

PRESS RELEASE

Critical Elements Lithium discovers new Lithium-Tantalum showings with up to 2.08% Li₂O and 708 ppm Ta₂O₅

October 27th, 2022 - MONTRÉAL, QUÉBEC – Critical Elements Lithium Corporation (TSX-V: CRE) (US OTCQX: CRECF) (FSE: F12) ("**Critical Elements**" or the "**Corporation**") is pleased to report the discovery of new Lithium-Tantalum pegmatite ("**LCT pegmatite**") trends with positive prospecting sampling results on the Duval (**Table 1**), Lemare (**Table 2**) and Rose Lithium-Tantalum ("**Rose**") properties (**Table 3**) and the results from the summer drilling program on the Lac Pivert pegmatite showing (**Table 4**) and JR showing (**Table 5**) on the Rose property.

Summer 2022 Prospecting Results

During summer 2022, Critical Elements conducted a prospecting program over several areas of the Corporation's Nemaska belt property portfolio. Prior to the prospecting campaign, EarthLabs, through its GoldSpot Discoveries division, generated and ranked LCT pegmatite targets using its in-house "SmartTarget" methodology that combines both expert-driven and machine-learning data-driven targeting approaches. The objective of the field program was the identification of new pegmatite bodies using systematic rock geochemical sampling of all pegmatite bodies to refine the geological interpretation of the properties for further exploration work.

A total of 817 rock samples were collected during the exploration campaign. The prospecting revealed a new two-kilometre-long trend of white pegmatite on the Corporation's 100% owned Duval property that hosts several lithium, cesium and tantalum anomalies, including 0.62% Li₂O, 0.17% Li₂O, 464 ppm Ta₂O₅, 321 ppm Cs in grab samples, and 2.08% Li₂O (Table 1) in an angular pegmatite boulder that may have been transported one kilometre from the main discoveries during glaciation (**Table 1 and Figure 1**). These mineralized pegmatites are spatially associated with mafic volcanics along an interpreted regional-scale shear zone that borders the Nemiscau Belt, in a similar geological setting that extends to the Whabouchi lithium deposit, three kilometres off the claims to the north-east (**Figure 4**). These results show the potential of the Corporation's Nemaska trend properties. The reader is cautioned that grab samples are selective by nature and may not represent average grades of the mineralization in the pegmatites.

Sample results confirming the extension of the LCT pegmatite trend on the Lemare property have also been received. These results extend the strike potential for future drilling on the Lemare property (**Table 2 and Figure 2**). The LCT pegmatite trend on the Lemare property now has a potential strike length of over 5 kilometres. Additional drilling on this potential strike extension is planned in early 2023.

On the Rose Property, the Corporation has identified a new LCT pegmatite body north of the Lac Pivert showing. This new LCT pegmatite had grab samples reporting 1.04% Li₂O and 244 ppm Ta₂O₅ and 0.92% Li₂O and 269 ppm Ta₂O₅. (**Table 3 and Figure 3**).

Table 1: Selected Duval and Valiquette Sample results

Property	Sample number	UTM NAD 83 Easting	UTM NAD 83 Northing	Li ₂ O (%)	Ta ₂ O ₅ (ppm)	Cs (ppm)
Valiquette	E073456	433436	5719194	0.00	69	1
Duval	E073464	434666	5719893	0.01	183	15
Duval	B565166	438458	5723314	0.11	1	40
Duval	B565167	438612	5723304	0.00	464	34
Duval	B565177	438627	5723180	0.09	66	51
Duval	E073303	438624	5723083	0.02	59	48
Duval	E073304	438524	5723096	0.03	65	42
Duval	E073306	438518	5723090	0.02	60	44
Duval	E073307	438494	5723032	0.01	73	33
Duval	E073321	437590	5722597	2.08	100	15
Duval	E073324	437360	5722449	0.01	183	4
Duval	E074514	438824	5723594	0.62	73	82
Duval	E074515	438574	5723431	0.17	147	321

Note: Grab samples are selective by nature and may not to represent average grades of the pegmatite. All samples are grabs except E073321 which is an angular boulder.

Figure 1: Duval and Valiquette Projects Sample Location Map

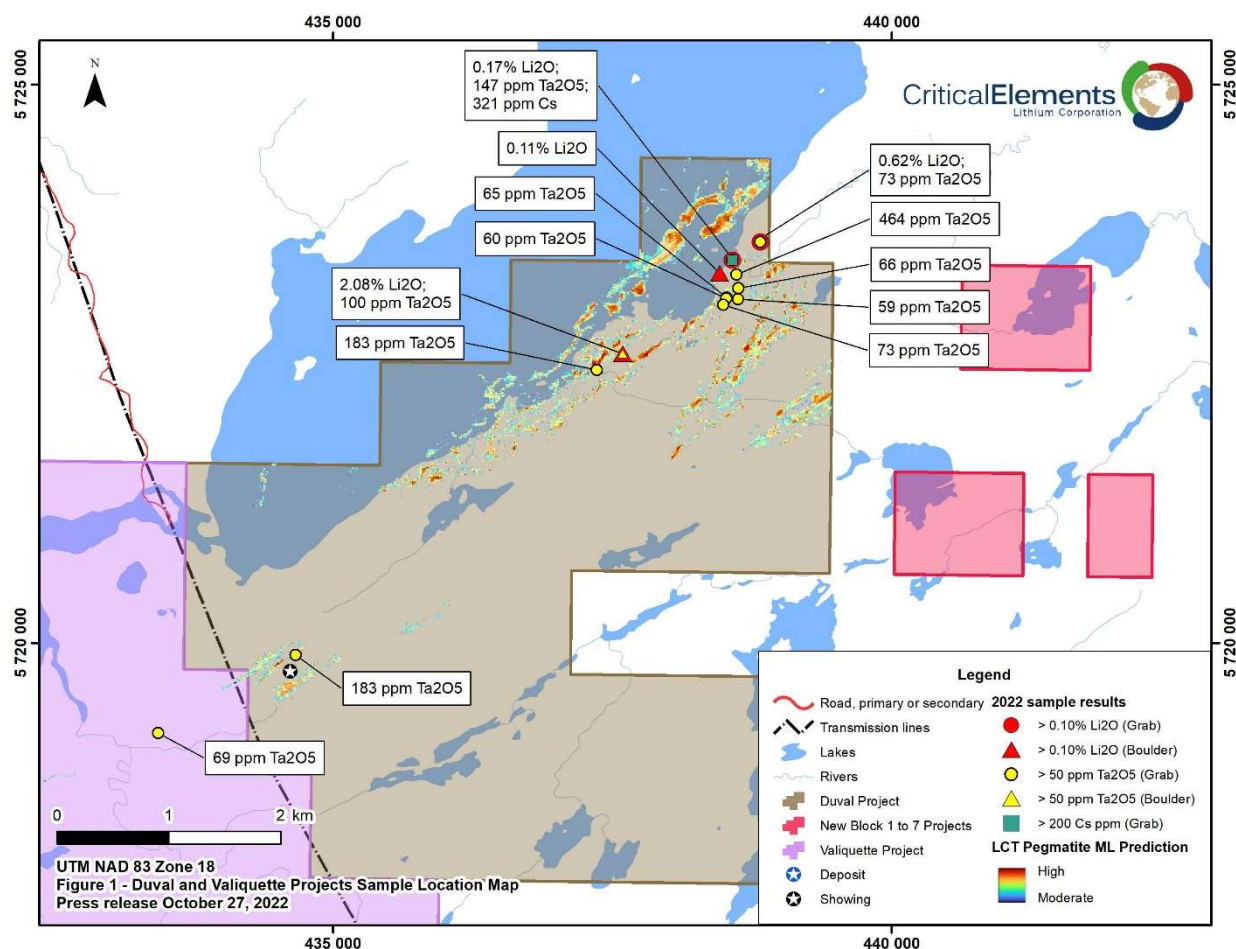


Table 2: Selected Lemare Sample Results

Property	Sample number	UTM NAD 83 ZN18 Easting	UTM NAD 83 ZN18 Northing	Li ₂ O (%)	Ta ₂ O ₅ (ppm)	Cs (ppm)
Lemare	B565764	466651	5731294	0.11	0	10
Lemare	E073359	466651	5731269	0.38	15	46
Lemare	E073452	464832	5733057	0.00	208	51
Lemare	E146557	472900	5735795	0.01	159	46
Lemare	E146571	475580	5736686	0.01	183	97
Lemare	E146585	471213	5734241	1.75	18	56
Lemare	E146586	471723	5734472	0.88	244	24
Lemare	E146668	473120	5735352	0.01	208	9
Lemare	E146671	472973	5735119	0.01	65	4
Lemare	E146675	472367	5734697	0.01	220	11
Lemare	E146681	471900	5734559	0.02	134	30
Lemare	E146697	471821	5734528	0.11	15	24
Lemare	E146784	470532	5733750	0.00	256	1
Lemare	E146787	470806	5733917	0.04	85	128
Lemare	E146788	470796	5733947	1.14	62	50
Lemare	E146789	470831	5733973	0.02	134	36
Lemare	E146791	470852	5733992	0.11	708	490
Lemare	E146792	470863	5734005	0.04	38	>500*
Lemare	E147107	471635	5734466	0.96	98	67

Note: Grab samples are selective by nature and may not to represent average grades of the pegmatite.

Figure 2: Lemare Project Sample Location Map

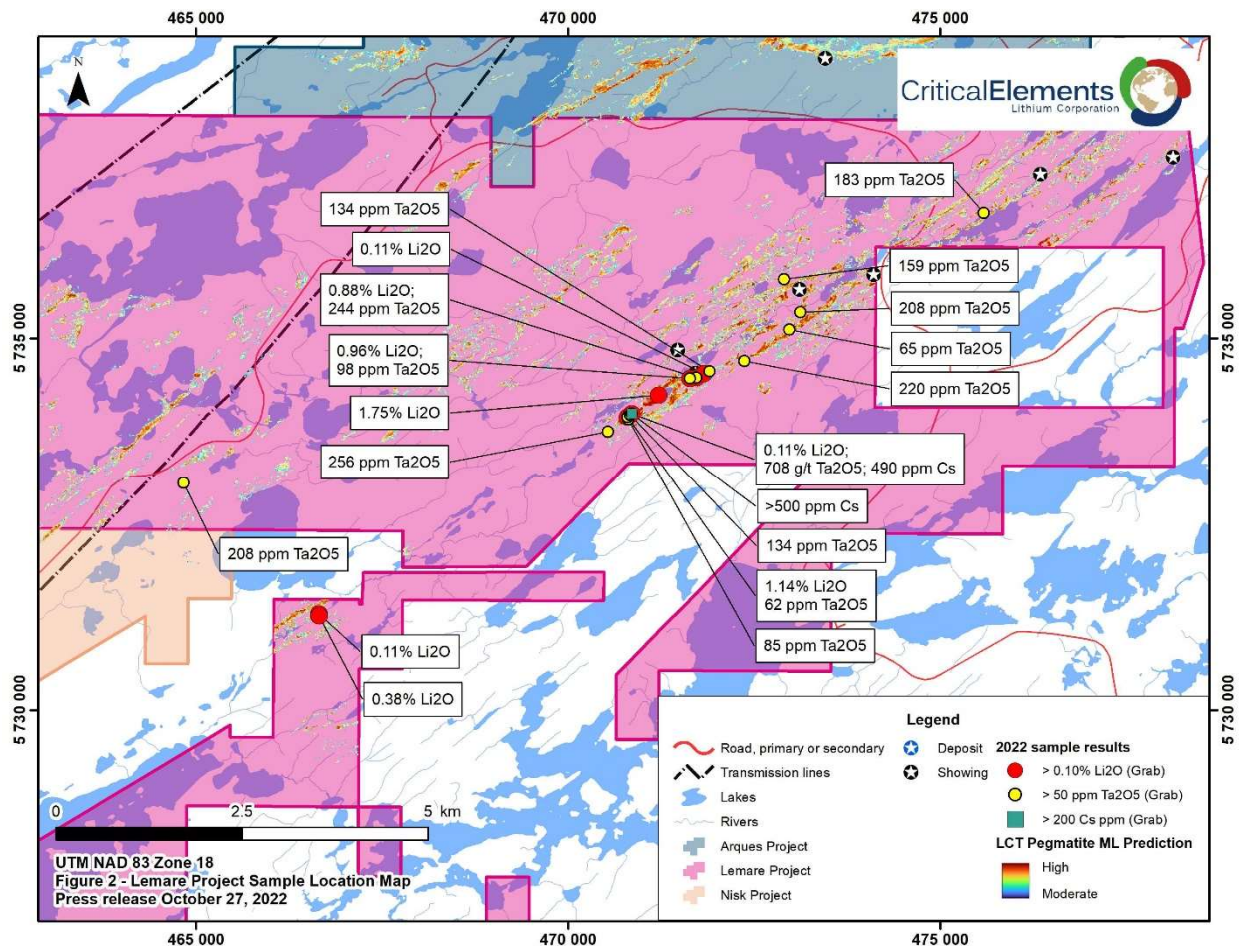


Table 3: Rose Sample Results

Property	Sample number	UTM NAD 83 ZN18 Easting	UTM NAD 83 ZN18 Northing	Li ₂ O (%)	Ta ₂ O ₅ (ppm)	Cs (ppm)
Rose	E146502	423105	5767711	0.92	269	75
Rose	E146503	423106	5767714	1.04	244	84

Note: Grab samples are selective by nature and may not to represent average grades of the pegmatite.

Figure 3: Lac Pivert (Rose Property) Sample Location Map

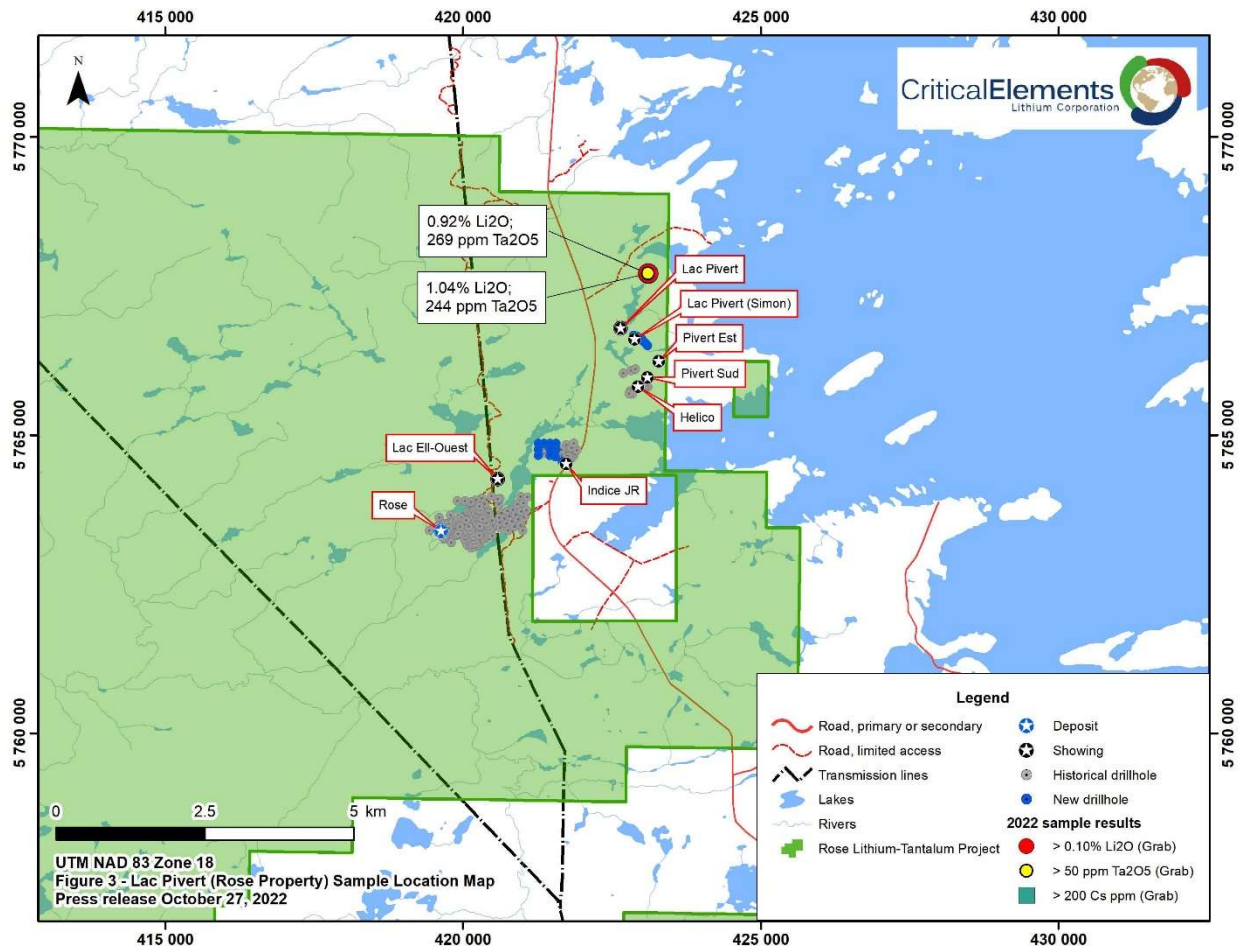
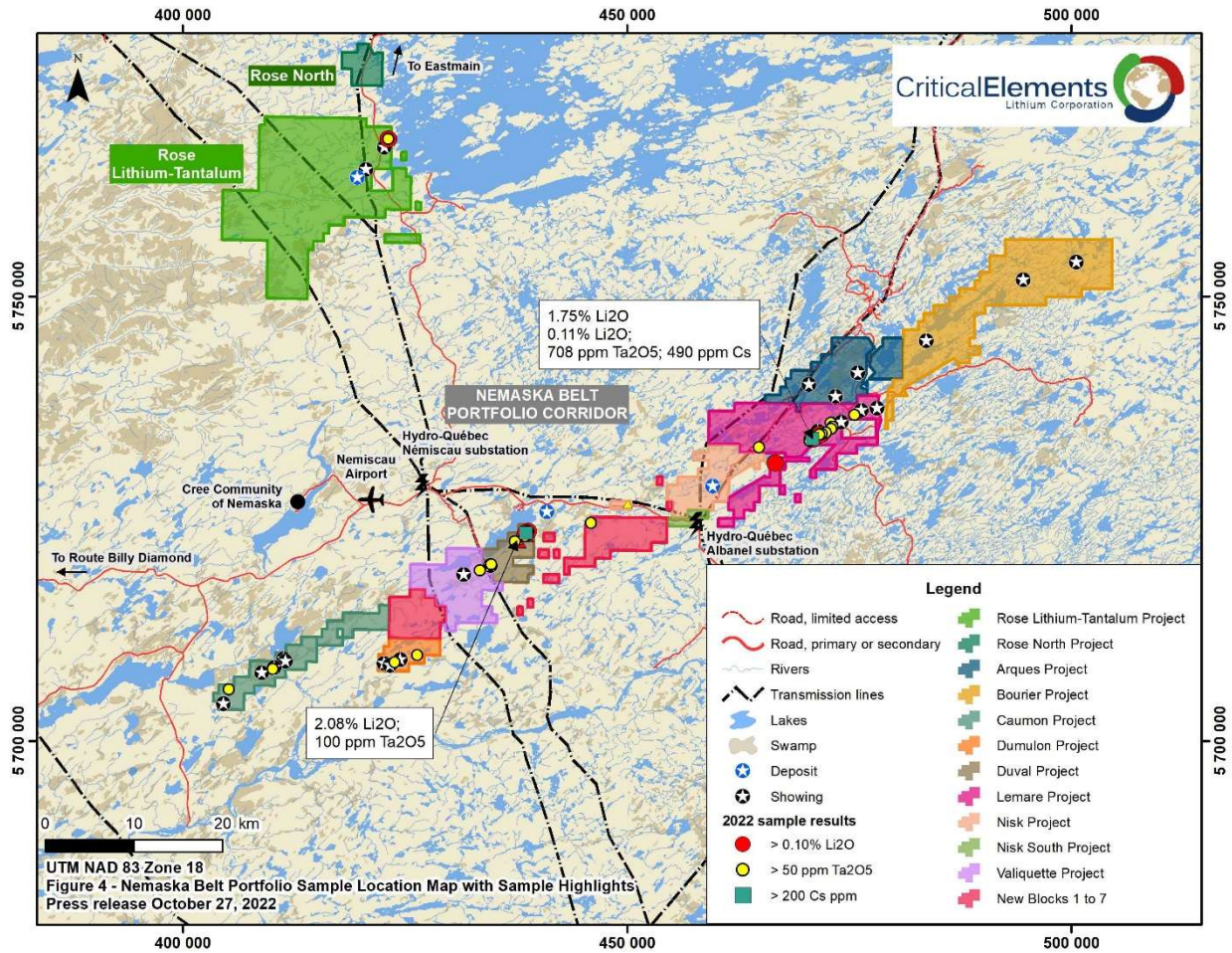


Figure 4: Nemaska Belt Portfolio Sample Location Map with Sample Highlights



*2.08% Li_2O (Table 1) in an angular pegmatite boulder one kilometre glacial downstream from the main in-place discoveries.

Summer 2022 Diamond Drill Results – Lac Pivert (Rose Property)

The Lac Pivert pegmatite showing on the Rose property is located 3.5 kilometres North-West of the flagship Rose Lithium-Tantalum deposit. The Lac Pivert showing has a lateral extent of approximately 300 metres and remains open in all directions. Eight drill holes totaling 1,119 metres were completed during the summer exploration program. Seven of these holes intersected lithium-tantalum bearing pegmatite (**Table 4 and Figure 5**). The true thickness of the drill intersections is not known at this time.

Selected drill intersection highlights include:

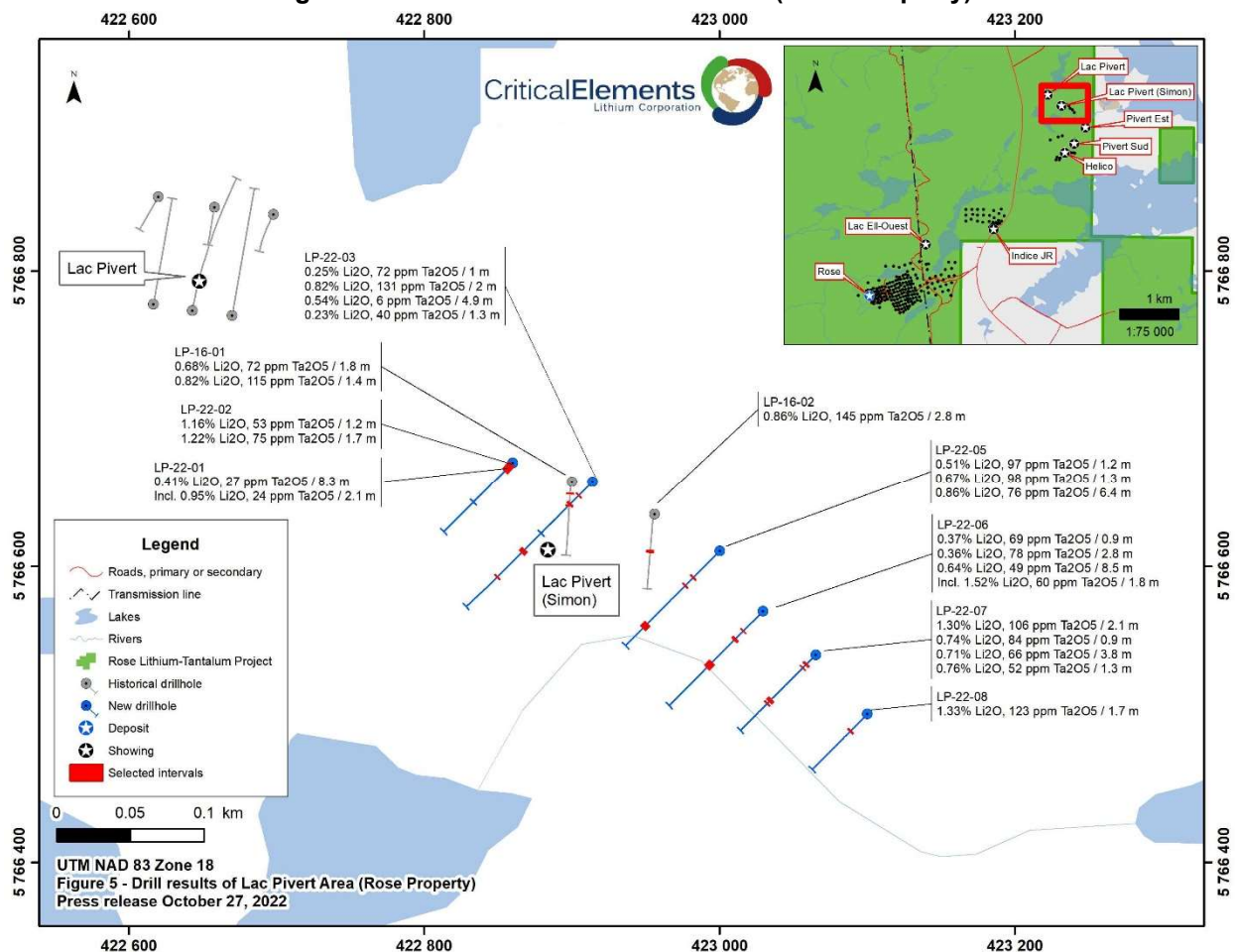
- LP-22-05: 0.9 % Li_2O and 40 ppm Ta_2O_5 over 6.4 m
- LP-22-06: 0.6 % Li_2O and 49 ppm Ta_2O_5 over 8.5 m
- LP-22-07: 1.3 % Li_2O and 106 ppm Ta_2O_5 over 2.1 m, and 0.7 % Li_2O and 66 ppm Ta_2O_5 over 3.8 m

Table 4: Drill results Lac Pivert drilling

Hole #	UTM NAD 83 ZN18 Easting	UTM NAD 83 ZN18 Northing	Length (m)	Azimuth (°)	Dip (°)	From (m)	To (m)	Interval (m)	Li ₂ O (%)	Ta ₂ O ₅ (ppm)
LP-22-01	422860	5766670	102	225	-48.6	3.40	11.70	8.30	0.41	27
including						3.40	5.50	2.10	0.95	24
LP-22-02	422860	5766670	111	225	-70.2	3.00	4.20	1.20	1.16	53
						10.10	11.80	1.70	1.22	75
LP-22-03	422914	5766657	204	225	-53.4	21.60	22.60	1.00	0.25	72
						35.70	37.70	2.00	0.82	131
						110.50	115.40	4.90	0.54	61
						154.40	155.70	1.30	0.23	40
LP-22-04	422914	5766657	210	225	-75.1	No significant intersections				
LP-22-05	423000	5766610	132	225	-46.5	36.10	37.30	1.20	0.51	97
						47.30	48.60	1.30	0.67	98
						100.80	107.20	6.40	0.86	76
LP-22-06	423029	5766569	153	225	-54.1	30.80	31.70	0.90	0.37	69
						43.50	46.30	2.80	0.36	78
						82.20	90.70	8.50	0.64	49
including						88.20	90.00	1.80	1.52	60
LP-22-07	423065	5766540	120	225	-52.5	13.90	16.00	2.10	1.30	106
						19.90	20.80	0.90	0.74	84
						70.00	73.80	3.80	0.71	66
						76.00	77.30	1.30	0.76	52
LP-22-08	423100	5766500	87	225	-52.5	25.80	27.50	1.70	1.33	123

* Length along the core.

Figure 5: Drill results of Lac Pivert Area (Rose Property)



The JR showing is located approximately one kilometre North-East of the Rose deposit. A total of 11 diamond drill holes have been completed totaling 1,140 metres. Ten of these holes intersected lithium-tantalum bearing pegmatite all hosted by pegmatite dykes (**Table 5 and Figure 6**). The true thickness of the intersections is not known at this time.

Selected drill intersections include:

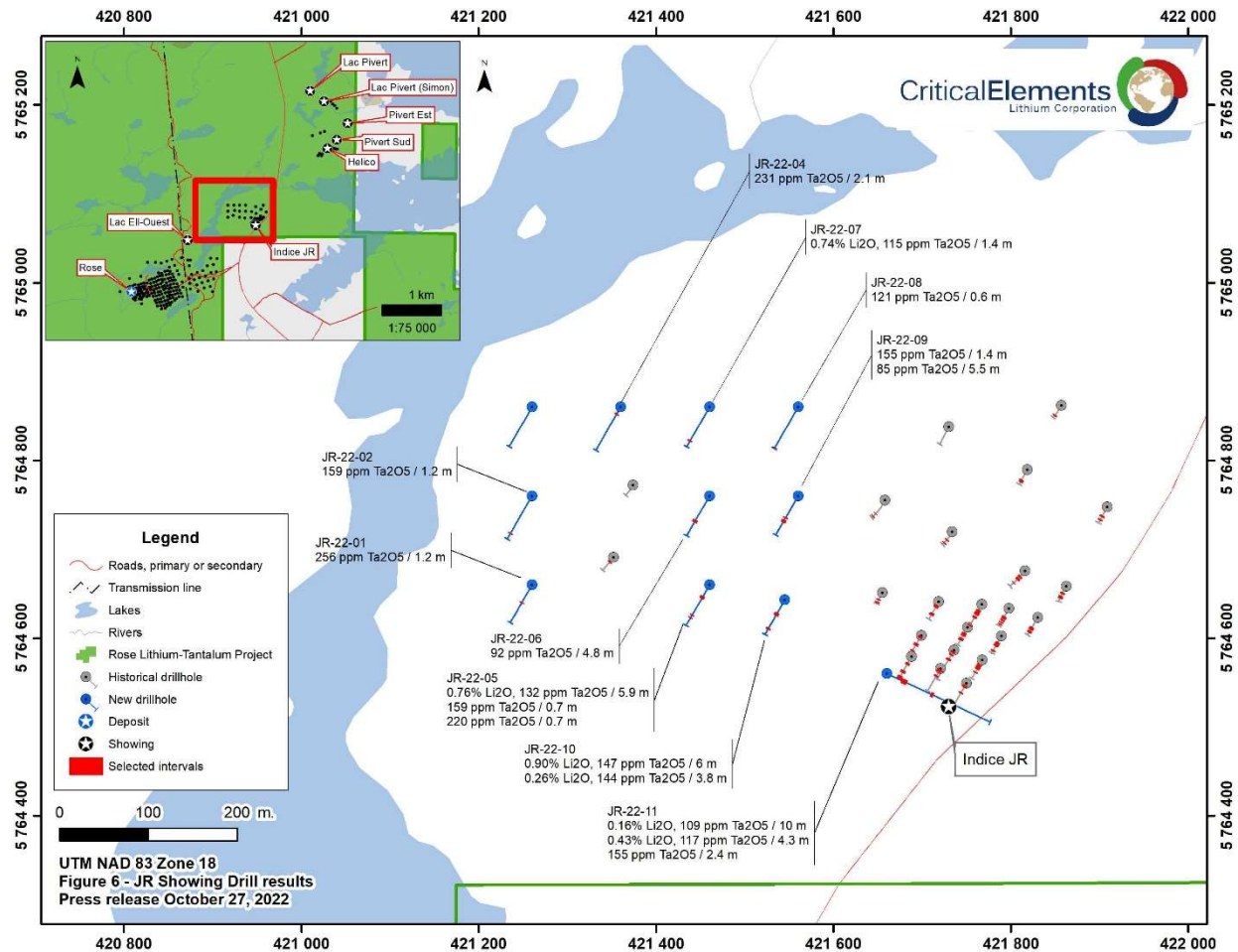
- JR-22-10: 0.9 % Li₂O and 147 ppm Ta₂O₅ over 6.0 m, and
0.3 % Li₂O and 144 ppm Ta₂O₅ over 3.8 m
- JR-22-11: 0.2 % Li₂O and 109 ppm Ta₂O₅ over 10.0 m

Table 5: Drill results of JR area

Hole #	UTM NAD 83 ZN18		Length (m)	Azimuth (°)	Dip (°)	From (m)	To (m)	Interval (m)	Li ₂ O (%)	Ta ₂ O ₅ (ppm)
Eastings	Northings									
JR-22-01	421260	5764660	102	210	-61.2	47.8	49.0	1.2	0.00	256
JR-22-02	421260	5764760	111	210	-59.5	96.1	97.3	1.2	0.00	159
JR-22-03	421260	5764860	102	210	-59.9	No significant value				
JR-22-04	421360	5764860	111	210	-59.6	16.7	18.8	2.1	0.00	231
JR-22-05	421460	5764660	105	210	-59.9	29.3	35.2	5.9	0.76	132
						78.2	78.9	0.7	0.01	159
						85.1	85.8	0.7	0.01	220
JR-22-06	421460	5764760	102	210	-60.0	62.7	67.5	4.8	0.05	92
JR-22-07	421460	5764860	102	210	-59.5	86.0	87.4	1.4	0.74	115
JR-22-08	421560	5764860	99	210	-57.2	96.8	97.4	0.6	0.01	121
JR-22-09	421560	5764760	102	210	-60.2	56.6	58.0	1.4	0.01	155
						63.3	68.8	5.5	0.00	85
JR-22-10	421545	5764643	102	210	-60.2	34.9	40.9	6.0	0.90	147
						77.1	80.9	3.8	0.26	144
JR-22-11	421660	5764560	201	115	-49.9	28.5	38.5	10.0	0.16	109
						87.0	91.3	4.3	0.43	117
						116.3	118.7	2.4	0.02	155

* Length along the core

Figure 6: JR Showing Drill results



Quality assurance/quality control

Quality assurance and quality control procedures have been implemented to ensure best practices in sampling and analysis of the core samples. The drill core was logged and then split, with one-half sent for assay and the other retained in the core box as a witness sample. Duplicates, standards and blanks were regularly inserted into the sample stream. The core and chip rock samples were delivered, in secure tagged bags, directly to the ALS Minerals laboratory facility in Val-d'Or, Quebec. The samples are weighed and identified prior to sample preparation. The samples are crushed to 70% minus 2 mm, then separated and pulverized to 85% passing 75 µm. All samples are analyzed using four acid ICP-MS-61, with full analysis for 47 elements. Value over 10,000 ppm Li were re-assays using Li-OG-63 (ore grade Li) and value over 100 ppm Ta₂O₅ were re-assays using Ta-XRF05 (Ta trace level XRF analysis).

Qualified persons

François Gagnon, P. Geo., Senior Exploration Geologist of the Corporation, and Qualified Person under NI 43-101 on standards of disclosure for mineral projects, has prepared and reviewed the content of this press release.

Corporate update

At its annual and special meeting of shareholders held on September 13, 2022, the shareholders of the Corporation, by a disinterested shareholders' vote, approved a new equity incentive compensation plan (the "Omnibus Plan") to replace the Corporation's prior stock option plan. The Omnibus Plan provides Critical Elements with a variety of security-related mechanisms to attract, retain, and motivate qualified directors, officers, employees, management company employees (as such term is defined in the Omnibus

Plan) and consultants. The purpose of the Omnibus Plan is to align the interests of directors, officers, employees, management company employees, and consultants with the interests of shareholders and the long-term goals and success of the Corporation. The Omnibus Plan will enable and encourage such directors, officers, employees, management company employees and consultants to acquire common shares as long-term investments and proprietary interests in Critical Elements.

The Omnibus Plan includes a fixed plan permitting 41,462,480 common shares to be reserved for grants of stock options, restricted share units, performance share units and deferred share units. This represents 20% of the issued and outstanding shares of the Corporation at the time of the effective date of the Omnibus Plan. The Omnibus Plan is subject to the TSX Venture Exchange's final approval.

A summary of the Omnibus Plan can be found in the management information circular dated August 9, 2022 (the "**Circular**"), filed under Critical Elements' profile on SEDAR at www.sedar.com. The Omnibus Plan, in its entirety, is also attached as Schedule "B" to the Circular.

About Critical Elements Lithium Corporation

Critical Elements aspires to become a large, responsible supplier of lithium to the flourishing electric vehicle and energy storage system industries. To this end, Critical Elements is advancing the wholly owned, high purity Rose lithium project in Québec. Rose is the Corporation's first lithium project to be advanced within a land portfolio of over 700 square kilometers. On June 13th, 2022, the Corporation announced results of a feasibility study on Rose for the production of spodumene concentrate. The after-tax internal rate of return for the Project is estimated at 82.4%, with an estimated after-tax net present value of US\$1.9 B at an 8% discount rate. In the Corporation's view, Québec is strategically well-positioned for US and EU markets and boasts good infrastructure including a low-cost, low-carbon power grid featuring 93% hydroelectricity. The project has received approval from the Federal Minister of Environment and Climate Change on the recommendation of the Joint Assessment Committee, comprised of representatives from the Impact Assessment Agency of Canada and the Cree Nation Government; The Corporation is working to obtain similar approval under the Québec environmental assessment process. The Corporation also has a good, formalized relationship with the Cree Nation.

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Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is described in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

Cautionary statement concerning forward-looking statements

This news release contains "forward-looking information" within the meaning of Canadian Securities legislation. Generally, forward-looking information can be identified by the use of forward-looking terminology such as "scheduled", "anticipates", "expects" or "does not expect", "is expected", "scheduled", "targeted", or "believes", or variations of such words and phrases or statements that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur" or "be achieved". Forward-looking information contained herein include, without limitation, statements relating to the results and completion of the 2022 exploration program (including the potential of the Corporation's Nemaska trend properties) and its related objectives. Forward-looking information is based on assumptions management believes to be reasonable at the time such statements are made. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking information.

Although Critical Elements has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. Factors that may cause actual results to differ materially from expected results described in forward-looking information include, but are not limited to: final and complete results of the Corporation's 2022 exploration program and effects on the Corporation's stated objectives, as well as those risk factors set out in the Corporation's Management Discussion and Analysis for its most recent quarter ended May 31, 2022 and other disclosure documents available under the Corporation's SEDAR profile. Forward-looking information contained herein is made as of the date of this news release and Critical Elements disclaims any obligation to update any forward-looking information, whether as a result of new information, future events or results or otherwise, except as required by applicable securities laws.