



First Lithium Minerals Provides Exploration Update and Highlights Ongoing Progress

Toronto, September 26, 2023 – First Lithium Minerals Corp. (“**First Lithium Minerals**” or the “**Company**”) (**CSE: FLM**) (**OTC: PGPXF**) (**FSE: X28**) is pleased to provide an exploration update at its 100% owned OCA project (“**OCA Project**”) in the Antofagasta Region of northern Chile.

The Company completed a selective geochemical surface sampling program at the Salar de Ascotan. A total of 15 brine and brackish water samples were collected directly off the surface in the salar at depths of up to 0.3 meter and in the alluvium surrounding the salar surface. Results from AGS Laboratory, Coquimbo, Chile assays of the complete sample set range from trace to 78 Li (mg/L), with the average of 42.6 Li (mg/L) and median of 57.3 Li (mg/L). Potassium assay values averaged 1,042.8 K (mg/L) with a median at 1,445 K (mg/L), and Boron averaged 705.1 B (mg/L) with a median of 1,003.3 B (mg/L).

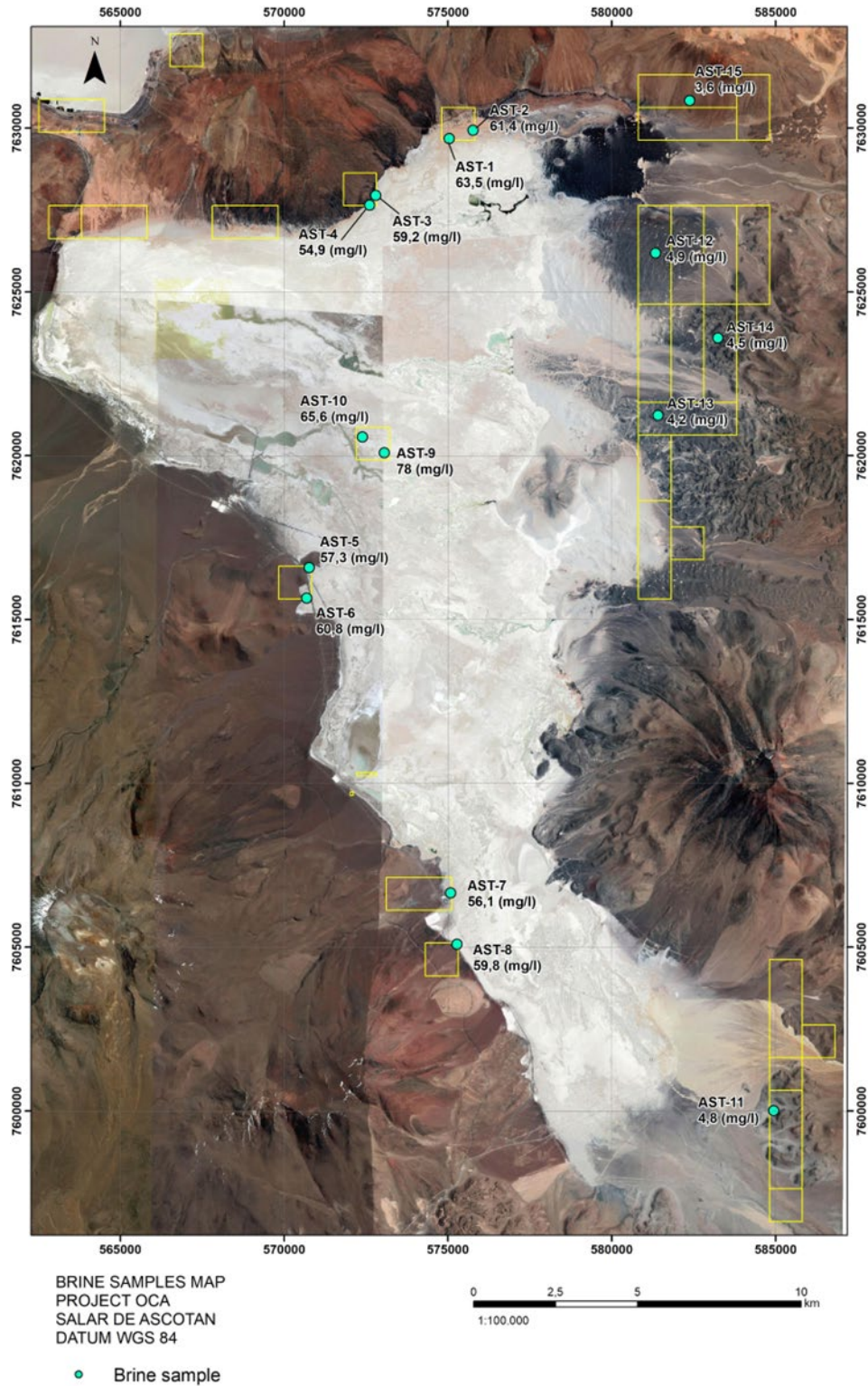
As total dissolved solids (TDS) concentrations increase with depth in common hydrogeological settings of northern Chilean salars, the geochemical results are congruent with the expectation that lithium and alkaline metals should be present in higher concentrations at depth.

Figure 1. Surface Brine and Brackish Water Samples, OCA Project, Salar de Ascotan. August 2023 Program.

Number Sample	Coordinates UTM		Element					
	East (m)	North (m)	B (mg/l)	Ca (mg/l)	Li (mg/l)	K (mg/l)	Na (mg/l)	Mg (mg/l)
AST-1	575,042	7,629,681	169.3	1,901.9	63.5	1,445.0	15,148.6	999.7
AST-2	575,765	7,629,933	166.9	1,926.5	61.4	1,454.5	14,222.4	1,007.8
AST-3	572,797	7,627,938	162.4	1,908.8	59.2	1,440.2	15,047.0	1,001.3
AST-4	572,609	7,627,646	148.5	1,788.1	54.9	1,355.9	12,865.6	964.3
AST-5	570,767	7,616,586	155.2	1,975.7	57.3	1,482.1	15,818.2	1,022.7
AST-6	570,693	7,615,647	170.3	2,153.1	60.8	1,597.4	18,454.4	1,099.3
AST-7	575,087	7,606,651	158.8	2,014.9	56.1	1,503.3	15,418.0	1,036.0
AST-8	575,278	7,605,089	171.2	2,033.4	59.8	1,532.2	14,884.9	1,043.6
AST-9	573,064	7,620,083	225.8	2,465.9	78.0	1,832.6	17,668.6	1,237.8
AST-10	572,392	7,620,570	187.4	1,989.6	65.6	1,510.4	16,353.8	1,017.7
AST-11	584,941	7,600,005	143.4	86.5	4.8	102.5	2,488.2	31.1
AST-12	581,340	7,626,179	146.9	108.8	4.9	112.2	2,624.5	34.3
AST-13	581,416	7,621,226	125.0	83.8	4.2	93.4	2,197.9	28.0
AST-14	583,239	7,623,593	134.4	89.5	4.5	101.8	2,380.7	29.8
AST-15	582,382	7,630,840	107.4	56.4	3.6	79.1	1,862.7	22.7
		Average	158.2	1,372.2	42.6	1,042.8	11,162.4	705.1
		Median	158.8	1,908.8	57.3	1,445.0	14,884.9	1,001.3

Source: Company reports

Figure 2. Surface Brine and Brackish Water Sample Location, OCA Project, Salar de Ascotan. August 2023 Program.



Source: Company reports

The Company is advancing to its inaugural brine resource exploration program in the northeastern property areas at the Salar de Ascotan (approx. 1,775 ha), which also displayed promising geophysical characteristics based on the Transient Electromagnetic ("TEM") and Magneto-Telluric (MT) geophysical surveys conducted in Q4/22 and Q1/23. Future drilling and sampling are planned to test the conceptual hydrogeologic model, enhance understanding of the controls as well as obtain a more comprehensive understanding of the lithium and alkaline metals bearing brines and sediments and their economic potential.

In August 2023, First Lithium Minerals personnel met with the Quechua Cebollar Ascotan Community on the envisioned exploration activities, visited the proposed sites for a drilling program, and discussed the areas and elements of future cooperation and engagement.

In September 2023, the Company applied for a regulatory environmental assessment permit and is currently in the process of applying for a drilling permit, concurrently with the drilling contractor selection.

Rob Saltsman, CEO and Director of First Lithium Minerals commented: *"Highs of 78 Li mg/L at surface brine and brackish water samples validate Salar de Ascotan as a strong exploration target and potential future resource. It is also important to note that samples were collected just off the surface with no shallow or auger drilling performed. Typically, such surface samples are highly diluted with only traces of lithium and alkaline metals. It is our belief Salar de Ascotan mineralization will exhibit typical hydrogeological conditions of the salars in northern Chile where deeper brine enrichment is encountered at depth. We look forward to starting our drilling program as soon as all regulatory permits are obtained, and weather conditions allow."*

The Company is expecting to commence a drilling program in Q4/23-Q1/24, conditional upon obtaining required government permits, licences, and agreements.

The field sampling of brines and brackish water from the surface was done in accordance with generally accepted industry standards. The sampling program included Quality Assurance and Quality Control (QA/QC) standard elements such as including duplicate, CRM, and blank samples. Formal chain of custody documents were prepared for every sample obtained and submitted for laboratory analysis to AGS Laboratory, Avenida La Cantera 2270, Coquimbo Chile (ISO/IEC NCh17025:2017 Standard and the ISO 900:2015 Standard). In the opinion of the QP, sample preparation, security, and analytical procedures were acceptable and results from the laboratory analyses are considered adequate.

About First Lithium Minerals

First Lithium Minerals is a Canadian mineral exploration and development company. The Company is currently focusing on exploring for alkali metals at its 100% owned OCA project comprised of approximately 9,000 ha of mineral exploration concessions located in the salars of Ollague, Carcote, and Ascotan in the Antofagasta Region of northern Chile. In Q4/22 and Q1/23

the Company conducted two property-wide geophysical surveys, identified two priority exploration targets for potential brine mineralization, and is currently planning its inaugural drilling program at the Salar de Ascotan pending obtaining required drilling permits and licences. First Lithium Minerals also acquired and is currently focusing on exploring for lithium and rare earth metals at its 100% owned LSL project comprised of 1,900 ha of mining claims located in the Patricia Mining Division of northwestern Ontario.

Additional information about the Company is available on the Company's website: www.firstlithium.ca

Qualified Person

Aldo Moreno Salinas is the VP of Exploration for First Lithium Minerals and the Qualified Person ("QP") as defined by NI 43-101 has reviewed and approved the technical content of this press release. Mr. Moreno is a seasoned geologist with 40 years of experience in exploration and evaluation of metallic and non-metallic mineral deposits, has a degree in geology from Universidad de Chile, is a member of the Chilean Professional Association of Geologists No. 437 and registered in the Public Records of Competent Persons No. 328.

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Rob Saltsman, CEO and Director

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