

## ASX ANNOUNCEMENT

25 August 2023

### **POTENTIALLY FERTILE PEGMATITES IDENTIFIED AT KEYSTONE, SOUTH DAKOTA**

- Reconnaissance has identified a new, fractionated, potentially Li-fertile pegmatite only 3.5km from the historic high-grade Etta, Edison and Hugo Li mines near Keystone.
- Keystone reconnaissance has also successfully confirmed the potential Li fertility of several additional fractionated pegmatites based on portable X-ray fluorescence (pXRF) readings.
- Highly encouraging results will inform a program of systematic mapping and sampling across Patriot's Black Hills claims commencing in September.
- Patriot's claim holding has been expanded to cover additional highly prospective ground at the Keystone and Tinton West projects.
- Patriot's Keystone claims sit within the same region as Iris Metals' (ASX:IR1) Beecher Project, which recently returned outstanding initial drill intercepts, including 60m @ 1.21% Li<sub>2</sub>O<sup>1</sup>.

Patriot Lithium Limited ("**Patriot**", "**PAT**" or the "**Company**") is pleased to announce the completion of the initial reconnaissance mapping and sampling program of the Black Hills in South Dakota. The program has successfully identified several fractionated, potentially Li-fertile pegmatite outcrops on the Keystone claims which lie along strike from, and adjacent to, several historical high-grade, hard rock lithium mines.

#### **Patriot CEO and MD Mr Nicholas Vickery commented:**

*"After a period of dedicated focus on Patriot's highly prospective Gorman project in Ontario, the team has been eager to get back on the ground in the Black Hills to direct attention to our exciting Keystone and Tinton West projects. Recent early-stage reconnaissance around the Keystone region has confirmed promising K/Rb ratios, indicating a potential for lithium mineralisation, within significant pegmatite outcrops only 3.5km from the historic high-grade Etta, Edison and Hugo Li mines that the team is keen to explore and define further.*

*"The recent impressive drilling results achieved in the region by Iris Metals reaffirms the Black Hills as a highly prospective lithium district. The results released from the Beecher Project nearby give us even greater confidence in the early exploration work that Patriot is undertaking.*

*"Patriot will be ramping up its efforts in the Black Hills in the coming months. Mapping and sampling programs are scheduled across the remaining Keystone and Tinton West claims, including the recently staked claims that extended Keyston claims by 15 km<sup>2</sup> and the Tinton West claims by 4km<sup>2</sup>."*

#### **Keystone Project, South Dakota, United States (100% PAT)**

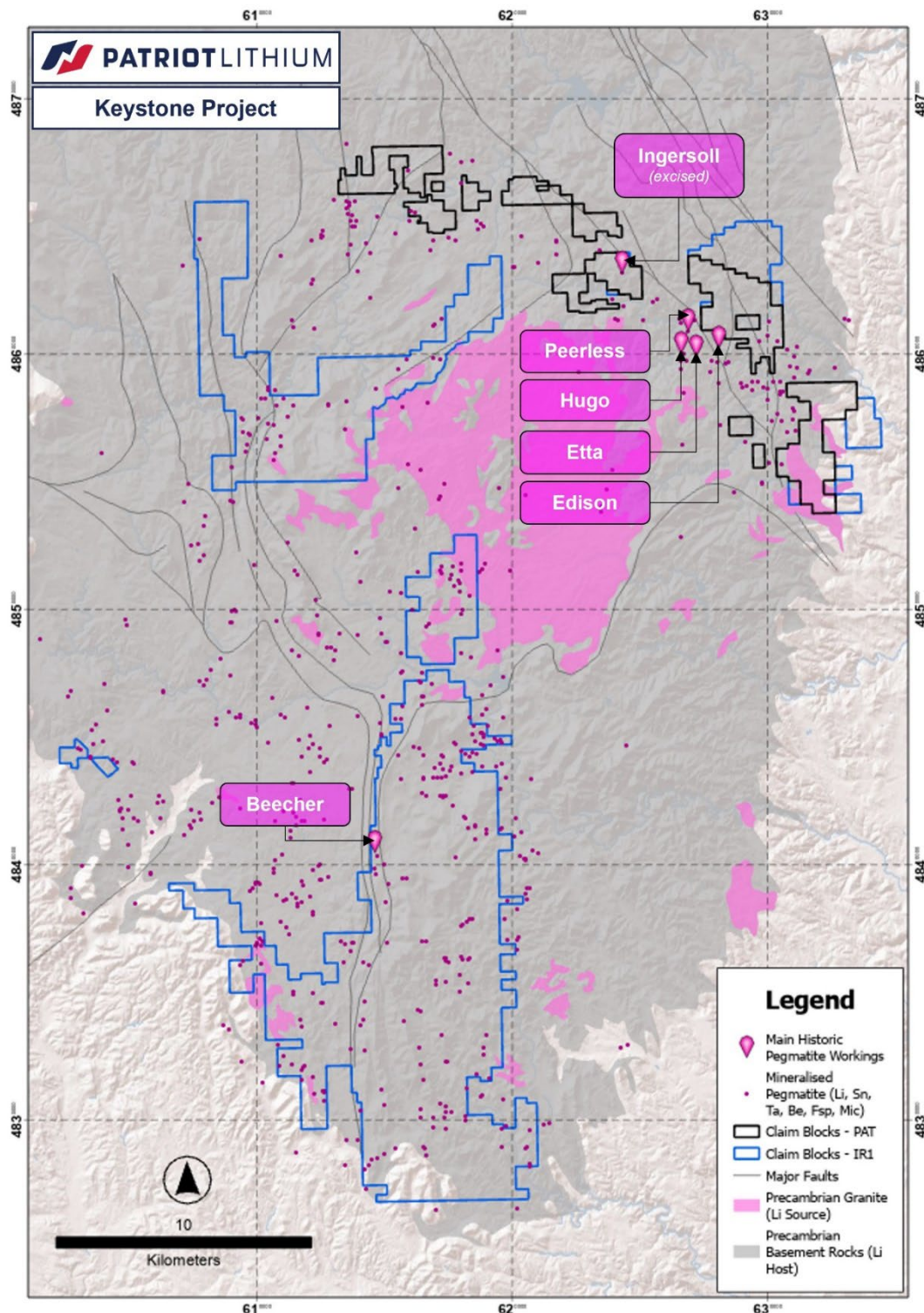
The Keystone Project (Figure 1) encircles the town of Keystone, a small settlement in the central-eastern Black Hills, approximately 26 km southwest of Rapid City, South Dakota.

---

<sup>1</sup> IR1 ASX Announcement, 9 August 2023, "Multiple Wide, High-Grade and Shallow Lithium Intersections at Beecher"

The Keystone Project covers 34 km<sup>2</sup> of lithium prospective ground in the prolific high-grade Black Hills lithium province, South Dakota. Keystone claims cover poorly documented pegmatite occurrences that lie along strike from and adjacent to the main historical lithium mines: Etta, Hugo, Edison and Bob Ingersoll.

Patriot's Keystone claims, that were recently increased by 15km<sup>2</sup> (refer to ASX Announcement dated 31 July 2023), sit within the same region and are targeting similar pegmatites as Iris Metals' (ASX:IR1) Beecher Project (Figure 1) and are contained within a similar geological



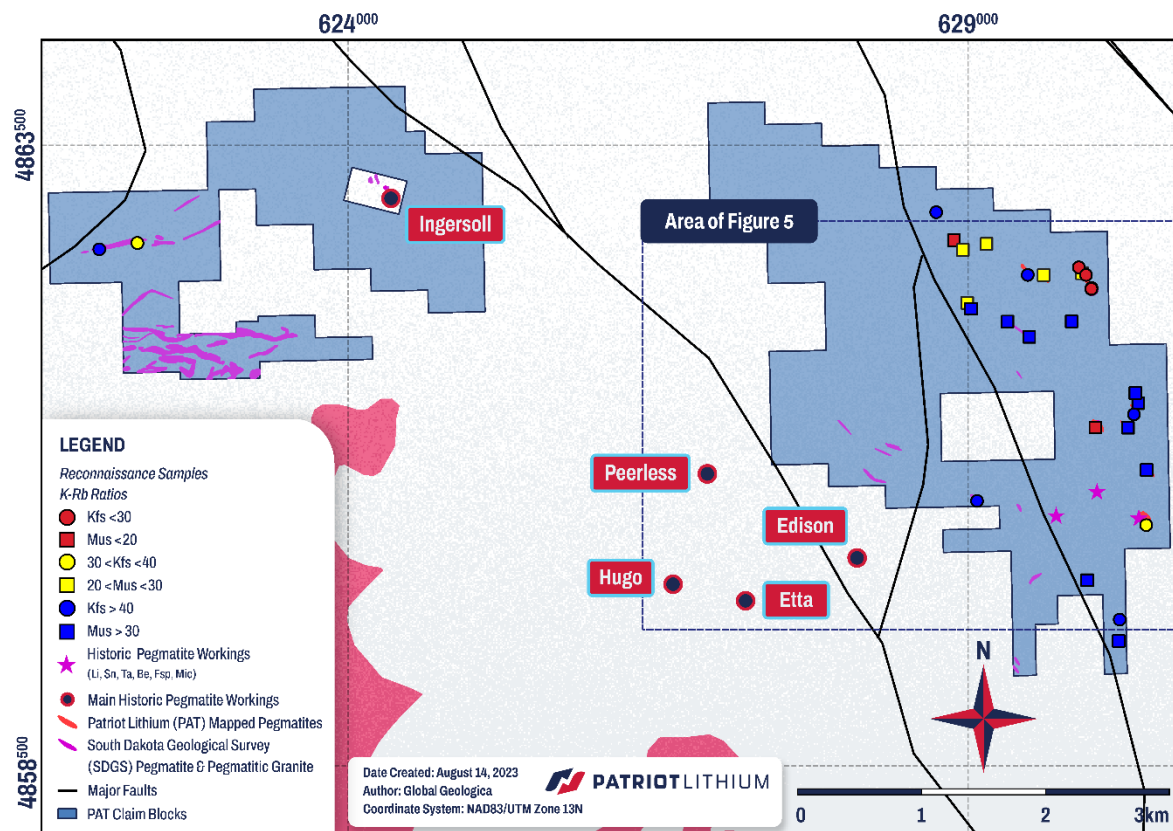
**Figure 1.** Map of the Company's lode mining claims at Keystone Project with respect to Iris Metals' Beecher Project and other historic workings.

setting. Outstanding initial results were recently announced by Iris Metals from their maiden drilling program at Beecher, with significant lithium intercepts confirmed, including 60m @ 1.21% Li<sub>2</sub>O<sup>2</sup>.

Patriot's Keystone claims lie to the east of the Harney Peak Granite, a Late Palaeoproterozoic granite genetically related to 5000+ pegmatite intrusions in the surrounding district. Some of these pegmatite intrusions host significant lithium-caesium-tantalum (LCT) mineralization that has been mined historically, notably at the Etta, Edison, Hugo, Peerless and Ingersoll mines, which are all within 1km of the Company's Keystone claims.

### Prospecting Activity and Results

Field reconnaissance recently carried out by the Company focused mainly on the block of claims located to the east of the town of Keystone and closest to the main historic lithium Etta, Edison, Hugo and Peerless mine cluster (Figures 1 and 2).



**Figure 2:** Map of the Company's claims in the Keystone area, near the cluster of historic lithium mines including Edison, Etta, Hugo and Peerless. The area of focus for reconnaissance work is outlined. Sample locations are shown.

<sup>2</sup> IR1 ASX Announcement, 9 August 2023, "Multiple Wide, High-Grade and Shallow Lithium Intersections at Beecher"



Work to date has resulted in the identification of several outcrops of fractionated pegmatite, the largest of which, a new find not previously mapped, can be traced at surface for over 200m along strike (Figure 4). The fractionated pegmatites inspected at Keystone are characterised by their large crystal sizes (10s to 100s of centimetres in diameter) and presence of tourmaline.



**Figure 3.** Eastern end of a fractionated, megacrystic pegmatite dyke with >200 m strike length and encouraging K/Rb ratios in potassium feldspar (see “New Find” in Figure 5 for location. COO included for scale.

As part of the field reconnaissance, the Patriot team obtained pXRF readings from potassium feldspar and mica crystals in pegmatite outcrops. Where potassium feldspar was not found in sufficiently large crystals to allow an accurate pXRF reading, muscovite was used as a proxy. Rubidium also substitutes for potassium in the muscovite crystal lattice. The map of K/Rb ratios measured in pegmatites contains several outcrops with encouraging mineral chemistry, indicative of a highly fractionated melt and thus intrusions prospective for lithium mineralization, with >3,000ppm Rb and K/Rb < 30 being generally accepted as indicators of high prospectivity for lithium mineralization<sup>3</sup> although >2,000ppm Rb and K/Rb <40 is also considered worthy of further investigation, especially if the outcrop is weathered and depletion is suspected. These constitute high priority targets for follow-up rock chip sampling and mapping.

---

<sup>3</sup> Selway, Julie & Breaks, Frederick & Tindle, Andrew. (2005). A review of rare-element (Li-Cs-Ta) pegmatite exploration techniques for the Superior Province, Canada, and large worldwide tantalum deposits: *Exploration and Mining Geology*, Vol. 14, Nos. 1-4, pp. 1-30.





Figure 4. Close-up of megacrystic pegmatite in Figure 3, with potassium feldspar crystals selected for pXRF probing near the head of the 2lb sledgehammer.

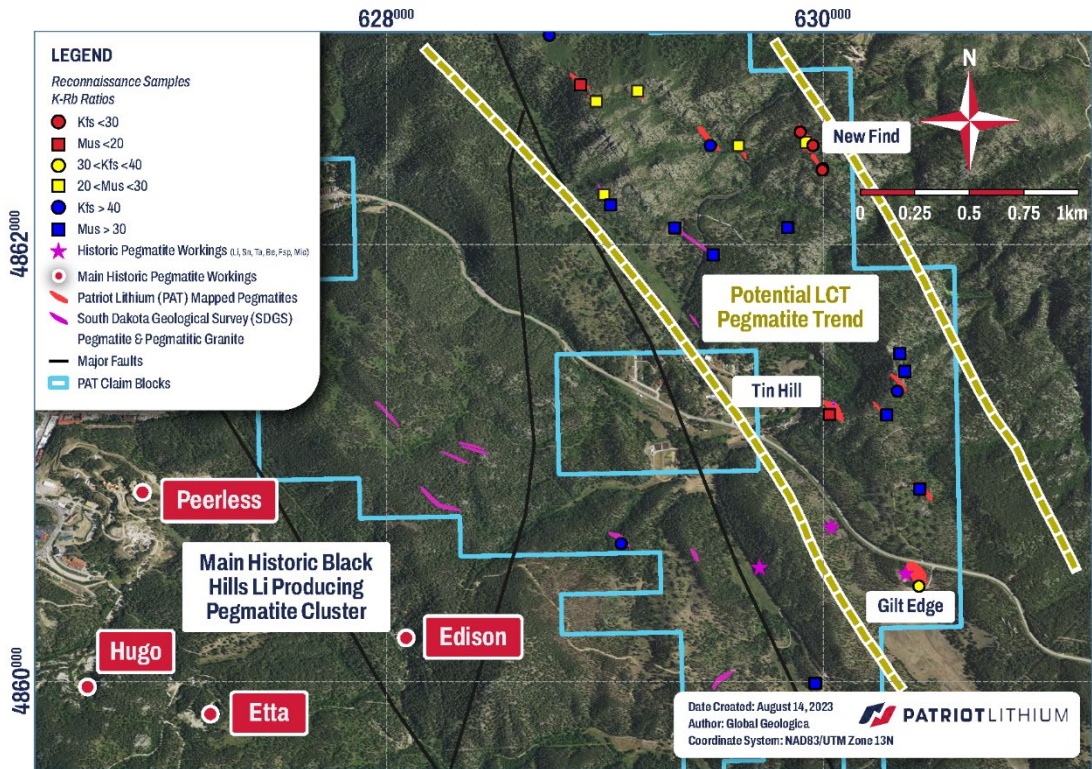


Figure 5. Map of the Company's lode mining claims at Keystone Project with initial reconnaissance sample results (K-Rb ratios).



**Next steps**

A follow-up program of systematic mapping and sampling of the pegmatite dykes is planned to commence in September. Assay results from the pegmatites will be reported to the market as soon as available.

Mapping and sampling will also be undertaken throughout the remaining Keystone and Tinton West projects, including the recently staked claims.

**ENDS**

This announcement is authorised for ASX release by Nicholas Vickery, Managing Director of the Company.

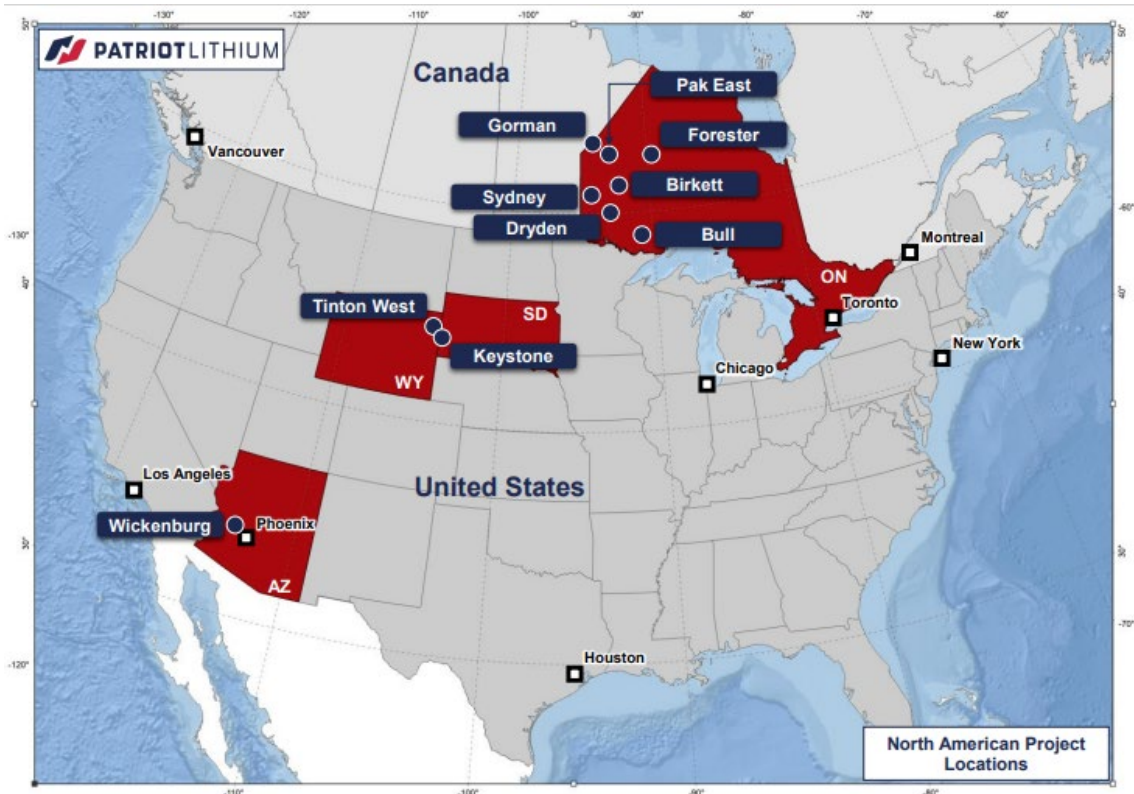
**For more information, please contact:**

**Nicholas Vickery**  
**Patriot Lithium Limited**  
**+61 8 9322 7600**

**Jonathan van Hazel**  
**Citadel-MAGNUS**  
**+61 411 564 969**

**ABOUT PATRIOT LITHIUM LIMITED**

Patriot Lithium Limited is primarily focused on the exploration of high-grade, hard rock lithium projects located in the prolific Black Hills lithium district of South Dakota and Wyoming and the Pegmatite Belt of Arizona, United States of America, as well as highly prospective Archean Greenstone Belts in northwest Ontario, Canada. The Company intends to build the size and scale of these properties by staking additional lithium prospective ground and through pragmatic assessment of potential acquisition opportunities. Patriot is working with US-based exploration, generative and land management teams to progress exploration and project development.



### **Competent Person's Statement**

The information in this announcement that relates to Exploration Results is based on information compiled and conclusions derived by Mr David Johnson and Dr Oliver Kreuzer.

Mr Johnson is a Member (#4358) of the Australian Institute of Geoscientists (AIG). Mr Johnson is an employee of Patriot Lithium Limited and holds securities in the Company. Mr Johnson has sufficient experience which is relevant to the style of mineralisation and types of deposit under consideration and to the activity being 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. Mr Johnson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Dr Kreuzer is a Member (#2762) and Registered Professional Geologist (RPGeo #10073) of the Australian Institute of Geoscientists (AIG) and a Member (#208656) of the Australasian Institute of Mining and Metallurgy (AusIMM). Dr Kreuzer is an employee of Patriot Lithium Limited and holds securities in the Company. Dr Kreuzer has sufficient experience which is relevant to the style of mineralisation and types of deposit under consideration and to the activity being 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. Dr Kreuzer consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### **Forward Looking Statements**

Some statements in this announcement regarding estimates or future events are forward-looking statements. Forward-looking statements include, but are not limited to, statements preceded by words such as "planned", "expected", "projected", "estimated", "may", "scheduled", "intends", "anticipates", "believes", "potential", "could", "nominal", "conceptual" and similar expressions. Forward-looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Statements regarding plans with respect to the Company's mineral properties may also contain forward looking statements.

Forward-looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward-looking statements may be affected by a range of variables that could cause actual results to differ from estimated results expressed or implied by such forward-looking statements. These risks and uncertainties include but are not limited to liabilities inherent in exploration and development activities, geological, mining, processing and technical problems, the inability to obtain exploration and mine licenses, permits and other regulatory approvals required in connection with operations, competition for among other things, capital, undeveloped lands and skilled personnel; incorrect assessments of prospectivity and the value of acquisitions; the inability to identify further mineralisation at the Company's tenements, changes in commodity prices and exchange rates; currency and interest rate fluctuations; various events which could disrupt exploration and development activities, operations and/or the transportation of mineral products, including labour stoppages and severe weather conditions; the demand for and availability of transportation services; the ability to secure adequate financing and management's ability to anticipate and manage the foregoing factors and risks and various other risks. There can be no assurance that forward-looking statements will prove to be correct.

**Table 1.** Portable X-ray Fluorescence (pXRF) analyser estimates of potassium (K) and rubidium (Rb) concentrations in potassium feldspar (Kfs) and muscovite (Mus) crystals sampled from pegmatite outcrops. The minimum value of the K/Rb concentration ratio (highlighted in boldface) was used for map plotting.

Sample ID	Latitude	Longitude	Kfs K/Rb	K wt%	Rb ppm	Mus K/Rb	K wt%	Rb ppm
252109	43.90381	-103.38602	<b>44.8</b>	<b>7.55</b>	<b>1687</b>	<b>26.2</b>	<b>8.11</b>	<b>3092</b>
252110	43.90432	-103.38248	70.4	12.95	1838	<b>31.7</b>	<b>6.47</b>	<b>2041</b>
			<b>26.7</b>	<b>8.18</b>	<b>3062</b>			
252111	43.90376	-103.38177	<b>27.6</b>	<b>7.05</b>	<b>2557</b>			
			35.5	7.66	2157			
252112	43.90040	-103.38330	65.8	12.22	1856	<b>33.1</b>	<b>10.07</b>	<b>3043</b>
			<b>63.1</b>	<b>10.06</b>	<b>1593</b>	33.4	10.18	3045
252113	43.90274	-103.38126	30.5	9.62	3154	35.8	11.83	3304
			<b>28.1</b>	<b>10.01</b>	<b>3565</b>	35.4	10.68	3019
			35.4	10.68	3019	<b>23.2</b>	<b>9.40</b>	<b>4059</b>
252114	43.89934	-103.38759	<b>56.1</b>	<b>13.56</b>	<b>2415</b>	<b>36.2</b>	<b>8.10</b>	<b>2237</b>
			63.3	9.59	1516			
252115	43.90048	-103.38975	<b>69.5</b>	<b>11.23</b>	<b>1616</b>	<b>42.2</b>	<b>8.06</b>	<b>1907</b>
			82.7	11.55	1397	48.8	8.19	1679
252116	43.88953	-103.37607	82.8	11.28	1362	50.2	10.37	2065
			67.4	10.57	1567	52.0	8.80	1693
			<b>56.7</b>	<b>11.70</b>	<b>2063</b>	<b>46.0</b>	<b>8.95</b>	<b>1945</b>
			63.5	11.10	1749			
252117	43.89267	-103.38113	<b>49.7</b>	<b>9.94</b>	<b>2002</b>	42.9	8.23	1917
			62.9	9.55	1519	41.8	8.86	2119
			65.9	8.15	1238	37.3	9.73	2608
			60.8	11.25	1851	<b>15.4</b>	<b>8.52</b>	<b>5540</b>
			68.0	12.61	1855	45.4	9.46	2083
			65.9	8.15	1238	30.1	10.19	3383
			68.4	10.43	1526			
252118	43.90190	-103.39375				<b>27.1</b>	<b>9.47</b>	<b>3499</b>
						27.4	8.75	3191
						32.4	7.54	2328
252119	43.90851	-103.39669	62.4	11.51	1844			
			<b>60.4</b>	<b>9.00</b>	<b>1490</b>			
252120	43.90644	-103.39496				<b>13.7</b>	<b>8.65</b>	<b>6312</b>
252121	43.90575	-103.39408				<b>24.9</b>	<b>9.64</b>	<b>3870</b>
						25.8	8.50	3289
						24.9	7.07	2837
252122	43.90614	-103.39171	120.6	10.72	889	35.4	10.43	2945
			<b>52.5</b>	<b>9.92</b>	<b>1889</b>	<b>27.0</b>	<b>9.65</b>	<b>3571</b>
252123	43.90384	-103.38762	63.6	9.83	1545			
			58.5	12.03	2057			
			<b>56.8</b>	<b>10.26</b>	<b>1806</b>			
252124	43.89261	-103.37786				<b>41.5</b>	<b>3.07</b>	<b>740</b>
						58.5	3.28	561
252125	43.89357	-103.37723	75.1	9.83	1308			
			<b>42.2</b>	<b>8.06</b>	<b>1907</b>			
			48.8	8.19	1679			
252126	43.89438	-103.37678				<b>30.8</b>	<b>9.84</b>	<b>3190</b>
252127	43.89512	-103.37704	57.4	9.96	1735	<b>38.6</b>	<b>4.13</b>	<b>1072</b>
			64.1	4.83	753			
			<b>48.5</b>	<b>5.33</b>	<b>1099</b>			
252128	43.88752	-103.39315	<b>49.0</b>	<b>12.27</b>	<b>2502</b>			
			80.9	10.13	1253			
252131	43.84884	-103.36220	146.2	9.66	661			
			<b>132.9</b>	<b>7.86</b>	<b>591</b>			
252133	43.90389	-103.38217				<b>29.9</b>	<b>14.33</b>	<b>4797</b>
252134	43.90280	-103.38124	<b>22.3</b>	<b>3.53</b>	<b>1579</b>			
252135	43.88553	-103.37622	<b>34.1</b>	<b>8.88</b>	<b>2603</b>			
252136	43.88339	-103.36713				<b>46.9</b>	<b>8.60</b>	<b>1834</b>
252137	43.88387	-103.36953	<b>79.6</b>	<b>8.93</b>	<b>1122</b>			
252138	43.90738	-103.47694	<b>33.5</b>	<b>3.76</b>	<b>1122</b>			
252139	43.90698	-103.48078	<b>102.5</b>	<b>4.07</b>	<b>397</b>			
252140	43.88161	-103.38224				<b>35.3</b>	<b>8.55</b>	<b>2424</b>
252141	43.87871	-103.37907	<b>134.5</b>	<b>13.50</b>	<b>1004</b>			



Sample ID	Latitude	Longitude	Kfs K/Rb	K wt%	Rb ppm	Mus K/Rb	K wt%	Rb ppm
252142	43.87716	-103.37922				75.0	10.40	1387
252143	43.86826	-103.37428				66.6	9.92	1489
252144	43.86844	-103.36740				131.8	11.89	902
252145	43.86874	-103.36609	139.8	4.40	315			
252146	43.84474	-103.38887	137.7	8.23	598			
252147	43.84767	-103.39433				128.4	10.21	795
252148	43.84671	-103.39225				56.4	9.09	1613
252149	43.84548	-103.38852	142.4	11.95	839			
252150	43.84470	-103.38643				140.8	9.03	641
252151	43.84498	-103.38546	141.7	12.03	849			
252152	43.85030	-103.40521	221.7	7.74	349			
252153	43.85063	-103.40648	201.3	7.85	390			
252154	43.85229	-103.40124				193.9	7.87	406
252155	43.85414	-103.39764	70.0	9.39	1341			
252156	43.85567	-103.39729	74.9	11.71	1564			
252157	43.85599	-103.39682				95.5	4.80	503
252159	43.86350	-103.35150				193.5	6.42	332
252160	43.86725	-103.35233				65.8	10.55	1602
252161	43.87051	-103.36128	149.6	8.26	552			
252162	43.86753	-103.35882	92.2	9.32	1010			
252163	43.93004	-103.55697	79.1	10.01	1266			

## APPENDIX 1: JORC CODE, 2012 EDITION – TABLE 1

### SECTION 1: SAMPLING TECHNIQUES AND DATA

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<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> </ul>	<ul style="list-style-type: none"> <li>Rock sampling of pegmatites at the Keystone and Tinton projects was performed to gather examples of potassium feldspar and muscovite crystals from pegmatite outcrops for probing using a Portable X-Ray Fluorescence (pXRF) instrument to determine concentrations of elements such as rubidium. The purpose of this work was to determine for internal purposes the possible lithium fertility of the pegmatite intrusions, to guide future rock sampling for ICP-MS geochemical analysis.</li> </ul>
	<ul style="list-style-type: none"> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>	<ul style="list-style-type: none"> <li>The Keystone and Tinton samples were not intended to provide any representativity with respect to lithium concentration in the pegmatite, but to instead provide indications of likely lithium-fertility of the intrusive body as a whole.</li> </ul>
	<ul style="list-style-type: none"> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> </ul>	<ul style="list-style-type: none"> <li>Mineralization was not determined using the pXRF measurements. These were taken to gain an indication of potential lithium fertility to guide future exploration.</li> </ul>
	<ul style="list-style-type: none"> <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>The portable XRF instrument used for this work does not produce element determinations on par with a commercial assay lab. The values are semi-quantitative at lower concentrations. However, the accuracy is sufficient for the present purpose of determining rough elemental ratios.</li> <li>The use of absolute Rb concentration and K/Rb ratios as a guide to potential lithium fertility is discussed in the paper referenced above.</li> </ul>
<b>Drilling techniques</b>	<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>Not applicable. No drilling results are being reported here.</li> </ul>
<b>Drill sample recovery</b>	<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</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable. No drilling results are being reported here</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p>recovery and ensure representative nature of the samples.</p> <ul style="list-style-type: none"> <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>	
<b>Logging</b>	<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 Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable. No drilling results are being reported here</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable. No drilling results are being reported here</li> </ul>
	<ul style="list-style-type: none"> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable. No drilling results are being reported here</li> </ul>
	<ul style="list-style-type: none"> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable. No assay results are being reported here.</li> </ul>
	<ul style="list-style-type: none"> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable. No assay results are being reported here.</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable as not appropriate for this early stage of reconnaissance exploration.</li> </ul>
	<ul style="list-style-type: none"> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Sample sizes smaller than one tonne are unlikely to be representative, given the inhomogeneity of LCT pegmatites. However, the size of rock samples being collected by Patriot is appropriate for this early stage of reconnaissance exploration.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable. No assay results are being reported here.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i>	
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> </ul>	<ul style="list-style-type: none"> <li>Not Applicable. As of the date of this announcement, no drill sampling has been conducted by Patriot.</li> </ul>
	<ul style="list-style-type: none"> <li>The use of twinned holes.</li> </ul>	<ul style="list-style-type: none"> <li>Not Applicable. No prior drilling has been conducted on any of the company's projects.</li> </ul>
	<ul style="list-style-type: none"> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	<ul style="list-style-type: none"> <li>Sample location data are recorded on the geologist's gps-based field computer and downloaded to data files containing sample numbers, coordinates and descriptions for upload to a centralized cloud database and pairing with assay data uploaded from certificates supplied by the lab.</li> </ul>
	<ul style="list-style-type: none"> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>No adjustments were performed</li> </ul>
<b>Location of data points</b>	<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> </ul>	<ul style="list-style-type: none"> <li>Coordinates of samples are recorded using an android field computer GPS with an accuracy of &lt;2 m.</li> </ul>
	<ul style="list-style-type: none"> <li>Specification of the grid system used.</li> </ul>	<ul style="list-style-type: none"> <li>The grid system used for the Keystone and Tinton Projects is UTM projection, NAD83, Zone 13 North</li> </ul>
	<ul style="list-style-type: none"> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>GPS accuracy (&lt;2 m) is adequate for reconnaissance stage exploration intended to establish the presence of a mineralised system and plan follow-up drilling, trenching, etc.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>Rock samples were taken where pegmatite is exposed in outcrop and sample material was able to be broken off by hammer. This sampling was not on a regular grid and should not be considered to be representative of all mapped pegmatite.</li> </ul>
	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>Not applicable as no Mineral Resources or Ore Reserves have been determined.</li> </ul>
	<ul style="list-style-type: none"> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>No sample compositing has been applied.</li> </ul>
<b>Orientation of data in relation to</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to</li> </ul>	<ul style="list-style-type: none"> <li>Sampling was conducted in order to characterize the magma composition of the intrusion in a preliminary fashion.</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>geological structure</b>	<i>which this is known, considering the deposit type.</i>	No results are reported here. More sampling may be deemed necessary after detailed mapping.
	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable. No drilling has been completed on these projects.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable. No samples taken for assay are being reported here.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>No formal audits or reviews of sampling techniques and data were conducted given the early-stage nature of the reported exploration activity. The company conducts regular review of all quality control analytical results.</li> </ul>

## SECTION 2: REPORTING OF EXPLORATION RESULTS

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Keystone Project property consists of 407 mining claims covering 34 km<sup>2</sup> located on Federal land administered by the United States Forest Service in the State of South Dakota, United States of America.</li> <li>The Tinton West Project consists of 121 mining claims covering 10 km<sup>2</sup> located on Federal land administered by the United States Forest Service in the States of Wyoming and South Dakota, United States of America.</li> <li>The claims are in the name of New Energy Metals (US) Inc, a wholly owned subsidiary of the company.</li> <li>No royalties or other interests apply to the property.</li> <li>The company is not aware of any material facts which would affect their title to these claims.</li> </ul>
	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Company considers the likelihood of tenure forfeiture to be low given the laws and regulations governing exploration in the US and Canada and the ongoing expenditure budgeted for by the Company. The Company is not aware of any material facts which would affect their title to these claims.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>The exploration and mining history of the region dates back to 1874 when placer gold was discovered near Custer by General Custer Exploration and is also home to the Homestake gold mine at Lead which was discovered in 1876 (DeWitt et al., 1986) and produced 40 Moz of gold between 1878 and 2000, when mining ceased (Redden and DeWitt, 2008). Shortly after the discovery of the Homestake deposit, many of</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>the Tertiary gold deposits in the Lead-Deadwood area were also discovered.</p> <ul style="list-style-type: none"> <li>Placer cassiterite was discovered in the Tinton area around the same time as the gold (c. 1876), as a byproduct of the placer gold mining, with the pegmatite deposits discovered shortly thereafter, in this area as well as the southern Black Hills area around Keystone and Custer (DeWitt et al., 1986). These constitute the two main pegmatite fields in the Black Hills region, namely the one around Harney Peak in the southern Black Hills, in the Pennington and Custer counties, and the other in the northern Black Hills, in the Tinton district, in Lawrence County. These two areas have produced mica, beryl, columbite-tantalite, microlite, amblygonite, spodumene, lepidolite, pollucite, rose quartz, feldspar, and cassiterite (Page et al., 1953) and were an important source of mica, feldspar, beryl, and lithium minerals during World War II (Norton et al., 1964).</li> </ul>
<p><b>Geology</b></p>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<p><b><u>Keystone Project</u></b></p> <ul style="list-style-type: none"> <li>The Keystone Project is underlain by Palaeoproterozoic age metasediments comprising mostly metagreywackes, metaconglomerate, quartzites phyllites, biotite schists and iron formation. The claims also contain a number of, from a past production perspective, less significant pegmatite workings for which little to no information is available. Most of the pegmatites within the claims strike northwest-southeast to west-northwest to east-southeast, parallel to the regional fabric; in the northwest the structural grain is largely northwest-southeast and the pegmatites here are orientated in the same direction.</li> </ul> <p><b><u>Tinton West Project</u></b></p> <ul style="list-style-type: none"> <li>The Tinton West Project is located within an inlier of Palaeoproterozoic basement rocks exposed on a small domal uplift, surrounded by unconformably overlying Cambrian to Carboniferous age sedimentary rocks. The basement rocks comprise quartz-mica, graphitic and hornblende schists intruded by foliation-parallel to slightly transgressive pegmatites, typically striking north-northwest and dipping at 40°-70° to the northwest. Approximately 240 pegmatites, which includes a number of LCT pegmatites, have been mapped over an area of approximately 15km<sup>2</sup>. A small proportion of these pegmatites are mineralised with respect to lithium, tin and tantalum; and 40 contain cassiterite mineralisation. The primary minerals exploited from the pegmatites in the Tinton area were cassiterite, columbite-tantalite, amblygonite and spodumene.</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:               <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Not applicable as of the date of this announcement, no drilling has been conducted by Patriot on the Keystone or Tinton West projects.</li> </ul>
	<ul style="list-style-type: none"> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>Not Applicable.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> </ul>	<ul style="list-style-type: none"> <li>Not Applicable. As of the date of this announcement, no data aggregation has been conducted by Patriot.</li> </ul>
	<ul style="list-style-type: none"> <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>Not Applicable. As of the date of this announcement, no data aggregation has been conducted by Patriot.</li> </ul>
	<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>Not Applicable. As of the date of this announcement, no data aggregation has been conducted by Patriot.</li> </ul>

<b>Criteria</b>	<b>JORC Code explanation</b>	<b>Commentary</b>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not Applicable. As of the date of this announcement, no drilling of mineralization has been reported by Patriot.</li> </ul>
	<ul style="list-style-type: none"> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not Applicable. As of the date of this announcement, no drilling of mineralization has been reported by Patriot.</li> </ul>
	<ul style="list-style-type: none"> <li>• <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not Applicable. As of the date of this announcement, no drilling of mineralization has been reported by Patriot.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not Applicable. As of the date of this announcement, no drilling of mineralization has been reported by Patriot.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Preliminary results highlighted herein are being used to guide exploration. All rock samples results are reported herein.</li> </ul>
<b>Other substantive exploration data</b>	<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>• Not applicable at this stage</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> </ul>	<ul style="list-style-type: none"> <li>Further priority rock chip samples will be collected and sent for assay with further soil sampling and rock chip work being planned, particularly around anomalous outcrops.</li> <li>Additional pegmatite mapping and sampling over the remainder of Keystone and Tinton West areas will continue and are expected to be completed by this year</li> </ul>
	<ul style="list-style-type: none"> <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>Not applicable at this stage</li> </ul>