Spark Energy Hits Highest Lithium Anomalism to Date Identifying New Priority Lithium Target "Cruzeta"

VANCOUVER, BC / April 8, 2025 / *Spark Energy Minerals Inc*. ("Spark" or the "Company") (CSE: SPRK) (OTC: SPARF) (Frankfurt: 8PC), is pleased to announce positive lithium and key pathfinder analytical results from rock-chip sampling in a newly identified high priority Lithium – LCT Pegmatite – Target "Cruzeta" at the Company's flagship Arapaima Lithium Project, Lithium Valley, Minas Gerais, Brazil.

The new target, Cruzeta, has been defined by reconnaissance near surface rock-chip samples with analytical results reporting **anomalous Lithium values (up to 1,397 ppm)** and essential pathfinder elements, including Tantalum (up to 31 ppm), Niobium (up to 413 ppm), Tin (up to 91 ppm), Cesium (up to 106.8 ppm), and Gallium (up to 165 ppm). Importantly, the samples returned **Potassium/Rubidium (K/Rb) ratios as low as 23.84*,** pointing to highly evolved and fractionated LCT pegmatites, which are characterized by this ratio and the above elemental association.

Jon Hill, Director of Spark Energy Minerals commented: *"We are extremely satisfied with the identification of this new high quality "Cruzeta Target" that appears to contain highly fractioned pegmatites containing our highest anomalous Lithium values to date with **up to 1,397ppm Li**. We continue to progress with our first pass exploration program with 61 sub-drainage basins remaining to be explored across Spark's extensive 64,359 Ha tenement package. The Company, after only a few months, has **identified 123 pegmatite occurrences within 13 pegmatite trends over a combined 31km strike**. We have now mapped three (3) high-priority lithium target areas (Agua Branca, Grota do Maquém and Cruzeta) and one high-priority rare earth elements (REE) target (Caladão) for detailed follow-up exploration. We are confident that initial diamond drilling targets will be generated from this detailed follow-up work within these prospective areas throughout the Arapaima Lithium project here in Brazil."*

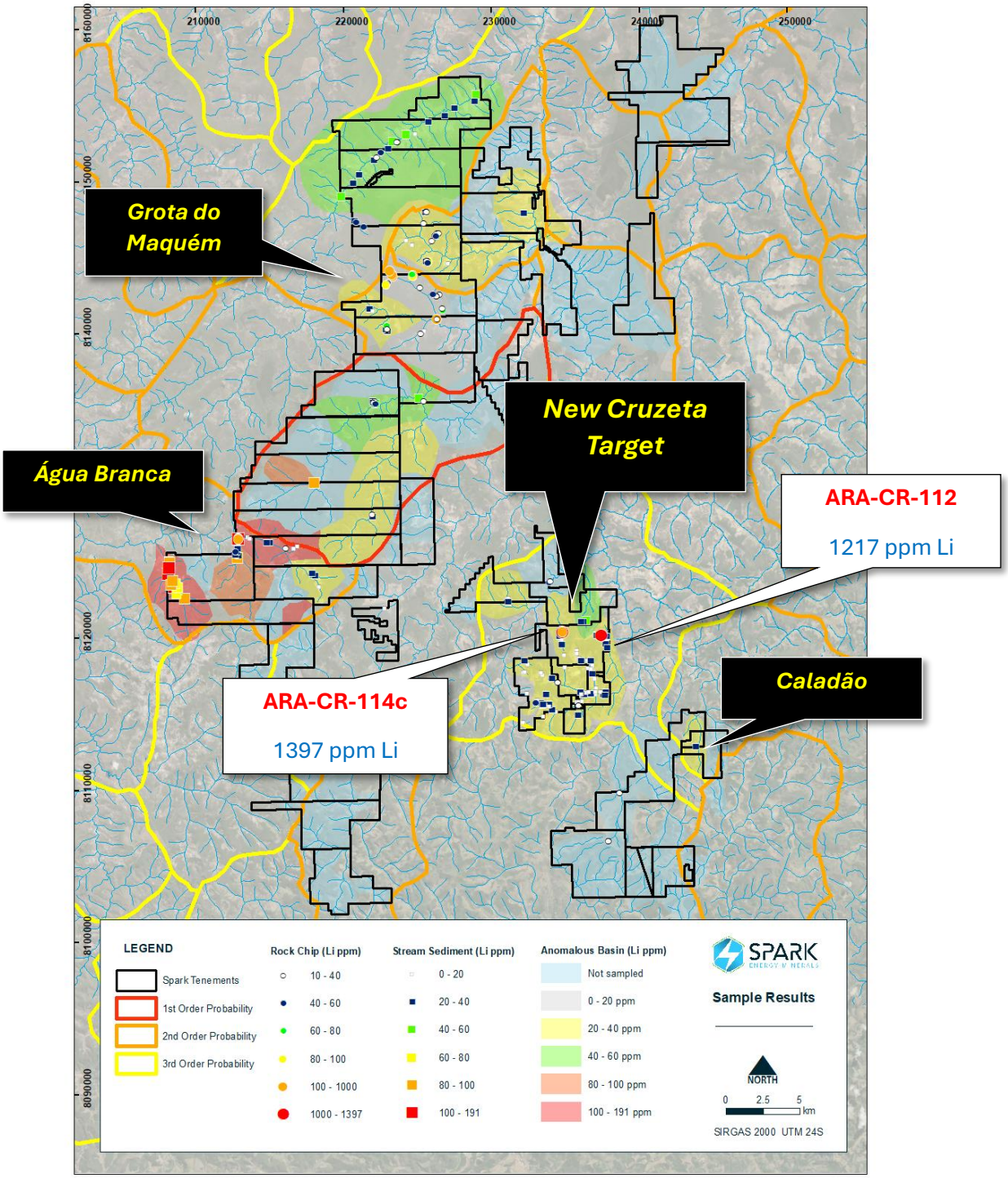

Figure 1: Location of the new Cruzeta Target relative to Spark's tenement package and the Agua Branca, Groto do Maquém (lithium) and Caladão (rare earth elements (REE)) priority targets

Cruzeta Target

Analytical results for six (6) rock-chip samples from the Cruzeta Target were recently reported and presented below.

Sample ID	Be_ppm	Cs_ppm	Ga_ppm	In_ppm	K_ppm	Li_ppm	Nb_ppm	Rb_ppm	Sc_ppm	Sn_ppm	Sr_ppm	Ta_ppm	K/Rb
ARA-CR-114b	7	106.8	120	0.9	70867	1397	413	2973	11	55	<15	31	23.84
ARA-CR-112	<5	23.2	101	0.7	60353	1217	274	1660	17	20	<15	<10	36.36
ARA-CR-114c	12	16.9	165	1.5	74922	739	246	2057	13	91	<15	14	36.42
ARA-CR-115	<5	6.2	24	<0.2	70925	55	<10	416	<5	12	<15	<10	170.49
ARA-CR-113	<5	2.4	53	<0.2	73110	20	59	610	<5	<5	52	<10	119.85
ARA-CR-114a	<5	2.6	28	<0.2	91368	<10	<10	805	<5	5	38	<10	113.50

Table 1: Analytical results from Cruzeta for Lithium and important pathfinder elements including Potassium/Rubidium (K/ Rb) ratios.

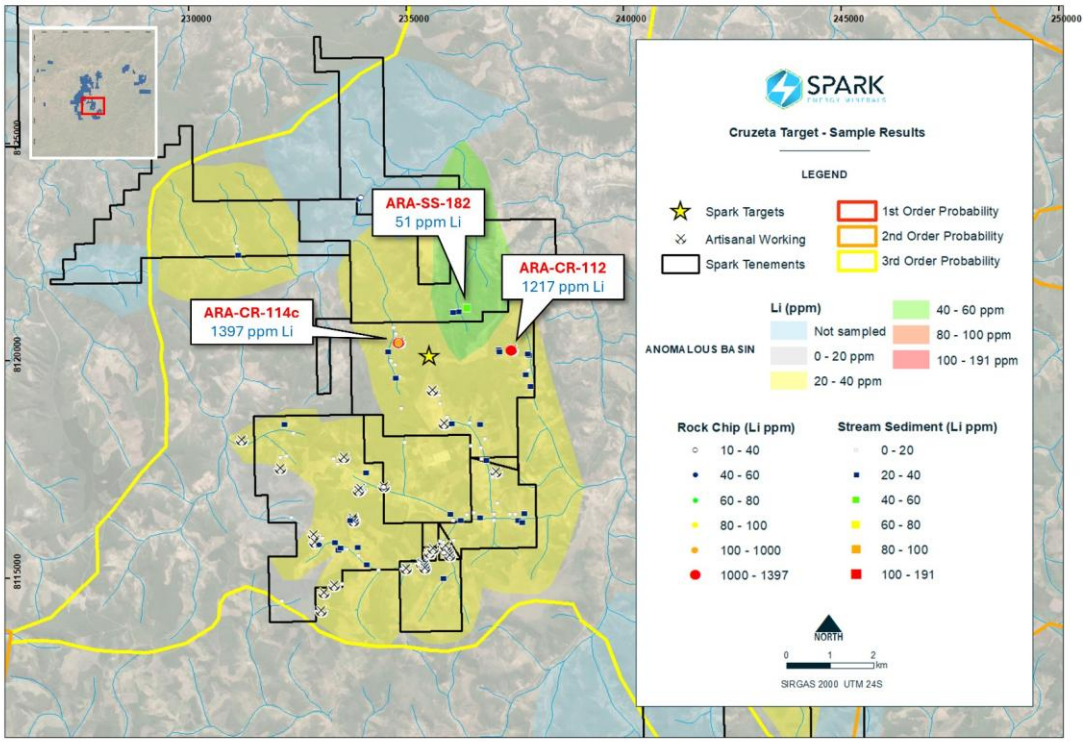

Figure 2: Newly defined Cruzeta Target showing the location of highly anomalous Lithium and pathfinder element rock-chip samples and the distribution of old artisanal garimpeiro workings within and along the margins of two anomalous sub-drainage basins

Reconnaissance exploration to date at Cruzeta has also identified the widespread occurrence of additional old artisanal–garimpeiro workings on Spark's tenements,

previously exploited for gemstones providing very encouraging signs of economic mineral potential associated with pegmatites. More detailed mapping and sampling of these areas will be prioritized going forward.

Figure 3: Old Artisanal – Garimpeiro workings previously exploited for gemstones (Beryl – Aquamarine) within the Cruzeta Target showing deeply weathered pegmatite occurrences

Potassium/Rubidium Ratio (K/Rb)*

The (K/Rb) ratio is an important geochemical indicator used in lithium exploration (in conjunction with other tools and indicators), particularly in pegmatite-hosted lithium deposits. It provides insights into the degree of fractionation of pegmatites, which directly influences their potential to host lithium mineralization. Pegmatites with low K/Rb ratios (<150) are more evolved and considered fertile for lithium exploration.

The Cruzeta Target has produced in the highest assays to date with **739ppm, 1,217ppm and 1,397ppm Li** respectively. The K/Rb ratios for these three samples tabulated above (Table 1) **report as low as 23.84** to 36.42 pointing to the potential proximity of **highly evolved Lithium, Cesium, Tantalum (LCT) pegmatites** which are characterized by this ratio and the corresponding pathfinder elemental association.

Given the deeply weathered pegmatite occurrences found throughout the tenements and elsewhere within the Lithium Valley, pathfinder elements and these key ratios become critical tools for narrowing in on priority targets to explore at depth. Exploration efforts are

focused on the identification of advanced pegmatite evolution and strong K/Rb ratios can indicate the following:

- These pegmatites formed from highly evolved granitic melts (their composition changes as the melt differentiates).
- Rubidium (Rb) preferentially replaced potassium (K) in potassium feldspar and mica minerals during the melt process.
- Low K/Rb ratio is created suggesting a higher degree of fractionation, meaning the pegmatite has undergone extensive differentiation, increasing the likelihood of lithium (Li) enrichment.
- Highly fractionated pegmatites often contain lithium-bearing minerals like spodumene, petalite, and lepidolite.

Arapaima Lithium Project Continued Exploration Plans

Exploration of Spark's extensive 64,359-hectare tenement package will continue on three main fronts:

- Continued first pass reconnaissance phase geological mapping and stream sediment samples with 61 sub-drainage basins remaining to be sampled.
- Follow up initiatives in the highly prospective Agua Branca, Groto do Maquém, and Cruzeta priority lithium targets with ongoing interpretation of the results to develop initial drill testing targets.
- Plan more extensive programs in the high priority Caladão REE target including auger drilling to further delineate the potential of the prospective REE & gallium zone contiguous to Axel REE's project.

To date, the company has completed the following exploration work:

- Geological Observations: 401
- Pegmatite occurrences: 123
- Artisanal workings: 66
- Samples collected: 399
- Pegmatite trends: 13
- Sub-drainage basins sampled: 27
- Sub-drainage basins remaining to be sampled 61

Eugene Hodgson, CEO & Director of Spark Energy Minerals commented: "Achieving the highest lithium anomalism to date at the Cruzeta target is a significant milestone for Spark Energy Minerals. The strong lithium and pathfinder element results from our recent rock-chip sampling confirm the highly prospective nature of the Cruzeta target, which adds to our growing portfolio of priority exploration zones across the Arapaima Lithium Project. This

discovery, combined with our ongoing exploration efforts, positions Spark to continue advancing our understanding of this world-class lithium district. We remain confident that our systematic approach to exploration will lead to the identification of high-quality drilling targets and ultimately help position Spark as a key player in the growing global lithium supply chain."

QA/QC Protocols

Spark maintained full chain-of-custody control from sampling through to laboratory delivery ensuring the reliability of the assay results. SGS Laboratory used QAQC protocols for blanks, standards and duplicates, the results of which are reported alongside the completed analysis.

Qualified Person:

The scientific and technical information disclosed in this document has been reviewed and approved by Jonathan Victor Hill BSc Hons, FAUSIMM, a Qualified Person consistent with NI 43-101 and a director of Spark Energy Minerals Inc.

About Spark Energy Minerals Inc.

Spark Energy Minerals, Inc. is a Canadian company focused on the acquisition, exploration, and development of battery metals and mineral assets, with a particular emphasis on its substantial interests in Brazil. The Company's flagship project is the Arapaima Lithium project spanning 64,359 hectares in Brazil's renowned Lithium Valley, one of the most prolific mining regions in the world. This region is rapidly gaining global recognition for its vast deposits of lithium and rare earth minerals, positioning Brazil as a critical player in the global energy transition.

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

FOR ADDITIONAL INFORMATION, SEE THE COMPANY'S WEBSITE AT
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