

Focused On Battery Metals & Minerals



SPARK
ENERGY MINERALS

Q2-2024

HIGHLIGHTS

Lithium + **Energy Metals**

- The global lithium market size was valued at USD 7.49 billion in 2022 and is expected to grow at a compound annual growth rate (CAGR) of 12.3% from 2023 to 2030.
- Electrification of vehicles is projected to attract a significant volume of lithium-ion batteries and anticipated to drive the market over the forecast period. The automotive application segment is expected to experience substantial growth driven by stringent regulations for ICE automakers imposed by government bodies to reduce carbon dioxide emissions from vehicles.
- This has shifted the interest of automakers toward producing electric vehicles (EVs), which is anticipated to benefit the demand for lithium and related products.

Technical Grade
—
Spodumene
Concentrate

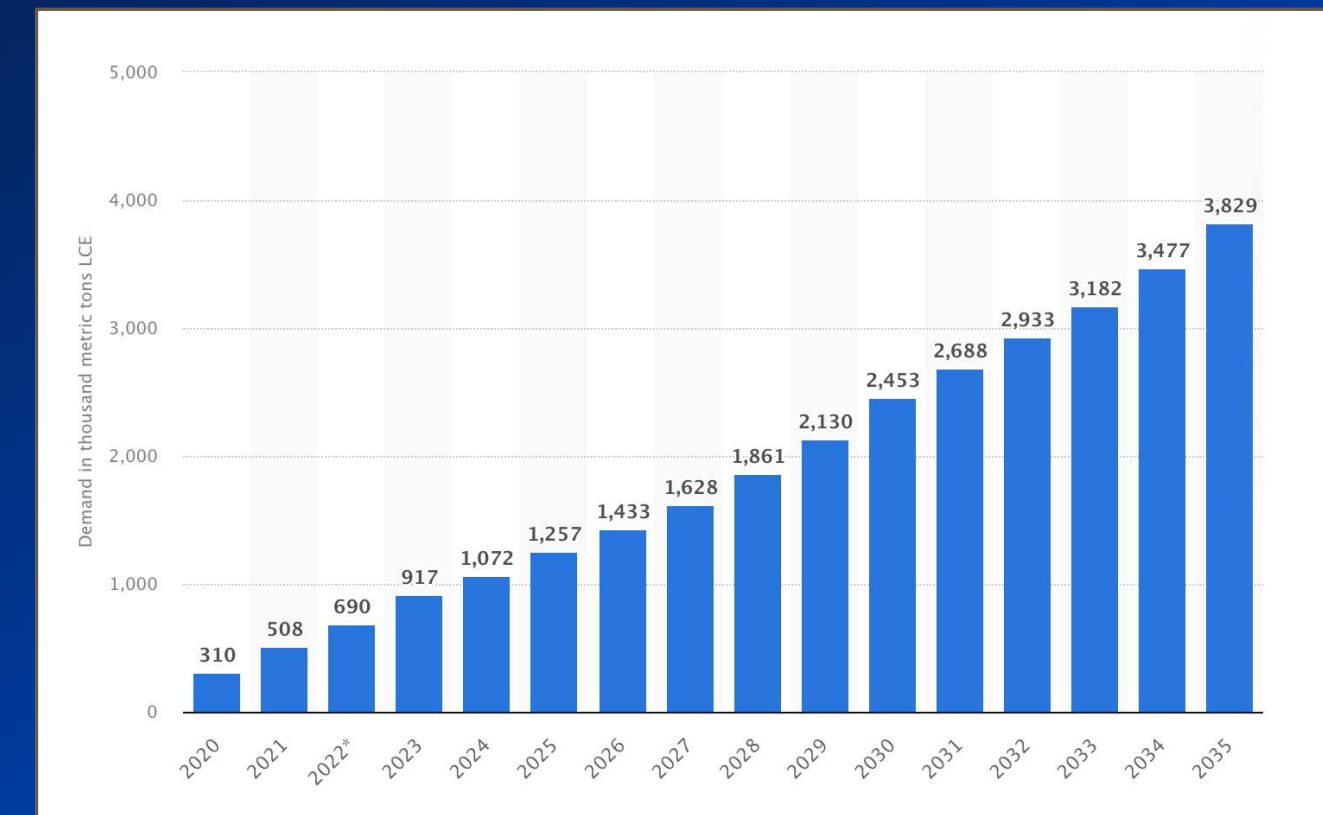


Battery-Quality
—
Lithium
Hydroxide



LCE Supply **Forecast 2020-2035**

(in 1,000 metric tons of lithium carbonate equivalent)



The carbonate product segment dominated the market and accounted for the largest share of over 56.0% in 2022, in terms of volume. Lithium Carbonate (Li_2CO_3) is the most stable inorganic compound and is used in forming other compounds, such as LiOH and even pure metal.



FOCUS: BRAZIL

Lithium + **Brazil**

- Brazil is a Tier One mining jurisdiction that accounts for over 30% of the World's demand for Iron Ore.
- It is the largest exporter of Lithium, Tin, and Manganese, and has rich reserves of Gold, Nickel, Bauxite, and Niobium.
- Brazil is also the biggest miner of REEs outside of China.
- It is known for its pro-mining climate supported by its President encouraging foreign projects. Accords permit three years for Exploration Leases and up to three years extension, which can be converted to Mining Licences.
- The country has a solid record of honoring mining agreements.
- Brazil is the 9th largest economy in the World with a nominal GDP of \$1.85 Trillion driven mostly by the mining sector.

Spark Energy + **Brazilian Portfolio**

- Spark Energy Minerals has acquired a portfolio of geologically sourced exploration assets in Brazil from leading country experts.
- Multiple assets are located in Brazil's "Lithium Valley" –a prolific lithium producing zone.
- The projects total ~112,243 hectares, with secured licenses approximately 30KM away from Sigma Lithium (NASDAQ: SGML, TSXV: SGML) and Lithium Iconic (TSXV:LTH).
- Geophysical data shows known pegmatites with Lithium.
- CBL, a private Brazilian company, has been producing lithium concentrate and hydroxide for +30 years and Sigma Lithium (~\$4.7B Mkt Cap) is expected to start producing next year.
- Sigma has an offtake agreement with LG Energy Solution and Tesla, demonstrating the ability of the spodumene in this region to produce battery grade concentrate.



LEADERSHIP & ADVISORS

Eugene Hodgson | President, Chair & CEO

- Eugene has held senior positions in both the capital markets and in the public sector for the Northwest Territories and British Columbia governments.
- His experience includes First Nations negotiations, corporate, public and financial strategy, as well as investment banking.
- He served on the Board of Directors of numerous companies including Trait Biosciences Inc., Grandfield Pacific Corporation, Arimex Resources Inc., Equitable Real Estate Investment Corp., Sea Breeze Power Corp., Silvermex Resources Inc., Pacific Cascade Minerals (as Chair), and CFO/Director of Timmins Gold Corp.

Chris Foster | CFO

- Chris Foster is a consultant providing accounting and financial management services for both public and private companies across a broad spectrum of industries.
- Chris is current Chief Financial Officer for DGTL Holdings Inc, former Chief Financial Officer for Perpetua Resources Corp, former Controller for the Ivanhoe Group's Global Mining Management Corporation and Peregrine Diamonds Ltd, Roca Mines Inc., and former accountant at Canadian Forest Products Ltd.

Jonathan Hill | VP Exploration; Country Manager – Brazil & Director

- Jonathan Hill brings over 30 years' experience of global exploration, mining operational and project development experience including, Africa, Australia, and the Americas. He is a former geologist with Ashanti Gold where he was directly involved in several worldclass, greenfield and brownfield discoveries .
- His experience includes, exploration and development of projects including due diligence, corporate development, mine geology and management.
- Jonathan is a Non – Executive Director of Royal Road Minerals Limited and Stratabound Minerals Corporation, both TSX-V listed companies.
- Jonathan Hill holds a BSc (Hons) Economic Geology 1988 (University of Cape Town), and a BAppSc. Applied Geology 1985 (Queensland University of Technology), and is a fellow of the AUSIMM.

Mario Drolet | Director

- Mario Drolet worked on the floor of the Montreal Exchange on his way up from apprentice to trader in derivatives for a large Canadian institution.
- He ran a private trading school for numerous years on the floor of the Exchange to serve the institutional derivatives clientele, university students and new traders.
- Mario has designed and produced two educational market simulation tools called "Market Mania Trading Software" and "le jeu de la bourse." He is the founder and President of MI3 Communications Financieres.



LEADERSHIP & ADVISORS

Aaron Wong | VP Corporate Development

- Aaron Wong is an experienced capital markets consultant with a strong background in corporate development and a proven track record over 10 years in the capital markets.
- He currently serves on the board of directors of several public companies where he brings his expertise in strategic decision-making and governance.
- He previously held a leadership role in the business development group at Fortuna Investments for four years. Prior to Fortuna Investments, Mr. Wong worked as an accountant at Ernst & Young LLP.
- Mr. Wong earned his bachelor's degree in business administration, specializing in finance, from Western Michigan University.

Leonardo Souza | Consulting Geologist

- Leonardo Souza is a Consultant Geologist at Canopus Geologia e Projetos, and an Associated Partner at Orion Group.
- He brings expertise in mineral exploration and project management from his lengthy experience developing mineral exploration projects across a spectrum of sizes and types, from metallic to gems, and business development within the sector, particularly in fostering partnerships and negotiating deals for domestic and international markets.
- Leonardo's skills extend to preparing business plans to attract investments and managing relationships with investors and investment funds, focusing on mining, mineral commodities, and exploration projects in Brazil and abroad.

Philippe Martins | Legal Counsel

- Philippe Martins is a seasoned lawyer with a Bachelor's Degree from University Ceuma in Maranhão, Brazil, and advanced qualifications in Business Law from Fumec and Mining Law from CEDIN, both in Belo Horizonte, and Minas Gerais, Brazil.
- He brings over 12 years of expertise as a Director and General Legal Counsel, specializing in Greenfields, Brownfields, and mining operations projects, currently serving on the board of Resouro Inc. (TSXV: RAU).
- His influential network extends across various Brazilian municipal, state, and federal levels, particularly in the production chain and mineral sector, corporate law, and academic institutes.

Sheryl Dhillon | Corporate Secretary

- Sheryl Dhillon is an experienced corporate secretary with over fifteen years of handling corporate matters for a variety of companies.
- Ms. Dhillon has extensive knowledge in the area of corporate governance, as well as strong management skills and excellent corporate communications.



LEADERSHIP & ADVISORS

Andrew Lee Smith, P. Geo, BSc. | Chairman, Technical Advisory Board

- Andrew Lee Smith is an accomplished Professional Geologist. He has over 25 years of experience successfully exploring, developing, and operating North American and African base and precious metals mining projects.
- Andrew also holds directorships and management positions in several other junior mineral exploration companies.
- In 2015, Mr. Smith competed in the International Corporate Directors Education Program and received the ICD.D accreditation –the only professional designation for Canadian directors recognized both nationally and internationally.

Michael Skead | Technical Advisory Board

- Michael Skead is a geologist with over 30 years of international experience in mining exploration and development. He holds a BSc. Honours degree in geology from the University of Cape Town, (RSA) and MSc. in Exploration Geology, from the Rhodes University, Grahamstown, (RSA).
- Michael worked as the Vice President of Project Development at GT Gold Corp., which was recently acquired by Newmont Corp. for C\$393 million. While at GT Gold Corp., he delivered the geological model and resource for the gold rich copper porphyry Saddle North Project which comprised an Indicated resource containing 1.81 B lbs. copper and 3.47 M oz. gold, and an Inferred resource containing 2.98 B lbs. copper and 5.46 M oz. gold.
- He was Director of Geoscience at Newmont Corp. and has previously held senior management positions in a number of internationally recognised mining companies including Goldcorp, Randgold Resources, and Dundee Precious Metals.

Ian Gendall | Technical Advisory Board

- Ian Gendall is the President & CEO of DLP Resources and was previously with Gencor, Billiton, Anglo American, Antofagasta and more recently, OceanaGold.
- While working with Billiton, Mr. Gendall led the team that was responsible for the discovery of an entirely new porphyry copper district in southern Ecuador. One of the companies that acquired part of the district was subsequently sold to CRCC-Tongguan Investment Co., Ltd. for \$679M.
- Ian has extensive knowledge of operating in Brazil and was previously COO of Magellan Minerals, which was purchased in 2016 by Anfiled Gold Corp.



BRAZILIAN PROJECTS

OVERVIEW

- Spark Energy Minerals has secured a lithium ground position of ~ 112,243 hectares, with multiple anomalies/targets defined within the prospective lithium regions.
- Drilling targets will be the focus for 2024 at the lithium licenses to confirm the known potential for lithium in spodumene pegmatites in this region and over the lithium licenses.
- These licenses are in the most extensive exploration acreage of Brazil nearby to other notable lithium projects, including the Companhia Brasileira de Lítio's (CBL) Cachoeira mine, which has been producing lithium since 1993; Latin Resources' expanding Salinas Lithium Project; and near-term lithium producer Sigma Lithium's Grotado Cirilo project.
- The focus is on exploration for outcropping pegmatites in preliminary prospects.
- Sigma Lithium Resources is the most active lithium explorer in the region, with a world-class lithium resource base which currently stands at 45.7Mt @1.38% Li₂O contained within four separate deposits, and a combined footprint of approximately 105 hectares.



FLAGSHIP PROPERTY: MINAS GERAIS

DOMINANT LAND POSITION

- SPARK ENERGY MINERALS

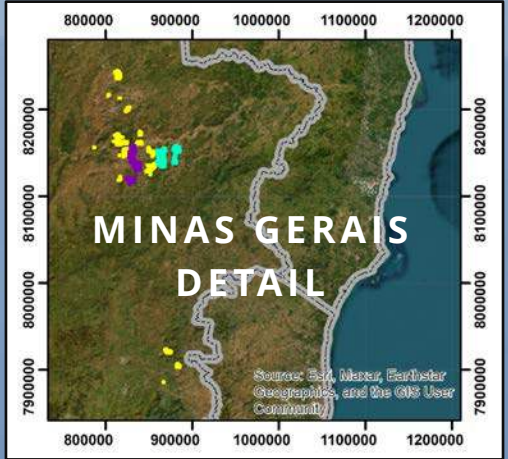
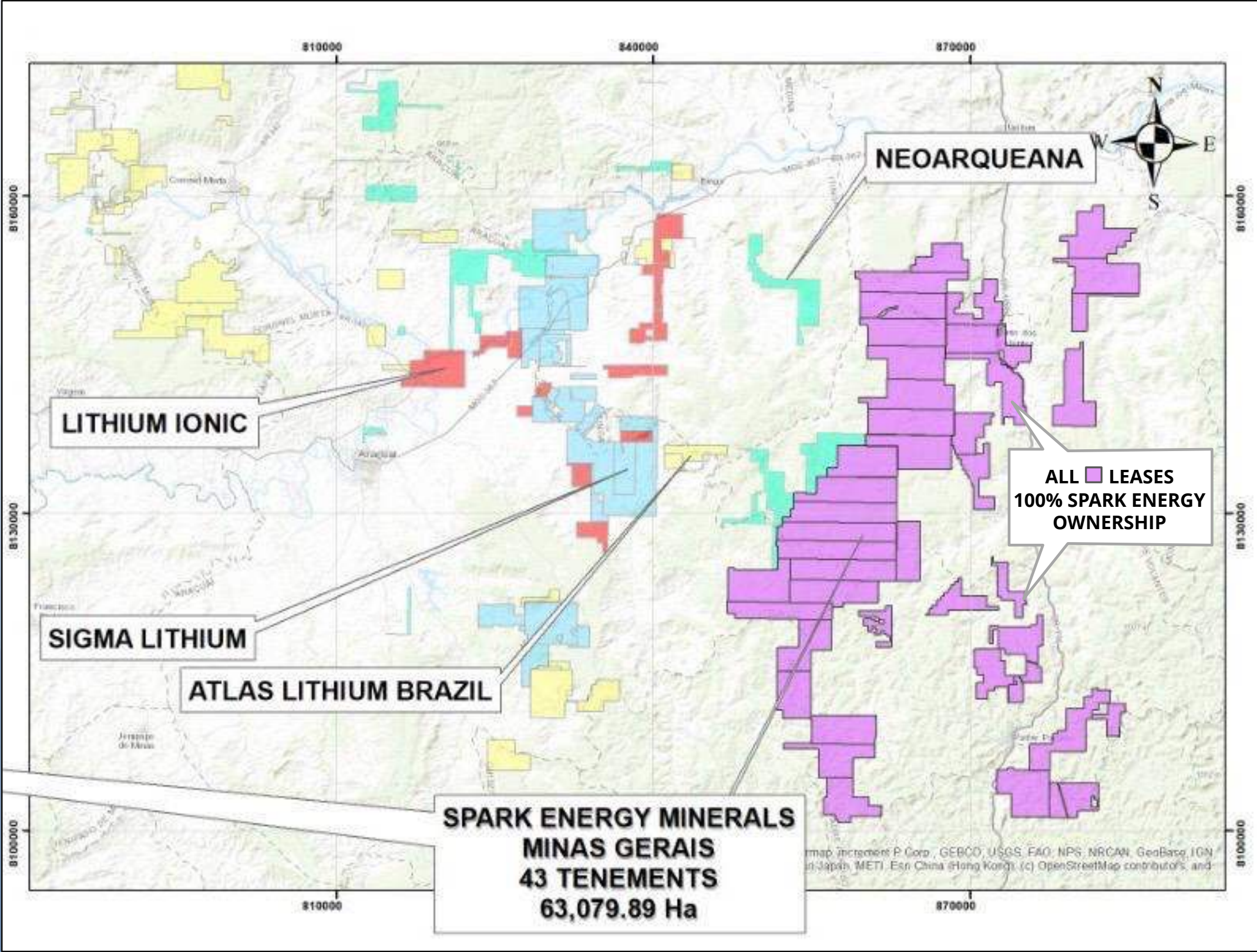
SPRK (CSE) – Market Cap \$3.186 M
- LITHIUM IONIC PROPERTIES

LTH (TSXV) – Market Cap \$220 M
- ATLAS LITHIUM BRAZIL

ATLX (NASDAQ) – Market Cap \$238 M
- NEOARQUEANA PROPERTIES

Non-public – Producing
- SIGMA LITHIUM PROPERTIES

SGML (NASDAQ) – Market Cap \$4.7 BN



MINAS GERAIS PROJECT

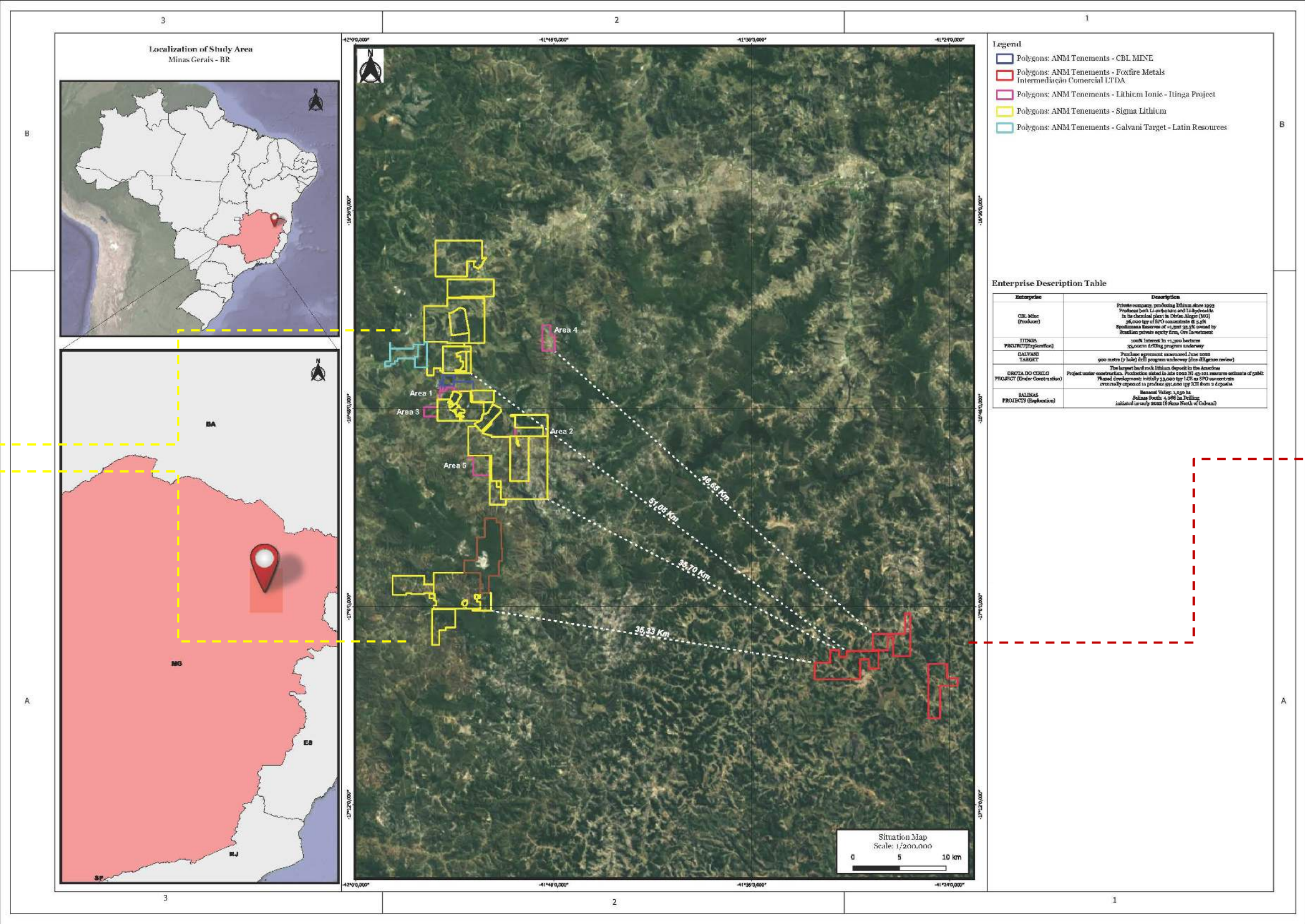
LOCATION

SIGMA
PROPERTIES

Indicated in YELLOW

SPARK ENERGY
PROPERTIES

Indicated in RED

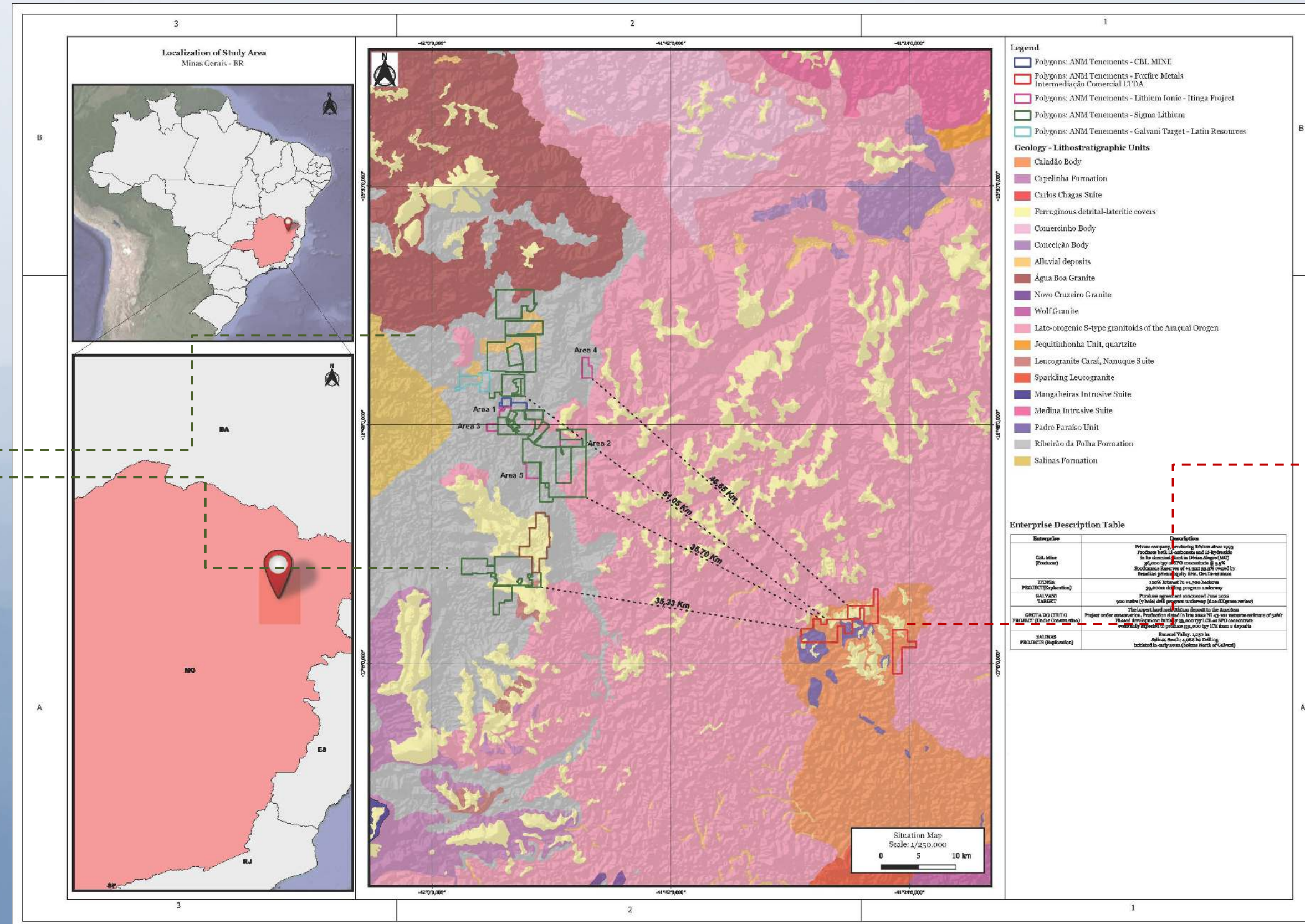


MINAS GERAIS PROJECT

REGIONAL GEOLOGY

SIGMA PROPERTIES

Indicated in GREEN



SPARK ENERGY PROPERTIES

Indicated in RED



CSE: SPRK | OTC: MTEHF | FSE: 8PC

Spark Energy Minerals Inc.

CEARA STATE PROJECT

PROPERTY & PEERS

SPARK ENERGY MINERALS

SPRK (CSE) – Market Cap \$3.186 M

SOLIS MINING

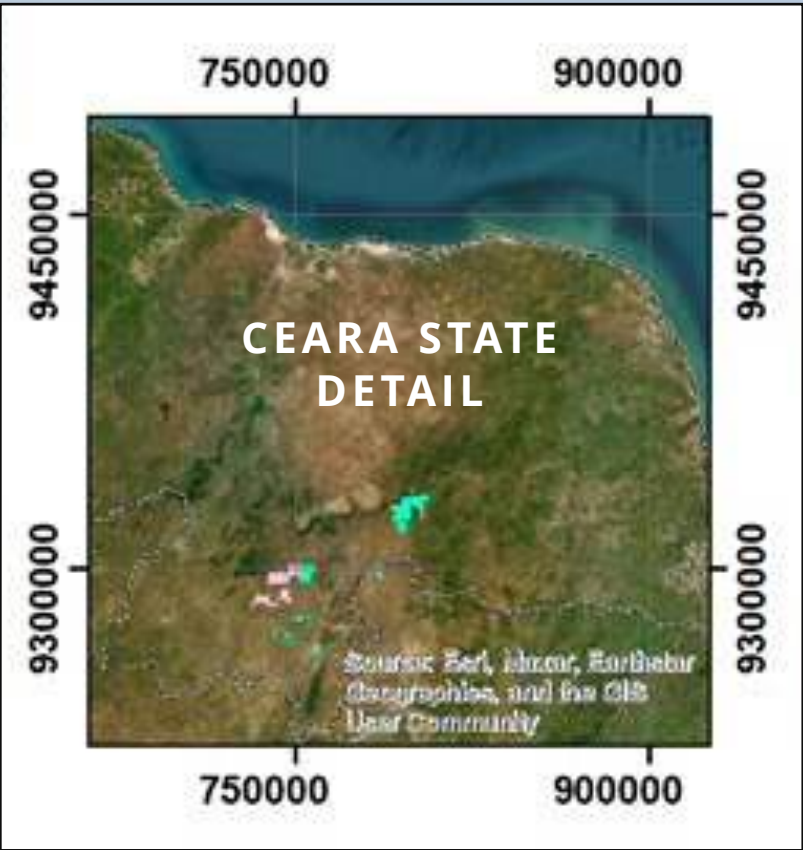
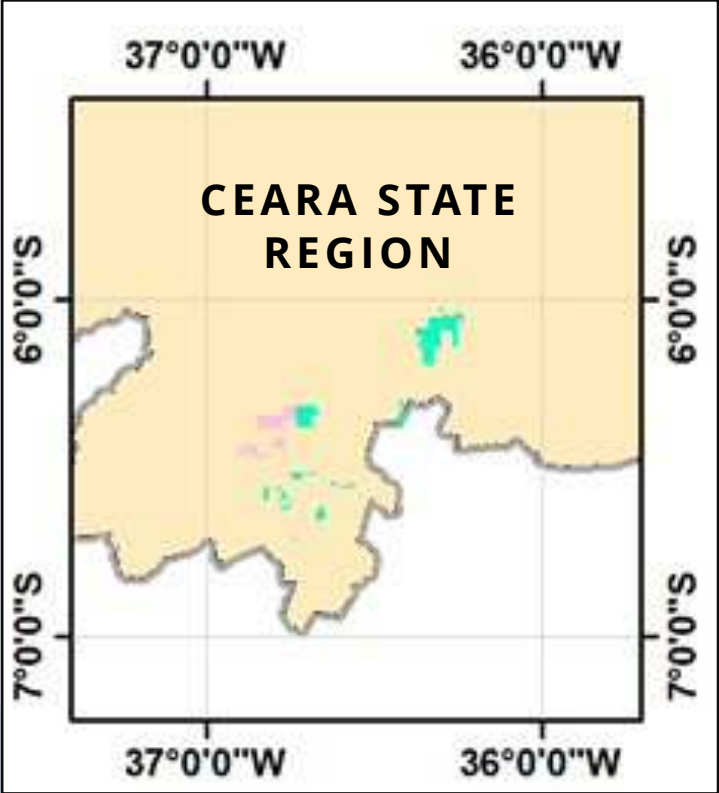
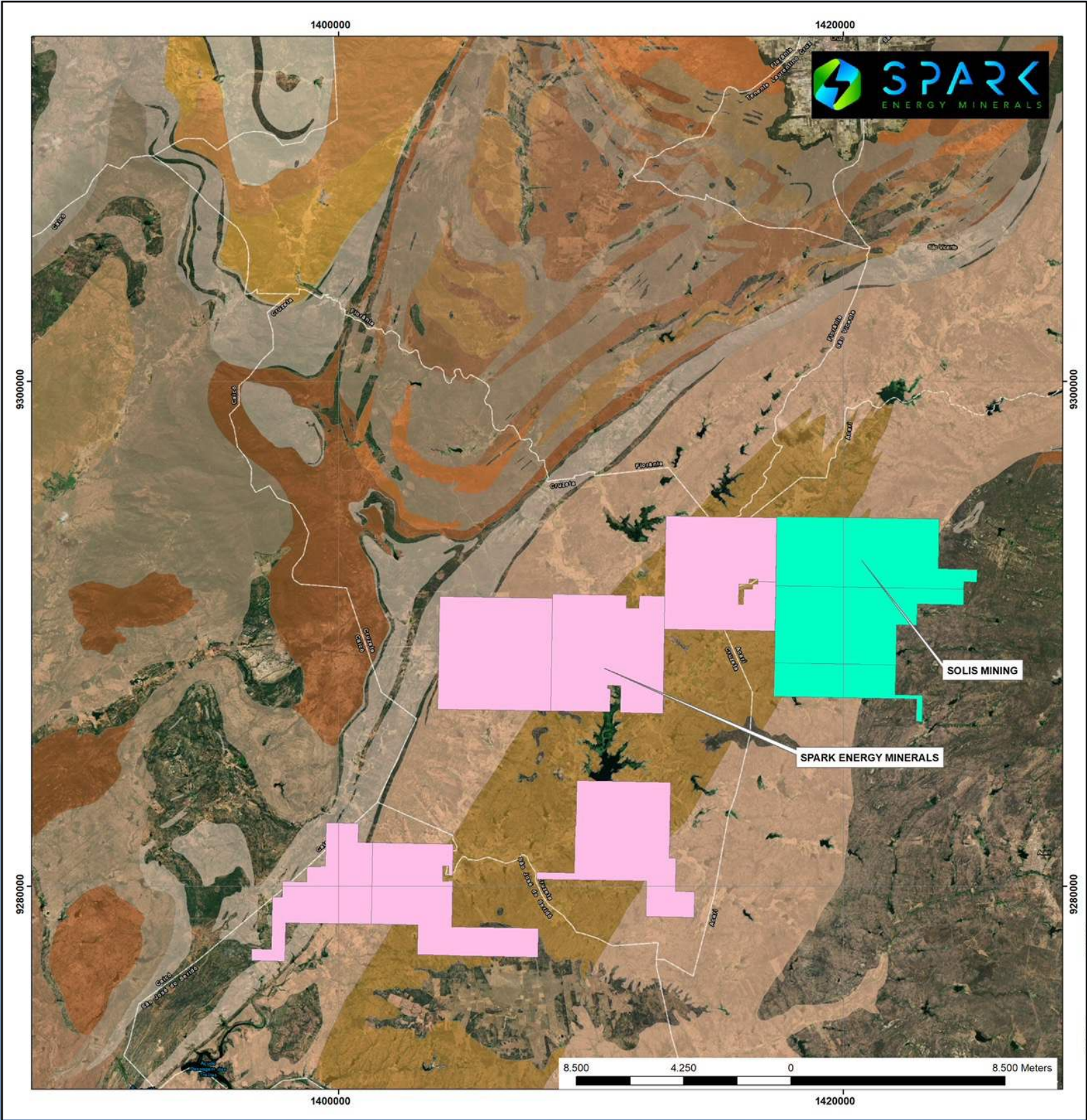
SLMN (TSXV) – Market Cap \$17.5 M

GEOLOGY (CPRM, 2016)

Ferruginous detritic-lateritic coverings

Late-orogenic S-type granites from the Aracuai orogen

Mica Schist Ribeirão da Folha



RIO GRANDE DO NORTE PROJECT

PROPERTY & PEERS

SPARK ENERGY MINERALS

SPRK (CSE) – Market Cap \$3.186 M

OCEANA LITHIUM

OCN (ASX) – Market Cap \$11.81 M

SOLIS MINING

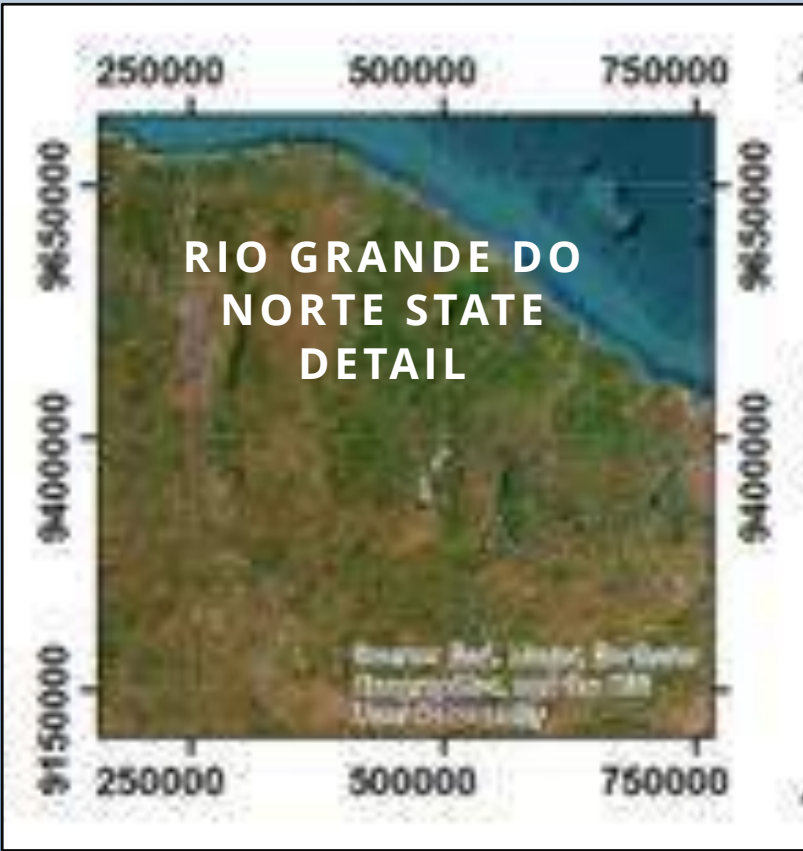
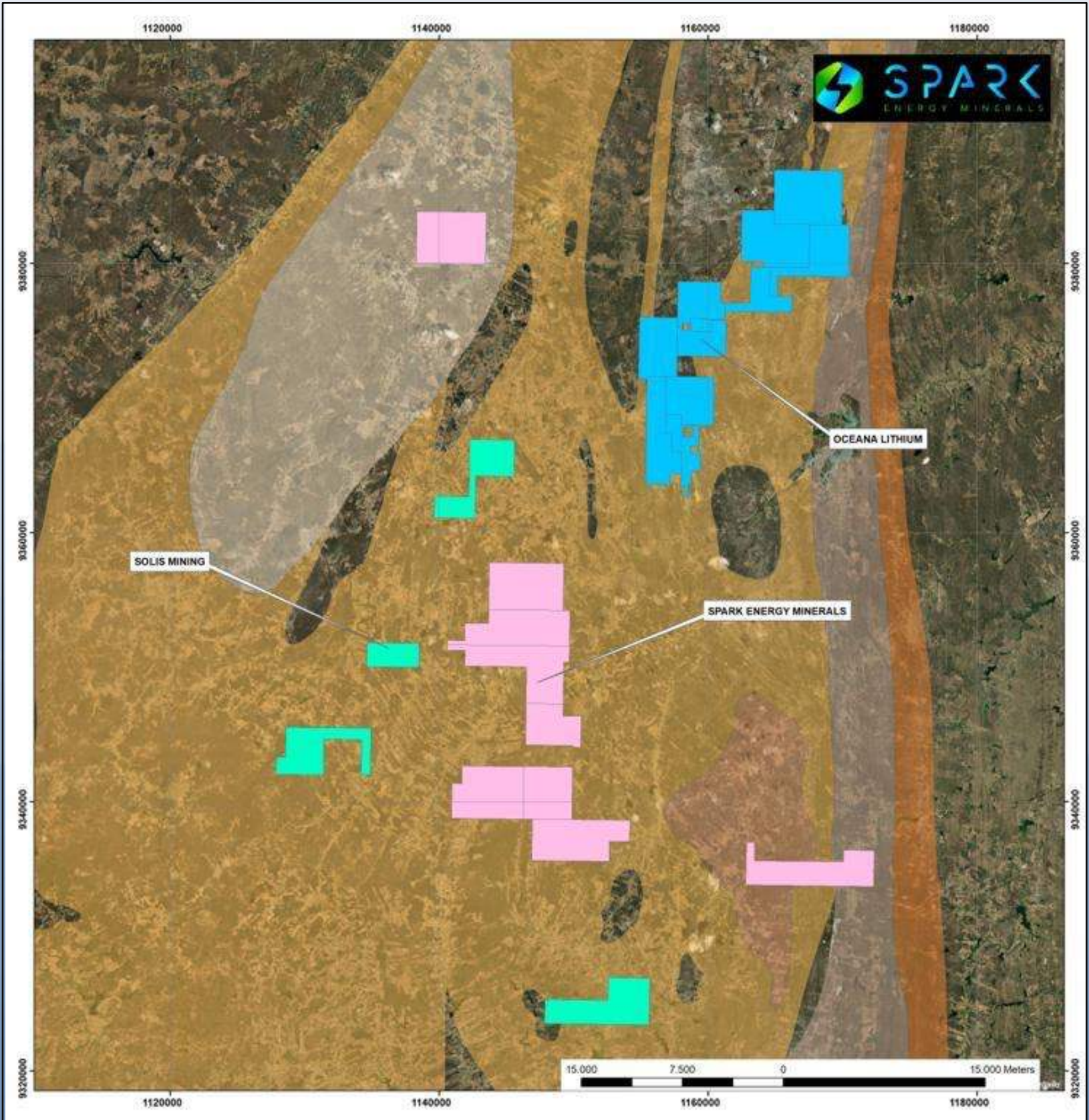
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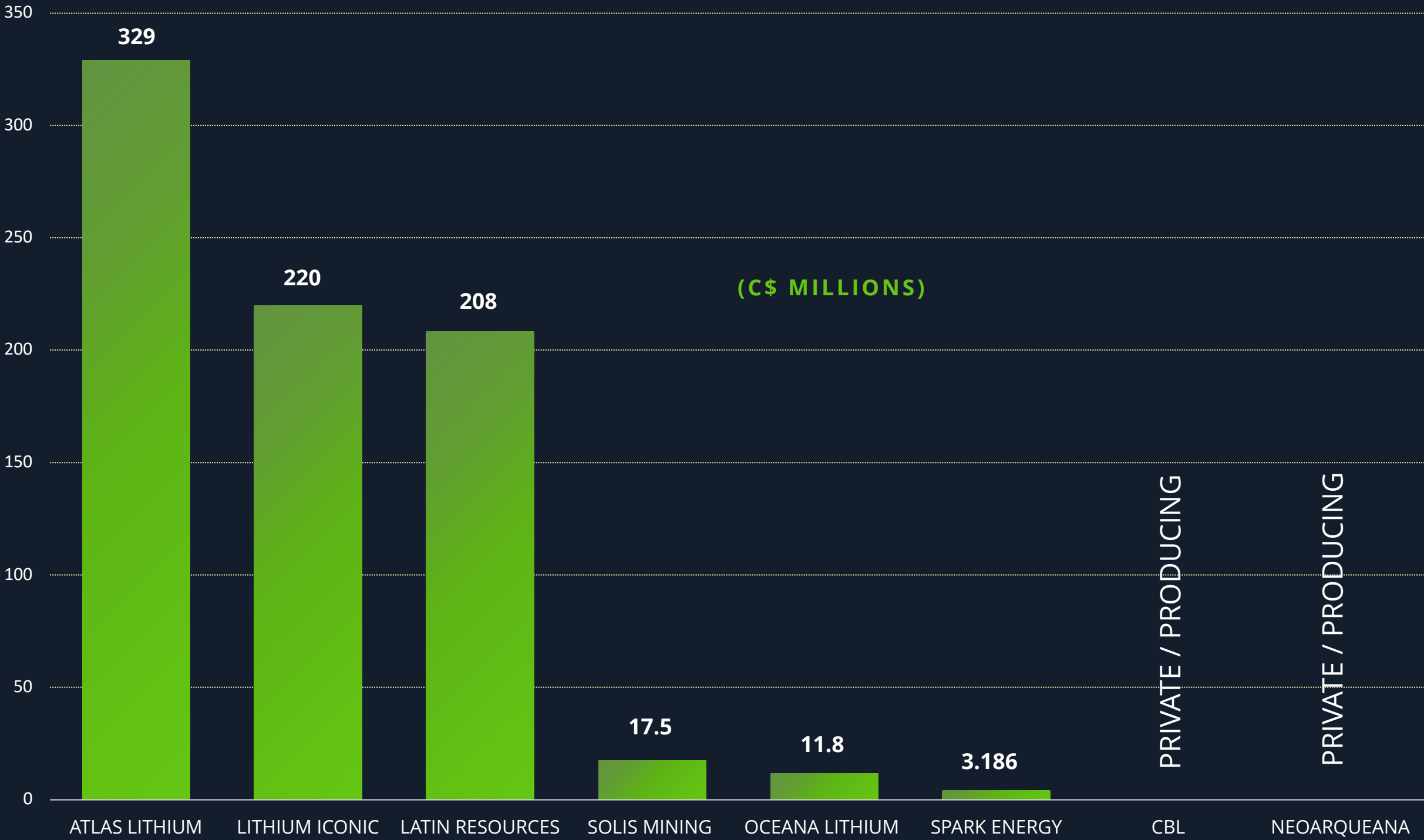
LITHIUM MINING COMPARABLES

BRAZILIAN INTERESTS

*NOTE (NOT DISPLAYED)

Producer
SIGMA LITHIUM (NASDAQ-SGML)
Market Cap = \$4.7 BN

**Glencore PLC is a SIGMA LITHIUM
offtake partner



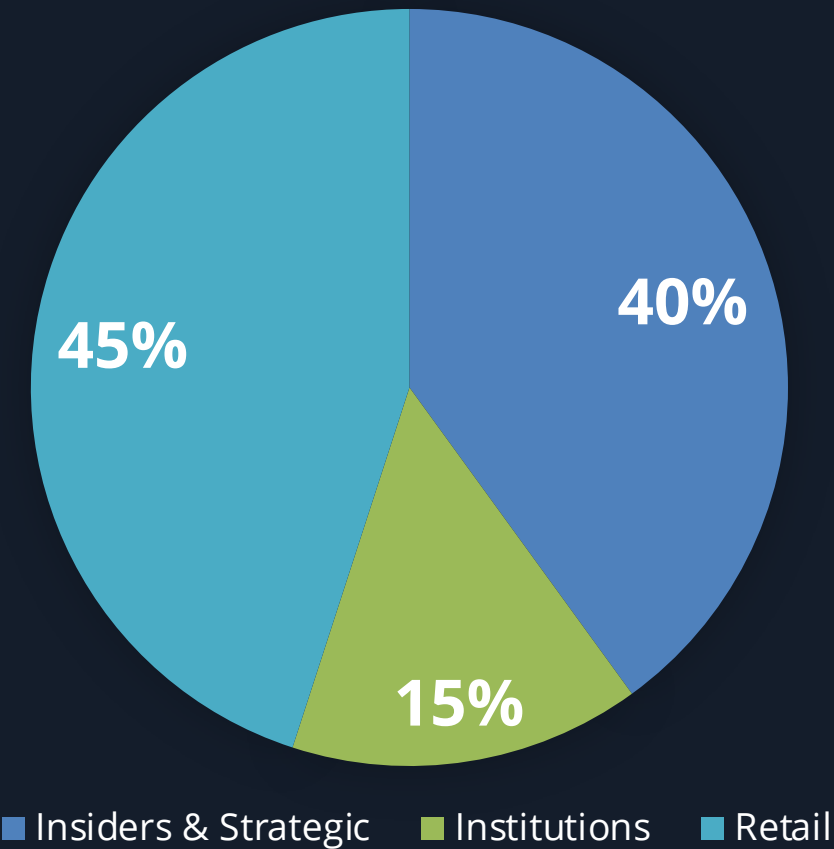
CAPITAL MARKETS PROFILE

CSE: SPRK | OTC: MTEHF | FSE: 8PC

52 WEEK RANGE

| | |
|---------------------------|-------------------|
| 52 Week Range (5-16-2024) | C\$0.05 – C\$0.30 |
| Shares Outstanding | 69,097,742 |
| Market Capitalization | C\$3.186M |

STAKEHOLDER
STRUCTURE



All Data As at 05/16/2024



FORWARD LOOKING STATEMENTS

This presentation contains forward-looking statements. All statements, other than of historical fact, that address activities, events or developments that Spark Energy Minerals Inc. ("Spark Energy Minerals Inc." or the "Company") believes, expects or anticipates will or may occur in the future (including, without limitation, statements regarding the estimation of mineral resources, exploration results, potential mineralization, potential mineral resources and mineral reserves) are forward-looking statements. Forward-looking statements are subject to a number of risks and uncertainties that may cause the actual results of the Company to differ materially from those discussed in the forward-looking statements. Factors that could cause actual results or events to differ materially from current expectations include, among other things, failure to establish estimated mineral resources, the possibility that future exploration results will not be consistent with the Company's expectations, changes in structure of transactions, world metals markets and other risks. Any forward-looking statement speaks only as of the date on which it is made and, except as may be required by applicable securities laws, the Company disclaims any intent or obligation to update any forward-looking statement.

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