Lithium Ionic Announces Maiden Mineral Resource Estimate at its Itinga Project in Minas Gerais, Brazil; Drilling Program Expanded with 13 Rigs Operating; PEA Underway

written by Raj Shah | June 27, 2023

June 27, 2023 (Source) – Lithium Ionic Corp. (TSXV: LTH; OTCQB: LTHCF; FSE: H3N) ("Lithium Ionic" or the "Company") is pleased to announce a maiden National Instrument 43-101 compliant mineral resource estimate ("MRE") on its Itinga Lithium Project (the "Project") in Minas Gerais, Brazil, of 7.57 million tonnes ("Mt") grading 1.40% lithium oxide ("Li2O") of Measured and Indicated ("M&I") and 11.86Mt grading 1.44% Li2O of Inferred resources.

The Project is located between the towns of Araçuaí and Itinga within Brazil's "Lithium Valley" – a hard rock lithium district that is quickly emerging as an important global lithium producer. The MRE includes the Bandeira and Outro Lado (Galvani) lithium deposits (see Figure 1), on properties which together cover only 872 hectares within its large land package of 14,182 hectares.

Highlights:

- **M&I Resource estimate of 7.57Mt grading 1.40% Li2O and Inferred of 11.86Mt grading 1.44% Li2O.** The MRE incorporates the Bandeira and Outro Lado (Galvani)

deposits, using a cut-off grade of 0.5% Li2O for Bandeira Open Pit and 0.8% Li2O for Outro Lado and Bandeira Underground. Approximately 39% of the MRE is classified in the M&I categories.

- **Rapid growth in a short timeframe.** The MRE is based on 181 diamond drill holes and 28,204 metres of drilling.
- **Significant expansion potential.** Based on drill holes that occurred outside of the MRE, SGS identified potential for significant additional lithium-bearing mineralization at Bandeira once tighter drilling is completed in these areas, estimated to be in the range of 1.5 – 3.0Mt at grades of 1.3 – 1.6% Li2O.
- **Expanded drill program with 13 drills in operation.** The drilling program for the remainder of 2023 has been expanded to 50,000 metres to increase the size of the MRE and establish an NI 43-101 mineral reserve estimate at Bandeira and Outro Lado, while defining an NI 43-101 mineral resource estimate at other prospective regional targets, including the Salinas and Itira targets.
- **Accelerated project engineering.** A Preliminary Economic Assessment (PEA) is underway and expected to be completed in Q3 2023, with the objective of accelerating a Definitive Feasibility Study (DFS) targeted for completion by the end of 2023.
- **Permitting process underway.** Environmental Impact Assessment ("EIA") studies for both deposits are underway and expected to be complete within H2 2023, at which time the applications are expected to be submitted for the respective environmental and social licenses.

Blake Hylands, P.Geo., Chief Executive Officer of Lithium Ionic, commented, "*This initial mineral resource estimate marks the most important milestone to date for our Company, highlighting large scale and high-grade lithium deposits with significant*

future growth potential. I commend our excellent team in Brazil for the speed at which these pegmatites have been delineated; the past year has been an impressive demonstration of how quickly these deposits can be defined and expanded. We are very excited to be undertaking one of the largest drill programs in the region with 13 drills now turning at several regional properties which have exhibited anomalies and exploration results as strong as Bandeira and Outro Lado. Our execution strategy is to advance Bandeira and Outro Lado through engineering and permitting as quickly as possible, while expanding and upgrading resources at these, and our various other prospective targets in this belt. We look forward to delivering resource updates later this year in parallel with the planned PEA in Q3 and Feasibility Study by year-end."

Carlos Costa, P.Geo., Lithium Ionic's VP of Exploration, commented, "*This maiden NI 43-101 mineral resource estimate is a major achievement for Lithium Ionic and I am very proud of what our exploration team has accomplished in such a short period of time. We have established a strong foundation to build upon, and we are focused on continuing to grow our lithium resources significantly over the next 6 months. Since the cut-off for this MRE database, we have already drilled 28 additional holes that have continued to expand mineralization. We are very excited by the immense upside in the potential resource size as we advance our expanded 50,000 metre program and accelerate the development of this very special lithium project in Brazil.*"

Maiden Mineral Resource Estimate at Itinga
Large Scale, High Grade, Lithium Deposit with Outstanding Exploration Potential

The MRE was prepared by independent consultants, SGS Geological Services ("SGS") and is reported in accordance with National Instrument 43-101 ("NI 43-101") standards.

The maiden MRE includes the Bandeira and Outro Lado deposits and was based on 181 diamond drill holes comprising 28,204 metres of drilling completed between April 2022 and June 2023, of which 120 holes (20,509 metres) are from Bandeira and 61 holes (7,659 metres) are from Outro Lado.

These deposits are estimated to contain M&I resources of 7.57Mt grading 1.40% Li2O, containing 261,187 tonnes of Lithium Carbonate Equivalent ("LCE"), the benchmark equivalent raw material used in the lithium industry, as well as Inferred resources of 11.86Mt grading 1.44% Li2O in the Inferred category, or 421,521 tonnes of LCE (see MRE results in Table 1).

SGS collaborated closely with the Company's geological team to confirm the presence of a series of North-East trending moderately dipping pegmatite veins extending up to 750 meters along dip, from surface to a depth of approximately 500 meters.

In addition to the MRE, SGS analyzed results from drill holes that fell outside of the mineral resource area in the eastern-most extent of the Bandeira property ("Bandeira East") and identified the potential for additional lithium-bearing mineralization with estimated volumes of 1.5 – 3.0Mt and grades ranging from 1.3 – 1.6% Li2O when closer spaced drilling is completed. The current interpretation suggests that the modelled pegmatites potentially increase with depth, however additional drilling is required to confirm these observations. The Bandeira East target is located just 2 kilometres East of the Bandeira deposit.

The potential quantity and grade of the lithium mineralization at the Bandeira East target is conceptual in nature and there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will confirm the target ranges.

The NI 43-101 technical report for the MRE, will be accessible on SEDAR (www.sedar.com) under the Company' issuer profile within 45 days of this news release.

Table 1. Mineral Resource Estimate for the Itinga Lithium Project				
Deposit / Cut-Off Grade	Category	Resource (tonnes)	Grade (% Li2O)	Contained LCE (t)
Bandeira Open-Pit (0.5% Li2O)	Measured	1,137,247	1.43	40,162
	Indicated	3,105,047	1.33	102,324
	Measured + Indicated	**4,242,294**	**1.36**	**142,486**
	Inferred	**5,914,961**	**1.40**	**205,379**
Bandeira Underground (0.8% Li2O)	Measured	3,445	1.10	94
	Indicated	353,363	1.26	11,008
	Measured + Indicated	**356,808**	**1.26**	**11,102**
	Inferred	**5,529,821**	**1.47**	**200,974**
Outro Lado (Galvani) Underground (0.8% Li2O)	Measured	2,577,915	1.47	93,691
	Indicated	393,370	1.43	13,908
	Measured + Indicated	**2,971,285**	**1.46**	**107,599**
	Inferred	**415,767**	**1.48**	**15,168**

TOTAL	Measured	3,718,607	1.46	133,947
	Indicated	3,851,779	1.34	127,240
	Measured + Indicated	**7,570,387**	**1.40**	**261,187**
	Inferred	**11,860,550**	**1.44**	**421,521**

1) The results from the pit optimization are used solely for the purpose of testing the "reasonable prospects for ec onomic extraction" by an open pit and do not represent an attempt to estimate mineral reserves. There are no mineral reserves on the Project. The results are used as a guide to assist in the preparation of a Mineral Resource statement and to select an appropriate resource reporting cut-off grade.

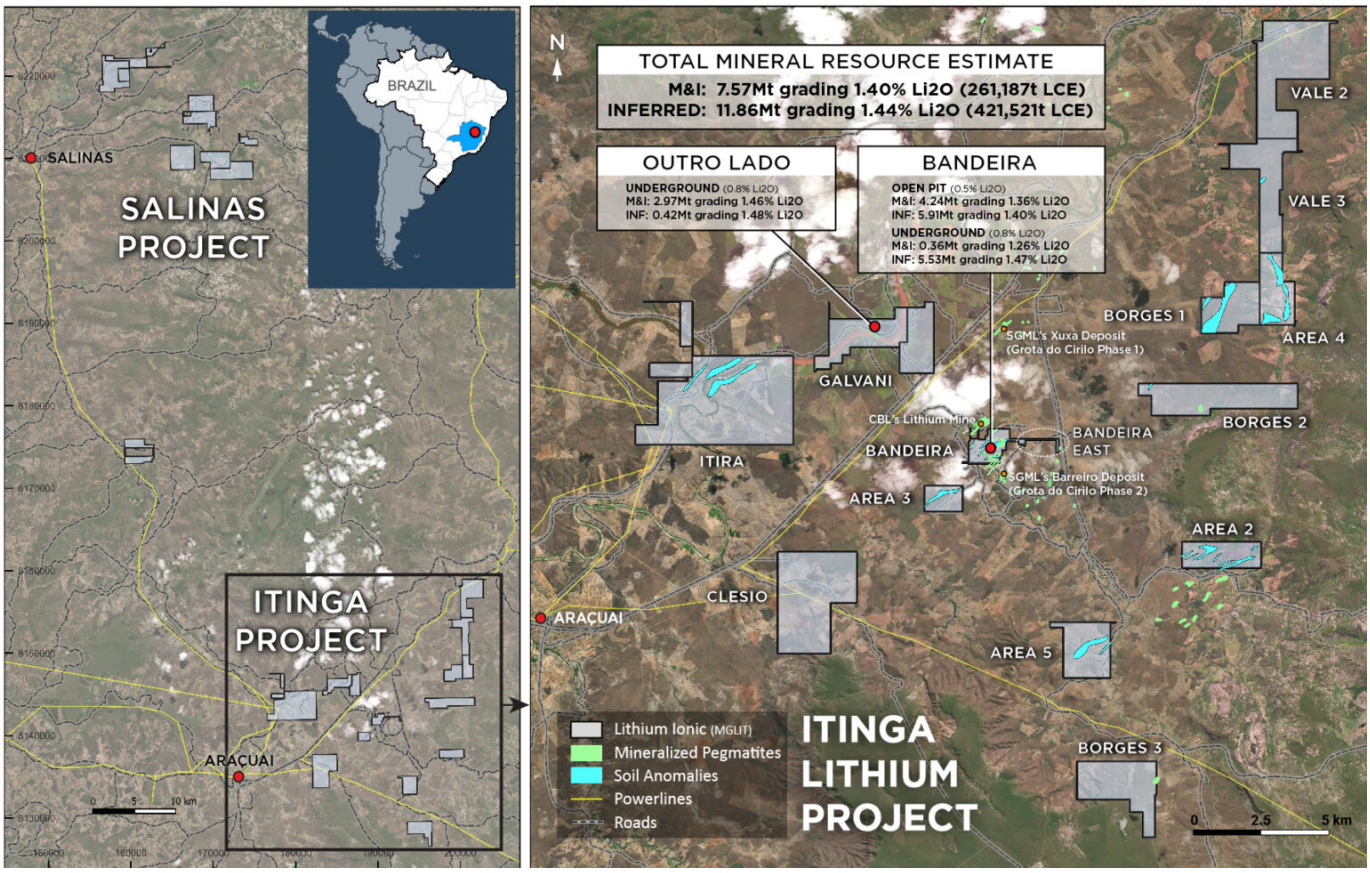
2) Mineral resources which are not mineral reserves do not have demonstrated economic viability. An Inferred Mineral Resources has a lower level of confidence than that applying to a Measured and Indicated Resources and must not be converted to Mineral Reserves. It is reasonably expected that most of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

3) The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing or other relevant issues.

4) The effective date of the MRE is June 24, 2023.

5) All figures are rounded to reflect the relative accuracy of the estimate and numbers may not add due to rounding.

Figure 1 – Lithium Ionic Properties in "Lithium Valley" Brazil Highlighting MRE Deposits



View Figure 1 here: https://www.globenewswire.com/NewsRoom/AttachmentNg/d3bfbaf9-c54b-45a5-870f-79ea6daa9c03

Expanded Drill Program to Accelerate Mineral Growth and Classification Upgrade

The Company currently has 13 drills operating on select properties within the Itinga and Salinas projects as part of an expanded 50,000 metre exploration program planned in H2 2023. The drill program is designed to increase the size of the MRE and upgrade the mineral resource estimate classification at Bandeira and Outro Lado, while also defining NI 43-101 mineral resource estimates at other regional targets. Currently, six rigs are drilling at Bandeira, four are drilling at Salinas and three at Itira. Additional regional targets with strong surface anomalies will also be tested.

As part of the MRE calculation, SGS interpreted strong potential for additional lithium-bearing mineralization at Bandeira East,

located 2 kilometres east of the Bandeira deposit. In addition to expanding and improving the resource classification at Bandeira, the Company will aim to further define the pegmatites at Bandeira East, which are interpreted to potentially increase with depth. Six drills are currently operating at Bandeira.

The Salinas Project properties are located approximately 100 kilometres north of the Itinga Project. Four drills are currently exploring the property directly adjacent to Latin Resources' Colina deposit, which was recently expanded to 45.2Mt grading 1.34% Li2O (see press release related to this JORC MRE HERE). Lithium Ionic is currently following-up and expanding upon a 4,000-metre, 24-hole, drill program completed in 2022 which showed strong grades and widths from well-formed, coarse-grained spodumene in pegmatites, including 1.53% Li2O over 11.36m, 1.22% Li2O over 13.76m and 1.71% Li2O over 9.82m, extending directly northeast from the Colina deposit.

Three drills are operating on the west side of the Itira property, approximately 3 kilometres southwest of the Outro Lado deposit, where strong surface anomalies were observed.

PEA and Definitive Feasibility Study Underway

The Company has engaged independent Brazilian consultancy, GE21 Consultoria Mineral Ltda ("GE21"), based in Belo Horizonte, Minas Gerais, to complete a PEA (the "Study") based on the MRE at the Bandeira and Outro Lado deposits. The Study is expected to be completed in Q3 2023. In addition, a Definitive Feasibility Study (DFS) commenced in May 2023 by SNC-Lavalin Brazil and is targeted for completion by the end of 2023. Data from the PEA will support and accelerate certain aspects of the DFS.

Permitting process underway with EIA completion expected in H2 2023

Lithium Ionic has been working with WSP (formerly Golder) since early 2023 to complete an Environmental Impact Assessment ("EIA") study for the Bandeira property, which will contain an analysis of the projects' potential environmental and social impacts. Following the completion of the EIA which is expected in Q4 2023, the Company can apply for the "Prior License" ("LP" or Licença Prévia in Portuguese), the first stage of the environmental licensing process for mining projects in Brazil.

For the Outro Lado deposit (Galvani property), the Company intends to apply for a "Concomitant Installation License" ("LAC", or Licença Ambiental Concomitante in Portuguese), which is a scenario that is available when the plant and other project infrastructure is expected to cover a small footprint of approximately 8 hectares that will not require deforestation. The Company has been working with Neo Agroambiental since March 2023 to complete the required field work and report for this application, which is expected to be made in Q3 2023.

Details related to the calculation of the MRE

The MRE was estimated by Maxime Dupere, P.Geo., and Faisal Sayeed, P.Geo of SGS (collectively, the "Authors" or "QPs") with an effective date of June 24, 2023. This estimate is the Maiden Mineral Resource Estimate produced by Lithium Ionic since the acquisition of the Project.

The MRE was estimated using the following geological and resource block modeling parameters which are based on geological interpretations, geostatistical studies, and best practices in mineral estimation.

The QP is not aware of any factors or issues that materially affect the MRE other than normal risks faced by mining projects in the province in terms of environmental, permitting, taxation, socio-economic, marketing, and political factors, and additional

risk factors regarding inferred resources.

- The Project geology comprises Neoproterozoic age sedimentary rocks of Araçuaí Orogen intruded by fertile Li-bearing pegmatites originated by fractionation of magmatic fluids from the peraluminous S-type post-tectonic granitoids of Araçuaí Orogen. Lithium mineralization is related to concordant and discordant swarms of spodumene-bearing tabular pegmatites hosted by cordierite-biotite-quartz schists.
- Drilling conducted by Lithium Ionic included diamond core drilling of NTW (64.2mm diameter).
- Diamond core has been sampled in intervals of ~ 1 m where possible, otherwise intervals less than 1 m have been selected based on geological boundaries. Geological boundaries have not been crossed by sample intervals. ½ core samples have been collected and submitted for analysis, with regular field duplicate samples collected and submitted for QA/QC analysis.
- Drill core samples were submitted to SGS Geosol laboratories in Brazil where they were analyzed for a 31-element suite via ICP90A (fusion by sodium peroxide and finish with ICP- MS/ICP-OES). Assay data were composited to 1 m.
- The MRE was estimated from the diamond drill holes completed by Lithium Ionic since April 2022. A total of 181 drill holes comprising 4,674 assays were used for the mineral resources model.
- The 3D modelling of lithium Mineral Resources was conducted using a minimum cut-off grade of 0.3% Li_2O within a preliminary lithological model. The initial mineralized solids were developed using SGS's proprietary modelling software Genesis©.
- The interpolation was conducted using Inverse Distance

Squared (ID2) methodology with three interpolation passes.

- The block model was defined by a block size of 5 m long by 5 m wide by 5 m thick and covers a strike length of approximately 1,100 m to a maximal vertical depth of 550 m below surface.
- The MRE was classified as Measured, Indicated and Inferred Mineral Resource based on data quality, sample spacing, and pegmatite continuity. The Measured Mineral Resource was defined using a search ellipsoid of 55 m by 55 m by 35 m, and where the continuity and predictability of the mineralized units was reasonable. The Indicated Mineral Resource was defined using a search ellipsoid 110 m by 110 m by 55 m. The Inferred Mineral Resource was assigned to areas where drill hole spacing was greater than 110 m by 110 m by 55 m for all remaining blocks.
- Classification focused on spatial relation using a minimum of five composites in at least three different drill holes for the Measured and Indicated resources.
- Validation has proven that the block model fairly reflects the underlying data inputs. Variability over distance is relatively moderate to low for this deposit type therefore the maximum classification level is Indicated.
- Mineralization at the deposits extends to surface and is expected to be suitable for open cut mining; no minimum mining width was applied; internal mining dilution is limited to internal barren pegmatite and/or host rock intervals within the mineralized pegmatite intervals; based on these assumptions, it is considered that there are no mining factors which are likely to affect the assumption that the deposit has reasonable prospects for eventual economic extraction.
- It is the QP’s opinion that the current classification used is adequate and reliable for this type of mineralization and mineral resource estimate.

- Initial Metallurgical tests were available at this stage of project advancement. An assumed concentrate (DMS) recovery of 65% has been applied in determining reasonable prospects of eventual economic extraction.
- Mineral Resources were constrained within the boundaries of an optimized pit shell using the following constraints: Concentrate price: USD$1,500; mining costs: USD$2.5/t ROM; Processing costs: USD$13/t ROM, General/Admin: USD$4.0/t ROM, Lithium Recovery: 65%, Mining Recovery: 95% and Pit slope: 60°.
- The MRE reported is a global estimate with reasonable prospects of eventual economic extraction.

About Lithium Ionic Corp.

Lithium Ionic is a Canadian mining company exploring and developing its lithium properties in Brazil. Its flagship Itinga and Salinas projects cover 14,182 hectares in the northeastern part of Minas Gerais state, a mining-friendly jurisdiction that is quickly emerging as a world-class hard-rock lithium district. The Itinga Project is situated in the same region as CBL's Cachoeira lithium mine, which has produced lithium for +30 years, as well as Sigma Lithium Corp.'s Grota do Cirilo project, which hosts the largest hard-rock lithium deposit in the Americas.

Qualified Persons

Faisal Sayeed, P.Geo of SGS is a Qualified Person as defined by NI 43-101 and has reviewed and approved the technical information and data regarding the MRE included in this news release. Mr. Sayeed is independent of Lithium Ionic. All other scientific and technical information in this news release has been prepared by Carlos Costa, Vice President Exploration of Lithium Ionic and Blake Hylands, CEO and director of Lithium

Ionic, and both are “qualified persons” as defined in NI 43-101.

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