Fission Regional Exploration Drilling at Saloon East Hits Strongest Radioactivity to Date Outside of the Triple R Deposit

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>90% of holes on Saloon Shear Zone intersect anomalous radioactivity

KELOWNA, Aug. 20, 2024 - Fission Uranium Corp. ("Fission" or "the Company") is pleased to announce completion of the summer 2024 regional exploration drill program at its PLS high-grade uranium project, in the Athabasca Basin region of Saskatchewan, Canada. A total of fifteen holes (~6,428m) were completed with fourteen holes targeting the Saloon Shear Zone and one hole testing the Far West target (Figure 1 and Table 1). Of note, thirteen holes intercepted anomalous radioactivity. Of particular note, three holes (PLS24-680, 682 and 684B) located in the Saloon East area ~4km southeast of the Triple R deposit, hit strongly anomalous radioactivity in multiple zones over significant widths with peaks of 10,428 cps, 5,842 cps, and 12,777 cps respectively. Importantly, the results at Saloon East represent the strongest radioactivity intersected on the PLS property to date outside of the Triple R deposit.

Drilling Highlights

- Summer regional exploration drilling tested ~8.8km of the Saloon Shear Zone with 14 holes, with >90% of the holes intersecting anomalous radioactivity in multiple intervals in each hole. These results represent the strongest hydrothermal alteration and radioactivity encountered to date at PLS outside of the Triple R deposit.
- Drilling along the Saloon Shear Zone intersected anomalous radioactivity along 8km of strike length with most prospective results at Saloon Main and East areas.
- Saloon Main - tested by 5 holes and all encountering anomalous radioactivity associated with strong hydrothermal alteration.
    - Hole PLS24-679A intersected a total composite of 65.5m of anomalous radioactivity with peaks up to 4,077 cps.
    - Hole PLS24-661 intersected a total composite of 137.4m anomalous radioactivity over a 394.6m interval, with peaks up to 3,254.1 cps, suggesting the Saloon Main shear zone remains prospective to a depth of at least 540m below surface.

- Saloon East - Tested by 3 holes and all encountering anomalous radioactivity associated with strong hydrothermal alteration.

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    - Hole PLS24-684B intersected five intervals of anomalous radioactivity over considerable widths, with the strongest results from an 11.6m wide interval with a peak of 12,677.6 cps and a 4m wide interval with peak of 6,737.7 cps.
    - Hole PLS24-680 intersected eight intervals of anomalous radioactivity over a total composite width of 25.9m, with the strongest results from a 6.8m wide interval with a peak 10,428.7 cps and a 1.1m wide interval with a peak of 7,833.6 cps.
    - Hole PLS24-682 encountered six intervals of anomalous radioactivity with the best results from a 5.1m wide interval returning a peak of 5,841.8 cps.

Ross McElroy, CEO for Fission, commented, "The Saloon Shear Zone continues to deliver extremely encouraging signs associated with high-grade uranium mineralization. With the 2024 exploration program, we have tested over 8.8km of strike length of the Saloon Shear Zone and intersected anomalous radioactivity over 8km. In particular, the exceptional results at the Saloon Main and East areas located 5km to the southeast and ~4km to the southeast of the Triple R deposit respectively, give our exploration team a tremendous amount of optimism for the discovery of additional high-grade mineralization. The Saloon trend continues to be considered the top priority focus for future exploration activity."

Table 1: S2024 Regional Exploration Drill Hole Summary

TARGET AREA	Collar						Basement Unconformity Depth (m)	Total Drillhole De
	HOLE ID	Easting (UTM NAD83)	Northing (UTM NAD83)	Elevation (masl)	Az	Dip		
Saloon Main	PLS24-654	595592	6385529	550	313	-56	152.0	502.3
	PLS24-657A	595747	6385697	552	313	-57	140.0	464.0
	PLS24-661	595355	6385682	548	142	-86	115.8	768.2
	PLS24-679A	595381	6385720	548	156	-80	125.0	380.0

	PLS24-681	595321	6385676	548	141	-82	114.4	332.0
Saloon East	PLS24-680	601969	6388620	510	310	-59	107.3	410.0
	PLS24-682	601968	6388620	510	310	-55	47.0	344.0
	PLS24-684B	601969	6388619	510	306	-63	20.0	401.0

Saloon	PLS24-651	595010	6384707	543	317	-70	122.5	458.0
	PLS24-667	594695	6383617	550	319	-63	130.6	389.0
	PLS24-670	598520	6385949	538	350	-57	110.6	364.0
	PLS24-672	598491	6386034	552	336	-75	115.3	252.7
	PLS24-674	598441	6386221	555	326	-69	97.8	486.6
	PLS24-676	600423	6386643	538	316	-74	115.6	506.0
Far West	PLS24-683	592865	6387008	550	309	-72	98.0	371.0

Saloon Shear Zone

The Saloon Shear Zone is a linear, multi-kilometer long, southwest-northeast trending structural zone up to ~1km in width, that is parallel to and located ~4km south of the shear zones that hosts the Triple R deposit and the Arrow deposit within the Patterson Lake Corridor. The Saloon Shear Zone is interpreted to be the same shear zone that hosts high-grade uranium mineralization at the PCE discovery on the Rook1 property to the northeast along strike.

The Saloon Shear Zone has been a major focus of Fission's 2024 exploration drilling, with 16 holes (2 holes during winter and 14 holes during the summer programs), testing along ~8.8km of strike length. Over 90% of the holes (14 of 16 holes) encountered anomalous radioactivity in multiple intervals associated with intense hydrothermal alteration along ~8km of strike length of the saloon shear zone. Within this 8km of strike length, two prominent areas have been identified that look to be particularly prospective; Saloon Main and Saloon East areas.

Saloon Main - The area is located ~5km to the southwest of the Triple R deposit. In 2024 total of 7 holes have tested the Saloon Main area; two during the winter program (PLS24-638 and 641) and five during the summer program (PLS24-654, 657A, 661, 679A and 681). Six of the 7 holes intersected anomalous radioactivity in multiple intervals associated with intense hydrothermal alteration. Hole PLS24-679A intersected multiple intervals of anomalous radioactivity for a total composite of 65.5m anomalous radioactivity over 145.4m interval, with peaks up to 4,077.3 cps. Hole PLS24-661 intersected anomalous radioactivity over a 394.6m interval, with peaks up to 3,254.1 cps, suggesting the Saloon Main shear zone remains prospective to a depth of at least 540m below surface.

Saloon East - The area is located ~4km to the southeast of the Triple R deposit. The Saloon East area boasts the strongest radioactivity intersected on the PLS property to date, outside of the Triple R deposit. Three holes (PLS24-680, 682 and 684B) tested the target area, and all three intersected multiple intervals of anomalous radioactivity associated with intense hydrothermal alteration. The strongest results were from PLS24-684B where downhole gamma survey recorded radioactivity ranging from <500 cps to peaks up to 12,677.7 cps within an 11.6m interval.

Far West

The Far West target area is located ~4km west of the R1515W, along trend of the Triple R deposit. Prospective features present at this target area consists of a major northeast trending electromagnetic (EM) conductor that is crosscut by an interpreted north-northeast trending fault. Hole PLS24-683, is the only drill test on the Far West target to date.

Technical Summary for All Holes

Saloon Main

PLS24-654 was drilled 100m northeast of the main Saloon target, along the same EM trend that hosts anomalous uranium concentrations at Saloon. The drillhole intersected bedrock at a depth of 152.0m, consisting of an interfingered mafic, intermediate orthogneiss and quartz-feldspar-biotite-garnet gneiss upper zone. A thick graphitic fault zone was intersected from 243.7m to 261.8m, which is a previously untested graphitic fault zone at Saloon. This graphitic fault zone was underlain by a variably silicified sequence of orthogneiss, quartz-feldspar-biotite-garnet gneiss and sheared granitoids to 408.4m. A second graphitic fault zone was encountered at this depth, which continued to 424.3m, underlain by quartz-feldspar gneiss and intermediate orthogneiss to a final depth of 502.3m. The lower graphitic fault zone is associated with two intervals of anomalous radioactivity, from 406.2m to 406.5m and 410.0m to 412.7m with maximums of 1,118 cps and 2,084 cps, respectively.

PLS24-657A was drilled 300m northeast of the main Saloon target and tested the southern graphitic fault zone intersected in PLS24-654 along trend. Bedrock was intersected at a depth of 140.0m and consisted primarily of variably silicified quartz-feldspar-biotite-garnet gneiss, intermediate orthogneiss and mafic gneiss. Two intervals of graphitic mylonite were intersected, from 194.0m to 203.7m and 244.4m to 250.4m, which likely represent the extension of the southern graphitic fault zone seen in PLS24-654. The drillhole as terminated at a final depth of 464.0m in a thick sequence of variably silicified quartz-feldspar-biotite-garnet gneiss. Three zones of anomalous radioactivity were identified on the downhole gamma probe, from 367.9m to 369.4m, 370.4m to 371.2m and 451.5m to 452.8m, with maximums of 694.7, 711.0 and 1,016 cps, respectively.

PLS24-661 was drilled directly at the main Saloon target and was planned to drill parallel, down-dip, of the main fault zone hosting anomalous uranium concentrations at Saloon. Bedrock was intersected at 115.8m and consisted of intensely hematite and clay altered, variably silicified breccias and mafic gneisses to 490.7m, followed by an interfingered sequence of coarse garnet quartz-feldspar-biotite gneiss, sheared granitoid and pegmatites to the end of the hole at 768.2 m. A total of 137.4m of total composite radioactivity was detected on the downhole gamma probe in 23 separate zones over a 394.6m long core interval between 145.9m and 540.5m. The strongest intersections occurred between 157.8m to 176.0m and 182.6m to 209.6m with maximums of 2,344.7 and 3,254.1 cps, respectively.

PLS24-679A was drilled at the main Saloon target area, targeting the strongest radioactivity intersected in PLS24-661 30m along strike to the northeast. Bedrock was reached at a depth of 125.0m downhole and consisted of alternating extremely silicified to clay-hematite breccia to mylonitic rocks throughout the drillholes entire length to a final depth of 380.0m. A total of 65.5m of anomalous radioactivity was detected on the downhole gamma probe, with the best intervals occurring between 205.7m to 216.9m, 285.4m to 296.9m and 323.5m to 337.9m with peaks of 4,077.3 cps, 1,916.2 cps and 1,601.9 cps, respectively.

PLS24-681 was drilled at the main Saloon target area, testing the strongest radioactivity intersected in PLS24-661 30m along strike to the southwest. Bedrock was intersected at a depth of 114.4m and like other drillholes in the Saloon area, consisted of alternating very strongly silicified, hematite-clay altered, brecciated to mylonitic rocks to the end of the drillhole at 332.0m. Five zones of anomalous radioactivity were intersected, with the best occurring from 296.3m to 302.1m with a peak of 2,830.5 cps.

Saloon East

PLS24-680 tested a strong EM conductor along the South Patteson trend. It is interpreted that the top 80m of bedrock in this drillhole, consisting of Cretaceous mudstone and altered bedrock were washed away during drilling, and solid basement was intersected at a depth of 107.3m. Basement units consisted of an upper sequence of variably chlorite-clay altered intermediate orthogneiss and quartz-feldspar-biotite-garnet gneiss with wet-rock style alteration, followed by graphitic cataclasite and an intensely silicified unit. The silicified "hanging wall" was underlain by a clay altered graphitic fault zone and then mafic gneiss, sheared granitoid and quartz-feldspar-biotite-garnet gneiss to the end of the hole at 410.0m. Eight zones of elevated radioactivity totaling 25.9m were intersected between 269.4m and 360.4m. Strong radioactivity was detected from 306.7m to 313.5m hosted in the clay altered graphitic fault zone with a maximum of 10,428.7 cps, and from 325.3m to 326.4m hosted in a hematite-clay altered shear zone with a maximum of 7,833.6 cps.

PLS24-682 was drilled to test 25m up-dip of the strong radioactivity intersected in PLS24-680. Bedrock was encountered at 47.0m downhole and consisted of Cretaceous mudstone to 89.0m, followed by a similar hanging wall sequence of chlorite-clay altered intermediate orthogneiss and quartz-feldspar-biotite-garnet gneiss with wet-rock style alteration, graphitic cataclasite and a strongly silicified "hanging-wall". The silicified hanging wall was underlain by a clay altered graphitic fault zone and then sheared granitoid, mafic granofels and quartz-feldspar-biotite-garnet gneiss to the end of the hole at 344.0m. Six zones of anomalous radioactivity were encountered, with the best occurring from 267.7m to 273.3m and 296.1m to 301.2m returning peaks of 1,950.5 cps and 5,841.8 cps, respectively.

PLS24-684B was drilled to test 25m down-dip of the strong radioactivity intersected in PLS24-680. Bedrock was encountered at 20.0m downhole and consisted of Cretaceous mudstone to 68.0m, followed by a hanging wall sequence of chlorite-clay altered intermediate orthogneisses and quartz-feldspar-biotite-garnet gneiss with wet-rock style alteration, graphitic cataclasite and a strongly silicified zone. The silicified zone was underlain by a thin clay altered graphitic fault zone and then primarily quartz-feldspar-biotite-garnet gneiss to the end of the hole at 401.0m. Five zones of anomalous radioactivity were encountered, with the best occurring from 278.0m to 289.6m and 315.4m to 319.4m returning peaks of 12,677.6 cps and 6,736.7 cps, respectively.

Saloon - General

PLS24-651 was drilled 1 km southwest of the main Saloon target area, testing an airborne EM conductivity high coincident with a magnetic low running along the southern flank of a broad magnetic high. The drillhole intersected bedrock at a depth of 122.5m downhole, consisting of an upper sequence of mafic and quartz-feldspar gneisses to 214.0 m, a variably silicified and graphitic zone to 325.3m and quartz-feldspar gneisses to the end of the hole at 458.0m. Two 0.3m zones of anomalous radioactivity were detected on a 2PGA-1000 gamma probe, with maximums of 591.7 counts per second (cps) and 745.6 cps at 369.1m and 442.0m, respectively.

PLS24-667 tested a northeast trending EM conductor located south of the main Saloon target, within a broad magnetic low. Bedrock was intersected at a depth of 130.6m and consisted of an upper package of coarse garnet quartz-feldspar-biotite gneiss and intermediate orthogneiss to 223.2m, followed by variably graphite altered and structurally deformed mafic gneiss, intermediate orthogneiss and mylonite to the end of the hole at 389.0m. No anomalous radioactivity >500 cps was detected on the downhole gamma probe.

PLS24-670 tested northeast of the main Saloon target area, along a strong EM conductor coincident with a magnetic low. A 1.4m thick lens of Cretaceous mudstone was intersected at 110.6m downhole and basement units consisted primarily of intermediate orthogneiss and mafic gneiss to the final depth at 364.0m. Two broad fault zones with moderate to strong clay and graphite alteration were intersected between 194.1m to 223.4m and 251.4m to 275.0m. Four thin zones of anomalous radioactivity were detected on the downhole gamma probe associated with the graphitic damage zones, with a peak of up to 2,668 cps between 245.8m and 246.4 m.

PLS24-672 tested the clay altered, graphitic fault zones intersected in PLS24-670 up-dip near the top of bedrock. Bedrock was intersected at a depth of 115.3 m downhole and consisted primarily of variably altered intermediate orthogneiss and mafic gneiss to the final depth at 252.7 m. Strong graphite-clay alteration was intersected in a fault zone between 191.0 and 227.8 m. Three zones of anomalous radioactivity were detected on the gamma probe, including a continuous 4.7 m thick interval between 185.1 and 189.8 m with a peak of 2,860.9 cps.

PLS24-674 was drilled 290m north of PLS24-670 and 672 testing a parallel northeast trending EM conductor system, termed the South Patterson trend. A 15.2m thick lens of Cretaceous mudstone was intersected starting at 97.8m, followed by a complex, interfingered sequence of variably chloritic, silicified quartz-feldspar-biotite-garnet gneiss, intermediate orthogneiss and mafic gneiss cut by numerous strongly graphitic shear zones to a final depth of 486.6m. Interpreted dravite breccia, occurring as cm veins to 10's of cm thick breccia was intersected throughout the drillhole. Five thin zones of anomalous radioactivity were intersected with peaks up to 1,522.7 cps between 425.1m and 425.6m.

PLS24-678 tested the same trend as PLS24-670 and 672, 2 km to the northeast. Bedrock was intersected at a depth of 115.6m and consisted of an interfingered sequence of weakly to moderately chlorite altered intermediate orthogneiss, quartz-feldspar-biotite-garnet gneiss, granitoid and mafic gneiss to the end of hole depth at 506.0m. Numerous zones of graphite alteration or graphitic fault zones were intersected throughout the length of the drillhole. Two thin zones of radioactivity were detected, between 173.3m to 173.9m and 232.3m to 232.5m, with peaks of 689.3 and 585.3 cps, respectively.

Far West

PLS24-683 was drilled at the Far West target area and represents the furthest west exploration drilling the Company has performed along the PLG-3B main trend which also hosts the Triple R deposit. Bedrock was intersected at a depth of 98.0m and consisted of a similar sequence of rocks which host Triple R; quartz-feldspar-biotite-garnet gneiss which gradually becomes more silicified underlain by a main graphitic shear zone and finally footwall quartz-feldspar-biotite-garnet gneiss with sheared granitoid to the final depth of 371.0m. Moderate chlorite and clay alteration was pervasive throughout all of the basement units and is

deemed prospective by the Company, however no anomalous radioactivity was detected.

Natural gamma radiation that is reported in this news release was measured in counts per second (cps) using a Mount Sopris 2PGA-1000 Single Gamma probe, which allows for accurate measurements of downhole radioactivity. The reader is cautioned that gamma probe readings are not directly or uniformly related to uranium grades of the rock sample measured, and should be used only as a preliminary indication of the presence of radioactive materials.

All intersections are down-hole depths. All depths reported of core interval measurements including radioactivity and mineralization intervals widths are not always representative of true thickness.

Samples from the drill core will be 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 will be 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, and includes a 63 element ICP-OES analysis and boron. The other half of the split core remains on site for reference.

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 05, 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 100 m. R1515W is the westernmost 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 the 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 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 intrusive rocks with varying degrees of alteration. Mineralization is both located within and associated with mafic 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.

Patterson Lake South Property

The 31,039-hectare PLS project is 100% owned and operated by Fission Uranium Corp. PLS is accessible by road with primary access from all-weather Highway 955, which runs north to the former Cluff Lake mine.

Qualified Persons

The technical information in this news release has been prepared in accordance with the Canadian regulatory requirements set out in National Instrument 43-101 and reviewed on behalf of the company by Ross McElroy, P.Geo., President and CEO for Fission Uranium Corp., a qualified person.

About Fission Uranium Corp.

Fission Uranium Corp. is an award-winning Canadian uranium project developer and 100% owner of the Patterson Lake South uranium property - a proposed high-grade uranium mine and mill in Canada's Athabasca Basin region. Fission's common shares are listed on the TSX Exchange under the symbol "FCU" and trade on the OTCQX marketplace in the U.S. under the symbol "FCUUF" and on the Frankfurt Stock

Exchange under the symbol 2FU.

ON BEHALF OF THE BOARD

"Ross McElroy"
Ross McElroy, President and CEO

Cautionary Statement:

Certain information contained in this press release constitutes "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 contained in this press release may include statements regarding the future operating or financial performance of the Company which involve known and unknown risks and uncertainties which may not prove to be accurate. Actual results and outcomes may differ materially from what is expressed or forecasted in these forward-looking statements. Such statements are qualified in their entirety by the inherent risks and uncertainties surrounding future expectations. Among those factors which could cause actual results to differ materially are the following: market conditions and other risk factors listed from time to time in our reports filed with Canadian securities regulators on SEDAR+ at www.sedarplus.ca. The forward-looking statements included in this press release are made as of the date of this press release and the Company disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as expressly required by applicable securities legislation.

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