondary containment for pipeline leakage.	If sub-aqueous system works as designed, little impact during operations and after decommissioning. Will require a TMF Management Program and design assessment per current standards (e.g. MAC Tailings Guidance)
Mine ramp/foreshore excavation	A decline will be developed to ramp through the overburden and access the ore body below the overburden.	Proper location of excavated material in dry stable area with erosion and sediment control. Material should be clean and not require water collection. Immediate stabilization and reclamation of cut slopes and embankments to minimize erosion and sediment transport.	Use of NATM to reduce water inflow in the overburden. Collection and treatment of used water during development.

Disturbance	Description	Mitigations	Discussion
Roadways/including a relocated Hwy 955	Relocation of the highway to prevent traffic accidents and incidental cross contamination. Includes on-site roadways.	The relocation is the mitigation. On site roadways will have designated clean and dirty roads, and there will be scheduled monitoring for contamination.	Hwy 955 will be designed to move to the west around the TMF. Discuss with MHI will be required. Maintain MHI design standards for relocated roadway. TMF location will be optimized in the FS to minimize the amount of road relocation.
Mining: Underground	Underground option with no impact to Patterson Lake, including any ventilation or access raises (all of these are on shore). Decline access and initially, two vent raises.	Handling of waste rock, mine water, ventilation, radiation protection. access. and egress.	Design for single pass air where workers will be present, segregate clean and dirty waste based on ARD potential, mine water collected, degassed for radon, sent to mill for treatment
Ore Stockpile(s) (ARD, leaching potential, potential contamination of soil, water, and groundwater)	Ore storage or blending pads	Bermed, double lined storage pads. Cover with clean waste to prevent dusting. All drainage to runoff collection ponds	Water collected and treated. Ensure not upwind of living facilities to protect from dust or radon emanations
Waste Rock: Clean (No ARD or leaching potential)	Clean overburden and waste rock. Main issues are sedimentation from stockpiles.	Clean waste with erosion controls and sedimentation barriers. All drainage to runoff to collection ponds or drain into sandy terrain, not directly to surface water. All drainage to runoff collection ponds. Lined pads and monitoring for contaminated water to protect groundwater.	Clean materials available for other uses and reclamation
Waste Rock: Mineralized (ARD, teaching potential, potential contamination of soil, water, and groundwater)	Low grade/sub-ore and contaminated waste stockpiles radon	Contaminated water to mill for treatment.	Ensure not upwind of living facilities to protect from dust or radon emanations
Mill/Mill terrace	Disturbance, runoff, Dust and gaseous emissions	Collect runoff water for treatment keep pad areas clean, site as compact as possible, Wildlife Management	Careful consideration to the clean and dirty pans and keeping them separate.
Ancillary facilities, including camp. offices. shops. clean laydowns, etc.	Disturbance, contaminated and non-contaminated wastes, potable water, sewage, Recycling materials	Recycling, proper design of water and sewage facilities. Training. Domestic waste handling Hazardous waste handling	Many recycling programs mandated by law in SK, such as electronics, tires, cardboard/paper, plastics, refundable containers, oil/oil filters, etc.

**TABLE 1-11 PROJECT PERA SUMMARY TABLE - WATER, CONTAMINATED AND UNCONTAMINATED  
Fission Uranium Corp. - Patterson Lake South Property**

<b>Disturbance</b>	<b>Description</b>	<b>Mitigations</b>	<b>Discussion</b>
Runoff	Mill terrace. contaminated stockpiles. mine	Collection, to mill for treatment and eventual discharge. Maximize diversion of fresh water from project infrastructure. Full containment of plant Island	Given the sandy nature of the terrain all areas requiring water :o be collected will require some form of treatment to allow for water low and collection.
Mine water	U/G mine, and ramps  From the underdrain system.	Collection, to mill for treatment and eventual discharge  Connection, to mill for treatment and eventual discharge. Security of tailings solution pipelines.	Dewatering wells and additional grouting may be required to minimize flows during operation. Use of the underdrain will ensure no release of contaminants until the desired tailings density is achieved during decommissioning. May require running the treatment system for a number of years after production stops.
Tailings	Includes some local groundwater to	Collection, to mill for treatment and eventual discharge. separate sewage TP or septic field.	Final sewage treatment methods have not yet been chosen.
Sewage	Collect and treat from various locales. Final process to be decided.	Final estimates of quantity and quality will be needed for the EIA.	Must meet licensed objectives, but preferable SSWOO in order to keep downstream impacts to a minimum. This is especially important as there is likely to be another mine discharging to the same system.
Treated effluent	Discharged to Patterson Lake and the Clearwater River system	Need inlet and WT facilities prior to distribution.	Inlet upstream from discharge point(s)
Potable water	Collected, treated, stored with reserves for fire	Licensed with MOE EPB (SK Code) HM'NS Regs. WWIS	Properly designed and licensed facilities with trained personnel will minimize any risk to the environment Emergency Response Plan (ERP).
Fuels	Diesel Gasoline Lubricants Propane LNG	HM'NS Regs. WMIS	Proper storage, likely within the mill terrace area.
Reagents	Various, to be identified	Site security CNCS licensing TDG Regs.	Proper storage and tracking Compliant with Additional Protocols ERP
Yellowcake	Produced, drummed, shipped	Site security	Properly handled, explosives are safe. Security will be required to prevent theft or misuse. ERP
Explosives	Handling and use of explosives Is required for mining, and possibly quarrying.	Following federal regulations. properly trained personnel, separate magazines depending on the type of explosive used.	

**TABLE 1-12 PROJECT PERA SUMMARY TABLE - SITE EMISSIONS**  
**Fission Uranium Corp. — Patterson Lake South Property**

<u>Disturbance</u>	<u>Description</u>	<u>Mitigations</u>	<u>Discussion</u>
Mine air exhaust	Diesel exhaust, radon, radon progeny, dust	Dilution by having enough fresh air flow, dust control, AO monitoring.	Modelling in the EIA will provide more information
Mine air conditioning	GHGs, probably propane	Minimize use to the extent practicable	May or may not be required.
Generators	Diesel or LNG, diesel exhaust emissions, GHG	While LNG is the cleaner option (virtually no particulate matter, NOx, or Sox) there are practical issues that may not favour this option	Chance of spill with diesel fuel
Mill	Various emission sources	Protection against dust — need capture and baghouse with filters	Emission sources will be determined and modelling in EIA.
Vehicles	Exhaust — GHG calculation	Utilize current emissions control standards, maintain equipment well	Look at electric where possible
TMF	Subaqueous, so emissions should be low	Water cover eliminates dusting, promotes settling, and minimizes radon emanation	Releases and long term impacts to be defined in EIA by pathway modelling
Ore and special waste stockpiles	Radon, radon progeny, dust, runoff	Proper design and monitoring	Ensure not upwind from camp or offices.

**TABLE 1-13 PROJECT PERA SUMMARY TABLE — DECOMMISSIONING  
Fission Uranium Corp. — Patterson Lake South Property**

<u>Disturbance</u>	<u>Description</u>	<u>Mitigations</u>	<u>Discussion</u>
Underground	Contaminant flow to surface receptors, interaction with GW,	Plug openings, allow to flood, monitor, grout/shotcrete/backfill to limit water movement.	Will need rigorous modelling to show limited movement of GW after closure Per CNSC guidelines for contaminant removal. Mill WTP will be needed until the TMF underdrain is decommissioned.
Surface facilities	Decontaminate as much as possible, tear down, recycle to max. extent possible	Dispose of materials that cannot be decontaminated in TMF, remove, or cover concrete pads, dean up any contaminant spills,	
Roads	Remove, scarify, revegetate once no longer needed. Will need a cover design and implementation plan to encourage ongoing dewatering and settling.	Survey for contamination prior to decommissioning, remove contaminated soils to TMF for disposal. Likely scenario is an initial cap/cover designed to weight the tailings to encourage dewatering and compaction. Once target density is achieved, redo cap/cover in final form, seal off the underdrain, and revegetate. Monitor.	Timing would have to be modelled. Mill water treatment facility will be required until tailings meet density target.
TMF			

**TABLE 1-14 PROJECT PERA SUMMARY TABLE — COMMUNITY AND SOCIO-ECONOMICS**  
**Fission Uranium Corp. — Patterson Lake South Property**

<b>Disturbance</b>	<b>Description</b>	<b>Mitigations</b>	<b>Discussion</b>
Consultation and engagement	Consultation and engagement with First Nations, Metis and communities	Must fulsomely engage with the communities, writ large Establish relationships with all the potential Impact Communities related to the project Document all activities and participants	It is essential that this be done for the success of the project
Roads	Increased traffic on northern roads and through towns such as Buffalo Narrows and La Loche, and north on Hwy 955. Are bridges adequate over Clearwater River?	Work with local authorities and MHI to minimize safety risks in communities. Work with MHI to improve Hwy 955 and upgrade bridges if necessary.	Project will need a traffic analysis for the increase of traffic in NW Saskatchewan. The road relocation around site will also be addressed.
Employment	A new mining operation will bring jobs and opportunities for local employment.	Start now to work with communities to ensure there is a trained workforce available.	For safety reasons, mines in northern Saskatchewan now require Grade 12 education at a minimum. Given the long approvals process, expectations need to be realistic with respect to availability of employment and timing. Experience elsewhere in SK indicates businesses work best when they are not solely reliant on the mine(s) for their survival given the cyclical nature of mining (witness the current Cameco shutdowns)
Business opportunities	A new mine will bring opportunities for business to supply goods and services.	Work with local communities and entrepreneurs to develop businesses.	
Community	Potential impacts on communities range from demand on health care and social services, policing, etc.	Monitor and work with local authorities and communities. Increased employment likely to be an improvement in community health. Continue with engagement and sponsorship activities.	Target communities are La Loche as the nearest community followed by the west-side communities (Mdtis communities, Buffalo Narrows, Ile-a-la Crosse, Beauval, etc.).

## Capital and Operating Costs

Capital costs have been estimated for the Project based on comparable projects, first principles, subscription based cost services, budgetary quotes from vendors and contractors, and information within RPA's project database. In RPA's opinion, the capital cost estimate is consistent with an Association for the Advancement of Cost Engineering Class 4 estimate. Wood is responsible for capital costs related to the process plant and infrastructure, while RPA is responsible for capital costs related to mining, and the compilation of the overall capital cost estimate. Clifton, BGC, Newmans, Artisan, and TMCC have provided input, where appropriate, to develop the capital cost estimate. Broadly, pre-production capital costs are divided among mining, processing, infrastructure, and project indirect expenses. Sustaining capital costs are related to ongoing mine development, the crown pillar recovery, and miscellaneous infrastructure or process plant refurbishments that continue to occur after commercial production has been declared. Capital costs are summarized in Table 1-15.

**TABLE 1-15 SUMMARY OF CAPITAL COSTS**  
**Fission Uranium Corp. – Patterson Lake South Property**

<b>Description</b>	<b>Units</b>	<b>Cost</b>
Mining	\$ millions	200.7
Processing	\$ millions	349.6
Infrastructure	\$ millions	119.7
<b>Subtotal Pre-Production Direct Costs</b>	<b>\$ millions</b>	<b>670.0</b>
Pre-Production Indirect Costs	\$ millions	314.8
<b>Subtotal Direct and Indirect</b>	<b>\$ millions</b>	<b>984.8</b>
Contingency	\$ millions	192.1
<b>Initial Capital Cost</b>	<b>\$ millions</b>	<b>1,176.9</b>
Sustaining Capital	\$ millions	208.6
Closure and Reclamation	\$ millions	73.8
<b>Total</b>	<b>\$ millions</b>	<b>1,459.3</b>

Operating costs were estimated for the project and allocated to one of mining, processing, or general and administration. Life of mine operating costs are summarized in Table 1-16.

**TABLE 1-16 LIFE OF MINE OPERATING COSTS**  
**Fission Uranium Corp. – Patterson Lake South Property**

<b>Description</b>	<b>Life of Mine Cost (\$ millions)</b>	<b>Average Annual (\$ millions)</b>	<b>Unit Cost (\$/t processed)</b>	<b>Unit Cost (\$/lb U<sub>3</sub>O<sub>8</sub>)</b>
Mining	314.6	52.4	137	3.99
Processing	266.4	40.2	116	3.38
General Administration and	172.5	26.2	75	2.19
<b>Total</b>	<b>753.4</b>	<b>118.8</b>	<b>328</b>	<b>9.57</b>



## **RISK FACTORS**

An investment in Fission is speculative and involves a high degree of risk due to the nature of the Company's business and the present stage of its development. The following risk factors, as well as risks not currently known to the Company, could materially adversely affect the Company's future business, operations and financial condition and could cause them to differ materially from the estimates described in forward-looking statements contained herein. Prospective investors should carefully consider the following risk factors along with the other matters set out herein:

### **Limited Business History**

Fission has a short history of operations and has no history of earnings. The likelihood of success of Fission must be considered in light of the problems, expenses, difficulties, complications and delays frequently encountered in connection with the establishment of any business. Fission has limited financial resources and there is no assurance that funding will be available to it when needed. There is also no assurance that Fission can generate revenues, operate profitably, or provide a return on investment, or that it will successfully implement its plans.

### **Unknown Environmental Risks for Past Activities**

Exploration and mining operations incur risks of releases to soil, surface water and groundwater of metals, chemicals, fuels, liquids having acidic properties and other contaminants. The risk of environmental contamination from present and past exploration or mining activities exists for mining companies. Companies may be liable for environmental contamination and natural resource damages relating to properties that they currently own or operate or at which environmental contamination occurred while or before they owned or operated the properties. No assurance can be given that potential liabilities for such contamination or damages caused by past activities at the PLS Property do not exist.

### **Limited Exploration Prospects**

The PLS Property is Fission's sole material property. Accordingly, the Company does not have a diversified portfolio of exploration prospects, either geographically or by mineral targets. The Company's operations could be significantly affected by fluctuations in the market price of uranium, as the economic viability of the Company's sole project is heavily dependent upon the market price for uranium.

### **Acquisitions and Joint Ventures**

Fission may evaluate from time to time opportunities to acquire and joint venture mining assets and businesses. These acquisitions and joint ventures may be significant in size, may change the scale of Fission's business and may expose it to new geographic, political, operating, financial and geological risks. Fission's success in its acquisition and joint venture activities will depend on its ability to identify suitable acquisition and joint venture candidates and partners, acquire or joint venture them on acceptable terms and integrate their operations successfully with those of Fission. Any acquisitions or joint ventures would be accompanied by risks, such as the difficulty of assimilating the operations and personnel of any acquired companies; the potential disruption of Fission's ongoing business; the inability of management to maximize the financial and strategic position of Fission through the successful incorporation of acquired assets and businesses or joint ventures; additional expenses associated with amortization of acquired intangible assets; the maintenance of uniform standards, controls, procedures and policies; the impairment of relationships with employees, customers and contractors as a result of any integration of new management personnel; dilution of Fission's present shareholders or of its interests in its subsidiaries or assets as a result of the issuance of shares to pay for acquisitions or the decision to grant earning or other interests to a joint venture partner; and the potential unknown liabilities associated with acquired assets and businesses. There can be no assurance that Fission would be successful in overcoming these risks or any other problems encountered in connection with such acquisitions or joint ventures. There may be no right for shareholders to evaluate the merits or risks of any future acquisition or joint venture undertaken except as required by applicable laws and regulations.

## **Significant Shareholders of the Company Possibly Influencing the Company's Business Operations**

To the best of our knowledge, CGN Mining and its affiliates hold approximately 14.3% of Fission's issued and outstanding Common Shares. For as long as CGN Mining maintains a significant interest in the Company, it may be in a position to affect the governance and operations of Fission. Pursuant to the Subscription Agreement, for so long as CGN Mining and their affiliates hold not less than 17% of our issued and outstanding Common Shares for any continuous period of at least twenty-four (24) months, CGN Mining is entitled to nominate two individuals to serve on the Fission Board in addition to having certain anti-dilution rights in future equity financings of Fission. For a full description of the provisions of the Subscription Agreement, please refer to the Subscription Agreement, which is available on Fission's SEDAR profile at [www.sedar.com](http://www.sedar.com).

In addition, CGN Mining may have significant influence over the passage of any resolution of shareholders of Fission (such as would be required to amend Fission's constating documents or take certain other corporate actions) and may for all practical purposes, be able to ensure the passage of any such resolution by voting for it or prevent the passage of any such resolution by voting against it. The effect of the influence by CGN Mining may be to limit the price that investors are willing to pay for the Common Shares.

## **Additional Financing and Dilution**

Fission is focused on advancing its core asset, the PLS Property, and will use its working capital to carry out such advancement and growth. However, Fission will require additional funds to further such activities. To obtain such funds, Fission may sell additional securities including, but not limited to, its Common Shares or some form of convertible security, the effect of which would result in a substantial dilution of the equity interests of Fission's shareholders.

There is no assurance that additional funding will be available to Fission for additional exploration or for the substantial capital that is typically required in order to bring a mineral project, such as the PLS Property, to the production decision or to place a property, such as the PLS Property, into commercial production. There can be no assurance that Fission will be able to obtain adequate financing in the future or that the terms of such financing will be favourable. Failure to obtain such additional financing could result in the delay or indefinite postponement of further exploration, advancement and growth of the PLS Property.

## **No History of Mineral Production or Mining Operations**

Fission has never had a uranium producing property. There is no assurance that commercial quantities of uranium will be discovered nor is there any assurance that Fission's exploration programs will yield positive results. Even if commercial quantities of uranium are discovered, there can be no assurance that the PLS Property will ever be brought to a stage where uranium resources can profitably be produced therefrom. Factors which may limit the ability to produce uranium resources include, but are not limited to, the spot price of uranium, availability of additional capital and financing and the nature of any mineral deposits. Fission does not have a history of mining operations that would guarantee it will produce revenue, operate profitably or provide a return on investment in the future. Fission has not paid dividends in the past and Fission does not have any plans to pay dividends in the foreseeable future.

## **Imprecision of Mineral Resource Estimates**

Mineral resource figures are estimates, and no assurances can be given that the estimated levels of uranium will be produced or that Fission will receive the prices assumed in determining its mineral resources. Such estimates are expressions of judgment based on knowledge, mining experience, analysis of drilling results and industry practices. Valid estimates made at a given time may significantly change when new information becomes available. While Fission believes that the mineral resource estimates included are well established and reflect management's best estimates, by their nature, mineral resource estimates are imprecise and depend, to a certain extent, upon statistical inferences

which may ultimately prove unreliable. Furthermore, market price fluctuations, as well as increased capital or production costs or reduced recovery rates, may render mineral resources containing lower grades of mineralization uneconomic and may ultimately result in a restatement of mineral resources. The evaluation of mineral resources is always influenced by economic and technological factors, which may change over time.

### **Economics of Developing Mineral Properties**

Mineral exploration and development is speculative and involves a high degree of risk. While the discovery of a mineral deposit may result in substantial rewards, few properties which are explored are commercially mineable and ultimately developed into producing mines. There is no assurance that Fission's uranium deposits are commercially mineable.

Should any mineral resources and reserves exist, substantial expenditures will be required to confirm mineral reserves which are sufficient to commercially mine and to obtain the required environmental approvals and permitting required to commence commercial operations. The decision as to whether a property contains a commercial mineral deposit and should be brought into production will depend upon the results of exploration programs and/or feasibility studies, and the recommendations of duly qualified engineers and/or geologists, all of which involves significant expense. This decision will involve consideration and evaluation of several significant factors including, but not limited to: (1) costs of bringing a property into production, including exploration and development work, preparation of production feasibility studies and construction of production facilities; (2) availability and costs of financing; (3) ongoing costs of production; (4) uranium prices, which are historically cyclical; (5) environmental compliance regulations and restraints (including potential environmental liabilities associated with historical exploration activities); and (6) political climate and/or governmental regulation and control. Development projects are also subject to the successful completion of engineering studies, issuance of necessary governmental permits, and availability of adequate financing. Development projects have no operating history upon which to base estimates of future cash flow.

The ability to sell and profit from the sale of any eventual mineral production from the PLS Property will be subject to the prevailing conditions in the minerals marketplace at the time of sale. The global minerals marketplace is subject to global economic activity and changing attitudes of consumers and other end-users' demand for mineral products. Many of these factors are beyond the control of a mining company and therefore represent a market risk which could impact the long term viability of Fission and its operations.

Global financial conditions continue to be subject to volatility arising from international geopolitical developments and global economic phenomenon, as well as general financial market turbulence, including a significant recent market reaction to the novel coronavirus (COVID-19), resulting in a significant reduction in many major market indices and in Fission's share price. Access to public financing and credit can be negatively impacted by the effect of these events on Canadian and global credit markets. The health of the global financing and credit markets may impact the ability of Fission to obtain equity or debt financing in the future and the terms at which financing or credit is available to Fission. These instances of volatility and market turmoil could adversely impact Fission's operations and the trading price of the Common Shares.

### **Factors Beyond the Control of Fission**

The potential profitability of the PLS Property is dependent upon many factors beyond Fission's control. For instance, world prices of and markets for minerals are unpredictable, highly volatile, potentially subject to governmental fixing, pegging and/or controls and respond to changes in domestic, international, political, social and economic environments. Another factor is that rates of recovery of minerals from mined ore (assuming that such mineral deposits are known to exist) may vary from the rate experienced in tests and a reduction in the recovery rate will adversely affect profitability and, possibly, the economic viability of a property. Profitability also depends on the costs of operations, including costs of labour, equipment, electricity, environmental compliance or other production inputs. Such costs will fluctuate in ways Fission cannot predict and are beyond Fission's control, and such fluctuations will impact profitability and may eliminate profitability altogether. Additionally, due to

worldwide economic uncertainty, the availability and cost of funds for advancing mineral projects and other costs have become increasingly difficult, if not impossible, to project. These changes and events may materially affect the financial performance of Fission.

Fission's potential future revenues will be directly related to the prices of uranium as its potential revenues are expected to be derived from uranium mining. Uranium prices are and will continue to be affected by numerous factors beyond Fission's control. Such factors include, among others, the demand for nuclear power; political and economic conditions in uranium producing and consuming countries such as Canada, the U.S., Russia and other former Soviet republics; reprocessing of used reactor fuel and the re-enrichment of depleted uranium tails; sales of excess civilian and military inventories (including inventories from the dismantling of nuclear weapons) by governments and industry participants; and production levels and costs of production in countries such as Russia and former Soviet republics, Africa and Australia. The effect of these factors, individually or in the aggregate, is impossible to predict with accuracy. A decline in uranium prices may also require Fission to write-down its mineral resources at the PLS Property, which would have a material adverse effect on its potential earnings and potential profitability.

### **Competition in the Mineral Industry**

The mineral industry is competitive in all of its phases. The Company competes with other companies, some of which have greater financial and other resources than the Company and, as a result, may be in a better position to compete for future business opportunities. The Company competes with other exploration and mining companies for the acquisition of mineral interests as well as for the recruitment and retention of qualified employees and other personnel. There can be no assurance that the Company can compete effectively with these companies.

### **No Dividend History**

No dividends on the Common Shares have been paid by Fission in each of the three most recently completed financial years. Fission anticipates that for the foreseeable future it will retain future earnings and other cash resources for the operation and development of its business. Payment of any future dividends will be at the discretion of the Fission Board after taking into account many factors, including Fission's financial condition and current and anticipated cash needs.

### **Regulatory Requirements**

The current or future operations of Fission, including advancement activities and possible commencement of production on the PLS Property, requires permits from various federal and local governmental authorities, and such operations are and will be governed by laws and regulations governing prospecting, development, mining, production, taxes, labour standards, occupational health, waste disposal, toxic substances, land use, environmental protection, mine safety and other matters. Companies engaged in the development, advancement and operation of mines and related facilities generally experience increased costs and delays in production and other schedules as a result of the need to comply with the applicable laws, regulations and permits. There can be no assurance that all permits which Fission may require for the development and construction of mining facilities and conduct of mining operations will be obtainable on reasonable terms or that such laws and regulations would not have an adverse effect on any mining project which Fission might undertake.

Failure to comply with applicable laws, regulations and permitting requirements may result in enforcement actions including orders issued by regulatory or judicial authorities causing operations to cease or be curtailed, and may include corrective measures requiring capital expenditures, installation of additional equipment or remedial actions. Companies engaged in mining operations may be required to compensate those suffering loss or damage by reason of the mining activities and may have civil or criminal fines or penalties imposed upon them for violation of applicable laws or regulations.

Amendments or changes to current laws, regulations government policies and permits governing operations and activities of mining companies, or more stringent implementation thereof, could have a

material adverse impact on Fission and cause increases in costs or require abandonment or delays in the advancement and growth of the PLS Property.

Worldwide demand for uranium is directly tied to the demand for electricity produced by the nuclear power industry, which is also subject to extensive government regulation and policies. The development of mines and related facilities is contingent upon governmental approvals that are complex and time consuming to obtain and which, depending upon the location of the project, involve multiple governmental agencies. The duration and success of such approvals are subject to many variables outside Fission's control. Any significant delays in obtaining or renewing such permits or licenses in the future could have a material adverse effect on Fission. In addition, the international marketing of uranium is subject to governmental policies and certain trade restrictions, such as those imposed by the suspension agreements entered into by Canada with certain republics of the former Soviet Union. Changes in these policies and restrictions may adversely impact Fission's business.

### **Climate Change**

Fission's Management and the Board have considered risks to the business from climate change. Climate change is an international concern and as a result poses risk of both climate changes and government policy in which governments are introducing climate change legislation and treaties at all levels of government that could result in increased costs, and therefore, decreased profitability. Climate change regulations may become more onerous over time as governments implement policies to further reduce carbon emissions, including the implementation of taxation regimes based on aggregate carbon emissions. Some of the costs associated with reducing emissions can be offset by increased energy efficiency and technological innovation. However, the cost of compliance with environmental regulation and changes in environmental regulation have the potential to result in increased cost of operations, reducing the profitability of the Company's operations or the potential economic value of its development projects.

In addition, our operations could be exposed to a number of physical risks from climate change, such as changes in rainfall rates, rising water levels, reduced water availability, higher temperatures, increased snow pack and extreme weather events. While the Company has not experienced these events at this point, such events or conditions such as flooding or inadequate water supplies could disrupt mining and transport operations, mineral processing and rehabilitation efforts, could create resource shortages and could damage our property or equipment and increase health and safety risks on site. Such events or conditions could have other adverse effects on our workforce and on the communities around the PLS Property.

### **Indigenous Peoples Land Claims**

There is uncertainty with respect to indigenous peoples land claims in Canada due to the decision of the Supreme Court of Canada in *Tsilhqot'in Nation v. British Columbia* (2014 SCC 44), which recognized the Tsilhqot'in Nation as holding aboriginal title to approximately 1,900 square kilometers of territory in the interior of British Columbia. This decision represents the first successful claim for aboriginal title in Canada and may lead other First Nations in Canada to pursue aboriginal title in their traditional land-use areas. Such claims, if successful, may impact those projects or operations in Canada on which Fission holds a material interest, such as the PLS Property.

### **Insurance**

Fission's business is capital intensive and subject to a number of risks and hazards, including environmental pollution, accidents or spills, industrial and transportation accidents, labour disputes, changes in the regulatory environment, natural phenomena (such as inclement weather conditions, earthquakes, pit wall failures and cave-ins) and encountering unusual or unexpected geological conditions. Many of the foregoing risks and hazards could result in damage to, or destruction of, the PLS Property or any future processing facilities, personal injury or death, environmental damage, delays in or interruption of or cessation of its exploration or advancement activities, delay in or inability to receive regulatory approvals to transport its uranium concentrates, or costs, monetary losses and potential legal liability and adverse governmental action. Fission may be subject to liability or sustain

loss for certain risks and hazards against which it does not or cannot insure or which it may reasonably elect not to insure because of the cost. This lack of insurance coverage could result in material economic harm to Fission.

### **Uranium Industry Competition and International Trade Restrictions**

The international uranium industry, including the supply of uranium concentrates, is competitive, with supplies available from a relatively small number of western world uranium mining companies, from certain republics of the former Soviet Union and the People's Republic of China, from excess inventories, including inventories made available from decommissioning of nuclear weapons, from reprocessed uranium and plutonium, from used reactor fuel, and from the use of excess Russian enrichment capacity to re-enrich depleted uranium tails held by European enrichers in the form of UF<sub>6</sub>. The supply of uranium from Russia and from certain republics of the former Soviet Union is, to some extent, impeded by a number of international trade agreements and policies. These agreements and any similar future agreements, governmental policies or trade restrictions are beyond the control of Fission and may affect the supply of uranium available in the United States and Europe, which are the largest markets for uranium in the world. If Fission is unable to supply uranium to important markets in the U.S. or Europe, its business, financial condition and results of operations may be materially adversely affected.

### **Deregulation of the Electrical Utility Industry**

Fission's future prospects may be tied directly to those of the electrical utility industry worldwide. Deregulation of the utility industry, particularly in North America and Europe, is expected to impact the market for nuclear and other fuels for years to come and may result in the premature shutdown of nuclear reactors. Experience to date with deregulation indicates that utilities are improving the performance of their reactors and achieving record capacity factors. There can be no assurance that this trend will continue.

### **Public Acceptance of Nuclear Energy Cannot Be Assured**

Growth in the demand for uranium and in the nuclear power industry will depend upon continued and increased acceptance of nuclear technology by the public as a safe and viable means of generating electricity. Growth of the uranium and nuclear power industry will also depend on continued and increased acceptance of nuclear technology as a means of generating electricity. Because of unique political, technological and environmental factors that affect the nuclear industry, the industry is subject to public opinion risks which could have an adverse impact on the demand for nuclear power and increase the regulation of the nuclear power industry. An accident or incident at a nuclear reactor anywhere in the world, or an accident or incident relating to the transportation or storage of new or spent nuclear fuel, could negatively impact the public's acceptance of nuclear power and the future prospects for nuclear power generation, which may have a material and adverse effect on Fission's business, financial condition and results of operations.

### **Nuclear Energy Competes with other Viable Energy Sources**

Nuclear energy competes with other sources of energy, including oil, natural gas, coal and hydro-electricity. These other sources are to some extent interchangeable with nuclear energy, particularly over the longer term. Sustained lower prices of oil, natural gas, coal and hydro-electricity may result in lower demand for uranium concentrates and uranium conversion services, which in turn may result in lower market prices for uranium, which would materially and adversely affect Fission's business, financial condition and results of operations.

### **COVID-19 Outbreaks**

Global markets have been adversely impacted by emerging infectious diseases and/or the threat of outbreaks of viruses, other contagions or epidemic diseases, including the COVID-19 virus and its variants. The speed and extent of the spread of an infectious disease, including COVID-19 and its variants, and the duration and intensity of resulting business disruption and related financial and social impact, are uncertain, and such adverse effects may be material. Significant outbreaks could result in a

widespread crisis that could adversely affect the economies and financial markets of many countries, resulting in an economic downturn which could adversely affect the Company's business and the market price of the Common Shares. Many industries, including the mining industry, have been impacted by these market conditions. If increased levels of volatility should occur over an extended period, or in the event of a rapid destabilization of global economic conditions, it may result in a material adverse effect on commodity prices, demand for uranium, availability of credit, investor confidence, and general financial market liquidity, all of which may adversely affect the Company's business and the market price of the Common Shares. In addition, there may not be an adequate or effective response to emerging or sustained outbreaks of infectious diseases and governments may impose strict emergency measures in response to the threat or existence of an infectious disease. There are potentially significant economic and social impacts, including travel bans, quarantine and self-isolation, labor shortages and shutdowns, delays and disruption in supply chains, social unrest, government or regulatory actions or inactions (including but not limited to permanent changes in taxation or policies), decreased demand or the inability to sell and deliver concentrates and resulting commodities, declines in the price of commodities, delays in permitting or approvals, governmental disruptions or other unknown but potentially significant impacts. While the Company closely monitors and takes proactive measures to mitigate the direct effects of infectious diseases and virus outbreaks in the workplace, at this time, the Company cannot accurately predict what effects large scale outbreaks or pandemics will have on its operations or financial results, including due to uncertainties relating to the ultimate geographic spread, the duration of the outbreak, and the length of restrictions or responses that have been or may be imposed by the governments. Given the global nature of the uranium sector, the Company may not be able to accurately predict how operations may be impacted. Any outbreak or threat of an outbreak of a contagion or epidemic disease could have a material adverse effect on the Company, its business and operational results.

### **Environmental Risks and Hazards**

All phases of Fission's operations are subject to environmental regulation in the jurisdictions in which it operates. These regulations mandate, among other things, the maintenance of air and water quality standards and land reclamation. They also set forth limitations on the transportation, storage and disposal of solid and hazardous waste. Environmental legislation is evolving in a manner which will require stricter standards and enforcement, increased fines and penalties for non-compliance, more stringent environmental assessments of proposed projects and a heightened degree of responsibility for companies and their officers, directors and employees. There is no assurance that future changes in environmental regulation, if any, will not adversely affect Fission's operations. Environmental hazards may exist on the PLS Property which are unknown to Fission at present and which have been caused by previous owners or operators of the PLS Property. Reclamation costs are uncertain and planned expenditures estimated by management may differ from the actual expenditures required.

Fission is not insured against most environmental risks. Insurance against environmental risks (including potential liability for pollution and other hazards as a result of the disposal of waste products occurring from exploration and production) has not been generally available to companies within the industry. Fission will periodically evaluate the cost and coverage of the insurance against certain environmental risks that is available to determine if it would be appropriate to obtain such insurance.

Without such insurance, and if Fission becomes subject to environmental liabilities, the payment of such liabilities would reduce or eliminate its available funds or could exceed the funds Fission has to pay such liabilities and result in bankruptcy. Should Fission be unable to fund fully the remedial cost of an environmental problem, Fission might be required to enter into interim compliance measures pending completion of the required remedy.

### **Litigation Risk**

All industries, including the mining industry, are subject to legal claims, with and without merit. Defence and settlement costs can be substantial, even with respect to claims that have no merit. Due to the inherent uncertainty of litigation process, the resolution of any particular legal proceeding could have a material adverse effect on Fission's financial position and results of operations.

### **Political Risk**

Fission's future prospects may be affected by political decisions about the uranium market. There can be no assurance that the Canadian or other governments will not enact legislation restricting to whom Fission can sell uranium or that the Canadian or other governments will not increase the supply of uranium by decommissioning nuclear weapons.

### **Costs of Land Reclamation Risk**

It is difficult to determine the exact amounts which will be required to complete all land reclamation activities in connection with the PLS Property. Reclamation bonds and other forms of financial assurance represent only a portion of the total amount of money that will be spent on reclamation activities over the life of a mine. Accordingly, it may be necessary to revise planned expenditures and operating plans in order to fund reclamation activities. Such costs may have a material adverse impact upon the financial condition and results of operations of Fission.

### **No Assurance of Title to Property**

There may be challenges to title to the PLS Property. If there are title defects with respect to the PLS Property, Fission might be required to compensate other persons or perhaps reduce its interest in the PLS Property. Also, in any such case, the investigation and resolution of title issues would divert management's time from ongoing exploration and advancement programs at the PLS Property.

### **Dependence on Key Personnel**

Fission is dependent on a relatively small number of key personnel, particularly Ross McElroy, its President and Chief Executive Officer, the loss of whom could have an adverse effect on Fission. At this time, Fission does not maintain key-person insurance on the lives of any of its key personnel. In addition, while certain of Fission's officers and directors have experience in the exploration of mineral producing properties, Fission will remain highly dependent upon contractors and third parties in the performance of its exploration and advancement activities at the PLS Property. There can be no guarantee that such contractors and third parties will be available to carry out such activities on behalf of Fission or be available upon commercially acceptable terms.

### **Risk of Amendments to Laws**

Amendments to current laws, regulations and permits governing operations and activities of mining companies, or more stringent implementation thereof, could have a material adverse impact on Fission and cause increases in capital expenditures or production costs or require abandonment or delays in the advancement and growth of the PLS Property.

### **Conflicts of Interest**

Some of the directors and officers of Fission are directors and officers of other companies, including Fission 3.0, which is active in the Athabasca Basin region of Saskatchewan, Canada. Some of Fission's directors and officers may continue to pursue the acquisition, exploration and, if warranted, the development of mineral resource properties on their own behalf and on behalf of other companies, some of which are in the same business as Fission, and situations may arise where such companies will be in direct competition with Fission. Fission's directors and officers are required by law to act in the best interests of Fission. They may have the same obligations to the other companies in respect of which they act as directors and officers. Discharge of their obligations to Fission may result in a breach of their obligations to the other companies and, in certain circumstances, this could expose Fission to liability to those companies. Similarly, discharge by the directors and officers of their obligations to the other companies could result in a breach of their obligation to act in the best interests of Fission. Such conflicting legal obligations may expose Fission to liability to others and impair its ability to achieve its business objectives.



## **Influence of Third Party Stakeholders**

The lands in which Fission holds an interest in at the PLS Property, or the exploration equipment and roads or other means of access which Fission intends to utilize in carrying out its work programs or general business mandates, may be subject to interests or claims by third party individuals, groups or companies. In the event that such third parties assert any claims, Fission's work programs may be delayed, even if such claims are not meritorious. Such delays may result in significant financial loss and loss of opportunity for Fission.

## **Information Systems and Cyber Security**

The Company's information systems are vulnerable to an increasing threat of continually evolving cybersecurity risks. Unauthorized parties may attempt to gain access to these systems or the Company's information through fraud or other means of deception. The Company's operations depend, in part, on how well the Company and those entities with which it does business, protect networks, equipment, information technology systems and software against damage from a number of threats. The failure of information systems or a component of information systems could, depending on the nature of any such failure, adversely impact the Company reputation and results of operations.

## **Fluctuation in Market Value of Common Shares**

The market price of the Common Shares, as publicly traded shares, can be affected by many variables not directly related to the corporate performance of Fission, including the market in which it is traded, the strength of the economy generally, the availability and attractiveness of alternative investments, and the breadth of the public market for the stock. The effect of these and other factors on the market price of Common Shares in the future cannot be predicted. The lack of an active public market could have a material adverse effect on the price of Common Shares.

## **DIVIDENDS**

The Company has not, within the last three most recently completed financial years, declared or paid any cash dividends on its Common Shares and does not currently have a policy with respect to the payment of dividends. For the immediate future Fission does not envisage any earnings arising from which dividends could be paid. The payment of dividends in the future will depend on the earnings, if any, and the Company's financial condition and such other factors as the Fission Board considers appropriate.

## **DESCRIPTION OF CAPITAL STRUCTURE**

### **Common Shares**

The Company is authorized to issue an unlimited number of Common Shares. The holders of the Common Shares are entitled to one vote per share at meetings of shareholders, to receive dividends if, as and when declared by the Fission Board (subject to the rights of securities, if any, having priority over the Common Shares) and to receive *pro rata* the remaining property and assets of the Company upon its dissolution or winding-up (subject to the rights of securities, if any, having priority over the Common Shares).

As of the date of this AIF, there were 676,016,792 Common Shares issued and outstanding. The Common Shares are listed on the TSX under the symbol "FCU", on the OTCQX marketplace in the U.S. under the symbol "FCUUF" and on the Frankfurt Stock Exchange under the symbol "2FU".

### **Warrants**

As of the date of this AIF, there were 45,227,524 Warrants outstanding with a weighted average exercise price of \$0.650 and expiry dates ranging from November 17, 2022 to May 11, 2024.

The outstanding Warrants were issued pursuant to the Sprott Facility, the Bought Deal Offering, the FT Offering and the 2021 Bought Deal Offering. The Warrants issued pursuant to the Bought Deal Offering, the FT Offering and the 2021 Bought Deal Offering are governed by warrant indentures entered into between the Company and Computershare Trust Company of Canada, dated November 17, 2020, December 21, 2020 and May 11, 2021 respectively (collectively, the "**Warrant Indentures**"). The warrant certificates representing the Sprott Warrants and the Warrant Indentures include customary adjustment provisions relating to the number of securities issuable and the exercise price per security in the event of material transactions or capital reorganization events that would affect the Common Shares (such as a subdivision or consolidation of the Common Shares, the issuance of other securities convertible into Common Shares or payment of an in-kind dividend or distribution) or would be a fundamental change to Fission (including a reclassification of Common Shares or completion of a material corporate transaction).

## Options

As of the date of this AIF, there were 40,233,333 Options outstanding with a weighted average exercise price of \$0.598 and expiry dates ranging from March 31, 2022 to February 4, 2027.

The Options are governed by the Fission Option Plan and each vested Option is exercisable for one Common Share upon the payment of the exercise price. A copy of the Fission Option Plan is available for review at the offices of the Company at Suite 700 – 1620 Dickson Avenue, Kelowna, British Columbia, V1Y 9Y2.

## MARKET FOR SECURITIES

### Market

The Company's Common Shares are listed on the TSX under the symbol "FCU", on the OTCQX marketplace in the U.S. under the symbol "FCUUF" and on the Frankfurt Stock Exchange under the symbol "2FU".

### Trading Price and Volume

The following table shows the high and low trading prices and monthly trading volume of the Common Shares on the TSX for the periods indicated:

<b>Date</b>	<b>High (\$)</b>	<b>Low(\$)</b>	<b>Volume</b>
January, 2021	0.475	0.34	25,742,802
February, 2021	0.64	0.35	49,956,698
March, 2021	0.65	0.5	36,047,365
April, 2021	0.69	0.52	23,619,486
May, 2021	0.69	0.57	37,443,609
June, 2021	0.67	0.52	29,108,516
July, 2021	0.61	0.45	17,079,043
August, 2021	0.59	0.45	14,384,711
September, 2021	1.18	0.59	96,283,844
October, 2021	1.25	0.8	56,142,857
November, 2021	1.19	0.79	56,724,487
December, 2021	0.89	0.73	40,204,100

## Prior Sales

The following table summarizes the issuances by Fission of Common Shares during the most recently completed financial year:

<b>Date of Issuance</b>	<b>Number of Common Shares</b>	<b>Issuance Prices</b>
December 2, 2021	30,000 <sup>(3)</sup>	\$0.41
November 25, 2021	2,141,473 <sup>(4)</sup>	\$0.4387
November 19, 2021	11,746,799 <sup>(3)</sup>	\$0.5117
October 29, 2021	77,833 <sup>(1)</sup>	\$0.4949
October 28, 2021	2,254,200 <sup>(3)</sup>	\$0.4774
October 14, 2021	857,101 <sup>(4)</sup>	\$0.3659
September 29, 2021	8,869,134 <sup>(3)</sup>	\$0.433
September 17, 2021	1,655,164 <sup>(4)</sup>	\$0.4544
August 31, 2021	152,880 <sup>(1)</sup>	\$0.4949
July 30, 2021	148,563 <sup>(1)</sup>	\$0.5031
July 27, 2021	384,050 <sup>(3)</sup>	\$0.41
June 25, 2021	1,452,500 <sup>(3)</sup>	\$0.41
June 15, 2021	70,000 <sup>(4)</sup>	\$0.31
May 31, 2021	131,253 <sup>(1)</sup>	\$0.5528
May 27, 2021	259,050 <sup>(3)</sup>	\$0.41
May 12, 2021	50,000 <sup>(4)</sup>	\$0.31
May 11, 2021	57,500,000 <sup>(2)</sup>	C\$0.60
April 30, 2021	135,000 <sup>(3)</sup>	C\$0.41
April 13, 2021	120,833 <sup>(4)</sup>	C\$0.31
March 31, 2021	491,550 <sup>(3)</sup>	C\$0.41
March 23, 2021	583,333 <sup>(4)</sup>	C\$0.31
February 28, 2021	1,205,500 <sup>(3)</sup>	C\$0.41
February 3, 2021	3,000,000 <sup>(5)</sup>	C\$0.17
January 31, 2021	20,000 <sup>(3)</sup>	C\$0.41

January 6, 2021	3,533,334 <sup>(5)</sup>	C\$0.17
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<b>TOTAL</b> .....	<u>96,869,550</u>	
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Notes:

- (1) Issued to Sprott and their affiliates as satisfaction for interest due pursuant to the Sprott Facility.
- (2) Issued pursuant to the 2021 Bought Deal Offering.
- (3) Issued pursuant to the exercise of warrants issued pursuant to the Bought Deal Offering.
- (4) Issued pursuant to the exercise of Options.
- (5) Issued to Sprott and their affiliates in connection with the exercise of warrants issued pursuant to the Sprott Facility.

The following table summarizes the issuances by Fission of securities convertible into Common Shares that were not listed or quoted on a marketplace during the most recently completed financial year:

<u>Date of Issuance</u>	<u>Number of Securities</u>	<u>Exercise Price</u>
May 11, 2021	28,750,000 <sup>(1)</sup> Common Share Purchase Warrants	C\$0.85
<b>TOTAL</b> .....	<u>28,750,000</u>	

Notes:

- (1) Issued pursuant to the 2021 Bought Deal Offering.

#### DIRECTORS AND OFFICERS

The following table sets forth the name, province or state and country of residence and office held by each of our executive officers and directors as at December 31, 2021. Each director is elected at the annual meeting of shareholders or appointed pursuant to the provisions of our by-laws and applicable law to serve until the next annual meeting or until a successor is elected or appointed, subject to earlier resignation by the director.

<b>Name, Office Held and Province/State and Country of Residence</b>	<b>Date Appointed</b>	<b>Principal Occupation for Preceding Five Years<sup>(1)</sup></b>
Ross McElroy <sup>(5)</sup> <i>British Columbia, Canada</i> <i>Director, President and CEO</i>	February 13, 2013 <sup>(6)</sup>  September 8, 2020 <sup>(7)</sup>	<p>Mr. McElroy is a professional geologist with 35 years of experience in the mining industry. He is the winner of the 2014 PDAC Bill Dennis award for exploration success and the Northern Miner 'Mining Person of the Year'. He has comprehensive experience with working and managing many types of mineral projects from grass roots exploration to feasibility and production.</p> <p>Mr. McElroy has held positions with both major and junior mining companies, which include BHP Billiton, Cogema Canada, and Cameco. He was a member of the early stage discovery team of the MacArthur River uranium deposit.</p> <p>Mr. McElroy was part of the hugely successful Fission Energy Corp. team as President, COO and Chief Geologist. He headed up the technical team that made the discovery at Waterbury Lake, SK and Fission Uranium Corp.'s PLS discovery. Mr. McElroy assumed the role of CEO in September 2020. Mr. McElroy received a Bachelor's Degree in Science, with a Specialization in Geology from the University of Alberta in 1987 and is a registered professional geologist in Saskatchewan, British Columbia and Nunavut/Northwest Territories.</p>
Chris Sammartino <i>British Columbia, Canada</i> <i>Chief Financial Officer</i>	April 1, 2021 <sup>(7)</sup>	Mr. Sammartino is a Chartered Professional Accountant with over 20 years of experience in the mining and junior mining industries. Prior to joining Fission in 2018, Mr. Sammartino held a variety of accounting and management roles with both private and exchange listed companies. Mr. Sammartino holds a Bachelor of Management degree from the University of Lethbridge.
William Marsh <sup>(2)(3)(4)</sup> <i>British Columbia, Canada</i> <i>Lead Director</i>	May 31, 2013 <sup>(6)</sup>	Mr. Marsh previously worked on domestic and international drilling programs for Chevron for 15 years both in Canada and internationally. Mr. Marsh was a director of Pacific Asia China Energy until its sale to Green Dragon Gas wholly owned subsidiary, Greka China Ltd, for \$35.18 million in 2008. Mr. Marsh was also a director of Predator Capital Corp., Wolf Capital Corp. and Ballyliffin Capital Corp. Mr. Marsh has also provided consulting services to a number of resource exploration and production companies, both public and private, operating in Canada and internationally.

Name, Office Held and Province/State and Country of Residence	Date Appointed	Principal Occupation for Preceding Five Years <sup>(1)</sup>
Frank Estergaard <sup>(2)(3)(4)</sup> <i>British Columbia, Canada</i> <i>Director</i>	February 7, 2014 <sup>(6)</sup>	Mr. Estergaard is a Chartered Professional Accountant (CPA, CA). Mr. Estergaard was a partner with KPMG where he participated in a broad range of audit, taxation and structural/reorganization transactions and served on the firm's Management Committee and Partnership Board. Since retiring from KPMG, Mr. Estergaard has served as a director and chair of the audit committee for Fission Energy Corp., Fission 3.0 Corp., QHR Technologies Inc., Cobalt 27 Capital Corp. and Conic Metals Corp., and as CFO for Metalex Ventures Ltd. and CFO and /or director for several private companies.
Robby Chang <sup>(2)</sup> <i>Ontario, Canada</i> <i>Director</i>	April 1, 2018 <sup>(6)</sup>	Mr. Chang has over 25 years of experience in the financial services industry and is a sought after expert in uranium markets. An experienced senior executive, he currently sits on the boards of three mineral resource companies and is on the advisory board of another. He is currently the Co-Founder and Chief Executive Officer of Gryphon Digital Mining and his past roles include serving as the Managing Director and Head of Metals & Mining at Cantor Fitzgerald where he provided research coverage in precious metals, base metals, lithium, and uranium. He is well familiar with the uranium mining industry, and is considered a subject matter expert by several media outlets. He was recognized by Bloomberg as the "Best Precious Metals Analyst" in Q1 2016. Mr. Chang is frequently quoted by and a regular guest of several media outlets including: Bloomberg, Reuters, CNBC, and the Wall Street Journal. Mr. Chang previously served as a Director of Research and Portfolio Manager at Middlefield Capital, a Canadian investment firm which managed \$3 billion in assets. He was also on a five-person multi-strategy hedge fund team where he specialized in equity and derivative investments. Mr. Chang completed his MBA at the University of Toronto's Rotman School of Management.
Jun Zhou <i>Hong Kong, China</i> <i>Director</i>	April 1, 2021 <sup>(6)</sup>	Mr. Zhou is currently the Chief Executive Officer of China Uranium Development Company Limited and has more than 20 years' experience in finance and corporate management. He earned a Master of Economics in 1999 and has worked as a senior financial manager for CGNPC URC since 2008. Mr. Zhou is a Certified Public Accountant.

<b>Name, Office Held and Province/State and Country of Residence</b>	<b>Date Appointed</b>	<b>Principal Occupation for Preceding Five Years<sup>(1)</sup></b>
Darian Yip <i>Hong Kong, China</i> <i>Director, Chairman</i>	September 11, 2018 <sup>(6)</sup>	Mr. Yip is the Chairman of Fission. Mr. Yip has over 20 years of experience in the financial services industry and has been focused on the metals and mining sector for the past 15 years. In 2014, he co-founded and was partner and Managing Director for a Canadian, publicly-listed investment bank's operations in Asia and was responsible for setting up their Beijing and Hong Kong offices. Prior to this, he assisted another Canadian investment bank in growing their Asian mining franchise. For the past 10 years Mr. Yip has focused on cross-border transactions between Chinese and Canadian companies in the natural resources sector.
Felix Wang <i>Hong Kong, China</i> <i>Director</i>	April 1, 2021 <sup>(6)</sup>	Mr. Wang has extensive working experience in fundraising and investor relations fields. Before joining CGN Mining, Mr. Wang served in the Corporate Finance and Investor Relations team of a leading global electric vehicle startup in China, and successfully raised more than US\$740 million for the company. Prior to that, Mr. Wang served in the Investor Relations & Corporate Communication department in CITIC Pacific, a subsidiary of China's largest conglomerate CITIC Group. Mr. Wang obtained double Bachelor degrees in Economics and Business Administration from McDaniel College, USA, and Master of Science in Accounting from Boston College, USA.

Notes:

- (1) The information as to principal occupation, business or employment and shares beneficially owned or controlled is not within the knowledge of the management of the Company and has been furnished by the respective directors and officers. Unless otherwise stated above, any directors and/or officers named above have held the principal occupation or employment indicated for at least five years. This information is current to the date of this AIF.
- (2) Member of the Audit Committee.
- (3) Member of the Corporate Governance and Nominating Committee.
- (4) Member of the Compensation Committee.
- (5) Member of the Disclosure Committee and sole member of the Interest Share Committee.
- (6) Appointed as Director.
- (7) Appointed as Officer in current position.

As a group, the directors and executive officers of Fission beneficially own, or control or direct, 5,326,569 Common Shares or 0.79% of the issued and outstanding Common Shares as of the date of this AIF.

### **Cease Trade Orders**

No director or executive officer of Fission is, at the date of this AIF, or within ten years before the date of this AIF, has been a director, chief executive officer or chief financial officer of any company (including Fission) that, while that person was acting in the capacity as director, chief executive officer or chief financial officer, or which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer, was subject to a cease trade or

similar order, or an order that denied the relevant company access to any exemption under securities legislation that was in effect for a period of more than 30 consecutive days.

The foregoing, not being within the knowledge of the Company, has been furnished by the respective directors, executive officers and shareholders holding a sufficient number of securities of the Company to affect materially control of the Company.

### **Penalties or Sanctions**

No director or executive officer of Fission, or a shareholder holding a sufficient number of securities of Fission to affect materially the control of Fission, has

- (a) been subject to any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority; or
- (b) been subject to any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision about Fission.

The foregoing, not being within the knowledge of the Company, has been furnished by the respective directors, executive officers and shareholders holding a sufficient number of securities of the Company to affect materially control of the Company.

### **Bankruptcies**

No director or executive officer of Fission or a shareholder holding a sufficient number of securities of Fission to affect materially the control of Fission:

- (a) is, as the date of the AIF, or has been within 10 years before the date of the AIF, a director or executive officer of any company (including Fission) 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 legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets, state the fact; or
- (b) has within the 10 years before the date of this AIF, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or been subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the director, executive officer or shareholder.

The foregoing, not being within the knowledge of the Company, has been furnished by the respective directors, executive officers and shareholders holding a sufficient number of securities of the Company to affect materially control of the Company.

### **Conflicts of Interest**

To the knowledge of Fission, and other than as disclosed herein, there are no known existing or potential material conflicts of interest among Fission, its directors and officers and any director or officer of Fission, or other members of management as a result of their outside business interests, except that certain of the directors or officers may serve as directors and officers of other companies, and therefore it is possible that a conflict may arise between their duties to Fission and their duties as a director or officer of such other companies. See "*Risk Factors – Conflicts of Interest*".



The directors of Fission are required by law to act honestly and in good faith with a view to the best interests of Fission and to disclose any interests that they may have in any material contract or material transaction. If a conflict of interest arises at a meeting of the board of directors of the Company, any director in a conflict is required to disclose his or her interest and abstain from voting on such matter. The directors and officers of Fission are aware of the existence of laws governing accountability of directors and officers for corporate opportunity and requiring disclosures by directors of conflicts of interest in respect of Fission and are required to comply with such laws in respect of any directors' and officers' conflicts of interest or in respect of any breaches of duty by any of its directors or officers.

### **LEGAL PROCEEDINGS AND REGULATORY ACTIONS**

To the best of the Company's knowledge, there are no material legal proceedings by or against the Company or the PLS Property or affecting any of its interests during the most recent fiscal year of the Company and as of the date of this AIF, nor is the Company aware that any such proceedings are contemplated.

Furthermore, there are no (a) penalties or sanctions imposed against the Company by a court relating to securities legislation or by a securities regulatory authority during its most recently completed financial year; (b) other penalties or sanctions imposed by a court or regulatory body against the Company that would likely be considered important to a reasonable investor in making an investment decision in the Company; or (c) settlement agreements the Company entered into before a court relating to securities legislation or with a securities regulatory authority during its most recently completed financial year.

### **PROMOTERS**

No person has acted as a promoter of the Company within the two most recently completed financial years or during the current financial year.

### **INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS**

Other than the Private Placement with CGN Mining or as otherwise disclosed in this AIF, and other than transactions carried out in the ordinary course of business of the Company or any of its subsidiaries, none of the directors or executive officers of the Company, any shareholder directly or indirectly beneficially owning, or exercising control or direction over, shares carrying more than 10% of the voting rights attached to the shares of the Company, nor an associate or affiliate of any of the foregoing persons has had, within the three most recently completed financial years or during the current financial year, any material interest, direct or indirect, in any transactions that materially affected or is reasonably expected to materially affect the Company or any of its subsidiaries.

### **TRANSFER AGENT AND REGISTRAR**

The Company's registrar and transfer agent is Computershare Trust Company of Canada with offices located at 100 University Avenue, 9th Floor, Toronto, Ontario, M5J 2Y1.

### **MATERIAL CONTRACTS**

The following is a summary of each material contract, other than contracts entered into in the ordinary course of Fission's business, that was entered into in the financial year ending December 31, 2021, or up to the date of this AIF, that is still in effect:

1. Subscription Agreement dated January 11, 2016, between Fission and CGN Mining in connection with the Private Placement;
2. Offtake agreement dated January 11, 2016 between CGN Mining and Fission pursuant to which CGN Mining will purchase 20% of annual U<sub>3</sub>O<sub>8</sub> production and will have an option to purchase up to an additional 15% U<sub>3</sub>O<sub>8</sub> production from the PLS Property, after commencement of commercial production; and
3. Credit Agreement dated April 7, 2020, among Fission and Sprott Resource Lending Corp. and

Sprott Private Resource Lending II (Collector), LP.

### **INTEREST OF EXPERTS**

The disclosure with respect to the PLS Property contained in this AIF is based on the PLS Property Technical Report prepared by Jason J. Cox, P.Eng, of RPA, David M. Robson, P.Eng., MBA, of RPA, Mark B. Mathisen, C.P.G. of RPA, Mark Wittrup, M.Sc., P.Eng., P.Geo., CMC, of Clifton Engineering Group Inc., and Charles R. Edwards, P.Eng., of Wood Canada Limited. Other technical information disclosed in this AIF has been reviewed and approved on behalf of the Company by Ross McElroy, P.Geol., President and CEO of the Company, a qualified person under NI 43-101. To the best of the Company's knowledge, neither the qualified persons referenced above, nor any director, officer, employee or partner of such qualified persons, RPA, Clifton Associates or Wood, as applicable, has received or will receive a direct or indirect interest in the property of the Company or of any associate or affiliate of the Company. As at the date hereof, the aforementioned persons, and the directors, officers, employees and partners, as applicable, of the aforementioned company beneficially own, directly or indirectly, in the aggregate, less than one percent of the securities of the Company.

The auditor for the Company is PricewaterhouseCoopers LLP, Chartered Professional Accountants of Vancouver, British Columbia. PricewaterhouseCoopers LLP has advised the Company that they are independent with respect to the Company within the meaning of the Chartered Professional Accountants of British Columbia Code of Professional Conduct.

### **ADDITIONAL INFORMATION**

Additional information on the Company may be found on SEDAR at [www.sedar.com](http://www.sedar.com). Additional information, including directors' and officers' remuneration and indebtedness to the Company, principal holders of the securities of the Company and securities authorized for issuance under equity compensation plans, is contained in the Company's management information circular for its most recent annual general meeting, which is available on SEDAR. Additional financial information is provided in the Company's audited annual financial statements, the notes thereto, the report of the external auditors and the MD&A for the year ended December 31, 2021, all of which are available on SEDAR.

### **AUDIT COMMITTEE**

Pursuant to the provisions of NI 52-110, reporting issuers are required to provide disclosure with respect to its audit committee including the text of the audit committee's mandate, composition of the committee, and the fees paid to the external auditor. Accordingly, the Company provides the following disclosure with respect to its Audit Committee.

#### **Composition of the Audit Committee**

As of the date of this AIF, the Company's Audit Committee is comprised of Frank Estergaard (Chair), William Marsh and Robby Chang. As defined in NI 52-110, all of the Audit Committee members are "independent". Also, as defined in NI 52-110, all of the Audit Committee members are "financially literate", meaning that they have the ability to read and understand financial statements of the Company.

#### **Relevant Education and Experience**

All of the Audit Committee members are experienced businessmen with experience in financial matters; each has a broad understanding of accounting principles used to prepare financial statements and varied experience as to general application of such accounting principles, as well as the internal controls and procedures necessary for financial reporting, garnered from working in their individual fields of endeavour. In addition, each of the members of the Fission Audit Committee has knowledge of the role of an audit committee in the realm of reporting companies. Set out below is a description of the education and experience of each member of the Fission Audit Committee that is relevant to the performance of her or his responsibilities as an Audit Committee member.

Mr. Frank Estergaard	Mr. Estergaard is a Chartered Professional Accountant (CPA, CA). Mr. Estergaard was a partner with KPMG where he participated in a broad range of audit, taxation and structural/reorganization transactions and served on the firm's Management Committee and Partnership Board. Since retiring from KPMG, Mr. Estergaard has served as a director and chair of the audit committee for Fission Energy Corp., Fission 3.0 Corp., QHR Technologies Inc., Cobalt 27 Capital Corp. and Conic Metals Corp., and as CFO for Metalex Ventures Ltd. and CFO and /or director for several private companies.
Mr. William Marsh	Mr. Marsh previously worked on domestic and international drilling programs for Chevron for 15 years both in Canada and internationally. Mr. Marsh was a director of Pacific Asia China Energy until its sale to Green Dragon Gas wholly owned subsidiary, Greka China Ltd, for \$35.18 million in 2008. Mr. Marsh was also a director of Predator Capital Corp., Wolf Capital Corp. and Ballyliffin Capital Corp. Mr. Marsh has also provided consulting services to a number of resource exploration and production companies, both public and private, operating in Canada and internationally.
Mr. Robby Chang	Mr. Chang has over 25 years of experience in the financial services industry and is a sought after expert in uranium markets. An experienced senior executive, he currently sits on the boards of three mineral resource companies and is on the advisory board of another. He is currently the Co-Founder and Chief Executive Officer of Gryphon Digital Mining and his past roles include serving as the Managing Director and Head of Metals & Mining at Cantor Fitzgerald where he provided research coverage in precious metals, base metals, lithium, and uranium. He is well familiar with the uranium mining industry, and is considered a subject matter expert by several media outlets. He was recognized by Bloomberg as the "Best Precious Metals Analyst" in Q1 2016. Mr. Chang is frequently quoted by and a regular guest of several media outlets including: Bloomberg, Reuters, CNBC, and the Wall Street Journal. Mr. Chang previously served as a Director of Research and Portfolio Manager at Middlefield Capital, a Canadian investment firm which managed \$3 billion in assets. He was also on a five-person multi-strategy hedge fund team where he specialized in equity and derivative investments. Mr. Chang completed his MBA at the University of Toronto's Rotman School of Management.

### **Audit Committee Mandate**

The Company has adopted a Mandate of the Audit Committee of the Board of Directors, which is attached as Schedule "A" to this AIF.

### **Audit Committee Oversight**

During the most recently completed financial year, the Company's Board of Directors has not failed to adopt a recommendation of the Audit Committee to nominate or compensate an external auditor.

### **Pre-Approval Policies and Procedures**

Fission's Audit Committee Mandate requires that management seek approval from the Audit Committee of all non-audit services to be provided to Fission by Fission's external auditor, prior to engaging the external auditor to perform those non-audit services.

### **External Auditor Service Fees**

In the following table, "audit fees" are fees billed by the Company's external auditor in each of the last two fiscal years. "Audit-related fees" are fees not included in audit fees that are billed by the auditor for assurance and related services that are reasonably related to the performance of the audit or review of

the Company's financial statements. "Tax fees" are fees billed by the auditor for professional services rendered for tax compliance, tax advice and tax planning. "All other fees" are fees billed by the auditor for products and services not included in the foregoing categories.

The fees paid by the Company to its auditor in each of the last two fiscal years are as follows:

<b>Financial Period Ending</b>	<b>Audit Fees</b> (1)	<b>Audit Related Fees</b> (2)	<b>Tax Fees</b> (3)	<b>All Other Fees</b> (4)
December 31, 2021	\$70,000	\$88,142	\$Nil	\$56,950
December 31, 2020	\$114,000	\$46,445	\$Nil	\$235,488

Notes:

- (1) The aggregate fees billed for audit services of the Company's consolidated financial statements.
- (2) The aggregate fees billed for assurance and related services that are reasonably related to the performance of the audit or review of the Company's financial statements and are not disclosed in the Audit Fees column. Fees relate to the reviews of interim consolidated financial statements and specified audit procedures not included as part of the audit of consolidated financial statements.
- (3) The aggregate fees billed for tax compliance, tax advice and tax planning services.
- (4) The aggregate fees billed for professional services other than those listed in the other columns.

## SCHEDULE A

### FISSION URANIUM CORP.

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#### AUDIT COMMITTEE MANDATE

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##### **1. Introduction**

The Audit Committee (the "Committee" or the "Audit Committee") of Fission Uranium Corp. ("Fission" or the "Corporation") is a committee of the Board of Directors (the "Board"). The Committee shall oversee the accounting and financial reporting practices of the Corporation and the audits of the Corporation's financial statements and exercise the responsibilities and duties set out in this Mandate.

##### **2. Membership**

###### ***Number of Members***

The Committee shall be composed of three or more members of the Board.

###### ***Independence of Members***

Whenever reasonably feasible, members of the Audit Committee should be independent and shall have no direct or indirect material relationship with the Corporation. If less than a majority of the Board are independent, then a majority of the members of the Audit Committee may be made of members that are not independent of the Corporation, provided that there is an exemption in the applicable securities law, rule, regulation, policy or instrument (if any). "Independent" shall have the meaning, as the context requires, given to it in National Instrument 52-110 *Audit Committees*, as may be amended from time to time, subject to any exemptions or relief that may be granted from such requirements.

###### ***Chair***

At the time of the annual appointment of the members of the Audit Committee, the Board shall appoint a Chair of the Audit Committee. The Chair shall be a member of the Audit Committee, preside over all Audit Committee meetings, coordinate the Audit Committee's compliance with this Mandate, work with management to develop the Audit Committee's annual work-plan and provide reports of the Audit Committee to the Board.

###### ***Financial Literacy of Members***

At the time of his or her appointment to the Committee, each member of the Committee shall have, or shall acquire within a reasonable time following appointment to the Committee, the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues that can reasonably be expected to be raised by the Corporation's financial statements.

###### ***Term of Members***

The members of the Committee shall be appointed annually by the Board. Each member of the Committee shall serve at the pleasure of the Board until the member resigns, is removed, or ceases to be a member of the Board. Unless a Chair is elected by the Board, the members of the Committee may designate a Chair by majority vote of the full Committee membership.

##### **3. Meetings**

###### ***Number of Meetings***

The Committee may meet as many times per year as necessary to carry out its responsibilities.

###### ***Quorum***

No business may be transacted by the Committee at a meeting unless a quorum of the Committee is present. A majority of members of the Committee shall constitute a quorum.

### ***Calling of Meetings***

The Chair, any member of the Audit Committee, the external auditors, the Chairman of the Board, Chief Executive Officer or the Chief Financial Officer may call a meeting of the Audit Committee by notifying the Corporation's Corporate Secretary who will notify the members of the Audit Committee. The Chair shall chair all Audit Committee meetings that he or she attends, and in the absence of the Chair, the members of the Audit Committee present may appoint a chair from their number for a meeting.

### ***Minutes; Reporting to the Board***

The Committee shall maintain minutes or other records of meetings (including resolutions) and activities of the Committee in sufficient detail to convey the substance of all discussions held. Upon approval of the minutes by the Committee, the minutes shall be circulated to the members of the Board. However, the Chair may report orally to the Board on any matter in his or her view requiring the immediate attention of the Board.

### ***Attendance of Non-Members***

The external auditors are entitled to attend and be heard at each Audit Committee meeting. In addition, the Committee may invite to a meeting any officers or employees of the Corporation, legal counsel, advisors and other persons whose attendance it considers necessary or desirable in order to carry out its responsibilities. At least once per year, the Committee shall meet with management to discuss any matters that the Committee or management considers appropriate.

### ***Meetings without Management***

The Committee shall hold unscheduled or regularly scheduled meetings, or portions of meetings, at which management is not present.

### ***Procedure***

The procedures for calling, holding, conducting and adjourning meetings of the Committee shall be the same as those applicable to meetings of the Board.

### ***Access to Management***

The Committee shall have unrestricted access to the Corporation's management and employees and the books and records of the Corporation.

## **4. Duties and Responsibilities**

The Committee shall have the functions and responsibilities set out below as well as any other functions that are specifically delegated to the Committee by the Board and that the Board is authorized to delegate by applicable laws and regulations. In addition to these functions and responsibilities, the Committee shall perform the duties required of an audit committee by any exchange upon which securities of the Corporation are traded, or any governmental or regulatory body exercising authority over the Corporation, as are in effect from time to time (collectively, the "**Applicable Requirements**").

### ***Financial Reports***

#### **(a) General**

The Audit Committee is responsible for overseeing the Corporation's financial statements and financial disclosures. Management is responsible for the preparation, presentation and integrity of the Corporation's financial statements and financial disclosures and for the appropriateness of the accounting principles and the reporting policies used by the Corporation. The auditors are responsible for auditing the Corporation's annual consolidated financial statements and for reviewing the Corporation's unaudited interim financial statements.

#### **(b) Review of Annual Financial Reports**

The Audit Committee shall review the annual consolidated audited financial statements of the Corporation, the auditors' report thereon and the related management's discussion and analysis of the Corporation's financial condition and results of operation ("**MD&A**"). After completing its review, if advisable, the Audit Committee shall approve and recommend for Board approval the annual financial statements and the related MD&A.

(c) **Review of Interim Financial Reports**

The Audit Committee shall review the interim consolidated financial statements of the Corporation, and the related MD&A. After completing its review, if advisable, the Audit Committee shall approve and recommend for Board approval the interim financial statements and the related MD&A.

(d) **Review Considerations**

In conducting its review of the annual financial statements or the interim financial statements, the Audit Committee shall:

- (i) meet with management and the auditors to discuss the financial statements and MD&A;
- (ii) review the disclosures in the financial statements;
- (iii) review the audit report prepared by the auditors;
- (iv) discuss with management and/or the auditors, as requested, any litigation claim or other contingency that could have a material effect on the financial statements;
- (v) review the accounting policies followed and critical accounting and other significant estimates and judgements underlying the financial statements as presented by management;
- (vi) review any material effects of regulatory accounting initiatives or off-balance sheet structures on the financial statements as presented by management, including requirements relating to complex or unusual transactions, significant changes to accounting principles and alternative treatments under Canadian GAAP;
- (vii) review any material changes in accounting policies and any significant changes in accounting practices and their impact on the financial statements as presented by management;
- (viii) review management's report on the effectiveness of internal controls over financial reporting;
- (ix) review the factors identified by management as factors that may affect future financial results; and
- (x) review any other matters, related to the financial statements, that are brought forward by the auditors, management or which are required to be communicated to the Audit Committee under accounting policies, auditing standards or Applicable Requirements.

(e) **Approval of Other Financial Disclosures**

The Audit Committee shall review and, if advisable, approve and recommend for Board approval financial disclosure in a prospectus or other securities offering document of the Corporation, press releases disclosing, or based upon, financial results of the Corporation and any other material financial disclosure, including financial guidance provided to analysts, rating agencies or otherwise publicly disseminated.

**Auditors**

(a) **General**

The Audit Committee shall be responsible for oversight of the work of the auditors, including the auditors' work in preparing or issuing an audit report, performing other audit, review or attest services or any other related work.

(b) **Nomination and Compensation**

The Audit Committee shall review and, if advisable, select and recommend for Board approval the external auditors to be nominated and the compensation of such external auditor. The Audit Committee shall have ultimate authority to approve all audit engagement terms and fees, including the auditors' audit plan.

(c) **Resolution of Disagreements**

The Audit Committee shall resolve any disagreements between management and the auditors as to financial reporting matters brought to its attention.

(d) **Discussions with Auditors**

At least annually, the Audit Committee shall discuss with the auditors such matters as are required by applicable auditing standards to be discussed by the auditors with the Audit Committee.

(e) **Audit Plan**

At least annually, the Audit Committee shall review a summary of the auditors' annual audit plan. The Audit Committee shall consider and review with the auditors any material changes to the scope of the plan.

(f) **Independence of Auditors**

At least annually, and before the auditors issue their report on the annual financial statements, the Audit Committee shall obtain from the auditors a formal written statement describing all relationships between the auditors and the Corporation; discuss with the auditors any disclosed relationships or services that may affect the objectivity and independence of the auditors; and obtain written confirmation from the auditors that they are objective and independent within the meaning of the applicable Rules of Professional Conduct/Code of Ethics adopted by the provincial institute or order of chartered accountants to which the auditors belong and other Applicable Requirements. The Audit Committee shall take appropriate action to oversee the independence of the auditors.

(g) **Evaluation and Rotation of Lead Partner**

At least annually, the Audit Committee shall review the qualifications and performance of the lead partner(s) of the auditors and determine whether it is appropriate to adopt or continue a policy of rotating lead partners of the external auditors.

(h) **Requirement for Pre-Approval of Non-Audit Services**

The Audit Committee shall approve in advance any retainer of the auditors to perform any non-audit service to the Corporation that it deems advisable in accordance with Applicable Requirements and Board approved policies and procedures. The Audit Committee may delegate pre-approval authority to a member of the Audit Committee. The decisions of any member of the Audit Committee to whom this authority has been delegated must be presented to the full Audit Committee at its next scheduled Audit Committee meeting.

(i) **Approval of Hiring Policies**

The Audit Committee shall review and approve the Corporation's hiring policies regarding partners, employees and former partners and employees of the present and former external auditors of the Corporation.

(j) **Financial Executives**

The Committee shall review and discuss with management the appointment of key financial executives and recommend qualified candidates to the Board, as appropriate.

**Internal Controls**

(a) **General**

The Audit Committee shall review the Corporation's system of internal controls.

(b) **Establishment, Review and Approval**

The Audit Committee shall require management to implement and maintain appropriate systems of internal controls in accordance with Applicable Requirements, including internal controls over financial reporting and disclosure and to review, evaluate and approve these procedures. At least annually, the Audit Committee shall consider and review with management and the auditors:

- (i) the effectiveness of, or weaknesses or deficiencies in: the design or operation of the Corporation's internal controls (including computerized information system controls and security); the overall control environment for managing business risks; and accounting, financial and disclosure controls (including, without limitation, controls over financial reporting), non-financial controls, and legal and regulatory controls and the impact of any identified weaknesses in internal controls on management's conclusions;
- (ii) any significant changes in internal controls over financial reporting that are disclosed, or considered for disclosure, including those in the Corporation's periodic regulatory filings;



- (iii) any material issues raised by any inquiry or investigation by the Corporation's regulators;
- (iv) the Corporation's fraud prevention and detection program, including deficiencies in internal controls that may impact the integrity of financial information, or may expose the Corporation to other significant internal or external fraud losses and the extent of those losses and any disciplinary action in respect of fraud taken against management or other employees who have a significant role in financial reporting; and
- (v) any related significant issues and recommendations of the auditors together with management's responses thereto, including the timetable for implementation of recommendations to correct weaknesses in internal controls over financial reporting and disclosure controls.

### ***Compliance with Legal and Regulatory Requirements***

The Audit Committee shall review reports from the Corporation's Corporate Secretary and other management members on: legal or compliance matters that may have a material impact on the Corporation; the effectiveness of the Corporation's compliance policies; and any material communications received from regulators. The Audit Committee shall review management's evaluation of and representations relating to compliance with specific applicable law and guidance, and management's plans to remediate any deficiencies identified.

### ***Audit Committee Hotline Whistleblower Procedures***

The Audit Committee shall establish procedures for (a) the receipt, retention, and treatment of complaints received by the Corporation regarding accounting, internal accounting controls, or auditing matters; and (b) the confidential, anonymous submission by employees of the Corporation of concerns regarding questionable accounting or auditing matters. Any such complaints or concerns that are received shall be reviewed by the Audit Committee and, if the Audit Committee determines that the matter requires further investigation, it will direct the Chair of the Audit Committee to engage outside advisors, as necessary or appropriate, to investigate the matter and will work with management and the general counsel to reach a satisfactory conclusion.

### ***Audit Committee Disclosure***

The Audit Committee shall prepare, review and approve any audit committee disclosures required by Applicable Requirements in the Corporation's disclosure documents.

### ***Delegation***

The Audit Committee may, to the extent permissible by Applicable Requirements, designate a sub-committee to review any matter within this mandate as the Audit Committee deems appropriate.

## **5. No Rights Created**

This Mandate is a statement of broad policies and is intended as a component of the flexible governance framework within which the Audit Committee, functions. While it should be interpreted in the context of all applicable laws, regulations and listing requirements, as well as in the context of the Corporation's By-laws, it is not intended to establish any legally binding obligations.

## **6. Mandate Review**

The Committee shall review and update this Mandate annually and present it to the Board for approval.