



## NEWS RELEASE

**Spark Energy Minerals Exploration Program confirms Li in 90% of Soil Samples and 100% in Chip Samples. Additionally, 100% of TREE's Sampled contain high Levels of REE's**

**VANCOUVER, BC / ACCESSWIRE / March 7, 2023 / Spark Energy Minerals Inc., ("Spark" or the "Company") (CSE: EMIN) (Frankfurt: M1N) (OTC: MTEHF),** has received from Foxfire Metals Pty Ltd, (Foxfire) its joint venture partner and manager of the Minas Gerais Lithium and REE project in Brazil, that the results of a soil and rock chip sampling program completed in December 2022 have been received from independent SGS laboratory in Brazil.

***The Joint venture ground is located just 38km S.E. of Sigma Lithium tenements (TSX-V: SGML). in the "Lithium Valley" of Minas Gerais, Brazil.***

***The laboratory results confirm both Lithium and REEs present in the saprolite soils and altered granite/pegmatites associates with these soils.***

***All soil samples were collected over 13 different areas within the 3500 Hectares of Joint Venture ground and indicate the presence of Lithium and REE (rare earth element) mineralisation.***

### **Highlights:**

#### **Lithium (Li):**

Li (see table 1) confirmed in 90% of the samples of the analyzed saprolite soils: -

- Up to 154 ppm Lithium reported in surface soil samples.
- Pegmatites and altered granites were confirmed in the rock chips analyzed and contain Lithium mineralization.

#### **Rare Earth Elements (REE):**

Every sample (100%) analyzed contains REEs with 16 of the 17 TREE elements confirmed.

- average TREE of ~2055 ppm over selected samples.
- highest individual sample (PMG2) recorded TREE of ~3050 ppm.
- Average TREE used in magnets 25.5%.
- Light REE: 86% average of total REE
- Heavy REE: 14% average of total REE



**Mineralized zones:**

Confirm mineralization for Lithium and REEs in at least 13 locations over the 3,500 hectares JV ground.

**Geological structures:**

Mapping identified several structures for hosting potential mineralization.

**Plans moving forward:**

June 2023 Quarter

- Planned Auger drilling for next quarter to further test for Li and REE in the saprolite soils and oxidized pegmatite and granite.
- A geochemical and geophysical work program to identify primary ore drilling targets planned in the June 2023 quarter.

As previously reported, Foxfire completed a geochemical and mapping program in December 2022. Soil and rock chip samples collected were sent to SGS laboratory in Brazil to analyse for Lithium and Rare Earth Elements (REEs). These samples were collected from thirteen locations over the 3500 hectares JV licenses.

Every location that was sampled indicated lithologies (Saprolite soils and altered pegmatites and granites) containing Li and REE mineralisation.

***The SGS laboratory results confirmed the presence of Lithium and Rare Earth Elements (REE) in the saprolite soils tested. Lithium was found in 90% of the samples analysed and REEs were found in all the samples analysed with 16 of the 17 TREE groups present.***

Old workings are present on one of the 3 licenses and have confirmed previous mining activities.

The samples were prepared and analysed by SGS laboratories in Brazil and confirm Lithium and REE mineralisation in the saprolite soils and altered pegmatites and granites.

90% of the lithium in the saprolite soils contain up to 154ppm Lithium and 100% of the rock chips sampled contained lithium.

100% of the samples contain REEs in the saprolite soil and in the rock chip samples with the highest TREE (total Rare Earth Elements) sample PMG2 containing ~3050 ppm REE.

A further geochemical soil program and geophysics – airborne radiometric program is scheduled to commence in the next quarter with the objective of identifying drill targets focused on intercepting the primary zone of potential mineralisation for Lithium and Rare earths (REE).

A shallow auger drill program to test the extent of the mineralisation in the soils is also planned to commence in the next quarter.

REEs and TREE calculation

The average grade presented in this table is based on the samples result that exceeded 1000ppm of TREE.

**Table 1:**

**Lithium results from SGS analysis of samples. Also elevated levels of Nb, Zr, and Rb were reported.**

<b>Sample ID</b>	<b>Li PPM</b>	<b>Nb PPM</b>	<b>Zr PPM</b>	<b>Rb PPM</b>
PMGL 0001	49	45	543.7	259
PMGL 0002	41	43	559.9	233
PMGL 0003	30	20	61.3	67
PMGL 0004	41	23	46.4	281
PMGL 0005	57	22	239.6	159
PMGL 0006	46	12	17.6	164
PMG1 0001	154	107	767.7	511
PMG1 0002	68	18	178	270
PMG1 0003	29	62	587	5
PMG1 0004	0	56	862.1	0
PMG1 0005	37	68	550.2	13
PMG1 0006	24	49	721.8	4
PMG1 0007	0	50	593.8	13
PMG1 0008	80	117	907.2	428
PMG1 0009	33	47	484.4	186
PMG2 0001	40	51	537.1	317
PMG2 0002	27	61	707.5	8
PMG2 0003	32	57	839.7	7
PMG2 0004	28	24	255.9	13
PMGLR 0002	58	58	547.7	300
PMGLR 0001	108	40	20	131

**Legend:**

**PMGL = Soil Samples from EL831.515/2020 | PMGLLR = Rock chips from EL 831. 515/2020**  
**PMG1 = Soil Samples from EL 831. 524/2020 | PMG2 =Soil Samples from EL831.458/2020**

## REE and TREE summary results:

- Light REEs represent 86% average of the TREE
- Heavy REEs represent 14% average of the TREE
- Magnet REEs represent 25.5% average of the TREE (TREE% Magnets: REE 25.5% (Nd+Pr+Dy+Tb))

**Table 2: REEs and TREE Calculation**

		PMGL0001	PMGL0002	PMG10001	PMG1005	PMG1 0008	PMG1 0009	PMG2 0001	PMG2 0002	PMGLR 0002	PMGLR 0002	Average REE	Magnet REE	Heavy REE
L I G H T R E E	La	478.1	624.7	438	140.2	802.8	395.6	949.6	161.8	681.9	641.5	531.4		
	Ce	553.2	614.9	550.1	1412	896.6	400.9	679.1	939.4	507.4	464.1	701.8		
	Nd	373.2	419.7	297.1	45.2	523.9	342.9	752.9	108.6	478.4	438.2	378	378	
	Pr	103.9	123.3	84.6	14.8	150.6	97.3	214.2	30.3	132	126.2	107.7	107.7	
	Sm	56.4	57	42.6	7.4	75.6	50	99.5	13.7	70.1	66.1	53.8		
<b>86%</b>	<b>1564.8</b>	<b>1839.6</b>	<b>1412.4</b>	<b>1619.6</b>	<b>2449.5</b>	<b>1286.7</b>	<b>2695.3</b>	<b>1253.8</b>	<b>1869.8</b>	<b>1736.1</b>	<b>1772.8</b>			
H E A V Y R E E	Dy	32.6	23	19.4	3.8	36.6	22.2	35.7	4.2	30.4	27.9	23.6	23.6	23.6
	Er	15.1	8.4	8	1.6	15.4	9	13.4	1.5	12.8	11.4	9.6		9.6
	Eu	7.5	8	7.7	0.5	9.2	6.3	18.4	2	11.8	10.7	8.2		8.2
	Gd	52.6	46.8	33.9	5.6	65.8	38.2	73.8	9.8	52.5	50.6	43		43
	Ho	6	3.7	3.4	0.7	6.3	3.6	5.7	0.7	5	4.7	4		4
	Lu	1.5	0.7	0.9	0.2	1.6	0.8	1.2	0.2	1.3	1.2	1		1
	Sc	8	6	11	9	6	8	9	10	9	8	8.4		8.4
	Tb	7	5.8	4.4	1.4	8.4	4.9	8.7	1.5	7	6.3	5.5	5.5	5.5
	Th	74.3	61.7	163.3	124.7	71.5	27.9	56.8	47	45.1	40.9	71.3		71.3
	Tm	1.8	0.9	1	0.2	2	1	1.6	0.2	1.6	1.4	1.2		1.2
	Y	175.4	96.3	83.7	14.1	159.7	93.5	120.5	14.5	118.9	115.1	99.2		99.2
	Yb	11.3	5.2	6.4	1.6	11.1	6	9.3	1.2	9	8.1	6.9		6.9
<b>14%</b>	<b>1957.9</b>	<b>2106.1</b>	<b>1755.5</b>	<b>1783</b>	<b>2843</b>	<b>1508.2</b>	<b>3049.4</b>	<b>1346.4</b>	<b>2174.3</b>	<b>2022.4</b>	<b>2054.6</b>	<b>514.8</b>	<b>281.8</b>	

The average grade of this table is based on the samples result that exceeded 1000ppm.

Light REEs TREE 86% | Heavy REEs TREE% 24%

Magnet REEs TREE % | Magnet REE 25.5%

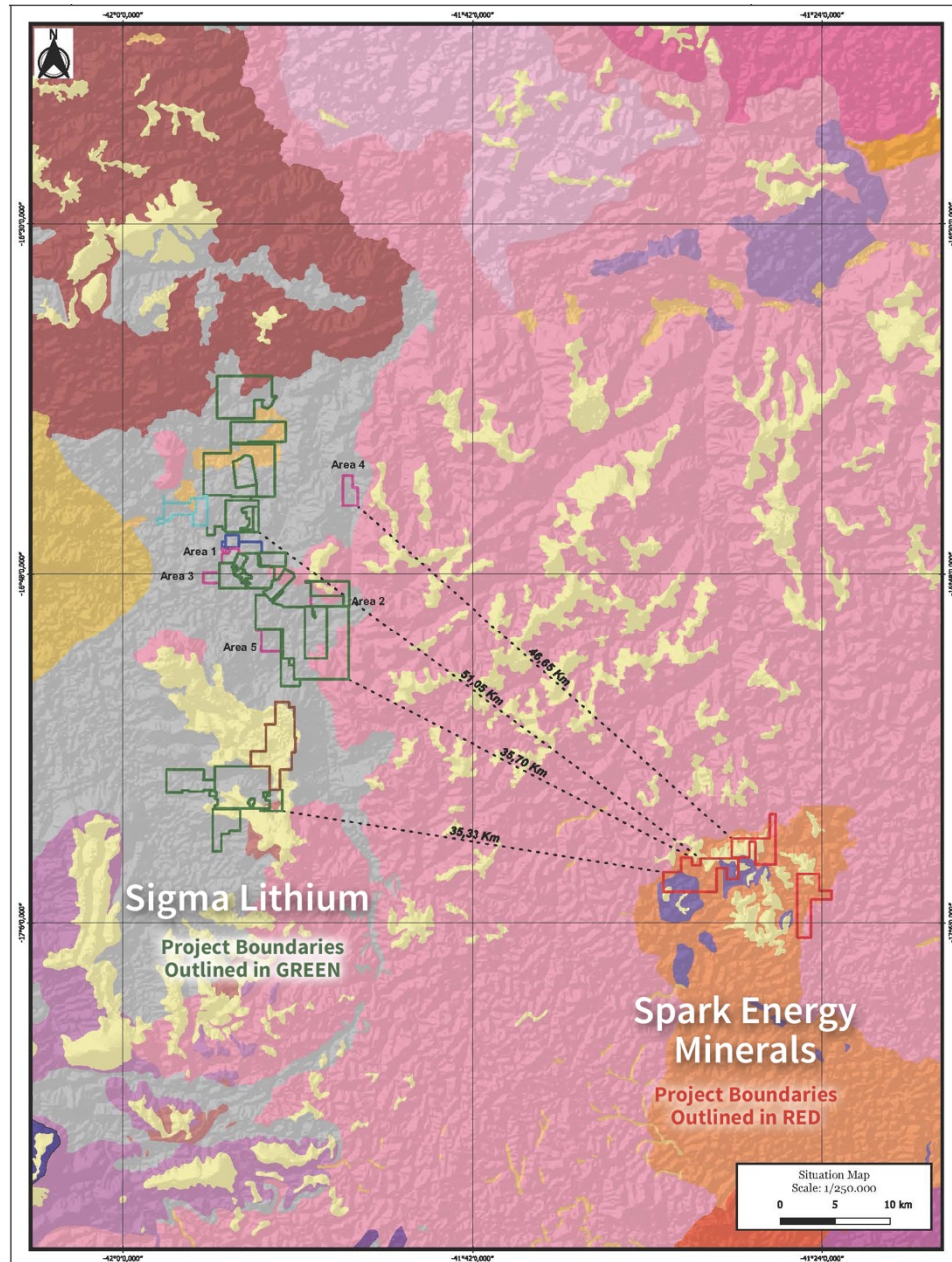
## The Minas Gerais Projects



### Location Map: Inset 1

These Three lithium licenses lie within the highly prospective northern portion of the state of Minas Gerais in the municipality of Padre Paraíso –the location of the Brazilian lithium producing districts and lithium belt. The areas are known to host lithium bearing pegmatites associated with spodumene, lepidolite, and amblygonite.

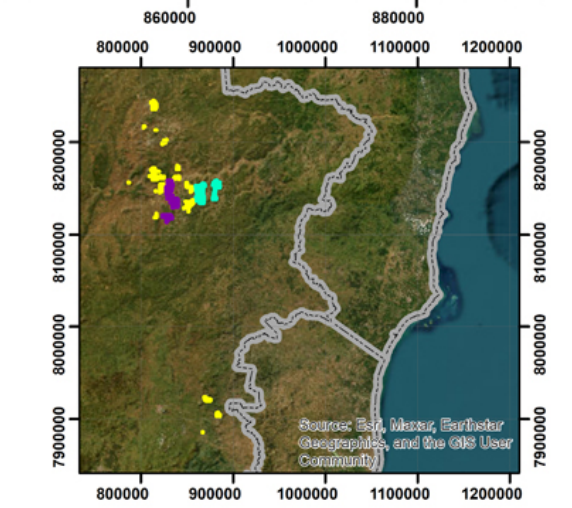
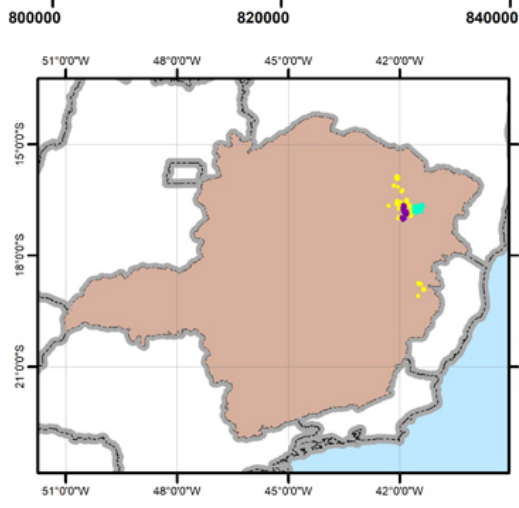
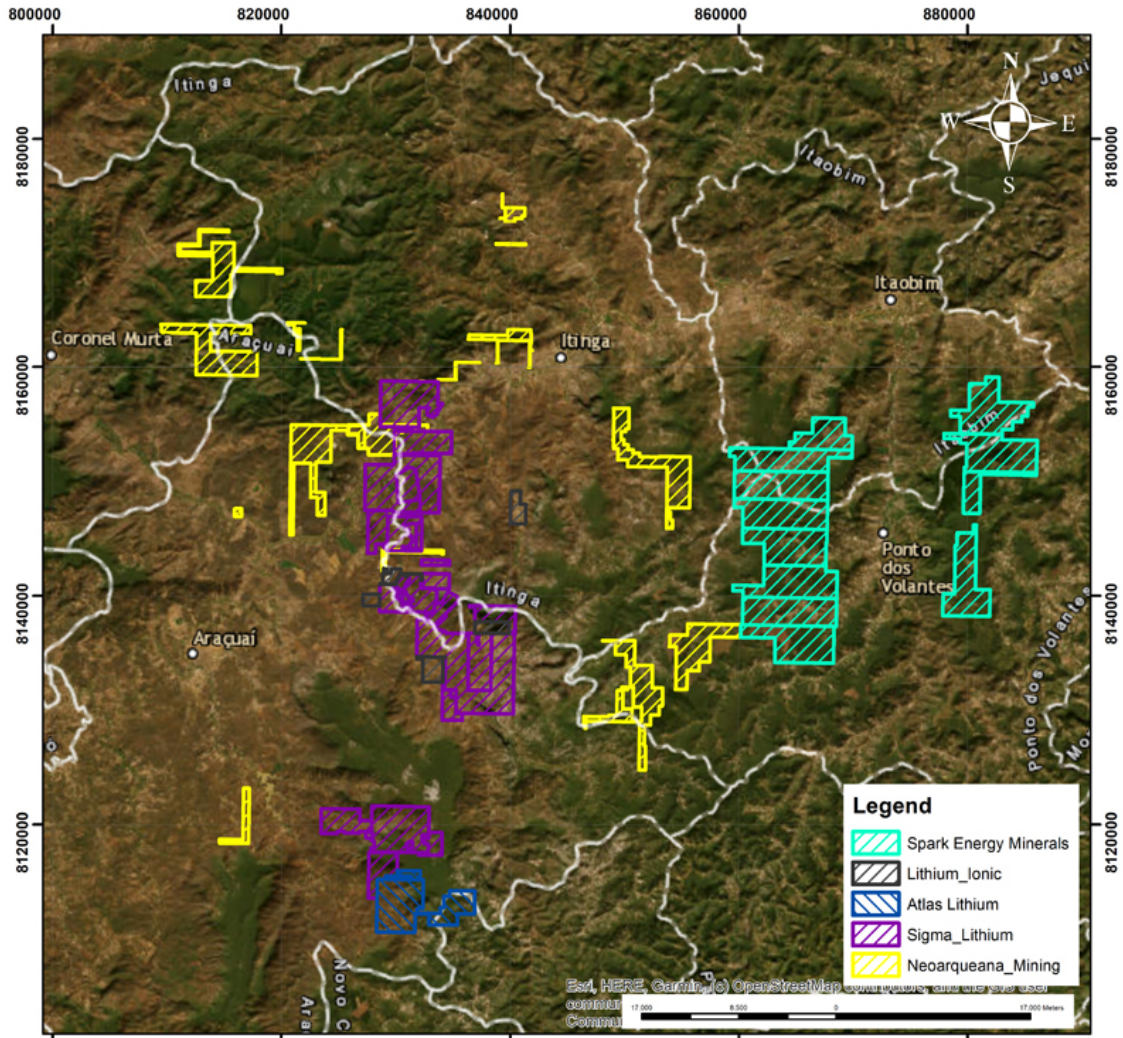
## Detail Location Map: Inset 2



Inset 2 is a location map of Spark's Minas Gerais lithium and rare earth licences. The dotted lines indicate the distance from Spark's licences to the state owned Companhia Brasileira de Litio's mining operation, Lithium Ionic (TSX-V: LTH) and SGML. Recent discoveries in the same, well known lithium province and pegmatite area of Minas Gerais have also been made by Latin Resources (ASX).



### Minas Gerais Area Plays: Inset 3





## Collection Sample Map: Inset 4



Collection points of samples sent for analysis: every sample contained either LI or REE Mineralisation confirmed in all of the 13 collection points over the 3500 ha square area.

**Highlight: (Insets 5,6 & 7)** An exploration program completed in December 2022 confirmed pegmatites on the license areas. Old workings were also identified where pegmatites have been mined. Lab results received confirmed mineralisation for Li and REE in the saprolite soils and pegmatite rock chips analysed.



**Insets 5, 6: Old workings at Minas Gerais and surface exposure of pegmatities have confirmed Lithium and REE present. Inset 7: Samples of different rock type collected from the Joint Venture ground.**

The technical information contained in this news release has been reviewed and approved by Dr. Paul Woolrich (BSc Geology, MSc Geochemistry, PhD Metallurgy) who is a Member of the MAusIMM, a Qualified Person as defined under National Instrument 43-101 and is a Technical Director of Foxfire Metals Pty Ltd.

**About Spark Energy Minerals Inc.**

Spark Energy Minerals, Inc., is a Canadian company pursuing battery metals and mineral assets with newly acquired interests in Brazil and Canada. The Company has acquired assets in some of the world's most prolific mining jurisdictions, Brazil's growing lithium and provinces and in the Newfoundland, Canada region which is gaining recognition as a world hot spot for lithium and rare earth mineral exploration.

**FOR ADDITIONAL INFORMATION SEE THE COMPANY'S WEB SITE AT**

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