

## Extensive Pegmatite Swarm Defined at Sukula

### Highlights:

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- Newly defined swarm of highly fractionated pegmatites dykes over an extensive 600m<sup>2</sup> area at the Haapaniemi prospect, part of GNM's 100%-owned Sukula project in Finland.
  - A core zonation of highly fractionated pegmatites offers a promising drill target with the possibility of spodumene zones concealed at depth.
  - Portable XRF (pXRF) measurements on microcline revealed high rubidium (Rb) levels up to 5,562 ppm indicating highly fertile pegmatites.
  - Assays returned up to 538 ppm Li<sub>2</sub>O, 256 ppm Ta<sub>2</sub>O<sub>5</sub>, 118 ppm Cs<sub>2</sub>O and a K/Rb ratio as low as 12 which is a classic signature supporting a very high degree of fractionation.
  - GNM to consider various geochemical and geophysical methods to progress the Haapaniemi prospect towards a drill-ready target
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Great Northern Minerals Limited ("GNM" or "the Company") (ASX:GNM) is pleased to announce promising results from the Haapaniemi prospect, part of its 100%-owned Sukula Project in Finland. The prospect is located 8km northwest of United Lithium's (CSE: ULTH) Kietyonmaki spodumene pegmatite deposit (Figure 7). The Haapaniemi area, within the Somero Lithium province, shares similar Paleoproterozoic greenstone and metasedimentary host rocks with the Kaustinen Lithium Province (Figure 8) which forms part of the Keliber advanced lithium project.



*Figure 1: Typical pegmatite outcrop exposure at the Haapaniemi prospect.*

**GNM CEO & Managing Director, Cameron McLean** said "GNM is excited by the success of our recent fieldwork at Sukula. The Haapaniemi prospect provides GNM with an exciting drill target, bolstering our confidence in a potential lithium discovery within the Somero lithium province, located 8km from United Lithium's Kietyonmaki deposit. We are encouraged by the results and look forward to progressing Haapaniemi further."

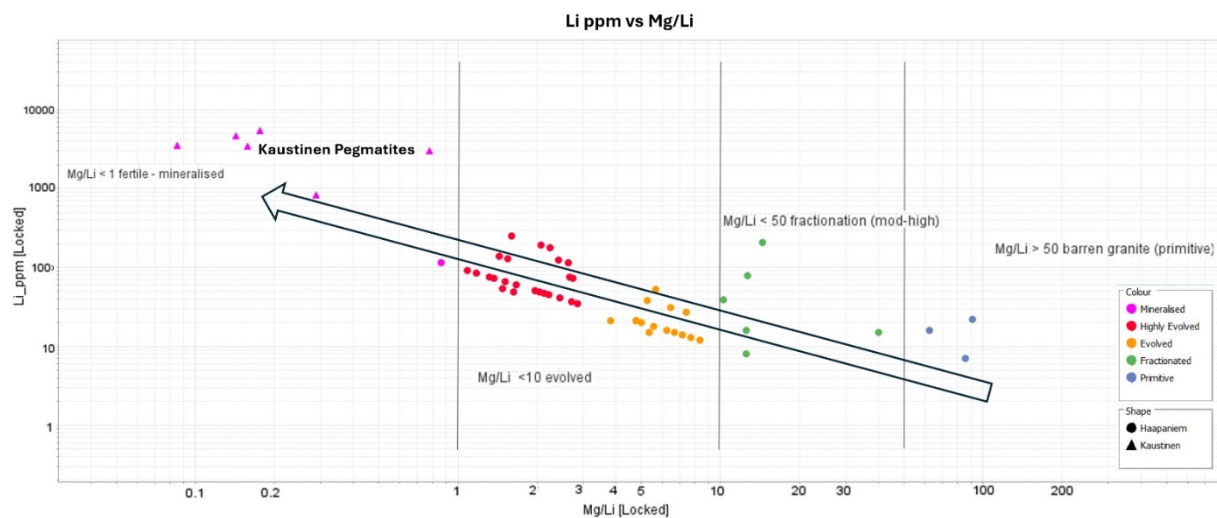
## Work Program Update

A recent field survey conducted by GNM consultants in June 2024 has identified a new swarm of fractionated pegmatite dykes over a 600m<sup>2</sup> area at the Haapaniemi prospect within the 100%-owned Sukula Project in Finland. Variable 1-5m exposure of pegmatites are often obscured and covered by moss (Figure 1), however the dominant orientation in the central area is observed as northwest with varying branching east and east-northeast trends of some pegmatites to the north and east (Figure 3 and 6).

During the survey, a total of 48 spot analyses of monomineralic K-feldspar and muscovite were carried out using a portable XRF machine. The K/Rb ratio was utilized and plotted in the field to assess fractionation and fertility in LCT pegmatites, based on the substitution of Rb for K in micas and feldspars during the final crystallization stages. A total of 50 pegmatite rock samples were also selected and submitted to an ALS laboratory in Sweden to assess for distinct fractionation trends from primitive to evolved pegmatites, potentially bearing spodumene.

## Whole Rock Geochemistry – Fractionation Trends

Whole-rock geochemical data has revealed zonation within the Haapaniemi pegmatites, moving from primitive signatures towards highly evolved, fertile pegmatites. Geochemical plots such as Mg/Li vs. Li (Figure 2) illustrate clear clustering and evolution of pegmatites at Haapaniemi. The Kaustinen pegmatite field was used as a baseline for mineralised pegmatites.



**Figure 2: Geochemical plot of Li (ppm) vs Mg/Li showing a clear zonation from primitive rocks to highly fractionated-Fertile mineralised rocks such as the Kaustinen pegmatites. The Haapaniemi rocks show clustering of evolved to highly evolved suite of pegmatites.**

Whole-rock geochemical data, particularly the K/Rb ratios, are valuable for characterising pegmatitic evolution, marked by increased substitution of K with Rb in micas and feldspars. K/Rb ratios below 25 indicate very fractionated pegmatites, with a core zone defined within the pegmatite dyke swarm that extends for at least 400 metres that trends northwest and open (Figure 3). A significant portion of the pegmatite comprises a typical quartz-feldspar-muscovite wall zone, with a more prominent quartz-K feldspar core at the centre, suggesting a potential spodumene-bearing target at depth.



Assays returned up to **538 ppm Li<sub>2</sub>O**, **256 ppm Ta<sub>2</sub>O<sub>5</sub>**, **118 ppm Cs<sub>2</sub>O**, **791 ppm BeO**, **191 ppm Nb** and **173 ppm Sn** (Table 1). These values fall within the range of maximum and minimum concentration of Li<sub>2</sub>O and trace elements such as Ta<sub>2</sub>O<sub>5</sub>, Nb<sub>2</sub>O<sub>5</sub> and BeO found in spodumene pegmatites in the Kaustinen area as shown in Figure 4, which is highly encouraging.

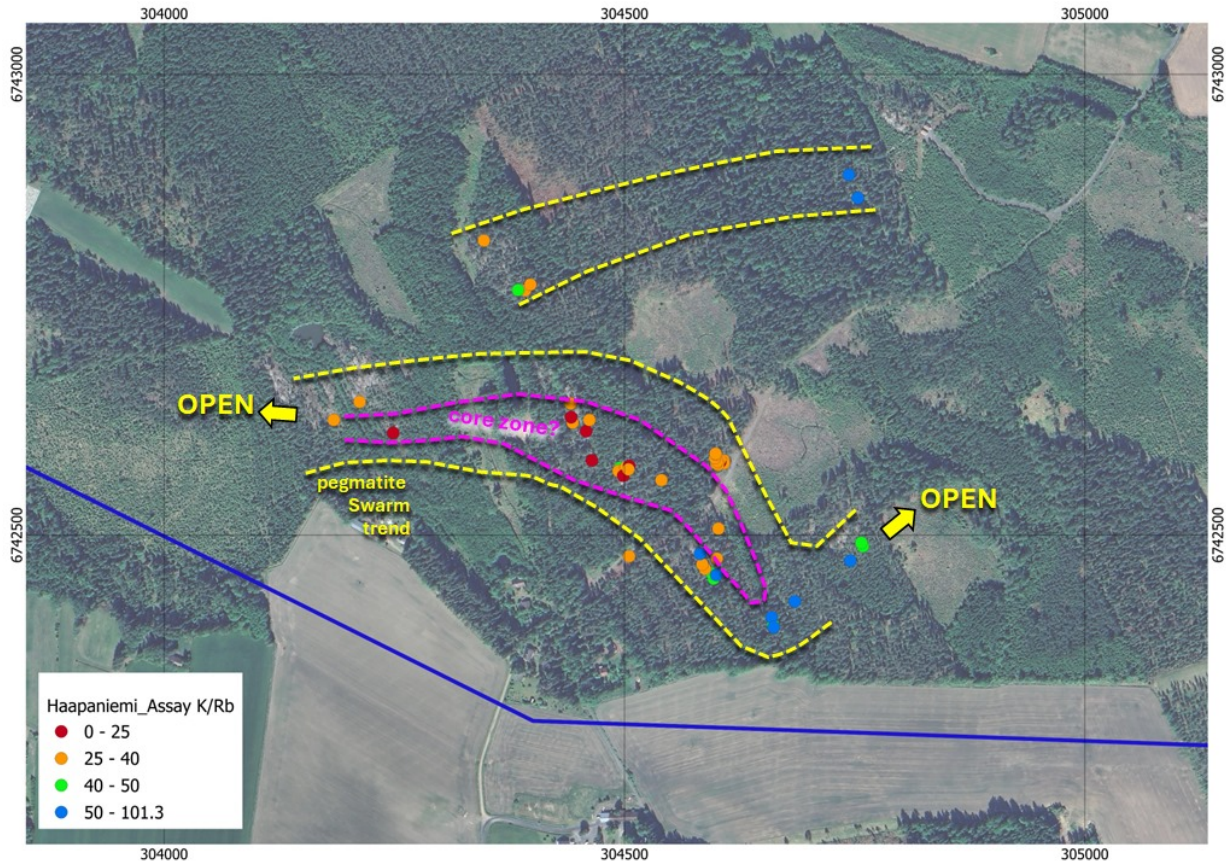


Figure 3: Geochemical plot of K/Rb showing a clear zonation within the pegmatites at Haapaniemi and core zone of highly fractionated rocks that represent a drill target.

	n	Li <sub>2</sub> O % ICP-AES			Ta <sub>2</sub> O <sub>5</sub> ppm ICP-MS			Nb <sub>2</sub> O <sub>5</sub> ppm ICP-MS			BeO ppm ICP-MS		
		avg.	max	min	avg.	max	min	avg.	max	min	avg.	max	min
Matoneva	6	0.18	0.27	0.03							170	366	82
Heikinkangas	18 <sup>1)</sup>	0.76	2.06	0.02	16	43	6	24	68	9	134	249	55
Päiväneva	49 <sup>2)</sup>	0.65	1.39	0.10	50	404	2	87	183	34	155	303	19
Leviäkangas	101 <sup>3)</sup>	0.74	2.13	0.02	72	337	8	87	312	12	185	494	77
Syväjärvi	200	1.00	2.09	0.03	26	119	4	36	149	11	148	497	67
Rapasaaret	159	1.18	3.36	0.05	53	547	3	58	209	13	502	1912	141

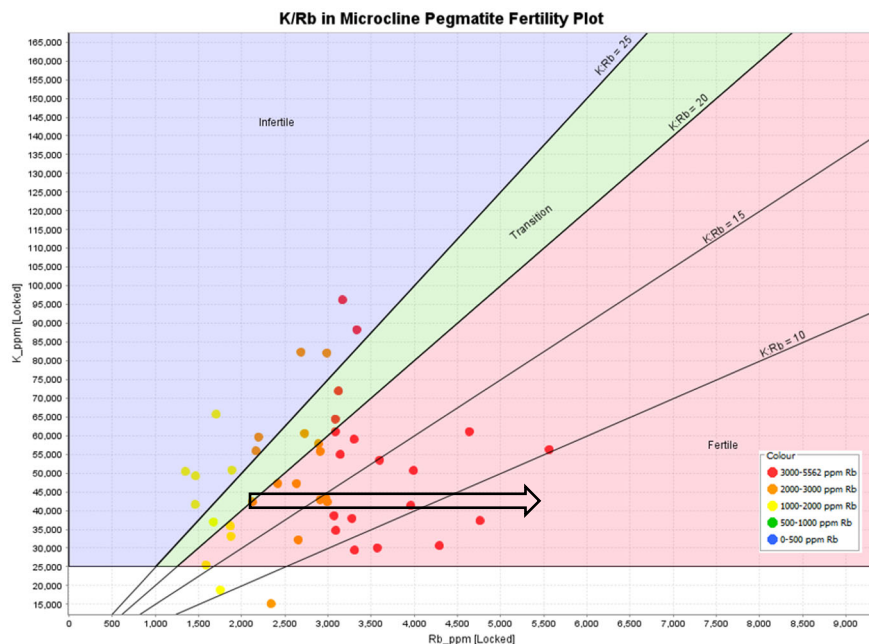
Figure 4: Average, maximum and minimum concentration of Li<sub>2</sub>O and trace elements of spodumene pegmatites in the Kaustinen area. (Taken from Ahtola, T. (ed.), Kuusela, J., Käpyaho, A. & Kontoniemi, O. 2015. Overview of lithium pegmatite exploration in the Kaustinen area in 2003–2012. Geological Survey of Finland, Report of Investigation 220, Table 4)

### Portable XRF work – Fractionation Trends

During the field survey, spot analyses were performed on monomineralic K-feldspar and muscovite using a Bruker S1-Titan 800 portable XRF machine. The K/Rb ratio was plotted in the field, a robust method for determining fractionation and fertility in LCT pegmatites. The pXRF results identified a zone of highly fractionated pegmatites, highlighted by the K/Rb Fertility Plot (Figure 5).

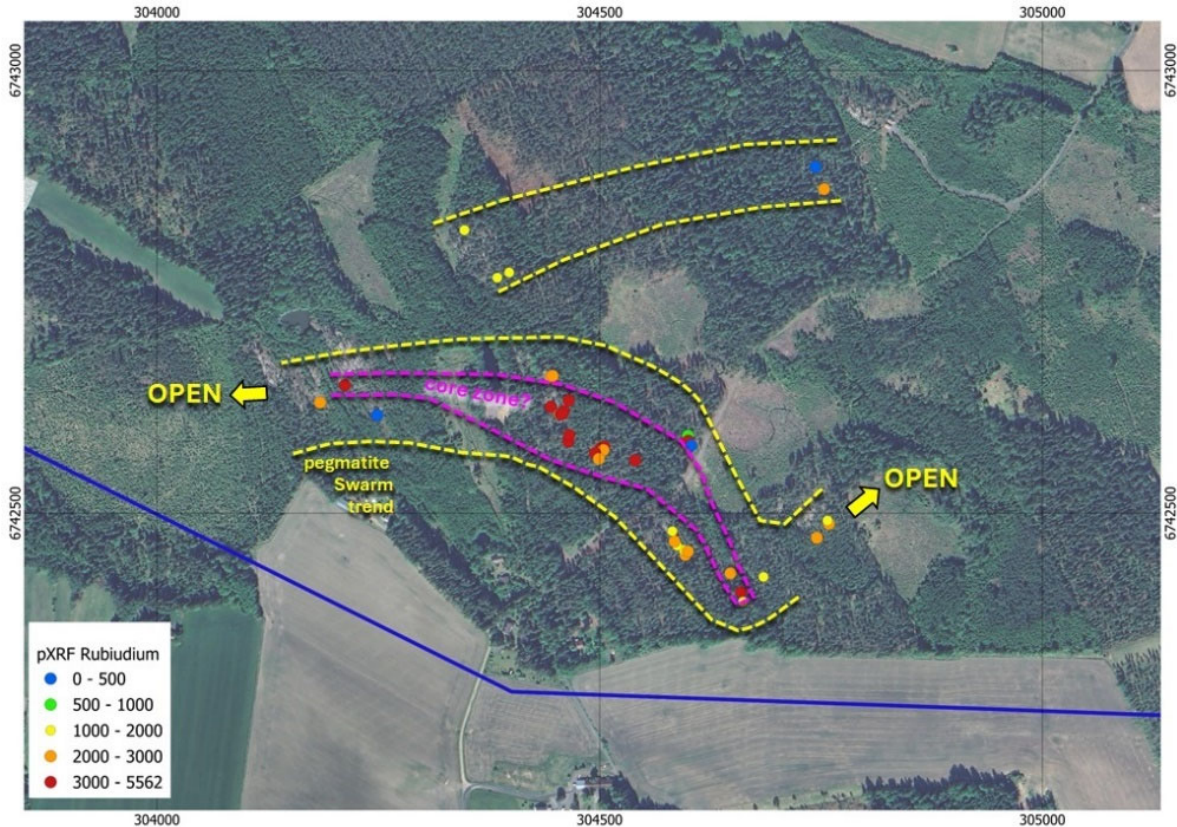
A map of Rb in K-feldspar (Figure 6) shows highly elevated Rb levels, supporting a very similar trend to the geochemical data from Figure 3. Again, we observe the most highly fractionated pegmatites occur over an area of 400m by 200m that trends northwest and again displaying a well-defined core zone with increasing rubidium (Figure 6). This core area suggests potential for a spodumene-bearing target at depth.

**CAUTIONARY STATEMENT ON pXRF RESULTS:** Handheld XRF (pXRF) results included in this announcement are preliminary only. The use of pXRF readings only provides an indication of the order of magnitude of formal assay results. Handheld XRF instrument (Bruker S1 Titan 800) was used to aid the geologist’s interpretation only and is not considered equivalent to a laboratory analysed sample result, it should be noted that light elements such as potassium will produce variable results but is fit for purpose in confirming mineral identification, lithium and most rare earth elements cannot be analysed with the instrument in use.



**Figure 5: K/Rb Fertility plot of recent pXRF readings showing fractionation trends into highly fertile pegmatite systems which mineralisation is perhaps concealed at depth. Arrow shows increasing fractionation trend toward the spodumene zone.**

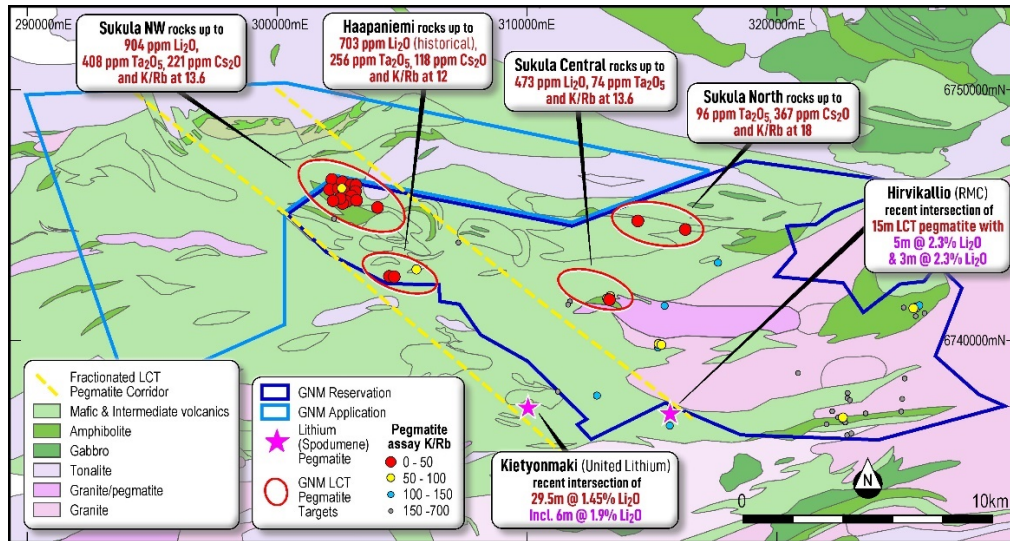




**Figure 6: Geochemical plot of Rb data from the portable XRF results showing a clear zonation within the pegmatites at Haapaniemi and core zone of highly fractionated rocks that represent a drill target. This reveals a similar pattern described in Figure 3.**

### Discussion of Results and Next Steps

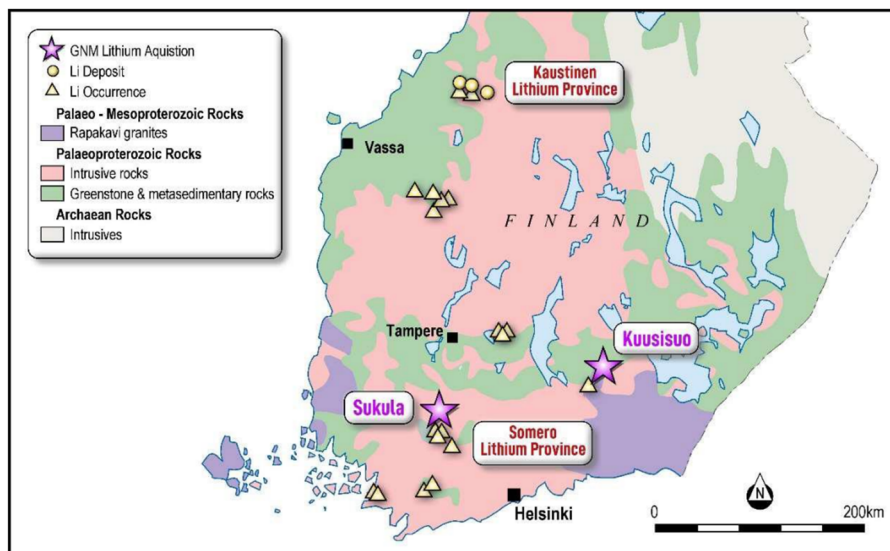
It is clear that GNM has defined a very large area of highly fractionated pegmatites at Haapaniemi which is highly encouraging. Both the whole rock geochemistry and pXRF work are strongly supporting the most highly fractionated trend with a well-defined core zone target that trends northwest over an area of 400m by 200m and open on both directions. Further work is certainly warranted over the prospect and various geochemical and geophysical methods are being considered that would ultimately lead to drill targeting.



**Figure 7: Bedrock geology map of the Sukula Project area showing the location of the pegmatite outcrop and boulder samples coloured for fertility index (K/Rb) showing highlight results and the interpreted LCT corridor containing both Haapaniemi and Kietyonmaki.**

### About the Sukula Lithium Project in Finland

The Project consists of two Reservation Permits over highly prospective lithium terrain in southern Finland covering an area of 536.3km<sup>2</sup> (Figure 7) and located 115km northeast of Helsinki (Figure 8). The project area comprises the northern portion of the well-known Somero LCT pegmatite field with one of the highest densities of mapped rare metal pegmatites in Finland. The Project is located in very close proximity to extensive known lithium pegmatite swarms such as the Kietyonmaki pegmatite.



**Figure 8: Location of the Sukula project within the Somero Lithium Province and shares similar Paleoproterozoic greenstone and metasedimentary host rocks with the Kaustinen Lithium Province.**

## References

<sup>1</sup> **Ahtola, T. (ed.), Kuusela, J., Käpyaho, A. & Kontoniemi, O. 2015.** Overview of lithium pegmatite exploration in the Kaustinen area in 2003–2012. *Geological Survey of Finland, Report of Investigation 220*, 28 pages, 14 figures and 7 tables.

<sup>2</sup> **Sibanye Stillwater Limited.** Market Release. 26 February 2024. Mineral Resources and Mineral Reserves declaration as at 31 December 2023.

## Competent Person Statement

This information in this report related to Exploration Results is based on information and data compiled or reviewed by Mr Leo Horn and Mr James Cumming. Mr Horn and Mr Cumming are consultants for the Company and are Members of the Australasian Institute of Geologists (AIG).

Mr Horn and Mr Cumming have sufficient experience relevant to the style of mineralisation under consideration and to the activities undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Accordingly, Mr Horn and Mr Cumming consent to the inclusion of the matters based on the information compiled by them, in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information in the relevant ASX releases. The form and context of the announcement have not materially changed.

\*\*\*ENDS\*\*\*

***This announcement has been authorised by the Board of Great Northern Minerals Limited.***

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### **About Great Northern Minerals Limited**

*Great Northern Minerals Limited is an ASX-listed mineral explorer and developer with projects in Australia and Finland.*

*The Company's Golden Ant Project is located in Far North Queensland and includes the Amanda Bell Goldfield. Total gold production from the Amanda Bell Goldfield was approximately 95,000 oz Au (57,000 oz from Camel Creek and 14,000 oz from Camel Creek satellite deposits plus 18,000 oz from Golden Cup and 6,000 oz from Golden Cup satellite deposits). Two heap leach gold mines were operated (Camel Creek & Golden Cup). Mining activities commenced in 1989 and ceased in 1998 with the depletion of oxide gold mineralisation. Great Northern Minerals has entered into a Heads of Agreement for majority sale of Golden Ant Mining Pty Ltd, the owner of the Camel Creek and Golden Cup projects. The sale process has reached Phase 2, whereby 27.5% of the 90% majority interest has been divested.*

*GNM also has also acquired two highly prospective lithium projects at Sukula and Kuusisuo in southern Finland covering an area of 536.3km<sup>2</sup>. The Sukula project area comprises the northern portion of the well-known Somero LCT pegmatite field with one of the highest densities of mapped rare metal pegmatites in Finland. The Kuusisuo project is a large 362 km<sup>2</sup> tenure located 163km northeast of Helsinki which consists of the historical Kuusisuo lithium occurrence located central to a very large Mesoproterozoic aged Rapakivi granite intrusive complex.*

### **Forward Looking Statements**

*Statements contained in this release, particularly those regarding possible or assumed future performance, costs, dividends, production levels or rates, prices, resources, reserves or potential growth of Great Northern Minerals Limited, are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied by these forward looking statements depending on a variety of factors.*



**Table 1:** pXRF Geochemical analysis on microcline at Haapeniemi deposit

ID	Easting	Northing	Grid	Rb_ppm	K_ppm	K/Rb
hajf01	304661.3	6742402	ETRS89/TM35FIN (E,N)	13	269.8	20.8
hajf02	304659.8	6742411	ETRS89/TM35FIN (E,N)	3166	96212.4	30.4
hajf03	304685	6742428	ETRS89/TM35FIN (E,N)	1704	65714.4	38.6
hajf04	304662	6742400	ETRS89/TM35FIN (E,N)	1348	50423.1	37.4
hajf05	304759	6742488	ETRS89/TM35FIN (E,N)	2969	43415.9	14.6
hajf06	304757.3	6742492	ETRS89/TM35FIN (E,N)	1463	49275.0	33.7
hajf07	304745.2	6742472	ETRS89/TM35FIN (E,N)	2654	32213.0	12.1
hajf08	304596.7	6742453	ETRS89/TM35FIN (E,N)	2886	57823.1	20.0
hajf09	304595.1	6742458	ETRS89/TM35FIN (E,N)	1885	50820.8	27.0
hajf10	304599.7	6742457	ETRS89/TM35FIN (E,N)	2193	59630.3	27.2
hajf11	304587.5	6742463	ETRS89/TM35FIN (E,N)	1871	33166.0	17.7
hajf12	304584.5	6742469	ETRS89/TM35FIN (E,N)	1460	41680.9	28.5
hajf13	304584.5	6742468	ETRS89/TM35FIN (E,N)	2685	82315.7	30.7
hajfx02	304647.7	6742432	ETRS89/TM35FIN (E,N)	2164	55927.8	25.8
hajf15	304501.5	6742574	ETRS89/TM35FIN (E,N)	4289	30645.7	7.1
hajf16	304505.1	6742575	ETRS89/TM35FIN (E,N)	3568	30053.8	8.4
hajf18	304504.3	6742571	ETRS89/TM35FIN (E,N)	2907	42903.7	14.8
hajf19	304464.6	6742581	ETRS89/TM35FIN (E,N)	5562	56271.5	10.1
hajf20	304540.1	6742560	ETRS89/TM35FIN (E,N)	3990	50737.8	12.7
hajf21	304601.5	6742576	ETRS89/TM35FIN (E,N)	3087	34739.2	11.3
hajf23	304397.8	6742772	ETRS89/TM35FIN (E,N)	1750	18825.2	10.8
hajf24	304384.4	6742766	ETRS89/TM35FIN (E,N)	1866	35950.3	19.3
hajf25	304347.3	6742820	ETRS89/TM35FIN (E,N)	1586	25500.5	16.1
hajf27	304248.7	6742611	ETRS89/TM35FIN (E,N)	13	807.7	62.1
hajf28	304212.3	6742645	ETRS89/TM35FIN (E,N)	3597	53483.9	14.9
hajf29	304184.3	6742625	ETRS89/TM35FIN (E,N)	2728	60640.6	22.2
hajf30	304753.4	6742866	ETRS89/TM35FIN (E,N)	2984	82100.7	27.5
Hajf32	304582.1	6742480	ETRS89/TM35FIN (E,N)	1674	36960.6	22.1
Hajf34	304599.7	6742578	ETRS89/TM35FIN (E,N)	3085	61040.7	19.8
Hajf35	304599.7	6742578	ETRS89/TM35FIN (E,N)	2990	42386.5	14.2
Hajf36	304600.8	6742580	ETRS89/TM35FIN (E,N)	3277	37868.0	11.6
Hajf37	304598.4	6742584	ETRS89/TM35FIN (E,N)	3299	59066.6	17.9
Hajf38	304599.6	6742587	ETRS89/TM35FIN (E,N)	701	3984.7	5.7
sk25	304494.8	6742568	ETRS89/TM35FIN (E,N)	3332	88282.8	26.5
sk26	304499.1	6742561	ETRS89/TM35FIN (E,N)	2338	15177.6	6.5
sk27	304603.3	6742578	ETRS89/TM35FIN (E,N)	3141	54992.3	17.5
sk28	304604.3	6742577	ETRS89/TM35FIN (E,N)	2123	42304.3	19.9
sk30	304600.1	6742582	ETRS89/TM35FIN (E,N)	3070	38654.1	12.6
sk31	304603.5	6742577	ETRS89/TM35FIN (E,N)	96	2307.0	24.0
sk32	304465.7	6742588	ETRS89/TM35FIN (E,N)	3306	29422.1	8.9
sk33	304444.6	6742620	ETRS89/TM35FIN (E,N)	3957	41339.7	10.4
sk37	304455	6742612	ETRS89/TM35FIN (E,N)	2635	47184.7	17.9
sk38	304459.4	6742615	ETRS89/TM35FIN (E,N)	3083	64459.3	20.9
sk39	304456	6742612	ETRS89/TM35FIN (E,N)	3120	71946.4	23.1
sk40	304458	6742612	ETRS89/TM35FIN (E,N)	4638	61102.1	13.2
sk41	304465	6742627	ETRS89/TM35FIN (E,N)	4758	37301.8	7.8
sk43	304445	6742654	ETRS89/TM35FIN (E,N)	2907	55837.3	19.2
sk44	304447	6742655	ETRS89/TM35FIN (E,N)	2415	47203.8	19.5

**Table 2:** Whole rock geochemistry assays at the Haapeniemi deposit

SAMPLE	Easting	Northing	BeO ppm	Cs2O ppm	Kppm	Li2O ppm	Mg ppm	Nb ppm	Rb ppm	Sn ppm	Ta2O5 ppm	K/Rb	Mg/Li
F859406	304608	6742581	41	21.6	42200	183	100	60.1	1610	79	12.8	26	1.2
F859407	304602	6742507	9	12.5	38000	75	100	60.2	1205	50	14.8	32	2.9
F859408	304495	6742573	110	8.2	15300	58	200	73	345	153	39.8	44	7.4
SUKGS10	304505	6742477	14	75.9	53400	161	200	62.7	1390	31	15.3	38	2.7
SUKGS11	304608	6742578	12	8.1	12600	80	100	102.5	469	54	21.9	27	2.7
SKJC06	304603.9	6742579	9	27.35	19300	448	3000	85.7	969	139	21.7	20	14.4
SKJC07	304603.6	6742582	2	24.6	103000	32	80	2.1	3240	6	1.3	32	5.3
SKJC08	304443.7	6742622	13	16.54	27500	34	1000	60.2	948	4	31.8	29	62.5
SKJC09	304442	6742628	6	73.47	105000	116	80	3.3	4810	5	1.1	22	1.5
SKJC10	304458.3	6742613	7	117.68	54700	170	1000	23.1	2310	31	3.5	24	12.7
SKJC11	304461.9	6742625	719	15.9	20700	47	2000	230	827	15	181.9	25	90.9
HAF01	304661.3	6742402	21	20.99	54300	26	100	33.3	1345	6	12.1	40	8.3
HAF02	304659.8	6742411	334	4.56	6600	45	100	40.6	127.5	38	256.4	52	4.8
HAF03	304685	6742428	11	21.31	97900	32	600	32.9	1555	9	15.3	63	40.0
HAF04	304662	6742400	391	19.61	75700	15	600	57.5	747	3	61.9	101	85.7
HAF05	304759	6742488	439	25.34	29100	88	100	58	650	19	22.8	45	2.4
HAF06	304757.3	6742492	11	18.66	27500	267	300	124	660	93	14.6	42	2.4
HAF07	304745.2	6742472	7	10.18	33900	114	300	108.5	658	73	10.7	52	5.7
HAF08	304596.7	6742453	7	16.75	72900	245	300	86.5	1655	65	8.8	44	2.6
HAF09	304595.1	6742458	9	17.07	50200	82	200	31.2	1120	21	4.9	45	5.3
HAF10	304599.7	6742457	21	3.29	8700	84	400	33.9	144	10	14.8	60	10.3
HAF11	304587.5	6742463	8	30.75	60100	538	400	78.2	1855	172	7.3	32	1.6
HAF12	304584.5	6742469	6	13.78	26000	30	100	72	722	5	21.6	36	7.1
HAF13	304584.5	6742468	4	22.37	45600	43		31.6	1235	7	5.4	37	
HAF14	304493.4	6742570	8	15.48	36200	28	100	35	1110	21	14.3	33	7.7
HAF15	304501.5	6742574	12	2.23	5200	32	100	107.5	134	8	32.5	39	6.7
HAF16	304505.1	6742575	64	18.45	19600	415	400	115	872	112	26.7	22	2.1
HAF17	304498.6	6742564	325	25.97	33600	97	100	76.4	1515	34	33.7	22	2.2
HAF18	304504.3	6742571	6	20.14	48500	34	100	18.2	1570	5	5.6	31	6.3
HAF19	304464.6	6742581	791	26.4	4500	67	200	87.9	384	63	93.5	12	6.5
HAF20	304540.1	6742560	7	47.28	94900	101	100	10.2	3490	32	1.6	27	2.1
HAF21	304601.5	6742576	29	15.9	27400	164	100	79	930	43	24.9	29	1.3
HAF22	304391.9	6742765	10	19.19	22400	278	200	81.9	635	52	21.7	35	1.6
HAF23	304397.8	6742772	11	21.1	27100	299	200	71.7	719	59	12.9	38	1.4
HAF24	304384.4	6742766	7	11.56	14200	39	100	82.2	323	14	14.5	44	5.6
HAF25	304347.3	6742820	7	7.63	14800	43	100	122	372	15	25.4	40	5.0
HAF26	304441.6	6742643	19	51	59000	45	80	20.9	1850	8	9.3	32	3.8
HAF27	304248.7	6742611	49	16.43	13400	142	100	77.6	548	36	44.5	24	1.5
HAF28	304212.3	6742645	9	11.98	22200	45	100	175	683	27	40.1	33	4.8
HAF29	304184.3	6742625	15	11.56	33100	17	100	59	1010	24	30.7	33	12.5
HAF30	304753.4	6742866	4	17.07	66900	105	100	21.4	937	12	4.6	71	2.0
HAF31	304743.6	6742891	6	16.65	33000	157	200	24.6	598	22	4.5	55	2.7
HAF32	304582.1	6742480	59	2.97	3600	34	200	27.1	53.2	18	13.0	68	12.5
HAF33	304600.2	6742474	12	18.87	32200	383	400	148.5	965	123	15.9	33	2.2
HAF34	304599.7	6742578	8	20.14	41300	250	100	57.4	1435	56	9.9	29	0.9
HAF35	304599.7	6742578	7	14.1	34200	129	100	87.9	1165	35	19.1	29	1.7
HAF36	304600.8	6742580	8	5.73	11800	110	100	108	432	45	23.8	27	2.0
HAF37	304598.4	6742584	41	16.65	25200	198	100	149.5	871	47	36.5	29	1.1
HAF38	304599.6	6742587	10	9.75	18200	157	100	191.5	672	43	40.3	27	1.4
HAF39	304598.9	6742588	31	23.01	44000	105	80	63.9	1610	54	26.0	27	1.6

## JORC Code, 2012 Edition

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling reported in this announcement.</li> <li>Rock sampling by GNM is associated with the company's 2024 mapping and sampling programs which aimed to locate and sample pegmatite outcrops or boulders in the absence of any outcrop.</li> <li>Handheld pXRF instrument utilised on specific K-feldspar and muscovite minerals on pegmatite rock samples in order to gauge level of fractionation</li> <li>Handheld pXRF not calibrated but duplicate spot readings taken on some minerals with good repeatability of Rb and K</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>No drilling reported in this announcement</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling reported in this announcement</li> </ul>
Logging	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate</li> </ul>	<ul style="list-style-type: none"> <li>No drilling reported in this announcement</li> <li>Rock and boulder samples during the field program were described geologically</li> </ul>



	<p><i>Mineral Resource estimation, mining studies and metallurgical studies.</i></p> <ul style="list-style-type: none"> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<p>qualitatively based on important characteristics for the deposit style. All data is stored digitally for GIS review.</p> <ul style="list-style-type: none"> <li>• Detailed mineralogy of each pegmatite logged then selected identified muscovite and K-feldspar utilized for pXRF readings</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No drilling reported in this announcement</li> <li>• Rock sample sizes are in the range of 1-3kg and considered appropriate for the reporting of exploration results</li> <li>• No QAQC procedures adopted for reconnaissance exploration rock sampling</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li>• <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Rock samples collected by GNM were sent to ALS Laboratories in Sweden and assayed for multi-elements by Fusion ME-MS89L plus 4-Acid ME-MS61.</li> <li>• Handheld Bruker Portable XRF used as a guide tool to gauge the fractionation level of specific muscovite and K-feldspar minerals based on the relative levels of pathfinder metals such as rubidium and potassium.</li> <li>• Quality control procedures not adopted for pXRF but not considered absolutely necessary for establishing the relative levels of Rb and K to interpret the fractionation levels of pegmatite minerals</li> <li>• Competent person considers the sample and analytical procedures to be acceptable for an early-stage project</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No additional verification or testing as completed during this evaluation</li> <li>• Oxide conversions calculated for some metals (see Data Aggregation Methods section)</li> <li>• Drilling has not yet been completed on the project</li> <li>• All digital pXRF data and field rock and minerals stored digitally in the company database</li> </ul>

<p><i>Location of data points</i></p>	<ul style="list-style-type: none"> <li>● Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>● Specification of the grid system used.</li> <li>● Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>● Outcrop locations were collected using a handheld GPS.</li> <li>● Coordinates are in ETRS89 / TM35FIN (E,N)</li> </ul>
<p><i>Data spacing and distribution</i></p>	<ul style="list-style-type: none"> <li>● Data spacing for reporting of Exploration Results.</li> <li>● Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>● Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>● The data is not appropriate for use in estimating a Mineral Resource and is not intended for such use. There has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource.</li> <li>● Rock sampling was conducted where outcrop and boulder samples are available.</li> <li>● No sample compositing undertaken for this announcement</li> <li>● pXRF readings were conducted where specific pegmatite outcrops and muscovite and/or K-feldspar minerals were identified in the field</li> </ul>
<p><i>Orientation of data in relation to geological structure</i></p>	<ul style="list-style-type: none"> <li>● Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>● If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>● The outcrops and boulders were recorded at selected sites, and it is unknown if these results are biased or unbiased.</li> <li>● The trend of pegmatites observed in the field at Haapaniemi are dominantly northwest- trending with secondary west and northeast branching trends also observed</li> <li>● Selected samples were generally taken to be representative of the outcrop or boulder however the deeper core zone of thick pegmatite outcrops was unable to be reached with hand tools so there is likely to be some variability in these areas due to limitations of sampling methodologies</li> <li>● The pXRF readings on outcrop minerals were recorded at selected sites, and it is unknown if these results are biased or unbiased</li> </ul>
<p><i>Sample security</i></p>	<ul style="list-style-type: none"> <li>● The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>● Rock sample security has been adequately maintained by GNM</li> <li>● Not necessary for pXRF readings conducted in the field.</li> </ul>
<p><i>Audits or reviews</i></p>	<ul style="list-style-type: none"> <li>● The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>● No audits or reviews have been completed.</li> </ul>

## Section 2 JORC Code, 2012 Edition - Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary															
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>Finland Reservations VA2023:0010-01 (Kuusisuo VA2023:0010), VA2023:0011-01 (Ojankylä VA2023:0011) and VA2023:0081-01 (Sukula VA2023:0081) are currently held by Stedle Exploration AB which is a 100%-owned subsidiary of Great Northern Minerals.</li> <li>Small area of Natura 2000 national park occurs on Kuusisuo VA2023:0010 and Ojankylä VA2023:0011. Non-ground disturbing exploration activities are permitted in these areas. Ground disturbing exploration activities are permitted in these areas with approvals.</li> </ul>															
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Exploration by United Lithium on the adjacent Kietyönmäki Project referred to in this announcement (<a href="https://unitedlithium.com/united-lithium-intersects-1-45-li2o-over-29-5-m-and-1-52-li2o-over-26-m-at-kietyonmaki-project-finland/">https://unitedlithium.com/united-lithium-intersects-1-45-li2o-over-29-5-m-and-1-52-li2o-over-26-m-at-kietyonmaki-project-finland/</a> )</li> </ul>															
<i>Geology</i>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Lithium pegmatites on the project are interpreted to be Proterozoic-aged Lithium-Caesium-Tantalum (LCT) pegmatites in the Southern Finland Province similar to the Kaustinen Province Lithium Pegmatite Deposits</li> </ul>															
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> </ul>	<ul style="list-style-type: none"> <li>Drill assay results not reported in this announcement</li> <li>Rock assay results are converted to stoichiometric oxide using element-to-stoichiometric oxide conversion factors stated in the table below</li> <li>Rare metal oxide is the industry accepted form for reporting rare metal assay results.</li> </ul> <table border="1"> <thead> <tr> <th>Element</th> <th>Conversion Factor</th> <th>Oxide Form</th> </tr> </thead> <tbody> <tr> <td>Caesium</td> <td>1.0602</td> <td>Cs<sub>2</sub>O</td> </tr> <tr> <td>Lithium</td> <td>2.1527</td> <td>Li<sub>2</sub>O</td> </tr> <tr> <td>Tantalum</td> <td>1.2211</td> <td>Ta<sub>2</sub>O<sub>5</sub></td> </tr> <tr> <td>Beryllium</td> <td>2.7758</td> <td>BeO</td> </tr> </tbody> </table>	Element	Conversion Factor	Oxide Form	Caesium	1.0602	Cs <sub>2</sub> O	Lithium	2.1527	Li <sub>2</sub> O	Tantalum	1.2211	Ta <sub>2</sub> O <sub>5</sub>	Beryllium	2.7758	BeO
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<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>No metal equivalents are reported.</li> </ul>															
<i>Relationship between</i>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable – no sample results reported</li> </ul>															



<i>mineralisation widths and intercept lengths</i>	<p>Results.</p> <ul style="list-style-type: none"> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>• Appropriate maps, sections and tables are included in this ASX announcement.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>• All available data has been reported in tables and figures.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Everything meaningful and material is disclosed in the body of the report.</li> <li>• Exploration data for the project continues to be reviewed and assessed and new information will be reported if material.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Further work is detailed in the body of the announcement.</li> </ul>