CanAlaska Announces Discovery of Unconformity Uranium Mineralization at Pike Zone on West McArthur Project

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Unconformity-Hosted Mineralization Defined Over 160 Metres Length on Multiple Drill Fences; Remains Open

Basement-Hosted Mineralization Expanded; New Target Areas Identified

Vancouver, May 3, 2023 - CanAlaska Uranium Ltd. (TSXV: CVV) (OTCQX: CVVUF) (FSE: DH7N) ("CanAlaska" or the "Company") is pleased to announce successful completion of the winter 2023 drilling program at the West McArthur project. The drill program is highlighted by WMA079 that intersected 2.3 metres at 0.58 %eU_3O_8 and 3.9 metres at 1.39 %eU_3O_8, including 0.5 metres at 7.16 %eU_3O_8. During the program, uranium mineralization was intersected in six of the nine drill holes completed with step out drill fences 100 and 160 metres northeast of the original basement-hosted discovery and includes the first ever intersection of unconformity-associated uranium mineralization at Pike Zone. The mineralization drilled to date at Pike Zone remains open in all directions. The West McArthur project, a Joint Venture with Cameco Corporation, is operated by CanAlaska that currently holds a 79.4% ownership in the project (Figure 1). CanAlaska is sole funding the 2023 West McArthur program, further increasing its majority ownership in the project.

Figure 1 - West McArthur Project Location

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https://images.newsfilecorp.com/files/2864/164581_3c532825c4243ac3_002full.jpg

2023 West McArthur Winter Exploration Program Highlights

During the winter drill program, the Company was focused on drill testing unconformity targets in the vicinity of the Pike Zone discovery as well as continued definition of the basement mineralization. The 2023 winter exploration program consisted of nine completed diamond drill holes totalling 7,072 metres, of which six drill holes intersected significant uranium mineralization (Figure 2). Each of the holes completed during the winter program intersected indicative alteration and structural disruption in the lower sandstone and basement related to faulting along the C10S conductor corridor, which is a structural bifurcation from the C10 corridor on the project. The C10 corridor is host to CanAlaska's nearby 42 Zone and Cameco and Orano's Fox Lake uranium deposit.

Figure 2 - 2023 West McArthur Winter Drilling Results

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At the conclusion of the winter drill program, the Pike Zone basement mineralization has been expanded and remains open in all directions.

Unconformity-associated uranium mineralization was discovered on two drill fences located over 160 metres to the northeast of the original Pike Zone discovery which is a very significant outcome from this program. The presence of this unconformity mineralization indicates the potential for a very large mineralizing event that is already generating significantly high-grade uranium mineralization in both the basement and unconformity target areas. The mineralization at Pike zone remains open in all directions (Figure 3). The mineralized intersections from the 2023 winter exploration drilling program are illustrated in Figure 2 and summarized in Table 1.

High Priority Target Areas Identified

Results from the winter program indicate priority targets exist in the basement and at the unconformity at Pike Zone. An inclined long section, Figure 3, shows the 2022 and 2023 mineralization intersections projected onto target corridor plane of the basement rocks. In the basement, high priority targets are located immediately northeast of the Pike Zone, down-dip of mineralization intersected at the unconformity during the 2023 drill program. High priority unconformity-related targets exist along strike in both directions of the Pike Zone area.

Figure 3 - 2023 West McArthur Pike Zone Inclined Long Section Showing Priority Target Areas

To view an enhanced version of this graphic, please visit:
https://images.newsfilecorp.com/files/2864/164581_3c532825c4243ac3_006full.jpg

CanAlaska CEO, Cory Belyk, comments, "The Pike Zone discovery continues to grow in size as we complete further drilling indicating the potential for this to be a major discovery for CanAlaska and the West McArthur joint venture. With a majority of the holes drilled in 2023 encountering mineralization at the unconformity and within basement over considerable and continuous length, the Pike Zone is displaying the critical characteristics of major mineralizing events commonly observed in the Athabasca setting. The Pike Zone is open in all directions and the next phase of drilling scheduled for later in the year will focus on expansion of the known mineralization. I remain very encouraged by the continuity of the mineralization and associated intense alteration as well as the new targets that have been identified from this program for our immediate follow-up."

Next Steps

A geophysical crew has begun a 3D DCIP Resistivity survey over the C10S conductive corridor which hosts the Pike Zone. The corridor is interpreted to be over 15 kilometres in strike length and the Company believes there are multiple opportunities for discovery around the Pike Zone and elsewhere along this extensive corridor. The DCIP Resistivity program will map structure and associated alteration intensity throughout the lower sandstone column above Pike Zone and along a large portion of the C10S corridor. This information will prioritize drill testing of the unconformity target at Pike Zone and along the C10S corridor. The survey is being completed by Dias Geophysical based out of Saskatoon, Saskatchewan.

Assay samples for the 2023 drilling program have been submitted and results are pending. Based on the results of the assays and the ongoing geophysical survey, the Company is planning additional drilling in 2023.

Table 1 - 2023 West McArthur Winter Exploration Drilling Results

DDH	From (m)	To (m)	Length (m)[3]	Average Grade (% eU_3O_8)[4]	Maximum Grade (% eU
WMA074-1[1]	809.9	810.8	0.9	0.31	0.46
WMA075[1]	793.1	795.1	2.0	0.37	0.87
WMA075-1[1]	808.0	808.6	0.6	0.26	0.38

WMA076[1]	789.1	791.1	2.0	0.13	0.27
WMA076[1]	792.7	795.7	3.0	0.25	0.61
WMA076[1]	809.2	809.8	0.6	0.19	0.32
WMA076[1]	813.0	813.6	0.6	0.26	0.45
WMA079[1]	853.7	856.0	2.3	0.58	1.86
WMA079[1]	859.2	863.1	3.9	1.39	16.1
including[2]	859.4	859.9	0.5	7.16	16.1
WMA080-1[1]	900.3	900.7	0.4	0.48	0.96
WMA080-1[1]	918.3	919.0	0.7	0.41	0.96

1. Intersection interval is composited above a cut-off grade of 0.1% eU_3O_8 with a maximum of 1.0 m of internal dilution.
2. Intersection interval is composited above a cut-off grade of 2.0% eU_3O_8 with a maximum of 1.0 m of internal dilution.
3. All reported depths and intervals are drill hole depths and intervals, unless otherwise noted, and do not represent true thicknesses, which have yet to be determined.
4. Radiometric equivalent ("eU_3O_8") derived from a calibrated gamma downhole probe.

Table 2 - 2023 West McArthur Winter Exploration Drill Collar Locations

Drill Hole	Easting	Northing	Elevation (m A.S.L.)	Azimuth (˚)	Dip (˚)	EOH (m)	Unconformity Depth (m)
WMA074	477237.0	6396515.0	599.3	335	-77.0	959	801.1
WMA074-1	477237.0	6396515.0	599.3	335	-77.0	950	796.1
WMA075	477364.0	6396604.0	603.4	320	-82.0	893	794.9
WMA075-1	477364.0	6396604.0	603.4	320	-82.0	887	787.9
WMA075-2	477364.0	6396604.0	603.4	320	-82.0	908	785.5
WMA076	477339.0	6396538.0	608.0	325	-76.1	893	799.7
WMA077	477345.0	6396515.0	608.0	277	-80.5	1052	787.4
WMA078	477358.7	6396536.5	606.0	301	-78.3	302	N/A
WMA079	477359.0	6396539.0	606.0	301	-80.5	902	803.3
WMA080-1	477345.7	6396518.0	606.0	280	-80.5	977	787.7

Notes: Easting and Northing coordinates are reported in UTM Zone 13N (NAD83 datum). EOH = end of hole. m A.S.L. = metres above sea level. WMA078 was not completed due to excessive deviation. Holes with -1 and -2 represent wedge off cuts or directional steering at depth from pilot holes.

Drill Hole Details

Three drill holes were completed to continue defining the dimensions and controls on the Pike Zone basement mineralization. Drill hole WMA079 tested the Pike Zone between WMA070 and WMA072-3, approximately 25 metres from the 2022 drill holes. WMA079 contained two basement-hosted uranium mineralization intersections over a 7.1 metre wide zone, highlighted by 1.39 eU_3O_8 over 3.9 metres, including 7.16 eU_3O_8 over 0.5 metres, expanding the known uranium mineralization. Drill hole WMA080-1 tested the Pike Zone down dip of WMA067 by 22 metres and contained two basement uranium mineralization intersections, expanding the known uranium mineralization.

Drill holes completed immediately up-dip of the Pike Zone at the unconformity in the WMA074 series intersected multiple metre- to sub-metre scale fault zones hosted within a 90-metre wide strongly clay and locally pyrite altered sandstone. The basement in these drill holes was strongly clay and chlorite altered throughout with strong alteration penetrating over 130 metres vertically below the unconformity. Multiple metre-scale fault zones were intersected throughout the basement that are associated with complete clay replacement and core loss. Basement-hosted uranium mineralization was intersected in WMA074-1 approximately 14 metres below the unconformity. The unconformity target remains marginally tested in the vicinity of WMA074-1.

Four drill holes were completed within 160 metres from the immediate Pike Zone to test the potential for unconformity-associated uranium mineralization. Drill hole WMA076 successfully intersected two intervals of

sandstone hosted uranium mineralization and two intervals of basement hosted uranium mineralization (Table 1). The basal 100 metres of the sandstone column in WMA076 was strongly bleached and altered with multiple fault zones and strong grey sulfide alteration in the lower 30 metres. Within the sulfide altered interval, very poor core recovery (40 - 80%) due to strong quartz dissolution related to faulting was encountered. Unconformity-associated uranium mineralization in WMA076 is hosted within the faulted sandstone. The WMA075 series of drill holes, completed 160 metres along strike to the northeast of the Pike Zone, contained strongly bleached and altered lower sandstone column. In WMA075, unconformity-associated uranium mineralization is hosted within a faulted and clay altered dark grey sulfide-rich sandstone. The basement in these drill holes contain a 20 - 40 metre wide zone of chlorite and clay altered reactivated fault zone. WMA075-1 contained basement-hosted uranium mineralization.

Geochemical Sampling Procedures and Use of Radiometric Equivalent Grades

All drill core samples from the 2023 winter program were shipped to the Saskatchewan Research Council Geoanalytical Laboratories (SRC) in Saskatoon, Saskatchewan in secure containment for preparation, processing, and multi-element analysis by ICP-MS and ICP-OES using total (HF:NHO3:HClO4) and partial digestion (HNO3:HCl), boron by fusion, and U_3O_8 wt% assay by ICP-OES using higher grade standards. Assay samples are chosen based on downhole probing radiometric equivalent uranium grades and scintillometer (SPP2 or CT007-M) peaks. Assay samples comprise 0.3 - 0.5 metre continuous split-core samples over the mineralized interval. The SRC is an ISO/IEC 17025/2005 and Standards Council of Canada certified analytical laboratory. Blanks, standard reference materials, and repeats are inserted into the sample stream at regular intervals by CanAlaska and the SRC in accordance with CanAlaska's quality assurance/quality control (QA/QC) procedures. Geochemical assay data are subject to verification procedures by qualified persons employed by CanAlaska prior to disclosure.

During active exploration programs, following the completion of a drill hole, the hole is radiometrically logged using calibrated downhole GeoVista NGRS and TGGS (Triple GM) gamma probes which collect continuous readings along the length of the drill hole. Preliminary radiometric equivalent uranium grades ("eU_3O_8") are then calculated from the downhole radiometric results. The probe is calibrated using an algorithm calculated from the calibration of the probe at the Saskatchewan Research Council facility in Saskatoon. A 0.1% eU_3O_8 cut-off with a maximum internal dilution of 1 metre is used for compositing and reporting the data. The equivalent uranium grades are preliminary and are subsequently reported as definitive assay grades following sampling and chemical analysis of the mineralized drill core. In the case where core recovery within a mineralized intersection is poor, radiometric grades are considered to be more representative of the mineralized intersection and may be reported in the place of assay grades. Radiometric equivalent probe results are subject to verification procedures by qualified persons employed by CanAlaska prior to disclosure.

All reported depths and intervals are drill hole depths and intervals, unless otherwise noted, and do not represent true thicknesses, which have yet to be determined.

About CanAlaska Uranium

CanAlaska Uranium Ltd. (TSXV: CVV) (OTCQX: CVVUF) (FSE: DH7N) holds interests in approximately 300,000 hectares (750,000 acres), in Canada's Athabasca Basin - the "Saudi Arabia of Uranium." CanAlaska's strategic holdings have attracted major international mining companies. CanAlaska is currently working with Cameco and Denison at two of the Company's properties in the Eastern Athabasca Basin. CanAlaska is a project generator positioned for discovery success in the world's richest uranium district. The Company also holds properties prospective for nickel, copper, gold and diamonds. For further information visit www.canalaska.com.

The qualified technical person for this news release is Nathan Bridge, MSc., P.Geo., CanAlaska's Vice President, Exploration.

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