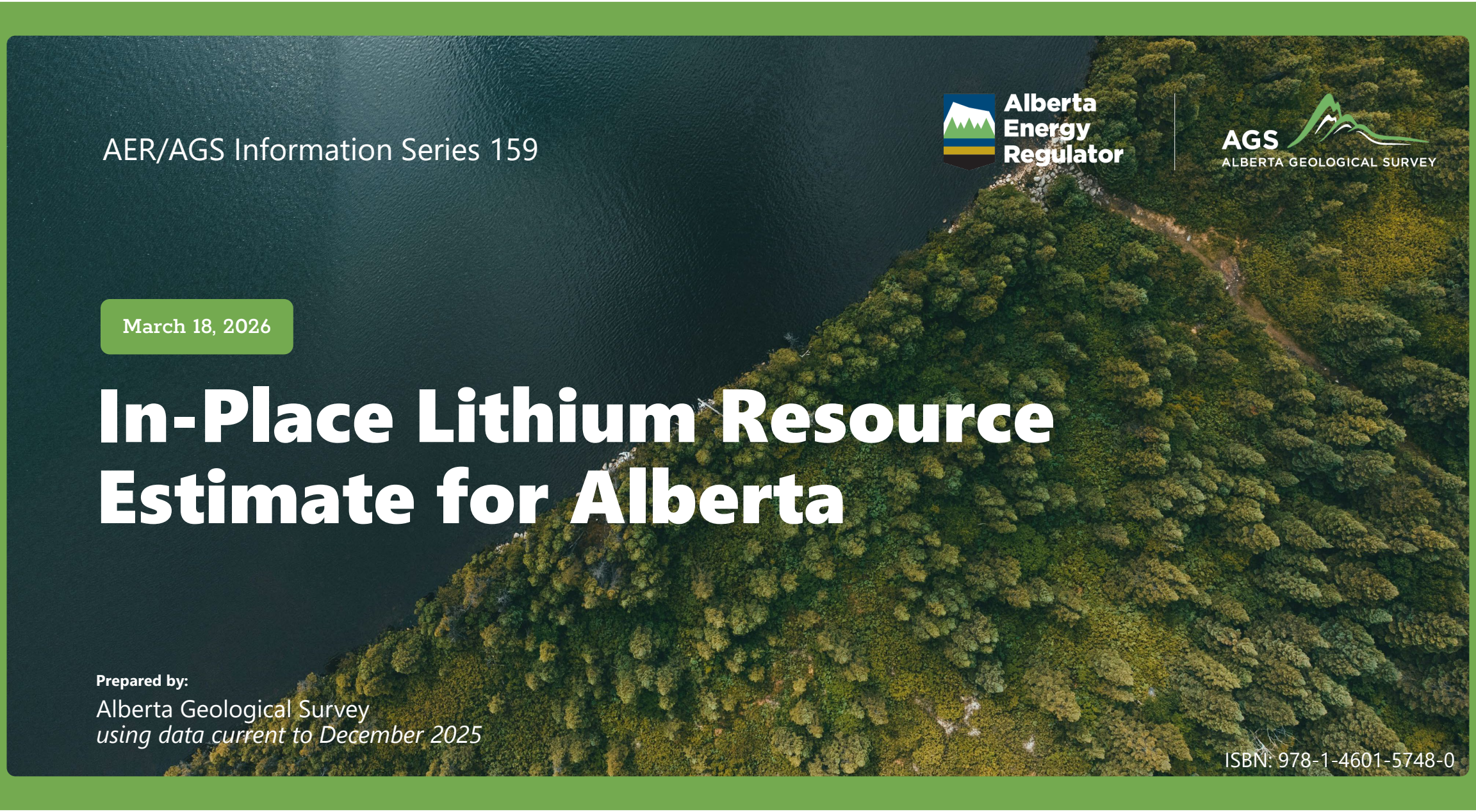

AER/AGS Information Series 159

Alberta Energy Regulator

AGS ALBERTA GEOLOGICAL SURVEY

March 18, 2026

In-Place Lithium Resource Estimate for Alberta

Prepared by:
Alberta Geological Survey
using data current to December 2025

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Executive Summary

- The most prospective geological units in Alberta's subsurface contain an estimated 82.5 million tonnes of lithium carbonate equivalent (LCE) in-place -- about 62 million tonnes of which occurs within existing mineral-lease properties (from company reported resources in NI 43-101 and pre-feasibility studies).
- Almost 95% of the total accumulation is found in the Devonian Leduc Formation, famous for kick-starting Alberta's oil industry in 1947. Additional potential is found in the deeper Swan Hills Formation and shallower Nisku Formation. Other units could become prospective with more data.
- This assessment leveraged data from the Alberta Geological Survey (AGS) which, over the last five years, amassed the most comprehensive and targeted dataset on brine-hosted lithium resources of any jurisdiction in Canada. It is a direct output of the Mineral Mapping Program funded by the Government of Alberta.
- The AGS methodology and results have been independently validated by McDaniel & Associates Consultants Ltd. (January 2026) and aligns with reported mineral resource and reserve values (NI 43-101 and pre-feasibility studies) from active lithium exploration companies in the province. Lithium-in-place was estimated for regions with lithium concentrations of at least 50 mg/L and geostatistical methods were applied to determine regional geological trends.
- Economic assumptions (provided by McDaniel & Associates) of the total in-place lithium volume suggest a theoretical revenue potential exceeding USD $1trillion using Direct Lithium Extraction (DLE) technology and a price assumption of USD $20,000/tonne of battery-grade LCE. This estimate does not include operational and timing considerations but helps to emphasize the potential for Alberta.

Numbers & Statistics

82.5 million tonnes

Lithium Carbonate Equivalent In-place Resource Estimate in Alberta brines

~2 million

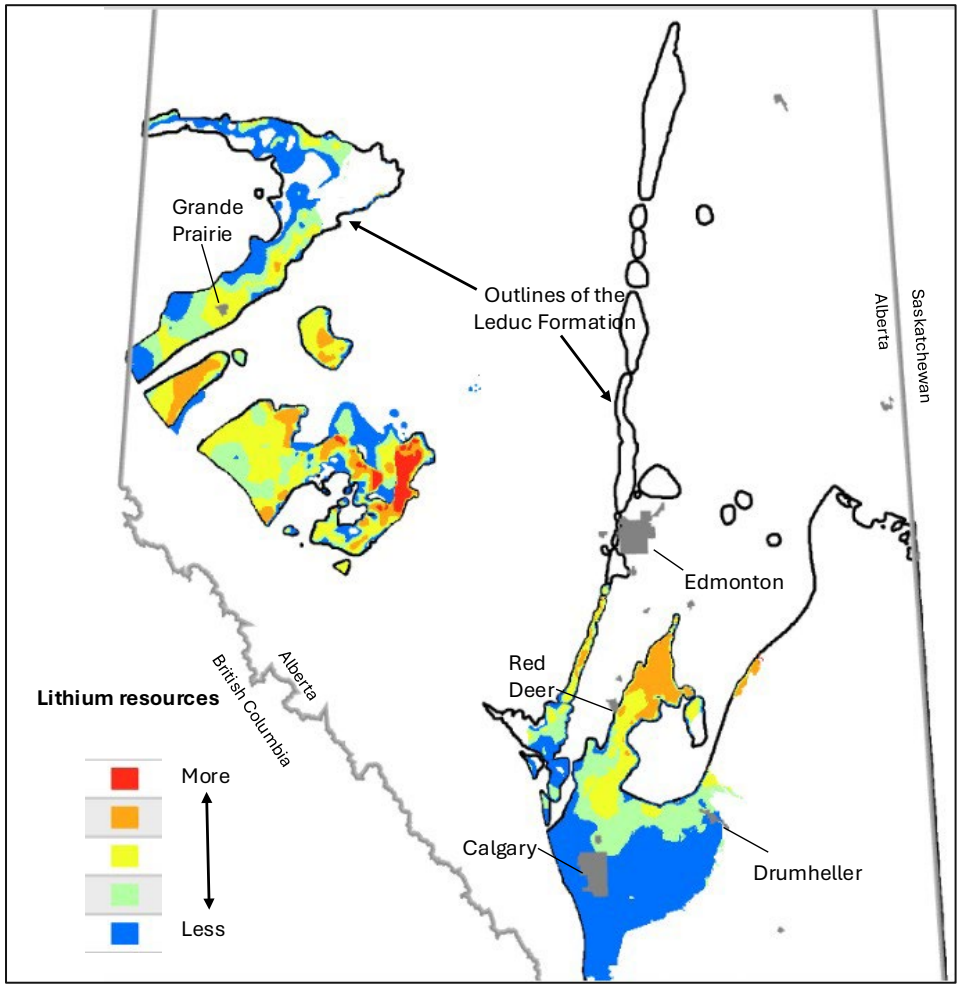
Hectares leased for lithium exploration in Alberta*

1.9 billion

Potential number of EV car battery packs that could be created from AB Lithium if all in-place resource is produced

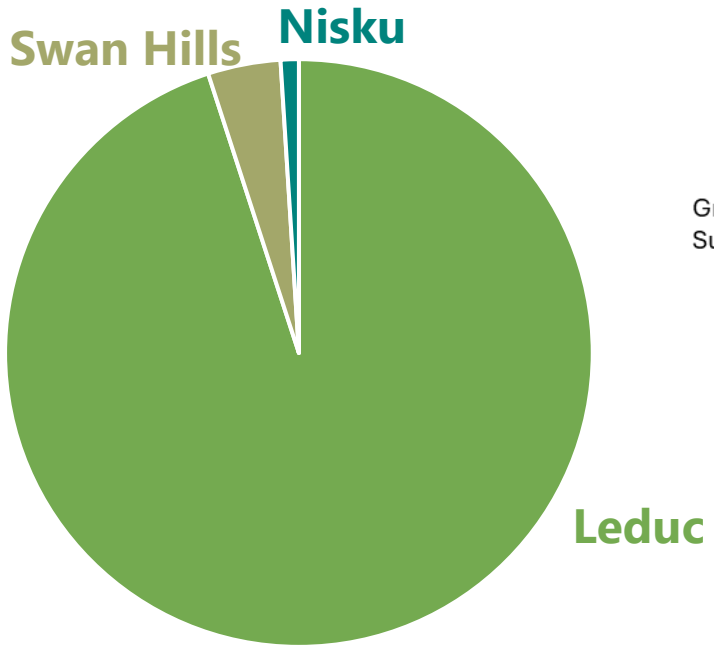
*2025 acreage compilation and subject to change

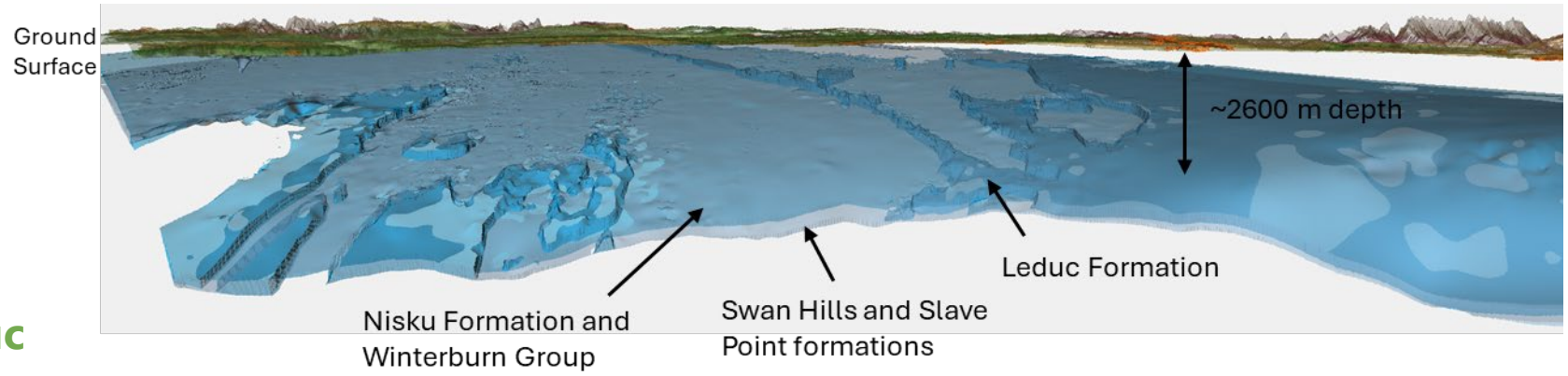
Regions of High Lithium Potential in Alberta Brines



- Geological units in Alberta's subsurface contain an estimated 82.5 million tonnes of lithium carbonate equivalent (LCE) in-place.
- Approximately 95% of this accumulation is found in the Devonian Leduc Formation, however elevated lithium concentrations have also been identified in the Swan Hills Formation and shallower Nisku Formation.
- The greatest lithium brine potential occurs near Red Deer and Fox Creek. The Peace River region northeast of Grande Prairie, and parts of southern Alberta are also prospective, but more data is required to confidently estimate volumes of lithium.
- Lithium-in-place was estimated for regions with lithium concentrations of at least 50 mg/L and geostatistical methods were applied to determine regional geological trends.

Alberta's Top Lithium Plays





95%

Leduc Formation

- Extensively explored with good data coverage
- Long history of oil and gas production

5%

Swan Hills Formation

- Localized regions of elevated lithium values have been identified
- Unknown potential in unexplored areas

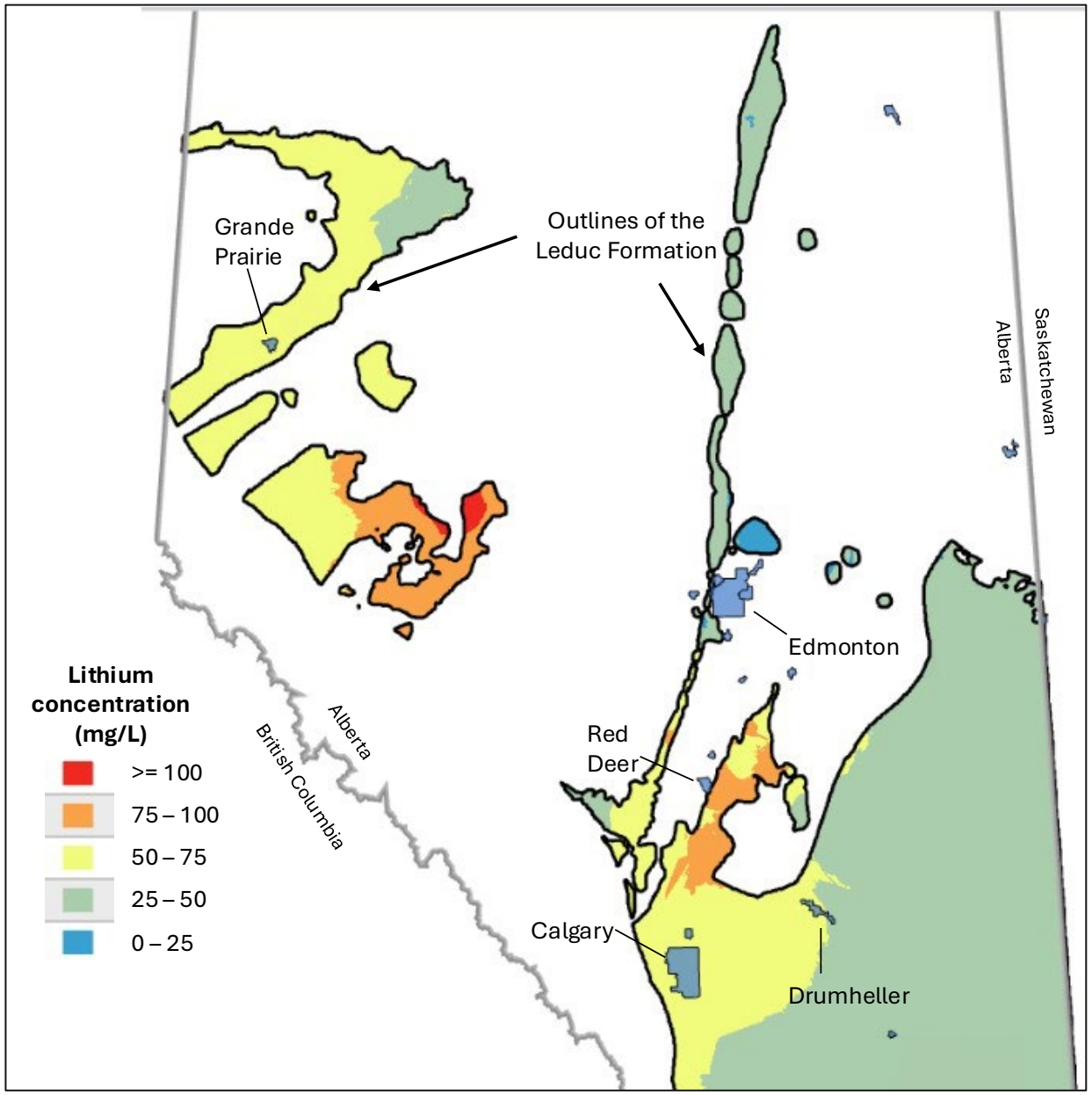
Potential Upside

Nisku Formation

- Nisku reefs are in contact with Leduc and Swan Hills reefs in some places, adding to potential thickness of lithium-rich zone
- More data and analysis needed to confirm in place lithium resource potential

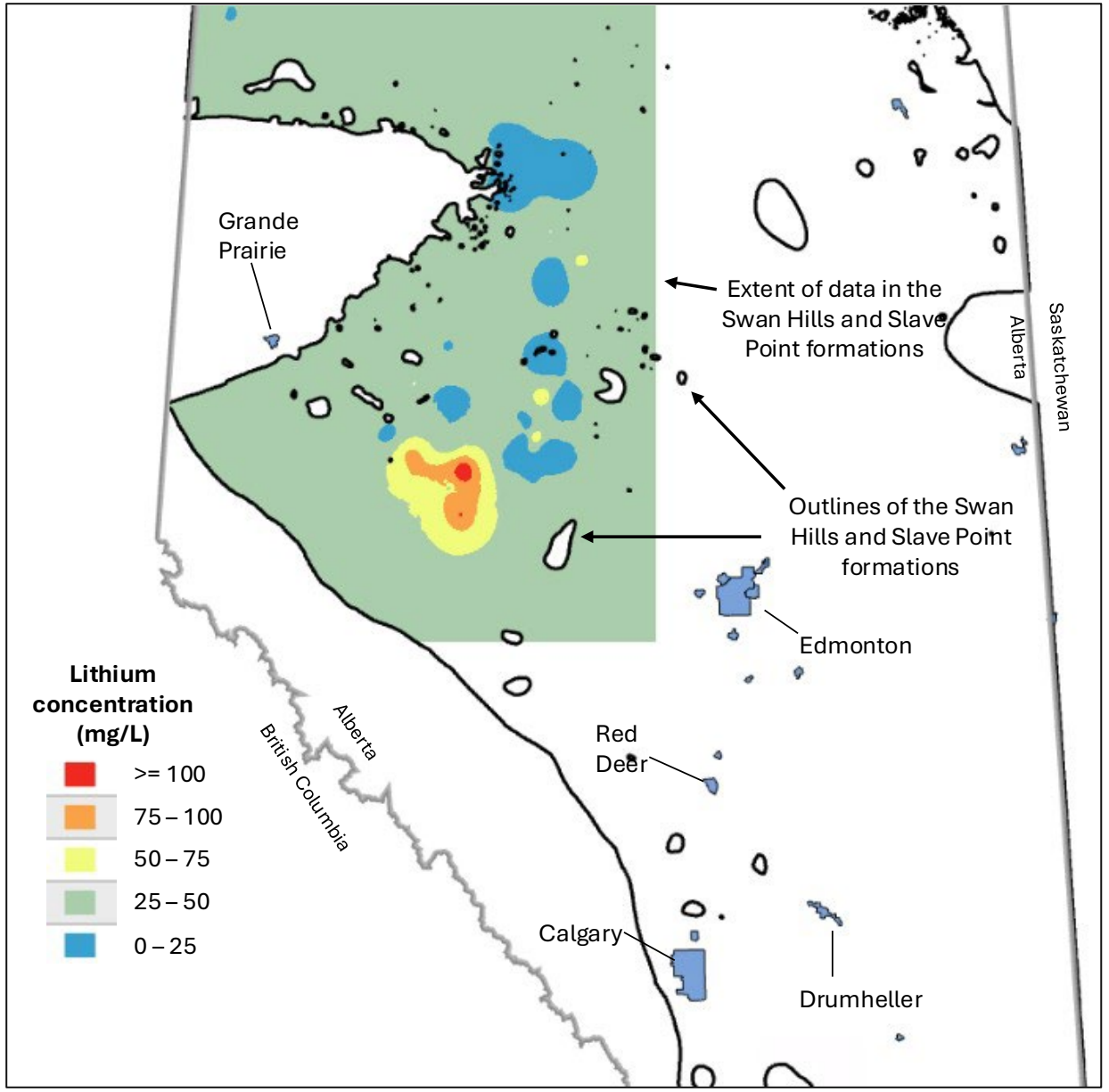
Leduc Formation

- Extensively explored in Edmonton-Calgary corridor, Fox Creek and Peace River areas
- Long history of oil and gas production; numerous wells have been sampled
- 77.7 Mt of LCE in-place



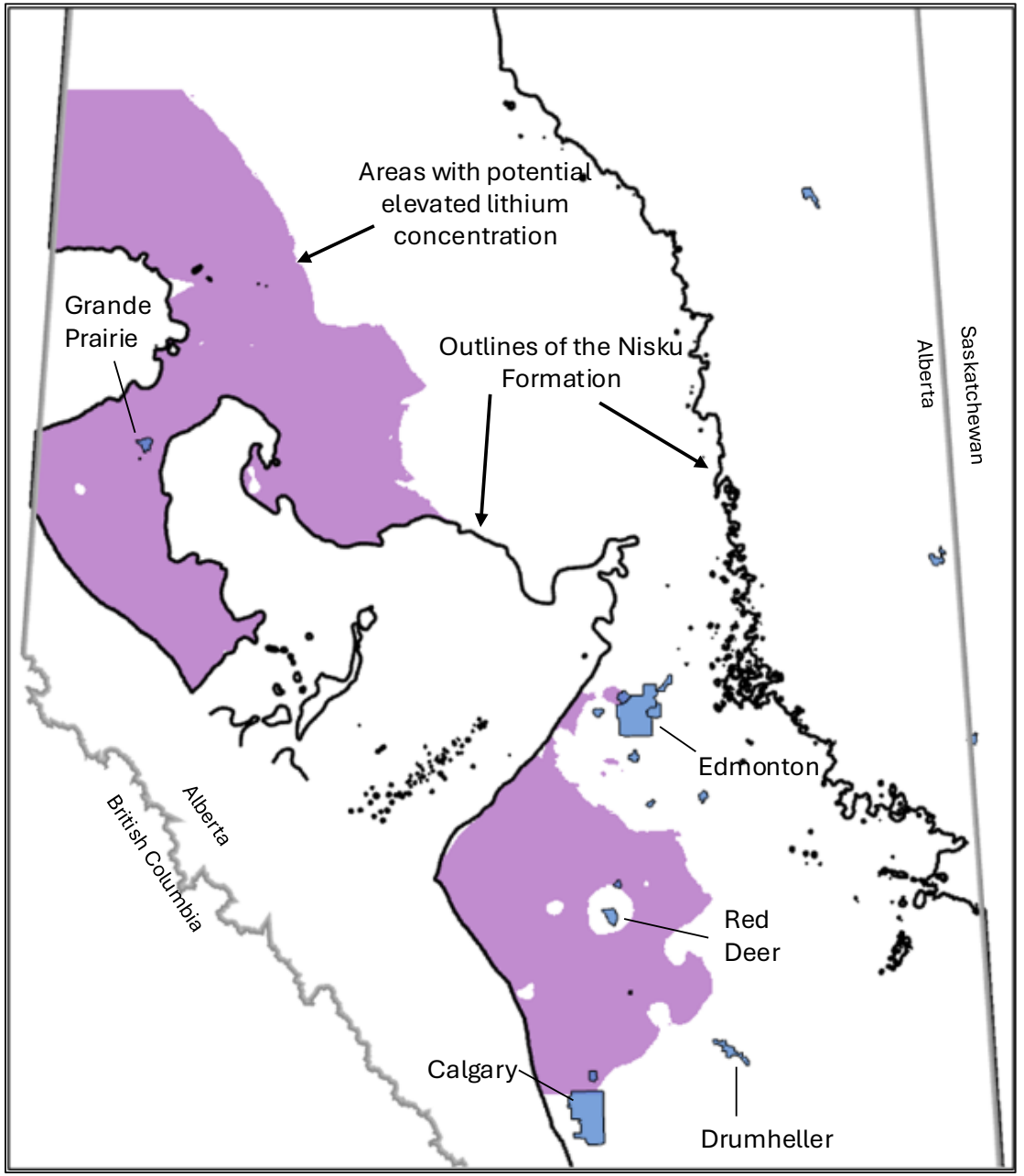
Swan Hills and Slave Point Formations

- Limited areas of elevated lithium concentration have been identified to date
- Long history of oil and gas production; possibility for additional data collection which could enhance our understanding of the regional lithium potential
- 4.8 Mt of LCE in-place



Nisku Formation

- Nisku reefs have similar geological characteristics to the Leduc and Swan Hills reefs and may be in communication in some places
- While there are very few data points for the Nisku, current samples show relatively high lithium concentrations and indicate potential
- More data and analysis is needed to evaluate an in-place resource estimate



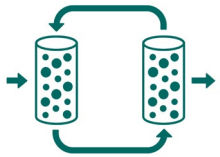
Alberta's Lithium Value Chain*

LCE In-place

82.5 MM
tonnes

of lithium carbonate in place where lithium concentrations are >50mg/L in Alberta's Leduc, Swan Hills, and Slave Point formations

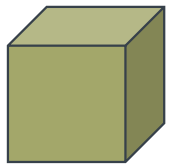
Brine Extraction and Recovery of Li from brine using DLE



>90%
Recovery Factor

Recovery factor of DLE (direct lithium extraction) processes (includes processing and polishing losses) to the extracted brine

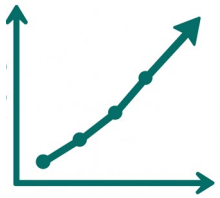
DLE Recoverable Lithium (LCE) volumes



74.3 MM
tonnes

Up to 74.3 million tonnes of LCE can be recovered in Alberta using existing drilling and production practices and DLE technology.

Lithium (LCE) Prices



$20,000
USD per tonne

Assumed average future price per tonne of LCE (McDaniel & Assoc. Ltd, 2026)

January 2026 LCE prices are over $15,000 USD per tonne and are trending higher. LCE prices have varied between about $8000 and $80,000 USD per tonne in the last 5 years.

Potential total revenue

$1 Trillion+
USD of revenue

Estimated Alberta lithium revenue potential in the Leduc, Swan Hills, and Slave Point formations

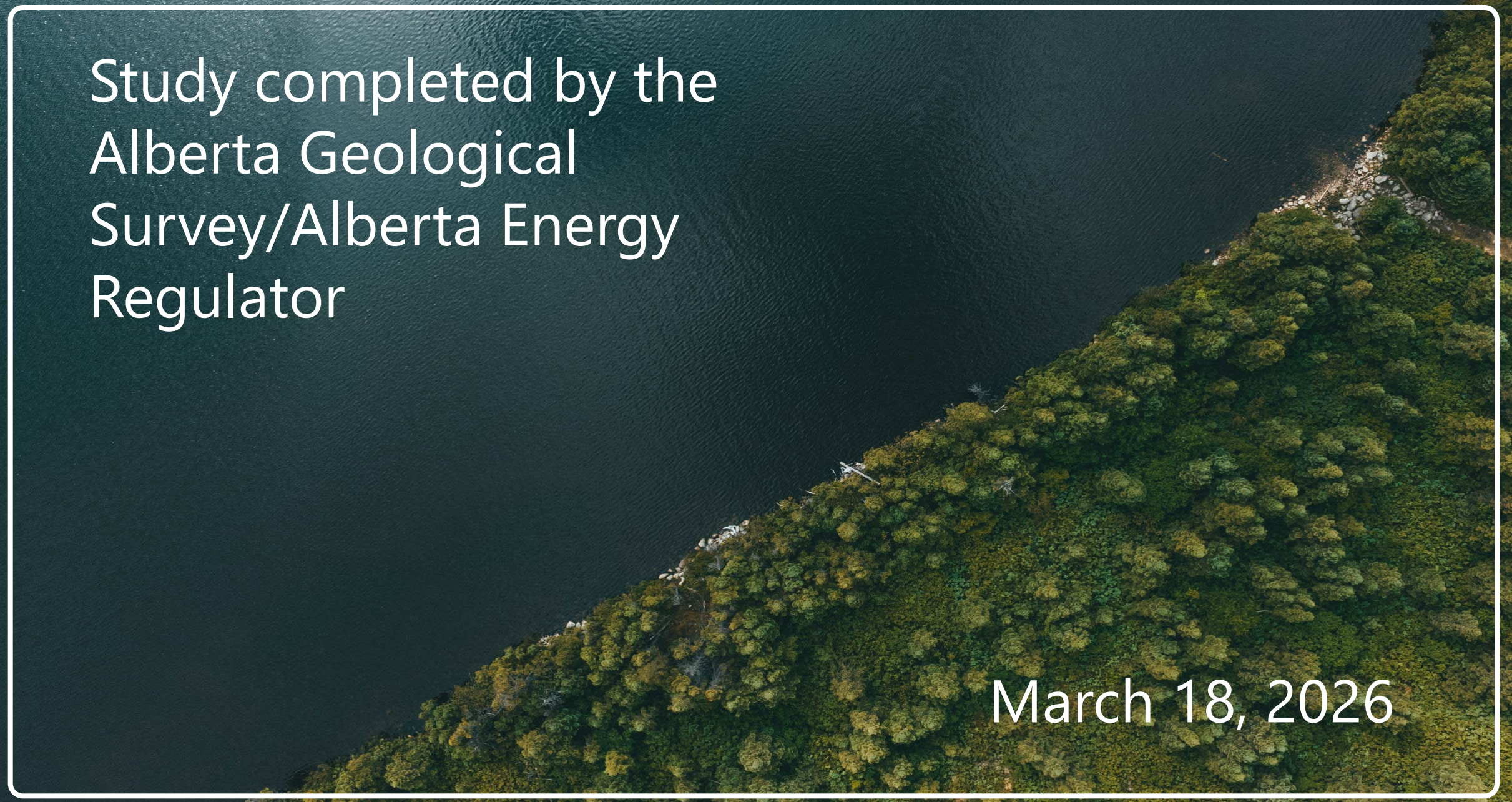
Spent Brine Re-Injection

***Excludes timing and operational considerations; theoretical yield subject to revision**

Modified from McDaniel 2026

Summary and Key Takeaways

- Geological units in Alberta's subsurface contain an estimated **82.5 million tonnes of lithium carbonate equivalent (LCE) in-place.** The majority of this LCE is contained within the Leduc Formation with lesser amounts in the Swan Hills and Nisku formations.
- Alberta's key advantage with respect to lithium brine potential is its mature petroleum industry with experience in extracting fluids from the subsurface. The technical expertise, infrastructure, and regulatory framework are already in place to allow efficient development of a lithium brine industry.
- The recent collection by the AGS's Mineral Mapping Program of a regionally extensive lithium brine dataset was critical to determining an in-place estimate of Alberta's lithium resource potential.
- Economic assumptions of the total in-place lithium volume suggest a theoretical revenue potential exceeding USD $1trillion using Direct Lithium Extraction (DLE) technology and a price assumption of USD $20,000/tonne of battery-grade LCE. This estimate does not include operational and timing considerations but helps to emphasize the potential for Alberta.
- The methodology and results for our lithium resource estimate was independently validated by McDaniel & Associates Consultants Ltd. and aligns with reported mineral resource and reserve values (NI 43-101 and pre-feasibility studies) from active lithium exploration companies in the province.



Study completed by the Alberta Geological Survey/Alberta Energy Regulator

March 18, 2026