



Lithium South: Test Work - Development Work - Business Developments

August 8, 2024 / Vancouver, BC / Lithium South Development Corporation (the "Company" or "Lithium South") (TSX-V: LIS) (OTCQB: LISMF) (Frankfurt: OGPQ) is pleased to provide an update regarding test work, on site development work, and business developments.

Lithium Iron Phosphate Test Work

The Company is pleased to report the laboratory scale production of Lithium Iron Phosphate (LiFePO_4) directly from concentrated brine obtained from its Hombre Muerto North Lithium Project (HMN Li Project), located in Salta Province, Argentina. Test work was undertaken in cooperation with an independent laboratory based in (note 1) Salta, Argentina. The product was then forwarded to the Research and Development Center for Advanced Materials and Energy Storage (CIDMEJu), located in Jujuy province, Argentina. At this facility, a basic operating button type battery was constructed using the HMN Li Project LiFePO_4 product. This facility is part of the CONICET / National Scientific and Technical Research Council, an Argentine government agency which directs and co-ordinates most of the technical and scientific research done in Argentine universities and institutes.

The laboratory (patent pending) process resulted in a LiFePO_4 product directly from lithium chloride, eliminating the need for lithium carbonate. LiFePO_4 batteries (**LFP**) are being utilized by Tesla, BYD and others due to their lower manufacturing costs, long cycle life and high-power density. LFP batteries are cobalt free and are finding increased demand in utility scale stationary applications in addition to the Electric Vehicle market. LFP demand is expected to rise considerably over the coming years.

The LiFePO_4 battery test work is important to Lithium South as it is helping to define potential options for the production of higher priced value-added lithium products. Evaporation test work is also continuing at the HMN Li Project site as part of the process validation for a planned Feasibility Study.

HMN Li Project Site

At the HMN Li Project Alba Sabrina claim block, a second phase pump test is being planned for well PW23-AS-02, a 400-meter-deep production well. With recent test work indicating a good pumping rate from a single pump, it has been determined that two pumps down the same hole will be necessary to provide additional brine lift and to fully evaluate the wells pumping capacity. The Company is in the process of acquiring two new pumps and support equipment to continue the test work. In addition, the Company plans to conduct new pumping tests on the Tramo and Natalia Maria claim blocks.

Business Discussions

Management is in ongoing discussions with several automotive and lithium industry corporations regarding potential strategic alliances or business arrangements. In spite of a challenging market environment, project interest remains high. These discussions include a bulk sample site visit planned for one interested party in September. Management remains on a trading blackout.

Mr. William Feyerabend, CPG, a Consulting Geologist and Qualified Person under NI 43-101, participated in the production of this news release and approves of the scientific and technical disclosure.

About Lithium South

Lithium South owns 100% of the HMN Li Project located in Salta and Catamarca Provinces, Argentina, in the heart of the lithium triangle. The Salar del Hombre Muerto has a history of lithium production, with Arcadium Lithium (as a result of the Alkem and Livent merger) in operation for over twenty-five years, in an area just south of the HMN Li Project. The HMN Li Project is surrounded by a US\$4 billion lithium development under construction by POSCO (Korea) and the Sal de Vida Project under development by Arcadium. Exploration work to date has delineated a NI 43-101 compliant 1,583,200 tonne Lithium Carbonate Equivalent ("LCE") Resource (See Note 2 below) on the Alba Sabrina, Natalia Maria, and Tramo claim blocks, three of five non-contiguous blocks that make up the HMN Li Project. A recent Preliminary Economic Assessment published April 30, 2024, delineates potential to develop a 15,600 tonne per year lithium carbonate project. With pumping well installation and test work underway, Lithium South is transitioning from being a lithium explorer to becoming a lithium developer.

On behalf of the Board of Directors

Adrian F. C. Hobkirk

President and Chief Executive Officer

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Note 1: The Salta based laboratory is a non-arm's length party controlled by a director of the Company.

Note 2: A report titled *Updated Mineral Resource Estimate – Hombre Muerto North Project, NI 43-101 Technical Report Catamarca and Salta, Argentina*, Mark King, PhD, PGeo, Peter Ehren, M.Sc, MAusIMM, September 5th, 2023.

This news release contains certain “forward-looking statements” within the meaning of Section 21E of the United States Securities and Exchange Act of 1934, as amended. Except for statements of historical fact relating to the Company, certain information contained herein constitutes forward-looking statements. Forward-looking statements are based upon opinions and estimates of management at the date the statements are made and are subject to a variety of risks and uncertainties and other factors which could cause actual results to differ materially from those projected in the forward-looking statements. The reader is cautioned not to place undue reliance on forward- looking statements. We seek safe harbor.