FISSION URANIUM CORP.

ANNUAL INFORMATION FORM

FOR THE YEAR ENDED DECEMBER 31, 2022

March 17, 2023

FISSION URANIUM CORP.
ANNUAL INFORMATION FORM
TABLE OF CONTENTS

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PRELIMINARY NOTES

The information contained in this Annual Information Form ("**AIF**") is presented as of March 17, 2023 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, 2022 and the management's discussion and analysis ("**MD&A**") thereon, which are available on Fission's SEDAR profile at 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:

To Convert From Metric	To Imperial	Multiply by
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_3O_8 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; 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_3O_8 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;

"**CBCA**" 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 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*";

"**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 "**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 Technical Report**" means the NI 43-101 Technical Report prepared by Hassan Ghaffari, P.Eng., Jianhui (John) Huang, P.Eng., Partick Donlon, FAUSIMM, FSAIMM, Mark Wittrup, P.Eng., P.Geo., CMC, Wayne Clifton, P.Eng., Mark B. Mathisen, C.P.G., Maurice Mostert, P.Eng., FSAIMM, Catherine Schmid, P.Eng., Randi Thompson, P.Eng. entitled "Feasibility Study, NI 43-101 Technical Report, for PLS Property" with an effective date January 17, 2023 and available under Fission's profile on SEDAR at 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;

"**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;

"**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;

"**TMF**" means tailings management facility;

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

"**TSX**" means the Toronto Stock Exchange; 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:

Assay	The chemical analysis of mineral samples to determine the metal content.
Capital Expenditure	All other expenditures not classified as operating costs.
CCD	Counter-current decantation, one step in the uranium recovery process.
Concentrate	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.
Cut-off Grade	The grade of mineralized rock, which determines as to whether or not it is economic to recover its content by further concentration.
Dip	Angle of inclination of a geological feature/rock from the horizontal.
EM	Electro-magnetic; a type of geophysical survey used in mineral exploration.
Grade	The measure of concentration within mineralized rock.
ha	Hectares.
km	Kilometre.
kt	Kilotonne.
lb	Pound.
m	Metre.
Mineral Claim	A lease area for which mineral rights are held.
RMR_{76}	Rock Mass Rating; a geotechnical system of classifying the condition of an underground rock mass.
Strike	Direction of line formed by the intersection of strata surfaces with the horizontal plane, always perpendicular to the dip direction.
UCS	Unconfined Compressive Strength; a measurement of rock strength.
U_3O_8	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

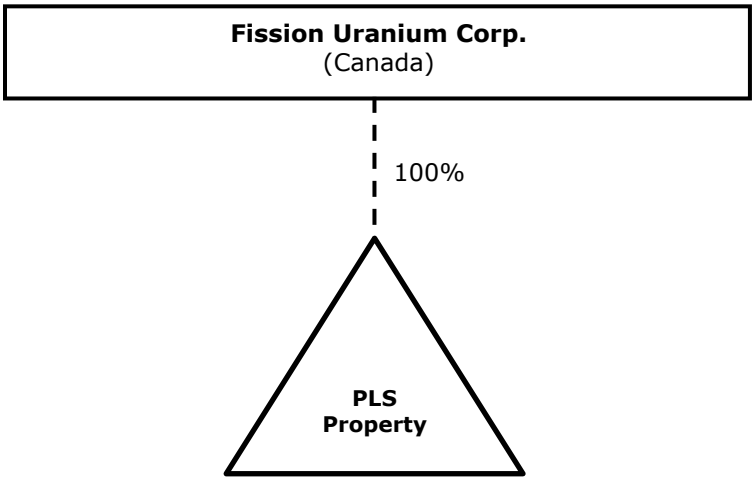
relevant Canadian securities regulatory authorities. Such documents are available on Fission's profile on the SEDAR website at www.sedar.com. The authorized capital of Fission is an unlimited number of common shares without par value (the "**Common Shares**").

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, 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 ("**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 find 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 Project with a feasibility study beginning in 2021.

On March 25, 2021, the Company announced that it entered into an engagement and capacity agreement with the Clearwater River Dene Nation ("**CRDN**"). The 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 Project.

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, 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 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 Project is a "Development". The result of this is that Fission will be required to produce an environmental impact assessment for the Project.

Year Ended December 31, 2022

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.

On April 7, 2022, the Company provided an update on its winter drilling program and announced that it repaid the remaining ~US$7 million balance of its secured credit facility.

On April 25, 2022, the Company announced that it had entered into an equity distribution agreement dated April 25, 2022, providing for an at-the-market equity offering program (the "**ATM Offering**"), with Canaccord Genuity Corp. (the "**Lead Agent**"), and including Sprott Capital Partners LP, BMO Capital Markets and Haywood Securities Inc. (collectively with the Lead Agent, the "**Agents**"). The ATM will allow the Company, through the Agents to, from time to time, offer and sell, in Canada through the facilities of the TSX, such number of Common Shares as would have an aggregate offering price of up to C$50 million.

On June 20, 2022, the Company announced that it had entered into an engagement and capacity agreement with the Ya'thi Néné Lands and Resources Office, which represents the Athabasca Basin and Communities of the Nuhenéné. The Project is within the Athabasca Denesųłiné territory.

On July 18, 2022, the Company announced that it had entered into an engagement and communication agreement with the Buffalo River Dene Nation ("**BRDN**"). The Project is within the BRDN's Ancestral Lands.

On September 12, 2022, the Company announced results of an updated independent resource estimate for the Triple R deposit at its PLS Property. Total Indicated tonnes have increased by ~21.3% (~472,000 tonnes) compared to the previous Mineral Resource (dated September 19, 2019), with an associated increase of approximately 12.3% in contained U_3O_8 and a minor decrease in grade from 2.10% U_3O_8 to 1.94% U_3O_8.

On November 10, 2022, the Company announced that it had entered into an engagement and capacity agreement with the Birch Narrows Dene Nation ("**BNDN**"). Fission's PLS Project is within the BNDN's Ancestral Lands.

Recent Developments Subsequent to December 31, 2022

On January 12, 2023, the Company announced that it entered into a Capacity Funding Agreement with the Métis Nation of Saskatchewan ("MN-S"). The Project is within the MN-S's Ancestral Lands.

On January 17, 2023, the Company announced the results of the Feasibility Study for the Project. The results confirm the economic strength and the uranium sector strengthening year on year.

On January 26, 2023, the Company announced a winter program at its PLS Property. The program will include geotechnical testing of key areas identified for surface infrastructure as identified in the recently released feasibility study.

On February 9, 2023, the Company announced the appointment of Beatriz Orrantia to the Fission Board.

On March 2, 2023, the Company announced that it had filed the PLS Property Technical Report under Fission's profile on SEDAR.

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.

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, 2022, Fission has 11 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 principal mineral property is the PLS Property. Hassan Ghaffari, P.Eng., Jianhui (John) Huang, P.Eng., Partick Donlon, FAUSIMM, FSAIMM, Mark Wittrup, P.Eng., P.Geo., CMC, Wayne Clifton, P.Eng., Mark B. Mathisen, C.P.G., Maurice Mostert, P.Eng., FSAIMM, Catherine Schmid, P.Eng., Randi Thompson, 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, with an effective date of January 17, 2023. 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 and on the Company's website at www.fissionuranium.com.

Summary

The Company commissioned Tetra Tech Canada Inc. ("**Tetra Tech**") to complete a Feasibility Study ("**FS**") with the assistance of specialist consultants for the Project. The consultants commissioned to complete the FS are presented in Table 1.

Table 1: List of FS Consultants

Consultant	FS Components
Tetra Tech Canada Inc.	Overall project management, mineral processing and metallurgical testing, recovery methods, project infrastructure (overall site layout, ancillary infrastructure, and buildings including site roads), marketing studies, summary of initial and sustaining capital and operating cost estimates, economic analysis, project execution plan and overall PLS Property Technical Report compilation
SLR Consulting (Canada) Ltd. ("**SLR**")	Project description and location, accessibility, history, geological setting, deposit types, exploration, drilling, data verification, mineral resource estimate, adjacent properties
BGC Engineering Inc. ("**BGC**")	Waste Rock Stockpile slope design, underground and surface infrastructure geotechnical assessment, hydrogeology
Mining Plus Canada Consulting Ltd. ("**Mining Plus**")	Mineral reserve estimate, waste rock management, mining methods, mining initial, and sustaining capital and operating cost estimates
Clifton Engineering Group Ltd. ("**Clifton**")	Tailings management facility ("**TMF**"), environmental, permitting, and socio-economics

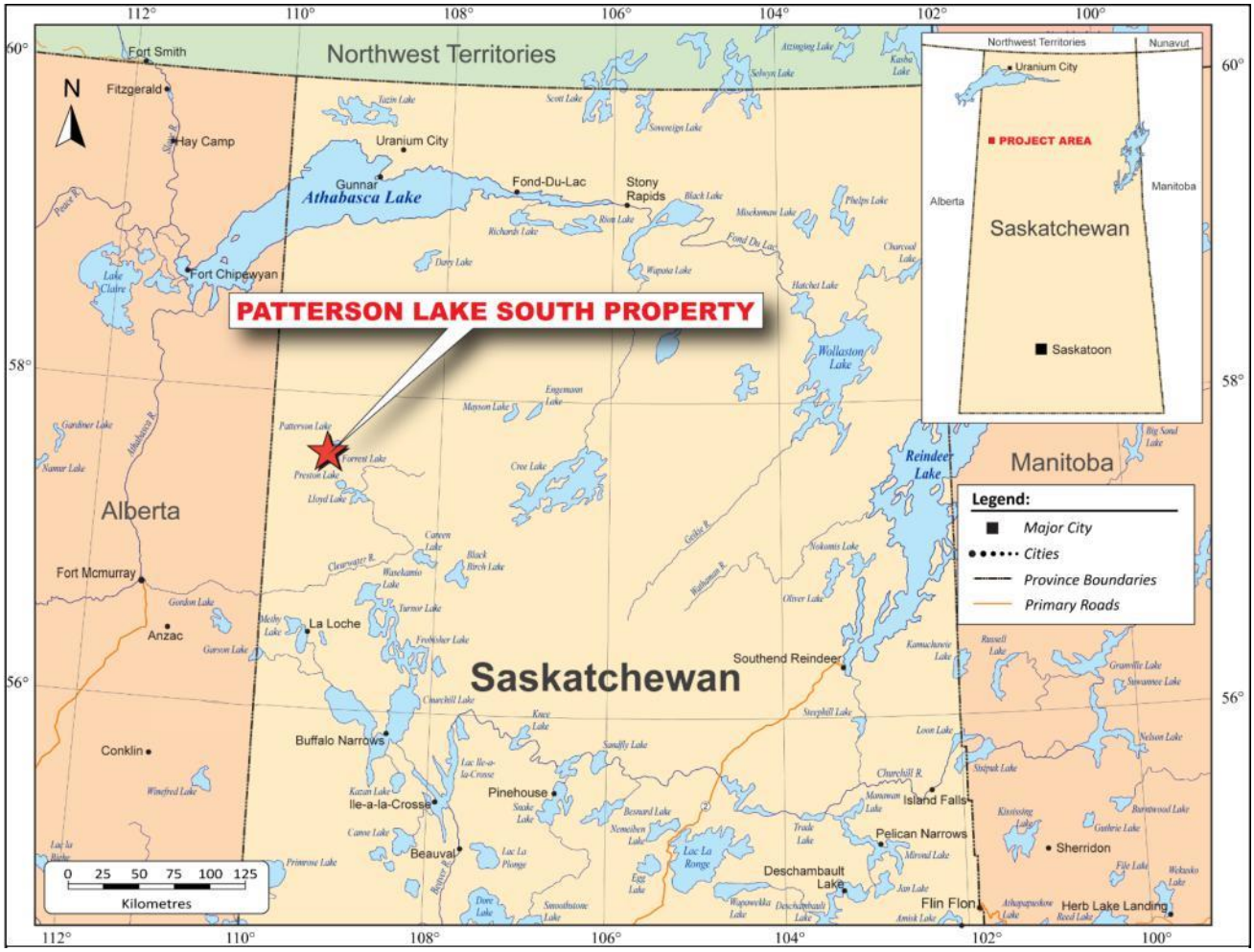
Project Description and Location

Location

The PLS Property is located in northern Saskatchewan, approximately 550 km north-northwest of Prince Albert by air and 157 km north of La Loche by road, as illustrated in Figure 1. The geographic coordinates for the approximate centre of the PLS Property are 57°37' N latitude and 109°22' W longitude which

corresponds to the Universal Transverse Mercator ("**UTM**") geographic coordinates of 600,000mE, 6,387,500mN (NAD83 UTM Zone 12N). The approximate centre of the Triple R deposit is located at UTM coordinates 598,000mE, 6,390,000mN (NAD83 UTM Zone 12N). Elevation on the PLS Property varies between 499 masl and 604 masl.

Figure 1: Property Location



Source: SLR, 2022

Land Tenure

The PLS Property consists of 17 contiguous mineral claims covering an area of 31,039 ha located on the southwest margin of the Athabasca Basin. The Triple R deposit is located on claim S-111376. The mineral claims constituting the PLS Property were ground staked and are therefore designated as non-conforming legacy claims. As of the effective date of the PLS Property Technical Report, all 17 mineral claims comprising the PLS Property are in good standing and registered in the name of the Company.

Accessibility, Climate, Local Resources, Infrastructure, and Physiography

The PLS Property is accessible via the all-weather gravel Highway 955 (Cluff Lake Mine Road) that originates at La Loche, heads northwards and enters the PLS Property at the 144 km marker. Highway 955 bisects the PLS Property in a north-south direction. Numerous access roads branch off Highway 955, allowing access to the east and west halves of the PLS Property.

The PLS Property is located within the Mid-Boreal Upland Ecoregion of the Boreal Shield Ecozone (Marshall and Schutt 1999). The summers are short and cool, and the winters are long and cold. The ground is snow-covered for six to eight months of the year. The ecoregion is classified as having a sub-humid high boreal ecoclimate. The mean temperature recorded at the Cluff Lake Station is about -20.4°C in January and 16.9°C in July. The average annual precipitation is approximately 451 mm at the Cluff Lake Station.

Various services are available at La Loche, including fuel, and emergency medical services. A greater range of services is available in Prince Albert and Saskatoon. Fixed-wing aircraft are available for charter at Fort McMurray in Alberta and Buffalo Narrows, La Loche, and La Ronge in Saskatchewan. Helicopters are available for charter at Fort McMurray and La Ronge.

Except for the all-weather gravel Highway 955, which traverses the PLS Property, there is no permanent infrastructure on the PLS Property.

The topography of northern Saskatchewan is characterized by low hills, ridges, drumlins, and eskers, with lakes and muskeg common in the low-lying areas. Outcrop of the underlying Athabasca sandstone and basement rocks is rare. Numerous lakes and ponds generally show a north-easterly elongation imparted by the most recent glaciation. Elevation on PLS Property varies between 499 masl and 604 masl.

Geology and Mineralization

The most significant uranium metallogenic district in Canada is the Athabasca Basin, which covers over 85,000 km^2 in northern Saskatchewan and northeastern Alberta. The east-west elongate Athabasca Basin lies astride two subdivisions of the Western Churchill Province, the Rae Subprovince (Craton) to the west and the Hearne Subprovince (Craton) to the east. These are separated by the northeast-trending Snowbird Tectonic Zone, also known as the Virgin River Shear Zone or Black Lake Shear Zone, south and north of the Athabasca Basin, respectively.

The PLS Property is located within the Clearwater and Taltson Domains of the Rae Subprovince near the southwestern edge of the Athabasca Basin. The western portion of the PLS Property overlies the Clearwater Domain, and the eastern portion overlies the Taltson Domain. The PLS Property lies within the northeastern limits of the Cretaceous Mannville Group ("**Mannville Group**"), which covers a large portion of western Saskatchewan. The Lexicon of Canadian Geologic Units describes the Mannville Group as interbedded marine and non-marine sands, shales, and calcareous sediments.

As of the effective date of the PLS Property Technical Report, appreciable high-grade mineralization is known to occur at the PLS Property in five zones, which collectively constitute the Triple R deposit. From west to east, these zones are: 1) R1515W, 2) R840W, 3) R00E, 4) R780E, and 5) R1620E, the most significant of which is the R780E zone. The R780E zone was discovered during the winter 2013 drill program with drill hole PLS13-038. Drill hole PLS13-038 intersected a 34.0 m wide zone of very strong uranium mineralization, beginning at 87.0 m, averaging 4.9% U_3O_8. 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.

Drilling

As of the date of the PLS Property Technical Report, the Company and its predecessors have completed a total of 844 drill holes, totaling 227,775 m across the PLS Property. Drilling includes exploration, geotechnical, metallurgical, water wells, and hydrogeology drill holes.

From November 2011 to September 2015, 142,832 m of drilling was completed in 454 diamond drill holes on the PLS Property. During the winter 2015 drill program, an initial Inferred Mineral Resource estimate for the Triple R deposit was published. Following the spring 2015 drill program, RPA completed a PEA on the Triple R deposit.

From January 2016 to December 2018, the Company continued to conduct both delineation and step-out drilling programs along the strike of the Triple R deposit by completing 52,983 m of drilling in 169 holes. Drill holes were primarily designed to both infill in support of an Indicated Mineral Resource classification in the R780E high grade ("**HG**") and R780E Main Zone domain and materially expand the footprint of Inferred mineralization in the R00E and R780E areas. Step-out regional drilling during this time was also successful in identifying two significant new areas of mineralization (R1515W and R1620E) and expanding mineralization at R840W. The goal of the summer 2018 program, which consisted of nine holes totaling 2,928 m drilled, was to drill key areas of the R780E HG zone that were classified in 2015 as "Inferred" and upgrade them to "Indicated". To that extent, the nine drill holes intersected the width and strength of mineralization where expected and allowed for upgrading the classification in these areas. Following the summer 2018 drill program, RPA, along with Clifton and Wood PLC, completed a PFS on the PLS Property based on a total of 197,651 m of drilling in 636 drill holes.

Since September 19, 2019, the Company has completed an additional 181 drill holes totaling 27,392 m over the PLS Property, primarily focused on the R780E and R840W deposits.

The core from the first drilling programs was stored at the Big Bear Lodge on Grygar Lake, but since August 2013, that drill core was moved to, and all subsequent drill core has been stored at, a purpose-built storage facility located west of Patterson Lake.

Mineral Processing and Metallurgical Testing

A series of bench scale and bulk tests were conducted at SGS Canada Inc. – Mineral Services Lakefield to support the feasibility level design of the process plant.

- High uranium extractions were achieved in a 12-hour leach, averaging 98.4% for all the tests, regardless of composite type, leach solid density, feed grind size, head grade, oxidant type, oxidation potential and free acid levels. The bulk leach test generated a pregnant leach solution for testing downstream processes.
- The counter current decantation ("**CCD**") simulation showed that a six-stage thickener circuit would operate with a 99.5% wash efficiency based on a 3:1 pregnant leach solution to leach feed ratio.
- A five-day continuous solvent extraction ("**SX**") mini pilot test showed 99.9% uranium recovery using four extraction stages and, on average, 99.4% stripping efficiency using five striping stages.
- Gypsum precipitation tests were completed for removing sulphates from the pregnant strip liquor before yellowcake precipitation. A two-stage washing of the gypsum cake could decrease the final washed gypsum cake grade to roughly 0.025% U_3O_8, representing greater than 95% uranium re-dissolution.
- Yellowcake precipitation using hydrogen peroxide and magnesia for pH control produced products averaging 80% U_3O_8, within refinery specifications.
- The uranium grade in the calcined yellowcake product was 95% U_3O_8 at a temperature of 450°C.
- Effluent treatment tests yielded a treated effluent meeting Canadian Metal and Diamond Mining Effluent Regulations guidelines.

Mineral Resource Estimate

Mineral Resources have been classified in accordance with the definitions for Mineral Resources in the Canadian Institute of Mining, Metallurgy and Petroleum ("**CIM**") Definition Standards for Mineral Resources and Mineral Reserves dated May 10, 2014 ("**CIM 2014**"). Table 2 summarizes Mineral Resources based on a US$50/lb uranium price at a cut-off grade ("**COG**") of 0.25% U_3O_8 and a potential underground scenario. Indicated Mineral Resources total 2.69 Mt at an average grade of 1.94% U_3O_8 for a total of 114.9 Mlb U_3O_8. Inferred Mineral Resources total 0.64 Mt at an average grade of 1.10% U_3O_8 for a total of 15.4 Mlb U_3O_8. Gold grades were also estimated and averaged 0.61 g/t for the Indicated Mineral Resources and 0.44 g/t for the Inferred Mineral Resources. Mineral Resources are inclusive of Mineral Reserves. The cut-off date of the Mineral Resource database is December 22, 2021,

which represents the date on which all assays were received from the Company's summer 2021 drill program. The effective date of the Mineral Resource estimate is May 17, 2022.

Table 2: Mineral Resource Statement – May 17, 2022

Category	Tonnage	Metal	Grade	Contained Metal	
	(000 t)	(% U_3O_8)	(g/t Au)	(Mlb U_3O_8)	(000 oz Au)
Indicated	2,688	1.94	0.61	114.9	52.7
Inferred	635	1.10	0.44	15.4	9.0

Notes:

1. CIM (2014) definitions were followed for Mineral Resources.
2. Mineral Resources are reported at a COG of 0.25% U_3O_8, based on a long term price of US$50/lb U_3O_8, an exchange rate of C$1.00/US$0.75, and cost estimates derived during the PFS with a metallurgical recovery of 95%.
3. Minimum mining width of 1 m was applied to the resource domain wireframe.
4. Mineral Resources are inclusive of Mineral Reserves.
5. Numbers may not add due to rounding.

Mineral Reserve Estimate

The Mineral Reserves for the PLS Property are based on the Mineral Resources with an effective date of May 17, 2022. Detailed mine designs have been generated, and modifying factors have been applied. For consistency with the resource table, the USD$65/lb and relevant exchange rate were applied. The Mineral Reserve includes a nominal amount of material above the mineralized waste cut-off of 0.03% U_3O_8 and below the incremental COG of 0.19% U_3O_8 that has been included based on the requirement to access certain mining areas or manage geotechnical conditions in a production area.

Estimates of mineralization and other technical information included herein have been prepared in accordance with the NI 43-101. The Mineral Reserves are summarized in Table 3.

Table 3: Mineral Reserve Statement – PLS Property

Category	Tonnes (000 t)	Grade (%U_3O_8)	Contained Metal (Mlb U_3O_8)
Probable	--	--	--
R780E Zone	2,630	1.46	84.8
R00E Zone	56	1.24	1.5
R840W Zone	322	1.04	7.4
Total Probable	**3,007**	**1.41**	**93.7**

Notes:

1. CIM Definition Standards (2014) were followed for the classification of Mineral Reserves.
2. The Mineral Reserves are reported with an effective date of January 17, 2023.
3. Mineral Reserves were estimated using a long-term metal price of US$65 per lb of U_3O_8 and a US$/C$ exchange rate of 0.75 (C$1.00 = US$0.75)
4. Underground Mineral Reserves were estimated by creating stope shapes using Datamine's Mineable Shape Optimizer (MSO). The MSO outputs were evaluated in the context of the mine design, and then a 0.25% U_3O_8 cut-off was applied. For longhole stoping, a minimum mining width of 4 m (including hanging wall and footwall dilution) and stope height of 20 m was used. Following MSO, the mineable shapes were further subdivided in Deswik to produce a maximum width of 12 m (including hanging wall and footwall dilution). Drift and fill mining is designed at 5 m wide by 5 m high for development shapes located in the crown pillar areas of the orebodies.
5. Mining recovery of 95% was applied to all stopes, while all development mining assumes 100% extraction.
6. The density varies based on block model values. An estimated waste density of 2.42 t/m^3 was used for areas outside the block model boundary.
7. By-product credits were not included in the estimation of Mineral Reserves as the mill is not designed to recover gold (Au).
8. Numbers may not add due to rounding.

Mining Methods

The FS is based on accessing the deposit using a decline developed from a position southwest of the deposits in close proximity to the processing plant and waste stockpile areas. The area of the decline is temporarily dewatered while the development progresses through the overburden. The decline excavation is planned to use a tunnel shield method utilizing a hydrostatic segmental concrete liner for ground support. In addition to the decline, two vertical shafts are excavated sequentially to provide a dedicated ventilation system for the mine (one fresh air intake shaft and one exhaust air shaft). After the decline extends through the overburden and transition bedrock zone, more typical hard rock development can commence. Mining uses the Longhole Stoping method in a longitudinal retreat orientation with cemented rock fill as the backfill.

A partial recovery of the mineralized material approaching the contact between the overburden and bedrock is achieved by utilizing artificial ground freezing to achieve a bulk freeze. The ground is frozen by way of drilling holes into the overburden and shallow bedrock using underground drilling collared from a dedicated freeze drift below the crown area. Upon completion of the ground freezing holes and installation of freeze pipes, a refrigeration plant pumps a chilled brine solution through the pipes to create a frozen cap to provide increased ground stability and reduced groundwater inflow. Once frozen, a low disturbance drift and fill mining method with cemented hydraulic fill is utilized to extract the mineralized material. Roadheader tunneling equipment will be used in the crown pillar areas to remove the need for explosives. A portion of the Mineral Resources approaching the overburden contact will be sterilized due to geotechnical constraints; however, this sterilized material could be further evaluated for eventual extraction in future analysis.

Recovery Methods

Tetra Tech completed the design for the process plant and related infrastructure facilities for the FS using proven uranium extraction technology, processes and equipment and has drawn on its knowledge of other Athabasca uranium plants, including Rabbit Lake, Key Lake, and McClean Lake. The processing plant has been designed to process ore at a nominal throughput of 1,000 t/d to produce market-grade uranium concentrate. The average life of mine ("**LOM**") mill feed grade will be 1.41% U_3O_8, and the anticipated overall U_3O_8 recovery will be 97.0%.

A conventional grinding and leaching circuit will be used for the uranium extraction process. The ore will be trucked from the mine to the run of mine pad and ground in a single-stage semi-autogenous grinding circuit to 80% passing 150 µm. The ground ore will be leached using sulphuric acid and hydrogen peroxide at 50°C. The leached slurry will be fed to a CCD circuit followed by a clarification stage to produce the pregnant leach solution. An SX circuit will purify and concentrate uranium in the solution for yellowcake precipitation. The precipitated uranyl peroxide yellowcake will be calcined at 450°C. The grade of the calcined product will be 95% U_3O_8 before packaging in drums and dispatch to refinery.

Tailings will be neutralized and deposited in the TMF. Effluent and contact water will be treated, monitored, and sampled before being discharged.

Project Infrastructure

The Project will require the development of several infrastructure items. The locations of Project facilities and other infrastructure items were determined with considerations in local topography, environment, and capital and operating costs. FS project infrastructure will include:

- Fresh and exhaust air ventilation shafts, a decline for ore transport from underground to the surface, a freeze plant, dewatering wells, a backfill plant and an intermediate settling/polishing pond
- Process facilities including ore stockpile, process plant with SX circuit, acid plant, effluent treatment facility, surface run-off and monitoring ponds, and assay laboratory
- A TMF to safely manage the tailings and water associated with mill feed processing, tailings transport and disposition, and water reclamation from the TMF.

- On site connective access roads among site infrastructure and Highway 955 with site access controls
- Ancillary facilities, including:
  - Truck shop, machine shop and warehouse
  - Power plant and distribution system
  - Liquefied natural gas storage and laydown area
  - Waste rock management facility
  - Accommodation and administration offices
  - Communications infrastructure
  - Fuel storage and fuel farm

Tailings Management Facility

The design scenario for the TMF is a subaqueous deposition of thickened slurry tailings into a lined pervious surround pit. Tailings will be transported to the TMF in a pipeline as a thickened slurry. Spill prevention and control measures for the slurry pipeline will be incorporated to provide protection against leaks and spills along the tailings pipeline corridor. The tailings will be sub-aqueously deposited using a relocatable barge in a manner that facilitates even distribution of tailings and prevents particle segregation to produce a uniform, low permeability consolidated tailings mass. A water cover consisting of a clarified tailings solution will be maintained to support barge deposition of tailings while preventing freezing of the tailings and providing a barrier to low energy radiation, dust and radon release. Excess water will be returned to the process plant for treatment and release into the environment. The TMF can also act as emergency storage for site water if there is a large storm event that overwhelms the site storage (e.g. a probable maximum precipitation event). Excess water would be returned to the process plant for treatment over time and released into the environment.

After processing and the generation of precipitates, a total of 1,120 t of tailings solids will be produced daily. Provision has also been made for additional capacity by assuming that a 25% increase in daily tailings production will occur over the scheduled 10-year mine life. The tailings slurry, as deposited in the pit, will have a bulk density of approximately 40% solids by mass and will rapidly settle to a bulk density of approximately 50%. Sizing of the TMF was based on this rate of settlement plus ongoing consolidation of the tailings, the inclusion of a 3.0 m thick water cover, and provision for 2.0 m of freeboard in the final year of operation. The total storage available in the TMF is approximately 8,200,000 m^3.

The geotechnical design of the TMF will be in accordance with the Canadian Dam Association ("**CDA**") guidelines and the technical bulletin on the application of the guidelines to mining dams (CDA 2014). The engineered double barrier system is essential for the successful operation of the TMF. The engineered double barrier on the TMF floor will consist of a thick soil-bentonite liner ("**SBL**") overlain by a geomembrane. The SBL has been designed with a low hydraulic conductivity to provide a second barrier to seepage loss from the TMF. In addition, the ion exchange capacity of the soil-bentonite barrier will further attenuate releases of metals and radionuclides that may pass through the geomembrane liner.

The barrier system for the berm slopes will consist of a double geomembrane liner without an SBL underlay. The second membrane will maintain secure containment on the slopes where the applied head will be small due to the overlying free-draining filter that will conduct the tailings solution to the underdrain.

Environmental Studies and Permitting

The extensive baseline work has described a typical northern Saskatchewan terrain of the Athabasca Basin region. It has not identified anything that should significantly delay a project if proper planning and mitigations are incorporated into the Project design. Such mitigations would include but are not 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 the focus of any concerns under the underground mining-only scenario.

Overall, the Project appears to be following applicable regulations governing exploration, drilling and land use, and Company staff and contractors are aware of their duties to environmental and radiation protection. Early in the exploration program, there were some issues related to the excess clearing of trails and access to water bodies, but the Company has worked to repair those areas and reclaim them. The operations are neat and orderly, and the level of clearing and disturbance is commensurate with similar projects in northern Saskatchewan. The Project is visited frequently by Saskatchewan Conservation Officers to ensure compliance.

A preliminary environmental risk assessment was done to look at potential interactions of the Project with the environment. Under the underground mining-only scenario, the main area of concern is the development and operation of the TMF and for the protection of surface and groundwater quality. 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 modelling results continue to show that the TMF, as proposed, will be protective of the environment in the long term. The TMF design is optimized for the existing geological and hydrogeological conditions and avoids widespread dewatering during operation. The potential impacts on Patterson Lake will be much less in the underground mining scenario and are largely related to protecting the water quality. This will need to be further demonstrated in the EIA and subsequent licensing.

Most of the remaining environmental risks are similar to those at existing uranium operations, which, in the modern era, have been demonstrated to have minimal impact on the local and regional environments with proper mitigation. Regardless, for all aspects of the Project, a detailed environmental risk assessment will be required to ensure that nothing is missed and that all reasonable mitigations are included in the EIA and reflected in the Project design.

The ongoing baseline from 2013 to 2020 was adequate to include in an EIA; however, in 2021, the Company was informed by the Saskatchewan Ministry of Environment, Environmental Assessment and Stewardship Branch that older data may not be sufficient for an EIA. The Company commissioned CanNorth to complete an updated baseline program to refresh the data and provide continuity with the data that has been collected since 2013. This updated baseline work also addressed any gaps in previous data collection, including areas now identified as part of the project footprint that had previously not been included. A refreshed heritage resources study was also part of the 2022 program. Moving forward, the Company will need to do some level of on-going monitoring to maintain the baseline database throughout the construction and operation periods.

The level of environmental review was commensurate with an FS and was not an exhaustive examination of all documentation nor a compliance audit, although it did include updating the PFS modelling for potential impacts from the TMF. The interpretation relies on the author's 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.

Some of the items required to support an EIA, particularly consultation, 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 ascertain the level of First Nations, Métis, and stakeholder consultation they expect as well as their expectations in other areas. With the signing of agreements related to engagement and information sharing during the EIA period with the main Indigenous rights holders, the Company has continued to leverage its good relations with these groups in a respectful manner. These agreements establish the basis for the Company's ongoing relationship with these groups and set the stage for any future accommodation agreements.

The Company's level of governance continues to be adequate for the level of work on-site and the EIA regulatory period, but it will require significant improvement to support the policy-driven management

systems required to support a uranium project and the CNSC's safety and control requirements. The Company will be working on this next step in 2023. The feasibility level engineering done to support this FS will be sufficient to support the EIA process with minor amounts of additional detail. While it is not sufficient to support most of the licensing requirements for construction and operations, that additional work will be started in 2023, the FS work provides evidence that the Project can be constructed in a manner that protects the environment and public health and safety.

Capital and Operating Costs

Capital Cost Estimate

The total estimated initial and sustaining capital cost for the design, construction, installation, and commissioning of the Project is $1,539 million. This includes all direct costs, indirect costs, owner's costs, and contingency. The capital cost estimate is consistent with an Association for the Advancement of Cost Engineering Class 3 estimate with the expected accuracy of ±15%. A summary breakdown of the capital cost is provided in Table 4.

Table 4: Capital Cost Summary

Capital Cost Area	Value ($ millions)
Mining	176
Processing	141
Infrastructure	159
TMF	235
Direct Costs	**711**
Indirect Costs	198
Owner's Costs	109
Contingency	137
Total Initial Capital Cost	**1,155**
Total Sustaining Capital Cost	384
Total Capital Cost	**1,539**

Operating Cost Estimate

The Project operating cost estimate consists of mining, processing, and general and administration ("**G&A**") costs, are summarized in Table 5. The average operating cost is estimated at $393/t ore processed, or $13.02/lb U_3O_8 produced.

Table 5: Average LOM Operating Cost Summary

Description	LOM Cost ($ millions)	Unit Cost ($/t processed)	Unit Cost ($/lb U_3O_8)
Mining	458.8	152.55	5.05
Processing	489.6	162.78	5.39
G&A	234.9	78.12	2.59
Total LOM Capital Cost	**1,183.3**	**393.45**	**13.02**

Economic Analysis

The Project has been evaluated using a constant U_3O_8 market price of US$65/lb U_3O_8, reflecting the recent upturn in the spot price. The LOM base case Project net cash flow before and after tax is presented in Table 6. Applying an annual discount rate of 8%, the Project base case post-tax cash flow evaluates to a net present value ("**NPV**") of $1,204 million and an internal rate of return ("**IRR**") of 27%. The post-tax payback period is 2.6 years when discounted at 8% per year.

Table 6: Summary of Economic Analysis Results

Parameter	Unit	Pre-Tax	Post-Tax
Undiscounted Net Cash Clow (NCF)	$ billion	4.508	2.787
NPV @ 8% discount	$ billion	2.095	1.204
IRR	%	35.5%	27.2%
Payback Period	year	2.3	2.6

Conclusions and Recommendations

The Project is considered to be technically and economically viable based on the FS parameters and results.

It is recommended that the Company advance the Project by completing the front-end engineering and design, the Project permitting process, detailed engineering, planning and scheduling, and source financing.

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 13.8% of Fission's issued and outstanding Common Shares as at December 31, 2022. 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 its 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.

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

The management of Fission and the Fission 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 UF6. 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 F3 Uranium Corp. (formerly known as Fission 3.0 Corp.), 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 716,925,831 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 25,627,050 Warrants outstanding with a weighted average exercise price of $0.85 and an expiry date of May 11, 2024.

The outstanding Warrants were issued pursuant to the 2021 Bought Deal Offering. The Warrants are governed by a warrant indenture entered into between the Company and Computershare Trust Company of Canada, dated May 11, 2021 (the "**Warrant Indenture**"). The warrant certificates representing the Warrant Indenture 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 54,795,001 Options outstanding with a weighted average exercise price of $0.693 and expiry dates ranging from March 27, 2023 to February 6, 2028.

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:

Date	High ($)	Low($)	Volume
January, 2022	1.01	0.65	42,312,766
February, 2022	0.99	0.69	41,292,495
March, 2022	1.08	0.82	73,277,419
April, 2022	1.14	0.82	50,372,554
May, 2022	0.92	0.65	34,942,685
June, 2022	0.87	0.59	27,097,414
July, 2022	0.76	0.56	24,653,703
August, 2022	0.86	0.6	27,535,844
September, 2022	0.88	0.63	29,142,092
October, 2022	0.79	0.62	24,998,003
November, 2022	1.00	0.65	47,194,922
December, 2022	0.98	0.77	26,517,371

Prior Sales

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

Date of Issuance	Number of Common Shares	Issuance Prices
December 21, 2022	6,428,951[(1)]	0.5000
November 29, 2022	15,398[(2)]	0.5800
November 25, 2022	8,408,800[(3)]	0.7393
November 21, 2022	4,367,038[(1)]	0.4116
October 31, 2022	2,490,500[(3)]	0.7156
October 28, 2022	160,000[(1)]	0.4100
September 23, 2022	100,850[(1)]	0.4100
August 25, 2022	50,000[(1)]	0.4100
June 16, 2022	4,133,333[(4)]	0.1700
June 15, 2022	909,125[(1)]	0.4100
May 11, 2022	74,000[(1)]	0.4100
April 22, 2022	80,000[(2)]	0.5800
April 13, 2022	10,000[(1)]	0.8500
March 29, 2022	4,000[(1)]	0.8500
March 22, 2022	595,929[(2)]	0.5405
February 18, 2022	63,550[(1)]	0.4100

January 25, 2022	326,212[(1)]	0.4100
January 14, 2022	548,136[(2)]	0.6037
TOTAL	**28,765,822**	

Notes:

(1) Issued pursuant to the exercise of Warrants issued pursuant to the Bought Deal Offering.
(2) Issued pursuant to the exercise of Options.
(3) Issued pursuant to sales under the ATM Offering.
(4) Issued to Sprott and its affiliates in connection with the exercise of Sprott 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:

Date of Issuance	Number of Securities	Exercise Price
February 6, 2023	1,500,000 Stock options	C$0.82
February 5, 2023	15,650,000 Stock options	C$0.87
February 4, 2022	17,400,000 Stock options	C$0.75
TOTAL	34,550,000	

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 the date hereof. 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.

Name, Office Held and Province/State and Country of Residence	Date Appointed	Principal Occupation for Preceding Five Years[1]
Ross McElroy[5] *British Columbia, Canada* *Director, President and CEO*	February 13, 2013[6] September 8, 2020[7]	Ross McElroy is a professional geologist with more than 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. Mr. McElroy has held senior positions with both major and junior mining companies, which include BHP Billiton, Cogema Canada, and Cameco Corporation. He has been a key member of many successful discoveries and development projects including the early stage discovery team of the MacArthur River uranium deposit. 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.
Chris Sammartino *British Columbia, Canada* *Chief Financial Officer*	April 1, 2021[7]	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[2][3] *British Columbia, Canada* *Lead Director*	May 31, 2013[6]	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[1]
Frank Estergaard[2][3][4] *British Columbia, Canada* *Director*	February 7, 2014[6]	Mr. Estergaard is a Chartered Professional Accountant (CPA, CA). Mr. Estergaard was a partner with KPMG where he worked extensively in 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., F3 Uranium Corp., QHR Technologies Inc., Cobalt 27 Capital Corp. and Nickel 28 Capital Corp., and as CFO for Metalex Ventures Ltd. and CFO and /or director for several private companies.
Robby Chang[2][3][4] *Ontario, Canada* *Director*	April 1, 2018[6]	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 *Hong Kong, China* *Director*	April 1, 2021[6]	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.

Name, Office Held and Province/State and Country of Residence	Date Appointed	Principal Occupation for Preceding Five Years[1]
Darian Yip[4] *Hong Kong, China* *Director, Chairman*	September 11, 2018[6]	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 *Hong Kong, China* *Director*	April 1, 2021[6]	Mr. Wang has extensive working experience in fundraising and investor relations field. 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.
Beatriz Orrantia[3] *Ontario, Canada* *Director*	February 6, 2023[6]	Beatriz Orrantia has over 17 years of mining industry experience in both legal and operational capacities. She is an ESG/Sustainability expert, previously VP Special Projects at Barrick Gold. Prior to joining Barrick Gold, Ms. Orrantia was an M&A, securities and mining lawyer at leading law firms in Toronto, including McCarthy Tétrault and Gowlings. Ms. Orrantia holds a law degree (Civil Law, full scholarship for academic excellence) from Universidad del Rosario in Colombia, and a law degree (Common Law) from Osgoode Hall Law School (York University) in Canada. She is pursuing her Master's degree in Sustainability at Harvard University and holds a certificate in Sustainability and Innovation also from Harvard University. Ms. Orrantia is a corporate director certified by the National Association of Corporate Directors, the leading certification in the United States for board members.

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 ESG 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, 6,323,713 Common Shares or 0.88% 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 Fission Board, 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, 2022, 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_3O_8 production and will have an option to purchase up to an additional 15% U_3O_8 production from the PLS Property for a certain period of time, after commencement of commercial production; and
3. Equity Distribution Agreement dated April 25, 2022, among Fission and the Agents.

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 Hassan Ghaffari, P.Eng. of Tetra Tech, Jianhui (John) Huang, P.Eng. of Tetra Tech, Partick Donlon, FAUSIMM, FSAIMM of Tetra Tech, Mark Wittrup, P.Eng., P.Geo., CMC of Clifton, Wayne Clifton, P.Eng. of Clifton, Mark B. Mathisen, C.P.G. of SLR, Maurice Mostert, P.Eng., FSAIMM of Mining Plus, Catherine Schmid, P.Eng. of BGC, Randi Thompson, P.Eng. of BGC. 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, Tetra Tech, Clifton, SLR, Mining Plus or BGC, 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. 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, 2022, 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 worked extensively in 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., F3 Uranium Corp., QHR Technologies Inc., Cobalt 27 Capital Corp. and Nickel 28 Capital 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, 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. Mr. Chang previously served as a Director of Research and Portfolio Manager at Middlefield Capital and 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 Fission Board, which is attached as Schedule "A" to this AIF.

Audit Committee Oversight

During the most recently completed financial year, the Fission Board 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:

Financial Period Ending	Audit Fees (1)	Audit Related Fees (2)	Tax Fees (3)	All Other Fees (4)
December 31, 2022	$70,000	$85,130	$Nil	$22,050
December 31, 2021	$70,000	$88,142	$Nil	$56,950

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.

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 Member*s

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.