Management's Discussion & Analysis

Fission Uranium Corp.

For the Year Ended
December 31, 2021

Introduction

The following Management's Discussion and Analysis ("MD&A"), prepared as of March 18, 2022, should be read in conjunction with the audited financial statements and accompanying notes of Fission Uranium Corp. (the "Company" or "Fission Uranium") for the year ended December 31, 2021 and the year ended December 31, 2020.

The Company's financial statements have been prepared in accordance with International Financial Reporting Standards, as issued by the International Accounting Standards Board ("IFRS"), as at December 31, 2021.

Additional information related to the Company, including the most recent Annual Information Form ("AIF"), is available for viewing on SEDAR at www.sedar.com. Further information that has not been incorporated into this MD&A, including news releases and property maps, are available on the Company's website at www.fissionuranium.com, or by requesting further information from the Company's head office located at 700 – 1620 Dickson Ave., Kelowna, British Columbia, Canada, V1Y 9Y2.

Forward looking statements

Statements in this report that are forward looking could involve known and unknown risks and uncertainties, which could cause actual results to vary considerably from these statements. Should one or more of these unknown risks and uncertainties, or those described under the headings "Risk Factors" in the Company's AIF, which can be found on the Company's SEDAR profile at www.sedar.com, and those set forth in this MD&A under the heading "Cautionary notes regarding forward-looking statements" and "Risks and uncertainties" materialize, or should underlying assumptions prove incorrect, then actual results may vary materially from those described in forward-looking statements.

Scientific and technical disclosure

Scientific and technical information in this MD&A was reviewed and approved by Ross McElroy, P. Geol., CEO of Fission Uranium. Ross McElroy is a qualified person as defined by Canadian National Instrument 43-101 *Standards of Disclosure for Mineral Projects* ("NI 43-101").

Description of business

Fission Uranium is a resource issuer specializing in uranium exploration and development in Saskatchewan's Athabasca Basin in Western Canada. The Company was incorporated on February 13, 2013 under the laws of the Canada Business Corporations Act in connection with a court approved plan of arrangement to reorganize Fission Energy Corp. Fission Uranium's common shares are listed on the Toronto Stock Exchange under the symbol "FCU", the OTCQX marketplace in the U.S. under the symbol "FCUUF" and on the Frankfurt Stock Exchange under the symbol "2FU".

The Company's primary asset is the Patterson Lake South ("PLS") project, which hosts the Triple R deposit – a large, high-grade and near-surface uranium deposit that occurs within a 3.18km mineralized trend along the Patterson Lake Conductive Corridor. The deposit has one of the largest lateral mineralized footprints of comparable deposits in the Athabasca Basin region and remains open in multiple directions. The property comprises 17 contiguous claims totaling 31,039 hectares and is located geographically in the south-west margin of Saskatchewan's Athabasca Basin, notable for hosting the highest-grade uranium deposits and operating mines in the world.

(Expressed in Canadian dollars, unless otherwise noted)

Corporate goals

Management firmly believes that global uranium demand is rising, driven by an ongoing nuclear reactor construction boom. Uranium sentiment, as evidenced by government investment in small nuclear reactors as well as traditional reactors, and strongly supportive political statements from countries like the US, UK, and China, is strengthening. This is a result of the rapidly growing focus on clean energy, and the continually increasing global electrical energy demand. In addition, years of low uranium prices have led to the shuttering of higher OPEX uranium operations and minimal investment in new sources of production. In 2017, the number of nuclear reactors in the combined construction, planning and proposal stages, reached the highest level in 25 years and the amount of uranium required by utilities, currently uncovered by contracts, continues to increase rapidly. The result is a tightening of the supply and demand balance. As such, management is optimistic about the long-term prospects for the uranium market and is committed to developing its Triple R deposit at PLS, while continuing to explore for additional high-grade occurrences on the property. Fission Uranium is fortunate to have its property located in the politically stable and investment friendly province of Saskatchewan, Canada. The Fraser Institute as well as a number of other similar institutions publish an annual report of mining and exploration companies and ranks geographic regions globally in an attempt to assess how mineral endowments and public policy factors, such as taxation and regulatory uncertainty, affect exploration investment. Saskatchewan is consistently rated amongst the best jurisdictions in these annual reviews for mining investment and, most recently, was rated the third best jurisdiction globally in terms of investment risk by the Mining Journal in 2021.

Continued exploration and development success over the past eight years has enabled the Company to fund its operations primarily through share equity financing in a difficult uranium sector and challenging capital market environment for mineral exploration companies.

In addition to progressing the Company's exploration and development plans, management will continue to seek strategic opportunities to add further shareholder value and appropriately monetize the PLS property and Triple R deposit for shareholders.

Specific growth plans include:

- Continuing to develop the Triple R deposit towards the feasibility stage; and
- Improving and de-risking the strong economic parameters of the Triple R deposit (as defined by the 2019 prefeasibility study) by work designed to further increase the certainty of the resource and viability of mine design in addition to expanding the overall footprint of the Triple R deposit, discovering and/or defining new mineralization.

PLS property

Details of the Company's PLS project as of December 31, 2021 are shown below:

Property	Location	Ownership	Claims	Hectares	Stage	Carrying value
Patterson Lake South	Athabasca Basin, SK	100%	17	31,039	Feasibility	$ 341,961,502

In January 2016, the Company executed an offtake agreement with CGN Mining Company Limited ("CGN Mining"). Under the terms of the agreement, CGN Mining will purchase 20% of annual U_3O_8 production with an option to purchase up to an additional 15% U_3O_8 production from the PLS property, after commencement of commercial production.

Summary of significant accomplishments for the year ended December 31, 2021 and subsequent

In January 2022, the Company announced results from its resource upgrade drill program on the R840W zone. A total of 25 holes were completed. All 25 holes hit mineralization, with nineteen intercepting significant intervals of high-grade mineralization. The goal of the resource drilling is to upgrade the majority of the R840W zone to Indicated classification, for potential inclusion in the resource used for the Feasibility Study. The holes include PLS21-624 (line 630W), which intersected a continuous interval measuring 46.0m @ 8.01% U_3O_8, incl 19.0m @ 18.27% U_3O_8, and total composite grade x thickness

"GT" value of 368.8 and PLS21-635 (line 750W) with a continuous interval measuring 51.5m @ 2.71% U_3O_8, incl 8.0m @ 14.58% U_3O_8, and a total composite GT value of 139.6.

In December 2021, the Company announced the Saskatchewan Ministry of Environment ("MOE") accepted its 'Project Description' submission for the PLS project. With this acceptance, Fission has now commenced the Environmental Assessment ("EA") 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 MOE that the PLS project is a Development. The result of this is that Fission will be required to produce an environmental impact assessment. In support of this, Fission has also submitted a draft 'Terms of Reference' that will be finalized by the province in consultation with other stakeholders. The final Terms of Reference will guide Fission's EA development.

In November 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 September 27, 2021, the Company announced the completion of a 72-hole geotechnical drill program. Preliminary data assessment indicates that the location of proposed infrastructure, including the decline, ventilation shafts, stockpiles, tailings management facility ("TMF"), and mill buildings, is optimal. Further laboratory testwork will be required to confirm the initial assessment. The drill program was completed successfully, and with minimal delays. Additionally, Fission has appointed Tetra Tech Canada as the lead consultant for the feasibility study.

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. Of particular note, hole PLS21-MET-004 (line 615W) intersected 50.3m of continuous mineralization, including 28.5m of total composite radioactivity >10,000 cps (with a peak of 65,500 cps). The metallurgical and geotechnical testwork drilling at the R840W is part of the data collection in anticipation that the R840W zone will be included in the Feasibility Study.

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. This includes PLS21-624 (line 630W), which intersected 57.5m of continuous mineralization, including 19.15m of total composite radioactivity >10,000 cps (with a peak of 62,400 cps). The goal of the summer resource drilling was to upgrade the majority of the R840W zone by decreasing the spacing between drill hole mineralized intercepts with the goal of upgraded to Indicated classification, for potential use in the Feasibility Study. The resource upgrade drilling was conducted in conjunction with the on-going Phase 1 Feasibility work at PLS, focusing on drilling for geotechnical, hydrogeological, geochemical and metallurgical data.

In July 2021, the Company announced assays from its winter 2021 drill program on the R780E zone. All 20 holes returned wide intercepts in multiple stacked intervals in each hole, with 15 holes hitting high-grade intervals. The program targeted areas of inferred category mineralization with the goal of upgrading to indicated category for inclusion in the upcoming feasibility study. Of particular note, hole PLS21-602 (line 915E) intersected 69.5m of total composite uranium mineralization in multiple stacked intervals, including intervals such as 4.5m @ 18.63% U_3O_8 in 14.5m @ 6.11% U_3O_8.

In May 2021, the Company announced that it closed a bought deal financing of 57,500,000 units at a price of $0.60 per unit for gross proceeds of $34.5 million.

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

positive working relationship between Fission and CRDN and provide a process for the parties to meaningfully engage in respect of the PLS Project. Fission and CRDN will identify potential impacts to Indigenous rights, culture, traditional and land resource use, and community interests and explore options to address those impacts. The Agreement will facilitate the sharing of information between Fission and CRDN, and provides CRDN an opportunity to review and provide advanced feedback on related regulatory submissions. Fission will provide funding for all of these processes, including studies addressing the potential interactions between the PLS Project and CRDN Indigenous rights, knowledge, culture, and traditional land use. Together, these processes will establish a foundation for Fission and CRDN to negotiate a long term impact benefit agreement if the PLS Project is approved.

Winter 2022 Drill Program

In January 2022, the Company announced the continuation of its field work as part of the Feasibility Study of the Triple R deposit. The work planned is focusing on geotechnical drilling for the R780E Zone as well as similar geotechnical drilling on the R00E and R840W zones. In addition, first pass geotechnical drilling will be conducted for the R1515W zone, to prepare for possible, later inclusion of the R1515W zone into the development plans. A total of six HQ large diameter geotechnical holes will be drilled this winter. In parallel with the technical feasibility work to be conducted at PLS, the company will collect further field data and continue with long term monitoring for the baseline environmental survey as well as advance its efforts with discussions with impacted Indigenous rights holders and local stakeholders.

Winter Program Highlights include:

- 6 large diameter HQ core holes, utilizing sonic drilling of the overburden
  - *R780E Zone:* 3x vertical holes
  - *R00E Zone:* 1x vertical core hole
  - *R840W Zone:* 1x vertical core vent shaft geotech hole to provide "off-zone" geotechnical information on a possible vent raise at R840W
  - *R1515W Zone:* 1x vertical core hole, designed to provide early-stage input on geotechnical analysis, as well as collect HQ MET (metallurgical) samples

Summer 2021 Drill Program Results

The R840W zone is the 2nd largest of five high-grade zones that make up the Triple R deposit. Although the R840W has been used in the global resource estimate for the Triple R deposit, it was not considered in the economic analysis of the Prefeasibility Study because it was primarily classified as an Inferred resource.

On January 31, 2022, the Company announced assay results from the R840W zone drill program. All 25 holes hit mineralization, with nineteen intercepting significant intervals of high-grade mineralization. The assay results provide laboratory certified analytical valuation of the concentration of U_3O_8 in samples, which are referred to as "mineralized" as previously disclosed in a news release. Assay results are considered the definitive assessment of concentration of measured elements in a sample. The goal of the drill program was to upgrade the majority of the R840W zone from its majority Inferred resource classification to Indicated. This would be achieved by decreasing the spacing between drill hole mineralized intercepts to a distance of ~15m to 20m (horizontal and vertical) required for conversion of the resource to Indicated. The assay results will be used for modeling of the zones to be used in a revised resource estimate. If assay and modeling results are positive and sufficient, then the R840W has the potential to be incorporated into the Feasibility Study.

The drill program had a 100% hit ratio, whereby all 25 holes intersected mineralized intervals above the minimum cut-off criteria of >0.5 meters at 0.05% U_3O_8 and a maximum internal dilution of 2.0m. Twenty of the holes intersected high-grade intercepts, which is defined as composited intervals exceeding 1% U_3O_8.

Summer 2021 Drilling Highlights

- Hole PLS21-624 (line 630W)
  - Total composite GT value of 368.8
  - 46.0m total continuous mineralization @ 8.01% U_3O_8 (between 109.0m to 155.0m), including
    - 19.0m @ 18.27% U_3O_8 (between 121.0m to 140.0m)
- Hole PLS21-635 (line 750W)
  - Total composite GT value of 139.6
  - 51.5m total continuous mineralization @ 2.71% U_3O_8 (between 102.0m to 153.5m), including
    - 8.0m @ 14.58% U_3O_8 (between 129.5m to 137.5m)
- Hole PLS21-613 (line 870W)
  - Total composite GT value of 94.4
  - 26.5m total continuous mineralization @ 3.56% U_3O_8 (between 194.5m to 221.0m), including:
    - 6.5m @ 12.77% U_3O_8 (between 213.0m to 219.5m)

On August 31, 2021, the Company announced the results of mineralization based on hand-held scintillometer readings from its summer 2021 "resource upgrade" drill program on the R840W zone. All 25 in-fill holes hit mineralization, with 19 intercepting significant intervals of >10,000 cps radioactivity. This includes PLS21-624 (line 630W), which intersected 57.5m of continuous mineralization, including 19.15m of total composite radioactivity >10,000 cps (with a peak of 62,400 cps). The resource upgrade drilling was conducted in conjunction with the on-going Phase 1 Feasibility work at PLS, which focused on drilling for geotechnical, hydrogeological, geochemical and metallurgical data.

On September 7, 2021, the Company announced the results of mineralization based on hand-held scintillometer readings from the summer 2021 "metallurgical & geotechnical testwork" drilling on the R840W zone. Four metallurgical holes and three geotechnical holes have 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. Of particular note, hole PLS21-MET-004 (line 615W) intersected 50.3m of continuous mineralization, including 28.5m of total composite radioactivity >10,000 cps (with a peak of 65,500 cps). The metallurgical and geotechnical testwork drilling at the R840W is part of the data collection in anticipation that the R840W zone will be included in the Feasibility Study.

Highlight intersections from the drill program include:

- Hole PLS21-MET-004 (line 615W)
  - 50.3m continuous mineralization (between 98.25m to 148.5m), including:
    - 28.5m of total composite mineralization >10,000 cps (101.0m to 129.5m)
- Hole PLS21-MET-002 (line 765W)
  - 82.5m continuous mineralization (between 99.5m to 182.0m), including:
    - 8.74m of total composite mineralization >10,000 cps
- Hole PLS21-RM-001 (line 870W)
  - 46.0m total composite mineralization over a 59.0m interval (between 159.0m to 218.0m), including:
    - 5.2m of total composite mineralization >10,000 cps

R840W Zone Metallurgical Holes

Four large diameter HQ holes were collared and drilled vertically spaced over 180m of strike length to collect representative mineralized rock samples to be used for metallurgical testwork. The testwork is to verify the process required to extract U_3O_8 efficiently and economically and understand the grade variability and mineralogy impact on processing factors such as recovery of the R840W zone compared to the R780E zone.

Summer 2021 Drill Program Results (continued)

R840W Geotechnical Testwork Holes

Three holes were collared as angle holes to collect rock samples to be used for geotechnical testwork. The testwork will verify the rock strength and ground conditions likely to be encountered and provide data to be used in the design of ground support, tunnel and stope dimensions and mining sequencing. Additionally, samples were collected from the crown pillar area, at the overburden/bedrock interface, to optimize ore recovery and analyze overall mine stability.

Also 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, TMF, and mill buildings, is optimal. Further laboratory testwork will be required to confirm the initial assessment. The drill program was completed successfully, and with minimal delays. Additionally, Fission has appointed Tetra Tech Canada as the lead consultant for the feasibility study.

Summer drill program highlights:

- 21 holes along proposed decline alignment:
  - o 18 Geotechnical holes along the proposed decline alignment to gather data to confirm decline constructability and final design.
  - o 3 Condemnation holes to confirm that the location of the decline does not intersect mineralized zones nor other major geological features that may interfere with decline construction.
- 6 holes for Waste Rock Stockpile area (overburden only) to collect geotechnical data for stability assessment of the overburden to be used to confirm waste stockpile design height and slopes.
- 3 holes for area of the Mill (overburden only) to collect geotechnical data for stability assessment of the overburden to be used to confirm mill building foundation design.
- 8 holes for Vent Shaft (Fresh Air and Exhaust Air) including 4 geotechnical holes drilled along each shaft alignment to gather data to be used to confirm shaft constructability and final design. A further 4 condemnation holes were drilled to confirm the location of the shafts do not intersect mineralized zones nor other major geological features that may interfere with shaft construction.
- 4 Metallurgical test sample holes as reported in the September 7, 2021 news release.
- 3 Rock Mechanic holes as reported in the September 7, 2021 news release.
- 5 Hydrogeology holes (pumping and water monitoring holes) including 4 holes drilled around the planned decline, and 1 deep well drilled in the R840W zone to collect data required to characterize the hydrogeologic conditions and support hydrogeologic assessments in those areas. This data will be used for determining dewatering rates and impact on groundwater.
- 25 Tailings Management Facility holes (essentially all overburden holes) were drilled within the planned TMF area to collect geotechnical and hydrogeological data to confirm the planned TMF location, support the EIA pathways modelling work, and enable constructability assessment and design work to proceed at a Feasibility Level.
- 1 Camp Area hole (overburden hole) to collect geotechnical data for stability assessment of the overburden to be used to confirm camp building foundation design.

In addition, waste rock and mineralized rock samples were collected from both fresh and historical core samples to conduct assessment of the metal leaching (ML) and acid rock drainage (ARD) potential of mine wastes (i.e., waste rock, low grade ore, and overburden) to be produced during mine life.

Winter 2021 Drill Program Results

On April 8, 2021, the Company announced the completion of a 20 hole drill program on the R780E zone on its PLS project. A total of 7,147.8 meters were drilled and all 20 holes hit wide mineralization in multiple stacked intervals. This program is considered part of the "resource upgrading" effort to convert key areas of the Triple R deposit that are presently classified as Inferred, to Indicated.

All 20 holes targeted lenses between lines 900E and 1125E, ensuring intersection spacing is less than 15m x 20m (horizontal / vertical), which is required for Indicated Resource classification. Drilling in this area was assumed to have the additional benefit of intersecting multiple, stacked, subvertical mineralized lenses, which allows for multiple intersections with a single drill hole, and the drill campaign did in fact confirm this. On July 13, 2021 the Company announced that assay results from its winter 2021, resource upgrading drill program have confirmed high-grade mineralization on multiple lines between line 900E and line 1125E. All 20 holes returned wide intercepts in multiple stacked intervals in each hole, with 15 holes hitting high-grade intervals. The program targeted areas previously classified as Inferred resource with the goal of upgrading to the Indicated category for inclusion in the upcoming feasibility study. Of particular note, hole PLS21-602 (line 915E) intersected 69.5m of total composite uranium mineralization in multiple stacked intervals, including intervals such as 4.5m @ 18.63% U_3O_8 in 14.5m @ 6.11% U_3O_8.

Program Details and Assay Highlights Include:

PLS21-602 (line 915E)
- 69.5m of total composite uranium mineralization with key Intercepts including:
  - 14.5m @ 6.11% U_3O_8 (265.0 to 279.5m), including:
    - 4.5m @ 18.63% U_3O_8 (271.5 to 276.0m)

PLS21-600 (line 900E)
- 62.5m of total composite uranium mineralization with key Intercepts including:
  - 11.5m @ 4.62% U_3O_8 (259.5m to 271.0m), including:
    - 5.0m @ 9.27% U_3O_8 (263.5m to 268.5m)

PLS21-597 (line 900E)
- 70.0m of total composite uranium mineralization with key Intercepts including:
  - 16.0m @ 1.12% U_3O_8 (243.5m to 259.5m), including:
    - 1.0m @ 7.53% U_3O_8 (248.5m to 249.5m)

PLS21-607 (line 1065E)
- 40.0m of total composite uranium mineralization with key Intercepts including:
  - 17.0m @ 2.97% U_3O_8 (220.5m to 237.5m), including:
    - 2.5m @ 14.67% U_3O_8 (224.5m to 227.0m)

R780E Winter 2021 Infill Drilling

In addition to its major, Indicated category resource, the R780E zone has, at a cut-off of 0.25% U_3O_8, an Inferred resource of 10.1 Million lbs U_3O_8 in 549,000 tonnes. A large portion of this Inferred resource is situated east of line 900E between a vertical depth of 200m to 350m below surface in the hanging wall and footwall of the mineralized zone. This area was prioritized for the winter drill campaign of infill and step-out drilling.

All depths reported of core interval measurements including radioactivity and mineralization intervals widths are not always representative of true thickness. The orientation of the mineralized intervals tends to follow that of lithologic contacts, and generally dip steeply to the south. Within the Triple R deposit, individual zone wireframe models constructed from assay data and used in the resource estimate indicate that all five zones have a complex geometry controlled by and parallel to steeply south-dipping lithological boundaries as well as a preferential sub-horizontal orientation.

Samples from the drill core were split in half sections on site and where possible, samples will be standardized at 0.5m down-hole intervals. One-half of the split sample were sent to SRC Geoanalytical Laboratories (an SCC ISO/IEC 17025: 2005 Accredited Facility) in Saskatoon, SK for analysis which includes U_3O_8 (wt %) and fire assay for gold, while the other half remains on site for reference. All analysis includes a 63 element ICP-OES, uranium by fluorimetry and boron.

Feasibility Study

In 2019, the Company completed first a "hybrid open-pit and underground" development scenario and followed up with an "underground-only" prefeasibility study "PFS". While both mining studies showed positive outcomes, the results of the "underground-only" study showed stronger merits in most measurable criteria. The report titled "Technical Report on the Prefeasibility Study on the Patterson Lake South Property Using Underground Mining Methods, Northern Saskatchewan, Canada" dated November 7, 2019 with an Effective Date of September 19, 2019 is the current technical report (the "U/G PFS").

The U/G PFS recommended that the Company advance the PLS project to a feasibility study which the Company began field work on during June 2021.

In June 2021, the Company announced the commencement of its Feasibility Study ("FS" or the "Study") for the PLS project. The feasibility work kicked-off with Phase 1, comprised of extensive data collection using drilling and other fieldwork. The FS follows the results of the Company's Pre-Feasibility Study detailing an underground-only mining scenario, which outlined the potential for PLS to be one of the lowest operating cost uranium mines in the world. Phase 1 commenced during June 2021 with completion expected during Q2, 2022. Concurrent with Phase 1 field work, a 25-hole core drill program targeting the R840W Zone, was completed in August 2021. The R840W drill program was aimed to upgrade the majority of the R840W resource to Indicated category, which then would have the potential to be included in the resource model used for the FS.

In September 2021, the Company announced it had appointed Tetra Tech Canada as the lead consultant for the feasibility study.

The FS will comprise two Phases: Data collection and assessment (Phase 1) and Design (Phase 2). Phase 2 will use the data collected from Phase 1 to further refine the design of the underground mine, surface infrastructure plans and Tailings Management Facility to be incorporated into the Feasibility Study.

For the Phase 1 program, the Company has been focused on optimizing the site surface layout and has made adjustments to the location of the ramp access, waste stockpiles and processing plant.

Phase 1 Activity will include:

- Ramp Access Assessment
- Vent Shaft Assessment
- Tailings Management Facility "TMF" Assessment
- Metallurgical Assessment
- Infrastructure Foundation Geotechnical Assessment
- Mine Geotechnical Assessment for R780E and R840W Zones
- Mine Hydrogeological Assessment
- Mine Geochemical Assessment

More detailed plans for Phase 2 will be announced in the near future.

Environmental Assessment

The Environmental Assessment "EA" phase, has as its purpose to ready the project for eventual environmental impact assessment "EIA". The EA phase is triggered at the time the Saskatchewan Ministry of Environment "MOE" accepts the submittal of the Project Description (Technical Proposal). On December 1, 2021, the company announced that the "MOE" had formally accepted the recently submitted Project Description ("Technical Proposal") for the PLS uranium project (the "Project") in Saskatchewan, Canada. With this acceptance, Fission has now commenced the "EA" as per the requirements of The Saskatchewan Environmental Assessment 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 "EIA" for the Project. In support of this, Fission has also submitted a draft Terms of Reference that will be finalized by the province in consultation with other stakeholders. The final Terms of Reference will guide Fission's EA development.

While the proposed project does not formally trigger an Impact Assessment (IA) under the Canada Impact Assessment Act, 2019, there will be close coordination required between the province and the Canadian Nuclear Safety Commission (CNSC), Canada's life cycle nuclear regulator, to ensure that the EA includes components that will support the environmental aspects of CNSC licensing. Fission is currently working with CNSC to explore the most appropriate time for submission of an Initial License Application.

Engagement Activities

As part of its progress towards the Feasibility Study and Environmental Assessment phases for the PLS project in Saskatchewan, Canada, the Company is continuing to build mutually respectful, transparent and productive relationships with all local rights-holders and stakeholders. This includes the recently-signed Engagement and Capacity agreement with the Clearwater River Dene Nation ("CRDN"), as detailed in a News Release on March 25, 2021. The agreement strengthens the positive working relationship and establishes a foundation for Fission and CRDN to negotiate a long-term impact benefit agreement if the PLS Project is approved.

The processes covered by the agreement include:

- Prepare, facilitate and coordinate Project information sharing meetings between CRDN and Fission;
- Facilitate and conduct community information meeting on status of the Project;
- Draft, contribute to, review, and provide comments on draft documents leading to Environmental Impact Statement;
- CRDN Comments on draft project description and final project description;
- Joint review and concurrence on target information to be addressed via Engagement Activities; and
- Joint work and collaboration on scope of Engagement Activities and supporting budget.

To achieve the outcomes of these processes in a meaningful and collaborative way, Fission and CRDN have established open lines of communication, and connect regularly by phone, email, and/or meeting. This active, open approach has been paired with a shared communications and commitment tracking log, requested by CRDN, to create a consistent, transparent, and accountable way to raise and address questions, information requests, and concerns, in a timely and efficient manner.

As part of the Agreement, Fission is funding ongoing engagement work by CRDN, including an Indigenous rights & knowledge study and a traditional land & cultural impact assessment study. These studies will inform CRDN and Fission, and will be incorporated into the ongoing assessment of Fission's Patterson Lake South Project.

In the fall of 2021, Fission shared a summary of its engagement approach, which can be found on the new 'Engagement' page of the Fission website. The approach has been designed to reflect feedback that Fission receives from rights-holders, including CRDN, related to their engagement expectations, capacity needs, and preferred timelines. The engagement approach guides how Fission shares information with rights-holders and stakeholders, how information is collected and shared with Fission, and how that information or feedback is used to inform key, iterative phases of the environmental impact assessment process.

PLS mineralized trend & Triple R deposit summary

Uranium mineralization of the Triple R deposit at PLS occurs within the Patterson Lake Conductive Corridor and has been traced by core drilling over ~3.18km of east-west strike length in five separated mineralized "zones" which collectively make up the Triple R deposit. From west to east, these zones are: R1515W, R840W, R00E, R780E and R1620E. Through successful exploration programs completed to date, Triple R has evolved into a large, near surface, basement hosted, structurally controlled high-grade uranium deposit. The discovery hole was announced on November 5, 2012 with drill hole PLS12-022, from what is now referred to as the R00E zone.

The R1515W, R840W and R00E zones make up the western region of the Triple R deposit and are located on land, where overburden thickness is generally between 55m to 100m. R1515W is the western-most of the zones and is drill defined to ~90m in strike-length, ~68m across strike and ~220m vertical and where mineralization remains open in several directions. R840W is located ~515m to the east along strike of R1515W and has a drill defined strike length of ~430m. R00E is located ~485m to the east along strike of R840W and is drill defined to ~115m in strike length. The R780E zone and R1620E zones make up the eastern region of the Triple R deposit. Both zones are located beneath Patterson Lake where water depth is generally less than six metres and overburden thickness is generally about 50m. R780E is located ~225m to the east of R00E and has a drill defined strike length of ~945m. R1620E is located ~210m along strike to the east of R780E, and is drill defined to ~185m in strike length.

Mineralization along the Patterson Lake Corridor trend remains prospective along strike in both the western and eastern directions. Basement rocks within the mineralized trend are identified primarily as mafic volcanic rocks with varying degrees of alteration. Mineralization is both located within and associated with mafic volcanic intrusives with varying degrees of silicification, metasomatic mineral assemblages and hydrothermal graphite. The graphitic sequences are associated with the PL-3B basement Electro-Magnetic (EM) conductor.

The Triple R deposit remains open in several directions. High-priority exploration targets remain further west on-trend, towards the high-grade boulder field, as well as elsewhere on the PLS property.

In November 2019, the Company filed a prefeasibility study for an underground-only mining scenario at PLS, conducted by Roscoe Postle Associates Inc. ("RPA"), and entitled "Pre-Feasibility Study on the Patterson Lake South Property Using Underground Mining Methods, Northern Saskatchewan, Canada" (the "U/G PFS"). The U/G PFS follows the results of an earlier PFS report outlining a hybrid mine approach using both open pit and underground techniques (the "Hybrid PFS" – SEDAR filed in May 2019). The U/G PFS highlights a substantial reduction in CAPEX and time requirements for construction of the Triple R mine due to simplified water control measures for underground mining. With the U/G PFS, access to the deposit is envisaged via a decline from land. The revised mining method eliminates the need for a system of dykes and slurry walls, dewatering and overburden removal and results in a reduction of 90% of total mine-related earth movement from the Hybrid PFS to the U/G PFS. The reduced earth movement results in reduced surface piles and overall minimized surface footprint. With a projected OPEX of just US$7.18/lb, an IRR of 34% (pre-tax) / 25% (after-tax) and an NPV at 8% of C$1.33B (pre-tax) / C$0.7B (after-tax), the U/G PFS outlines the potential for highly economic production at PLS.

While the U/G PFS only considers Indicated Resources from the R780E and R00E zones, the mine plan has been deliberately designed to easily accommodate additional material from the R1515W, R845W and R1620E zones based on potential future conversion of Inferred Resources to Indicated Resources. The majority of mineralization at these three, on-strike, high-grade zones is currently defined as Inferred Mineral Resource classification and thus not considered for inclusion in the U/G PFS mine plan. As proven by the Company's drilling at the Triple R deposit's R00E and R780E zones, Fission has an excellent track record of converting Inferred-category resources to Indicated-category. As a result, there is a clear path for growing the deposit, potentially leading to an increased resource as well as a longer mine life.

PLS U/G Prefeasibility Study highlights:

Reduced Capital Costs, Low Operating Costs, and Robust Economics

- Substantially reduced earthworks as a result of eliminating the dyke, slurry wall, dewatering, and overburden removal that was envisaged in the Hybrid PFS
- Construction timeline reduction of 1 year from 4 years (Hybrid PFS) to 3 years (U/G PFS)
- 21% reduction in capital costs from $1.50B (Hybrid PFS) to $1.18B (U/G PFS)
- Seven-year production life
- Average unit operating costs of US$7.18/lb U_3O_8
- Economics:
  - IRR of 34% (pre-tax) / 25% (after-tax)
  - NPV of C$1.33B (pre-tax) / C$0.7B (after-tax) at 8% discount rate
  - Payback in 2.2 years (pre-tax) / 2.5 years (after-tax)

Demonstrated Scope for Substantial Growth

- Additional Zones: The PFS mine plan has been designed specifically to accommodate all five currently defined mineral zones based on potential future conversion of Inferred Resources to Indicated Resources. These include the three high-grade, on strike zones - R1515W, R845W and R1620E – that are not yet part of Mineral Reserves.
- Zone Expansion: The R780E is open at depth and along plunge to the east and further opportunity exists to continue to grow the resource in those directions, potentially extending the underground mine life.
- Mineralization Upgrade: The PFS mine plan does not include areas of Inferred Mineral Resource in the R00E and R780E zones.

Reduced Environmental Impact

- The U/G PFS mine plan completely eliminates the need for a ring dyke, slurry wall, dewatering, and overburden removal that was included in the Hybrid PFS.
- Recovery of reserves near the overburden and bedrock contact (the crown pillar) will utilize artificial ground freezing technology drilled remotely from shore, which eliminates any disturbances into Patterson Lake. Artificial ground freezing has been used extensively at uranium deposits in the Athabasca Basin.
- Other than a freshwater intake pump, and treated effluent discharge point, all other infrastructure related to mining at PLS is set back a minimum of 100 m from the shoreline of Patterson Lake.
- The revised mining method results in a reduction of approximately 90% of total mine-related earth movement from the Hybrid PFS to the U/G PFS (51.2Mt in the Hybrid PFS compared to 5.4 Mt in the U/G PFS), and a 58% reduction to the total disturbed area.

(Expressed in Canadian dollars, unless otherwise noted)

Uranium outlook

Management believes that the development of the PLS high-grade uranium property presents an opportunity to increase shareholder value based on the following categories, including but not limited to supply / demand fundamentals, geopolitics and clean, baseload power generation. This "greening", or decarbonization, is being accelerated as countries look for ways to stimulate economic recovery in the wake of the Covid-19 pandemic and, as shown with statements from the EU and individual nation states such as the US, China and India, nuclear has a critical role to play because renewable sources of energy alone cannot replace fossil fuel energy. The change in government sentiment is, in turn, improving public and investor sentiment.

Uranium is well known and well proven as a thin market. After years of low prices, utilities have finally worked their way through the supply overhang. As a result, the underlying fundamentals affecting supply and demand are coming to bear. This can be seen in the rapid increases in the uranium spot price since April, 2021, rising 76% to a high of $50.92 in September, 2021. This is the first time since 2012 that uranium prices have risen above $50. While there has been a pullback from that nine-year high, prices remain significantly above the multi-year lows thanks to the following factors:

- *Clean and in demand*

  As emissions figures conclusively prove, nuclear power is one of the cleanest forms of energy available. It is on par with, and in some cases superior to, renewable energy when it comes to carbon emissions. It also provides baseload energy, which is crucial for the large power grids that cities around the world rely upon.

  According to the International Energy Association, nuclear currently provides just over ten percent of the world's electricity requirements and as a result, it prevents the emission of 2.1 billion tonnes of CO2 equivalent every year.

  According to the Intergovernmental Panel on Climate Change, a minimum of 80% of the world's electricity needs to be low carbon by 2050 if we are to prevent global temperature increases beyond 2°C. However, with global electricity demand forecast to grow between 80% and 130% by 2050, studies show that without nuclear energy, significant carbon emission reduction will not be possible.

  The world's largest economies, including the USA and China, are already major users of nuclear energy, and they are not alone. Russia, UK, France, Canada, South Korea, India and Belgium, all rely heavily on nuclear energy. Even countries like the United Arab Emirates have nuclear power stations in operation, and have more in the proposal stage.

  The following is a list of selected countries with nuclear reactors that are either under construction, planned or proposed:

Country	In Operation	Under construction	Planned	Proposed
China	53	19	34	168
India	23	8	12	28
Russia	37	3	27	21
USA	93	2	3	18
Canada	19	-	-	2
Japan	33	2	1	8
Saudi-Arabia	-	-	-	16
South Korea	24	4	-	2
Ukraine	15	2	-	2
Others	142	16	19	60
Total	**439**	**56**	**96**	**325**

Source: World Nuclear Association (World Nuclear Reactors & Uranium Requirements - www.world-nuclear.org - Updated March 2022)

Uranium outlook (continued)

- *Clean and in demand (continued)*

  As the numbers demonstrate, nuclear energy is not only well established but it is in a continued state of expansion. In fact, the most recent World Nuclear Association's Fuel Report, 2020, shows a 26 percent increase in uranium demand over the next decade.

- *Supply has weakened*

  While uranium demand prospects have continued to strengthen in recent years, uranium production has been suffering. For nearly a decade, a state of oversupply, combined with large, end-user stockpiles, resulted in years of low uranium prices. Eventually, the pricing environment forced major supplier action, such as:

  - Kazatoprom – the world's largest uranium supplier has cut production by 20%. In addition, recent civil unrest has highlighted Kazakhstan as an unstable jurisdiction. Events in January 2022 included the resignation of the government, and a request for foreign military aid to suppress the unrest.
  - Cameco, the 2nd largest supplier in the world, has shut down its flagship McArthur River - the world's highest grade uranium mine.
  - Rio Tinto, one of the world's largest mining companies, has all but exited the uranium business – selling and winding down uranium operations and removing 6 million lbs of annual uranium production from the market.
  - Investment has dried up for any project or expansion that does not show highly competitive operating costs.

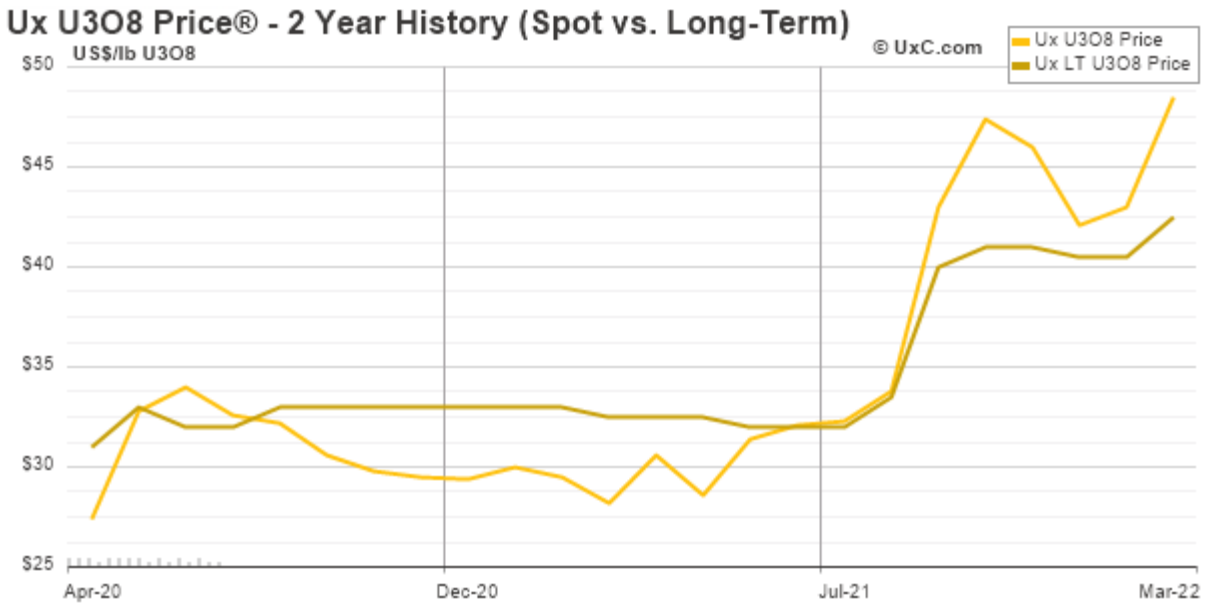
  Additional factors include:

  - The Covid-19 pandemic has led to periodic, temporary mine and mill closures. The pandemic has yet to fully recede and may continue to cause additional supply disruption.
  - In order to fulfill contractual obligations, Cameco has purchased material on the spot market rather than increase production.
  - Investment funds holding uranium inventories sold double the amounts they purchased in 2020, leading to a large drawdown of low cost inventories available.
  - In April, 2021, Sprott Physical Uranium Trust ("SPUT") acquired Uranium Participation Corp. – the first uranium fund to list on an Exchange – and relaunched as an investment trust. The Trust has been purchasing physical uranium on the spot market and, by sharing information on all of its transactions, it has been increasing the transparency of the uranium market. By the end of 2021, SPUT had acquired approximately one third of global annual uranium supply. With its purchases, SPUT has the potential to provide significant further upwards pressure on uranium prices. Furthermore, Kazatomprom has co-founded a rival physical uranium fund which is currently deploying US$50M in funds, and with plans to raise a further $500M for uranium purchases.
  - A rapid increase in Small Modular Reactor ("SMR") development has highlighted the potential for a paradigm shift in uranium demand fundamentals. Russia now has two commercial SMRs in operation, China connected its first to the grid in December, 2021, and Canada is expected to have at least two commercial SMRs operating by 2028. In addition, countries including the US and UK are pouring billions of dollars into development and commercialization of SMR designs for domestic use and export. With their numerous advantages over traditional, full size reactors, SMRs could have a significant medium term demand impact, and could dramatically change the uranium fundamentals in the long term.

Uranium outlook (continued)

- *Supply has weakened (continued)*

  As a result of the aforementioned factors, prices in 2020 enjoyed the largest jump in five years and are currently substantially higher in 2021 than the 16-year low in 2016.



Source: Ux Consulting Company LLC ("UXC", www.uxc.com: January 2022)

- *Looking to the future*

  According to the UxC, an estimated 70% of uranium is produced at below $30 per lb. Further analysis by UxC shows that, past 2025, higher cost production must be brought online because of declining inventories and depletion of reserves.

  However, producers have made it clear that they will not risk capital to bring idle or new projects online at current price levels. For example, Cameco still has not set a date for restarting the McArthur River mine. In addition, Kazatomprom has extended its production cut through 2023.

  To compound the problem for uranium fuel customers, Long-term contracting between 2014 and 2020 only occurred at a moderate level. Producers were slow to reduce supply because they were protected by higher price contracts and the high inventories protected consumers from temporary shortfalls. These factors are no longer in play to the same degree and analysts such as UxC believe that we could be approaching the start of a much larger contracting lifecycle, which may place upwards pressure on prices.

  As the inventories and reserves continue to deplete, attention will inevitably turn to bringing on new sources of low-cost production. As highlighted by the Company's prefeasibility study, Fission Uranium's PLS project has the potential to become one of the lowest cost sources of uranium production in the world.

Selected annual information

The financial information presented below for the current and comparative periods was derived from financial statements prepared in accordance with IFRS and is expressed in Canadian dollars.

	Year Ended December 31 2021	Year Ended December 31 2020	Year Ended December 31 2019
	$	$	$
Net loss and comprehensive loss	(6,800,894)	(9,008,140)	(5,399,758)
Total assets	399,187,604	351,567,107	322,724,264
Current liabilities	1,646,532	821,875	420,336
Non-current liabilities	10,476,923	9,857,300	322,463
Shareholders' equity	387,064,149	340,887,932	321,981,465
Basic and diluted loss per common share	(0.01)	(0.02)	(0.01)

Summary of quarterly results

The financial information presented below for the current and comparative periods was derived from annual financial statements prepared in accordance with IFRS or interim financial statements prepared in accordance with IFRS applicable to the preparation of interim financial statements, including *IAS 34, Interim Financial Reporting.*

	December 31 2021	September 30 2021	June 30 2021	March 31 2021
	$	$	$	$
Exploration and evaluation assets	341,961,502	339,781,526	330,206,604	324,816,853
Working capital	52,851,029	48,483,604	53,753,100	26,281,397
Net loss and comprehensive loss	(922,100)	(1,248,017)	(1,541,841)	(3,088,936)
Net loss per share basic and diluted	(0.00)	(0.00)	(0.00)	(0.01)

	December 31 2020	September 30 2020	June 30 2020	March 31 2020
	$	$	$	$
Exploration and evaluation assets	320,185,305	318,964,201	318,250,538	317,551,428
Working capital	29,370,554	11,946,422	13,814,153	2,562,452
Net loss and comprehensive loss	(3,794,159)	(2,330,609)	(1,572,730)	(1,310,642)
Net loss per share basic and diluted	(0.01)	(0.00)	(0.01)	(0.00)

The increase in net loss and comprehensive loss for the three month periods ended March 31, 2021 and December 31, 2020 is primarily the result of stock based compensation recognized in those periods. The decrease in net loss and comprehensive loss for the three month period ended December 31, 2021 is primarily the result of an unrealized gain on its investment in Fission 3.0 Corp.

Results of operations

The expenses incurred by the Company are typical of exploration and development companies that do not have established cash flows from mining operations. Changes in these expenditures from quarter to quarter are impacted directly by fluctuations in expenditures and non-recurring activities or events.

Comparison of the three months ended December 31, 2021 and December 31, 2020

The Company had a net loss and comprehensive loss of $922,100 ($0.00 basic and diluted loss per share) compared to a net loss and comprehensive loss of $3,794,159 ($0.01 basic and diluted loss per share). The change in net loss is primarily attributable to the following factors:

- Consulting and directors fees and wages and benefits increased to $944,294 from $321,027 as a result of bonuses paid to management and staff in the current period.
- Share based compensation decreased to $313,802 from $1,638,330 due to the vesting of stock options granted during prior periods.
- Foreign exchange loss decreased to $888 from a $516,849 gain due to fair value changes of USD denominated liabilities during the prior fiscal period and offsetting financial assets and liabilities denominated in USD in the current period.
- Financing costs decreased to $316,830 from $1,821,960 pursuant to a partial repayment of the credit facility during the prior year.
- Unrealized gain on investment in Fission 3.0 Corp. and unrealized gain on short-term investments increased to $721,189 from $251,525 due to fair value changes during the period.
- Unrealized gain on warrant liability increased to $165,466 from a $429,281 loss due to fair value changes during the period.

Comparison of the years ended December 31, 2021 and December 31, 2020

The Company had a net loss and comprehensive loss of $6,800,894 ($0.01 basic and diluted loss per share) compared to a net loss and comprehensive loss of $9,008,140 ($0.02 basic and diluted loss per share). The change in net loss is primarily attributable to the following factors:

- Consulting and directors fees and wages and benefits increased to $2,061,967 from $1,829,055 as a result of bonuses paid to management and staff in the current year, partially offset by staffing reductions during the past year.
- Share based compensation increased to $2,884,933 from $1,754,510 due to the vesting of stock options granted during the current year.
- Professional fees decreased to $240,476 from $1,301,806 due to additional, non-recurring legal and accounting services required during the prior year.
- Financing costs decreased to $1,387,908 from $2,871,195 pursuant to a partial repayment of the credit facility during the prior year.
- Share of loss from equity investment in Fission 3.0 Corp, unrealized gain on investment in Fission 3.0 Corp. and unrealized gain on short-term investments increased to $1,686,510 from $594,912 due to fair value changes during the period.

Liquidity and capital resources

Fission Uranium is an exploration and evaluation stage company and has not yet determined whether its exploration and evaluation assets contain ore reserves that are economically recoverable. The recoverability of the amounts shown for exploration and evaluation assets, including the acquisition costs, is dependent upon the existence of economically recoverable reserves, the ability of the Company to obtain necessary financing to complete the development of those reserves, and future profitable production.

The Company's ability to meet its obligations and fund exploration programs depends on its ability to raise funds. The Company anticipates being able to raise funds, as necessary, primarily through the issuance of common shares or debt. To date the Company has been successful in raising funds however there are no assurances that the Company will be successful in raising funds in the future. On an ongoing basis, the Company monitors and adjusts, when required, exploration programs as well as general and administrative costs to ensure that adequate levels of working capital are maintained. The Company has no exploration and evaluation asset agreements that require it to meet certain expenditures.

Credit Facility

In April 2020, the Company entered into a senior secured credit facility (the "Facility") with Sprott Resource Lending II (Collector) L.P. ("Sprott"). Under the terms of the Facility, Sprott advanced the Company a gross amount of US$10,000,000 (net cash proceeds were subject to a 3% discount) with a four-year term and no obligation to make any principal repayments until April 2024 (the "Maturity Date"). The Company also has the option to extend the term of the Facility by one year, subject to certain terms and conditions contained in the Facility. The Facility bears interest at a rate of 10% per annum, payable monthly with the option to pay a portion of the interest due by way of common shares. The Company may voluntarily repay the Facility in whole or in part anytime before the Maturity Date, provided that a minimum of 24 months interest has been paid. The Company is also required to repay the Facility with 25% of the net proceeds from any equity financings (excluding flow-through financings) closed during the term.

As of December 31, 2021, the outstanding principal of the Facility was $8,838,668 (US$6,971,658).

Bought Deal Financings

In November 2020, the Company closed a bought deal financing of 62,090,303 units at a price of $0.275 per unit for gross proceeds of $17,074,833. Each unit consists of one common share and one half of one common share purchase warrant. Each whole warrant is exercisable into one common share at a price of $0.41 for a period of 24 months. The Company incurred share issuance costs of $1,490,074 in connection with this financing.

The fair value of the common shares was determined based on the closing trading price on November 17, 2020 and the fair value of warrants was determined using the Black-Scholes pricing model. A total of $15,416,781 was recorded in share capital in relation to the common shares and $1,658,052 was recorded in other capital reserves in relation to the warrants. A total of $144,694 was recorded in other capital reserves for the proportionate share of financing costs related to the warrants in the units issued. The fair value of the warrants was determined using the following assumptions: volatility of 94.98%; risk-free interest rate of 0.27%; expected life of 1.0 years; and a dividend rate of 0%.

Pursuant to the terms of the credit facility agreement, the Company was required to repay a portion of the outstanding principal with 25% of the net proceeds from this financing. A total of $4,470,809 (US$3,443,057) was paid which included $3,932,302 (US$3,028,342) in principal and $538,507 (US$414,715) in early repayment interest.

(Expressed in Canadian dollars, unless otherwise noted)

Liquidity and capital resources (continued)

Bought Deal Financings (continued)

In December 2020, the Company closed a bought deal financing of 17,073,171 flow-through units at a price of $0.41 per unit for gross proceeds of $7,000,000. Each unit consists of one common share and one half of one common share purchase warrant. Each whole warrant is exercisable into one common share at a price of $0.50 for a period of 24 months. The Company incurred share issuance costs of $667,213 in connection with this placement. This flow-through financing was excluded from the obligation to repay a portion of the credit facility.

The fair value of the common shares was determined based on the closing trading price on December 21, 2020 and the fair value of warrants was determined using the Black-Scholes pricing model. A total of $6,096,706 was recorded in share capital in relation to the common shares and $903,294 was recorded in other capital reserves in relation to the warrants. A total of $86,099 was recorded in other capital reserves for the proportionate share of financing costs related to the warrants in the units issued. The fair value of the warrants was determined using the following assumptions: volatility of 97.78%; risk-free interest rate of 0.23%; expected life of 1.0 years; and a dividend rate of 0%.

In May 2021, the Company closed a bought deal financing of 57,500,000 units at a price of $0.60 per unit for gross proceeds of $34,500,000. Each unit consists of one common share and one half of one common share purchase warrant. Each whole warrant is exercisable into one common share at a price of $0.85 for a period of 36 months. The Company incurred share issuance costs of $2,067,960 in connection with this financing.

The fair value of the common shares was determined based on the closing trading price on May 11, 2021 and the fair value of warrants was determined using the Black-Scholes pricing model. A total of $29,325,621 was recorded in share capital in relation to the common shares and $5,174,379 was recorded in other capital reserves in relation to the warrants. A total of $310,157 was recorded in other capital reserves for the proportionate share of financing costs related to the warrants in the units issued. The fair value of the warrants was determined using the following assumptions: volatility of 94.91%; risk-free interest rate of 0.30%; expected life of 1.5 years; and a dividend rate of 0%.

In connection with this financing, Sprott Resource Lending II (Collector) L.P. provided a waiver of the Company's obligation to repay a portion of the Credit Facility with 25% of the net proceeds.

Use of Proceeds

The following table provides a comparison of the actual use of proceeds to the intended use of proceeds related to the above-noted bought deal financings:

	Intended use of proceeds	**Actual use as of Dec 31/21**
	$	$
November 2020:		
Continued development of PLS, repayment of credit facility, general working capital	17,074,833	17,074,833
December 2020:		
PLS drilling program: R780E and R840W	7,000,000	7,000,000
May 2021:		
PLS feasibility study/engineering support/Permitting, G&A	34,500,000	8,861,098

Liquidity and capital resources (continued)

Changes in working capital for the year ended December 31, 2021

Working capital is calculated as total current assets less total current liabilities. At December 31, 2021, the Company had a working capital balance of $52,851,029 as compared to $29,370,554 at December 31, 2020. The increase in working capital is primarily due to the bought deal financing closed in May, partially offset by PLS program expenditures and regular administrative expenses.

Cash flow for the three months ended December 31, 2021

Cash and cash equivalents for the three months ended December 31, 2021 increased by $3,971,170 as a result of:

- Cash outflows from operating activities of $1,216,063;
- Cash outflows related to exploration and evaluation asset additions of $2,462,528
- Cash inflows related to interest income earned on cash and cash equivalents of $88,953;
- Cash outflows related to the acquisition of property and equipment of $16,406;
- Cash outflows related to share issuance costs of $89,256;
- Cash inflows from the exercise of warrants of $7,099,357;
- Cash inflows from the exercise of stock options of $583,710; and
- Cash outflows from lease obligation payments of $16,597.

Cash flow for the year ended December 31, 2021

Cash and cash equivalents for the year ended December 31, 2021 increased by $23,653,936 as a result of:

- Cash outflows from operating activities of $3,345,872;
- Cash outflows related to exploration and evaluation asset additions of $20,080,131;
- Cash inflows related to interest income earned on cash and cash equivalents of $319,439;
- Cash outflows related to the acquisition of property and equipment of $19,575;
- Cash inflows from the issuance of common shares of 34,500,000;
- Cash outflows related to share issuance costs of $2,424,510;
- Cash inflows from the exercise of warrants of $13,668,738;
- Cash inflows from the exercise of stock options of $1,123,160; and
- Cash outflows from lease obligation payments of $87,313.

(Expressed in Canadian dollars, unless otherwise noted)

Related party transactions

The Company has identified the current and former President and CEO, current and former CFO, VP Project Development, VP Exploration, and the Company's current and former directors as its key management personnel during all or part of the periods presented below.

	Year Ended December 31 2021	Year Ended December 31 2020
	$	$
Compensation Costs		
Wages, consulting and directors fees paid or accrued to key management personnel and companies controlled by key management personnel	**1,814,692**	1,614,098
Share-based compensation pursuant to the vesting schedule of options granted to key management personnel	**2,463,115**	1,366,231
	4,277,807	2,980,329
Exploration and administrative services billed to Fission 3.0, a company with a common director	**14,786**	96,001

The Company has a Directors Remuneration Plan (the "DRP Plan") whereby a portion of director fees can be paid through the issuance of common shares ("Director Remuneration Shares") in lieu of the payment of cash or other means of remuneration. Included in compensation costs is the value of shares issued under the DRP Plan. During the year ended December 31, 2021, the Company issued 118,434 shares with a total value of $85,333 under the DRP Plan (December 31, 2020 – 243,852 shares valued at $80,185).

Included in accounts payable at December 31, 2021 is $421,808 (December 31, 2020 - $16,625) for wages payable and consulting fees due to key management personnel and companies controlled by key management personnel.

Included in amounts receivable at December 31, 2021 is $840 (December 31, 2020 - $5,415) for exploration and administrative services and expense recoveries due from Fission 3.0.

Transactions with CGN Mining, which is deemed to be a related party as it accounts for its investment in the Company as an investment in an associate, have been disclosed in the "PLS property" section of this MD&A.

These transactions were in the normal course of operations.

Outstanding share data

As at March 18, 2022, the Company has 676,016,792 common shares issued and outstanding, 40,233,333 incentive stock options outstanding with exercise prices ranging from $0.31 to $0.85 per share and 45,227,524 warrants outstanding with exercise prices ranging from $0.17 to $0.85.

Internal controls over financial reporting

The Company's management is responsible for designing and maintaining an adequate system of internal controls over financial reporting as required under National Instrument 52-109 – *Certification of Disclosure in Issuers' Annual and Interim Filings*. Management designed the internal control system based on the Internal Control – Integrated Framework (2013) published by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). From this framework, an evaluation of the internal control system was completed, and management concluded that the system of internal controls over financial reporting was effective as at December 31, 2021.

Any internal control system, no matter how well designed, has inherent limitations. Therefore, internal controls can only provide reasonable assurance with respect to financial statement preparation and presentation.

There have not been any significant changes in the Company's internal control over financial reporting during the year ended December 31, 2021 that have materially affected or are reasonably likely to materially affect the Company's internal controls over financial reporting.

Disclosure controls and procedures

The Company's disclosure controls and procedures are designed to provide reasonable assurance that information required to be disclosed by the Company is recorded, processed, summarized and reported within the time periods specified in the securities legislation. The Company's management has concluded that the disclosure controls and procedures were effective as at December 31, 2021.

Any control system, no matter how well designed, has inherent limitations. Therefore, disclosure controls and procedures can only provide reasonable assurance with respect to timely disclosure of material information.

Financial assets

All financial assets are initially recorded at fair value and categorized into the following two categories for subsequent measurement purposes: amortized cost and fair value through profit or loss ("FVTPL").

A financial asset is classified at 'amortized cost' only if both of the following criteria are met: a) the objective of the Company's business model is to hold the asset to collect the contractual cash flows; and b) the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal outstanding.

The Company has classified its cash and cash equivalents and amounts receivable at amortized cost for subsequent measurement purposes. The Company has classified its investment in Fission 3.0 Corp. and the Fission 3.0 warrants within short-term investments at FVTPL for subsequent measurement purposes.

Financial liabilities

Financial liabilities include accounts payable and accrued liabilities, credit facility and warrant liability and are initially recorded at fair value. Subsequently, certain financial liabilities are measured at amortized cost using the effective interest rate method. The warrant liability is measured at FVTPL for subsequent measurement purposes.

Key estimates and judgments

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date are described below. The Company based its assumptions and estimates on parameters available when the financial statements were prepared. Existing circumstances and assumptions about future developments, however, may change due to market changes or circumstances arising beyond the control of the Company. Such changes are reflected in the assumptions when they occur.

Key estimates and judgments (continued)

Exploration and evaluation assets

The application of the Company's accounting policy for exploration and evaluation assets requires judgment in the following areas:

(i) Determination of whether any impairment indicators exist at each reporting date giving consideration to factors such as mining title expiration dates, budgeted expenditures on the PLS property, discontinuation of activities in any area and evaluation of any data which would indicate that the carrying amount of exploration and evaluation assets is not recoverable; and

(ii) Assessing when the commercial viability and technical feasibility of the project has been determined, at which point the asset is reclassified to property and equipment.

Warrant liability

Share purchase warrants issued in connection with the credit facility are considered a derivative liability, the fair value of which is estimated using the Black-Scholes pricing model. The significant inputs used in the Black-Scholes model to calculate the fair value of warrants include volatility and expected term.

Significant accounting policies

A summary of the Company's significant accounting policies is included in Note 2 of the audited financial statements for the year ended December 31, 2021.

Cautionary notes regarding forward-looking statements

Certain information contained in this MD&A constitutes "forward-looking statements" and "forward-looking information" within the meaning of Canadian legislation.

Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as "plans", "expects" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur", "be achieved" or "has the potential to".

Forward looking statements are based on the opinions and estimates of management as of the date such statements are made, and are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward-looking statements. The Company believes that the expectations reflected in this forward-looking information are reasonable, but no assurance can be given that these expectations will prove to be correct and such forward-looking information included in this MD&A should not be unduly relied upon. This information speaks only as of the date of this MD&A. In particular, this MD&A may contain forward-looking information pertaining to the following: the net present value, metal recoveries, capital costs, operating costs, production, rates of return, payback and impact of the R1515W, R840W and R1620E zones on the operations; the likelihood of completing and benefits to be derived from corporate transactions; the estimates of the Company's mineral resources on its PLS property; estimated exploration and development expenditures; expectations of market prices and costs; supply and demand for uranium; possible impacts of litigation and regulatory actions on the Company; exploration, development and expansion plans and objectives; expectations regarding adding to its mineral resources through acquisitions and exploration; and receipt of regulatory approvals, permits and licences under governmental regulatory regimes.

There can be no assurance that such statements will prove to be accurate, as the Company's actual results and future events could differ materially from those anticipated in this forward-looking information as a result of the factors discussed below in this MD&A under the heading "Risks and Uncertainties". Accordingly, readers should not place undue reliance on forward-looking statements.

Cautionary notes regarding forward-looking statements (continued)

These factors are not, and should not, be construed as being exhaustive. Statements relating to "mineral resources" are deemed to be forward-looking information, as they involve the implied assessment, based on certain estimates and assumptions, that the mineral resources described can be profitably produced in the future. The forward-looking information contained in this MD&A is expressly qualified by this cautionary statement. The Company does not undertake any obligation to publicly update or revise any forward-looking information after the date of this MD&A or to conform such information to actual results or to changes in the Company's expectations except as otherwise required by applicable legislation.

Cautionary notice to US investors regarding mineral resource estimates

Disclosure of mineral resource estimates and mineral classification terms herein are made in accordance with the Canadian National Instrument 43-101 *Standards of Disclosure for Mineral Projects*. NI 43-101 is a rule established by the Canadian Securities Administrators ("CSA") that sets the standards for all public disclosure by issuers regarding scientific information and technical data concerning mineral projects. Unless otherwise indicated, all mineral resource estimates contained in the technical disclosure have been prepared in accordance with NI 43-101 and the Canadian Institute of Mining, Metallurgy and Petroleum Definition Standards on Mineral Resources and Reserves ("CIM Definition Standards"). Canadian standards, including NI 43-101, differ significantly from the historical requirements of the United States Securities and Exchange Commission ("SEC"), and mineral resource information contained or incorporated by reference in this prospectus supplement may not be comparable to similar information disclosed by U.S. companies.

The SEC has adopted amendments to its disclosure rules to modernize the mineral property disclosure requirements for issuers whose securities are registered with the SEC. These amendments became effective February 25, 2019 (the "SEC Modernization Rules") and, following a two-year transition period, the SEC Modernization Rules replaced the historical property disclosure requirements for mining registrants that are included in SEC Industry Guide 7 for fiscal years beginning January 1, 2021 or later.

Under the SEC Modernization Rules, the definitions of "proven mineral reserves" and "probable mineral reserves" have been amended to be substantially similar to the corresponding CIM Definition Standards and the SEC has added definitions to recognize "measured mineral resources", "indicated mineral resources" and "inferred mineral resources" which are also substantially similar to the corresponding CIM Definition Standards; however, there are still differences in the definitions and standards under the SEC Modernization Rules and the CIM Definition Standards. Therefore, the Company's mineral resources as determined in accordance with NI 43-101 may be significantly different than if they had been determined in accordance with the SEC Modernization Rules.

Risks and uncertainties

The Company is subject to a number of risks and uncertainties, including: uncertainties related to the impact of the COVID-19 pandemic on capital markets and supply chains; uncertainties related to exploration and development; uncertainties related to the nuclear power industry; the ability to raise sufficient capital to fund exploration and development; changes in economic conditions or financial markets; increases in input costs; litigation, legislative, environmental and other judicial, regulatory, political and competitive developments; technological or operational difficulties or inability to obtain permits encountered in connection with exploration activities, labour relations matters, and economic issues that could materially affect uranium exploration and mining. The cost of conducting and continuing mineral exploration and development is significant, and there is no assurance that such activities will result in the discovery of new mineralization or that the discovery of a mineral deposit will be developed and advanced to commercial production. The Company continually seeks to minimize its exposure to these adverse risks and uncertainties, but by the nature of its business and exploration activities, it will always have some degree of risk. For further discussion related to risks and uncertainties, please refer to the Company's annual information form for the year ended December 31, 2020 available on SEDAR at www.sedar.com.