



Minerals critical for the energy transition

121 Cape Town / Mining Indaba Presentation

6-8 February 2023



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The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code') sets out minimum standards, recommendations and guidelines for Public Reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves. The

information contained in this presentation has been presented in accordance with the JORC Code and references to "Measured Resources", "Indicated Resources" and "Inferred Resources" are to those terms as defined in the JORC Code.

Information in this presentation relating to Exploration results and Mineral Resources is based on information compiled by Mr Lauritz Barnes (a consultant to Aurora Energy Metals Limited and a shareholder) who is a member of The Australian Institute of Mining and Metallurgy and The Australian Institute of Geoscientists. Mr Barnes has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person under the 2012 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Barnes consents to the inclusion of the data in the form and context in which it appears.

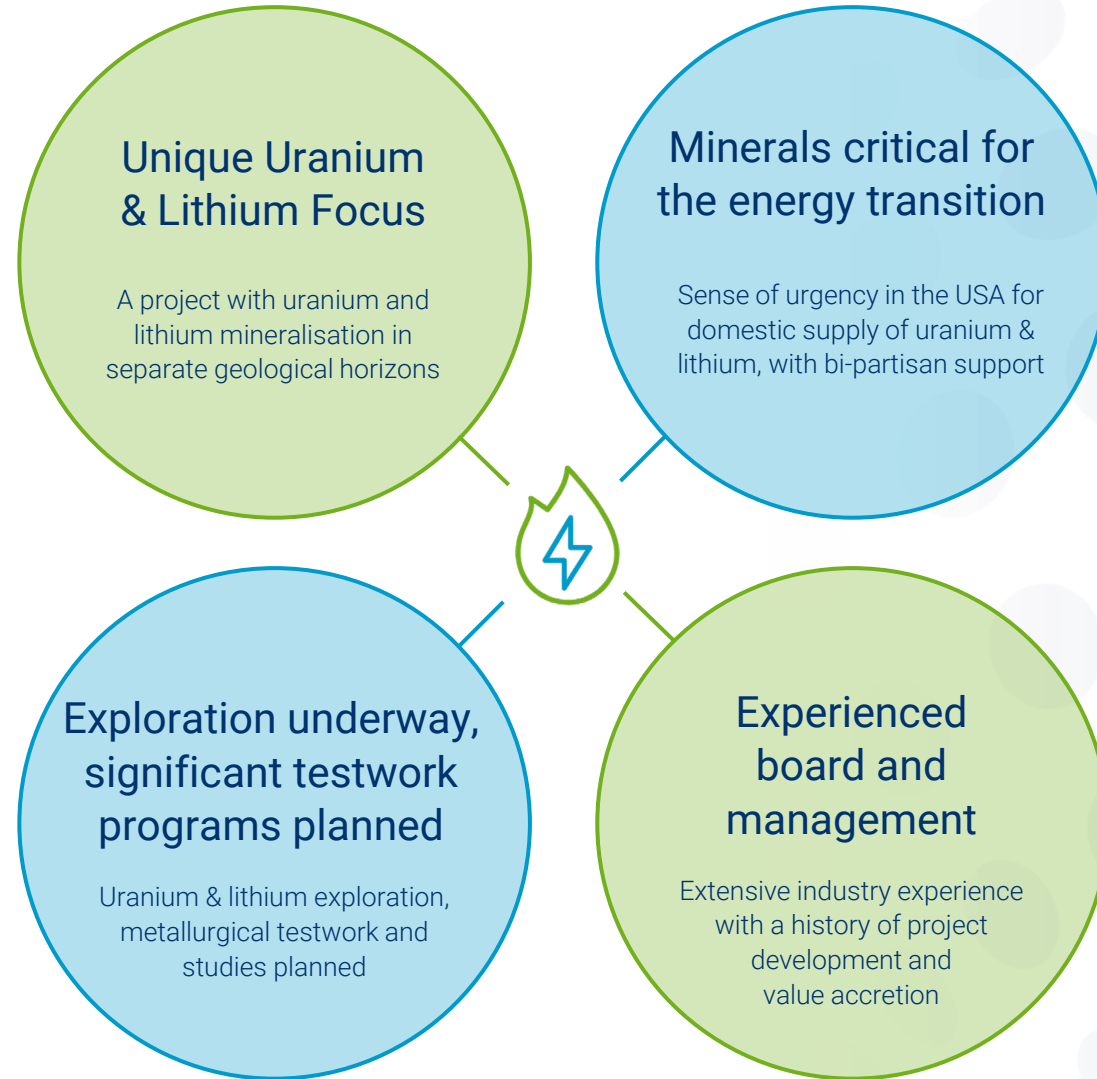
Previous Disclosure:

Information in this announcement is based on the following Aurora Energy Metals Limited Announcements, which are available from the Company's website, www.auroraenergymetals.com.au or the ASX website.

- 16 May 2022 – Prospectus
- 16 June 2022 – Encouraging lithium assays received
- 27 September 2022 – Aurora Energy Metals Project Update
- 19 October 2022 – Drilling to Commence at Aurora Energy Metals Project
- 23 November 2022 – 34% Increase in Total Uranium Resource to 50.6 Mlbs Maiden Measured Resource Declared at Aurora Uranium Deposit
- 17 January 2023 - Thick Lithium & Uranium Zones Returned - Maiden Drill Program

This announcement has been authorised for release on the ASX by Greg Cochran, Managing Director.

Investment Summary



Corporate Overview



Well funded advanced explorer with a tight capital structure

Capital Structure (on an undiluted basis, as at 3 February 2023)

1AE

ASX Code

142.6m

Shares on Issue (inc. 19.9m escrowed)

A\$22M

Market Cap (at A\$0.155 per share)

8.8m

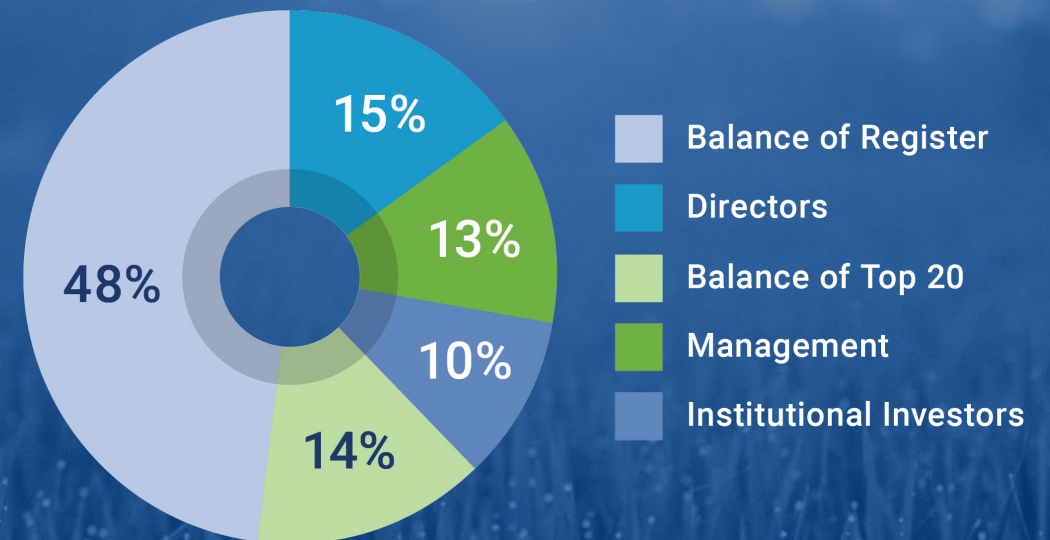
Options (6m @ \$0.20; rest at \$0.30)

~A\$2.1M

Cash (as at 31 December 2022)

~A\$20m

Enterprise Value



Board & Management

Extensive industry experience with a history of project development and value accretion



PETER LESTER
Non-Executive Chairman

A mining engineer with over 40 years' industry experience. Has held senior executive positions with North Ltd, Newcrest Mining Limited, Oxiana/Oz Minerals Limited and Citadel Resource Group Limited. Peter's experience covers operations, projects and business development and general corporate activities including financial services.

He has served on several ASX listed and private mining boards and is currently Non-Executive Chairman of White Rock Minerals Ltd and Helix Resources Ltd and previously of Kidman Resources Ltd and Doray Minerals Ltd.

Peter is a member of the AICD and the AusIMM and holds a B.E. (Mining hons).



GREG COCHRAN
Managing Director

A highly experienced international mining executive with over 30 years' experience in technical and commercial roles, general management and executive positions globally.

Most recently, Greg was CEO of Reward Minerals and prior to that Managing Director of Namibian-focussed uranium developer Deep Yellow Limited (2011-16). He has extensive uranium experience, having also spent four years with Uranium One Inc (2006-09).

He is a graduate member of the AICD and a Fellow of the AusIMM. He holds a MSc. in Mining Engineering and Mineral Economics from the University of the Witwatersrand and an MBA from Cranfield School of Management (UK).



ALASDAIR COOKE
Non-Executive Director

Mr Cooke has over 30 years' experience in resource exploration and mining throughout Australia and internationally, initially as part of BHP Minerals Business Development Group and the last 20 years managing public resource companies as part of the Mitchell River Group (MRG).

MRG successfully incubated numerous resource companies and developed mining operations over the past twenty years, including Sally Malay Mining (now Panoramic Resources), Albidon, Mirabela Nickel and Exco Resources.

He holds a first-class honours degree in Geology and a bachelor's degree in Science from the University of Western Australia and is a member of the Australian Institute of Geoscientists.



STEVEN JACKSON
Company Secretary

A member of CPA Australia who graduated from the University of Western Australia in 2008 with a Bachelor of Economics. Majored in International Business Economics and Money and Banking.

Project Location and Highlights

Aurora Energy Metals Project

- One of the largest, well defined uranium deposit in the USA.
- Measured, Indicated & Inferred Uranium Mineral Resource of 107.3Mt @ 214 ppm U_3O_8 for 50.6Mlb U_3O_8 .
- Confirmed lithium mineralisation in sediments overlying and surrounding the uranium resource.
- Close to the two largest US lithium projects.
- Proximal to Tesla's Gigafactory 1, near Reno, Nevada.
- Excellent infrastructure.
- Low-risk jurisdiction with bipartisan support for minerals critical to the world's energy transition.
- Well understood regulatory and permitting process with State and Federal agencies.

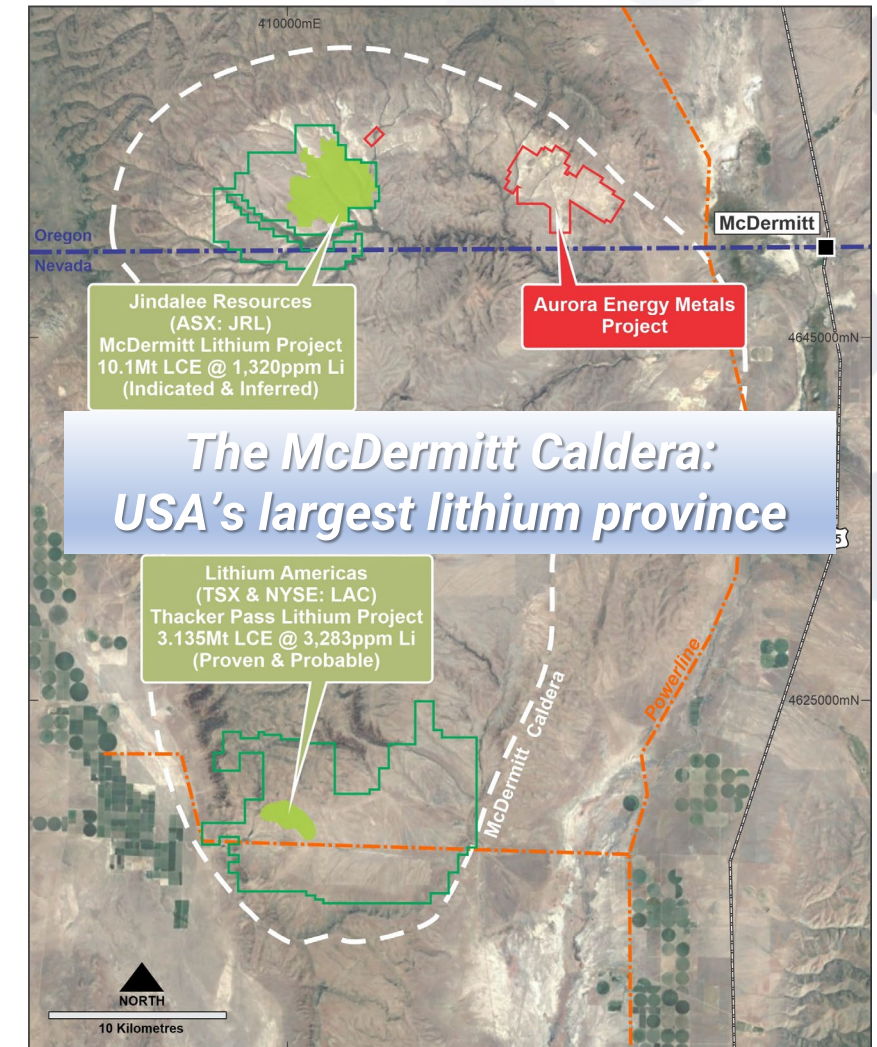
Tesla Gigafactory 1



Aurora Energy Metals Project (“AEMP”) Geological Overview

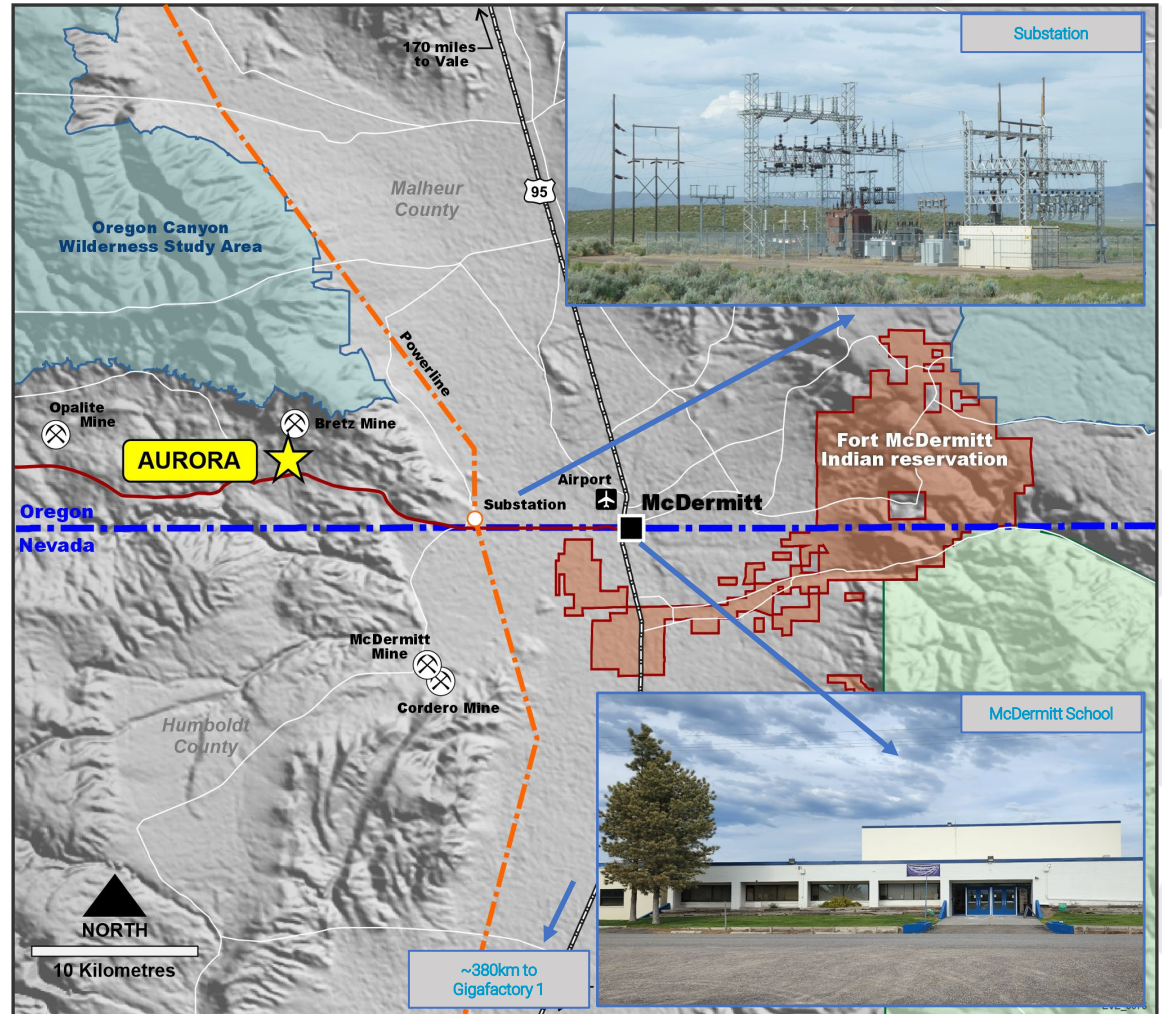
- On federal land within the McDermitt Caldera, the USA’s largest lithium province.
- Uranium Mineral Resource in shallow volcanics with high grade core at unconformity, 18Mt @ 485 ppm U_3O_8 for 19.2 Mlb U_3O_8 .
- Lithium mineralisation hosted in lakebed sediments above and surrounding the uranium resource (e.g. 9.1m @ 2,414 ppm Li from 21.9m, 7.3m @ 2,431 ppm Li from 50.3m).
- Lakebed sediments thicken (~200m) in all directions beyond the uranium resource.
- Lithium mineralisation similar to the US’s largest lithium deposits, such as Jindalee Resources’ McDermitt Li Project¹ (ASX:JRL, Indicated & Inferred MRE 1.43Bt at 1,320ppm Li for 10.1Mt LCE).
- Potential for two geologically separate resources to be delineated and developed, providing commodity diversification and economies of scale.

1. Refer Jindalee Resources ASX Announcement 8 April 2021



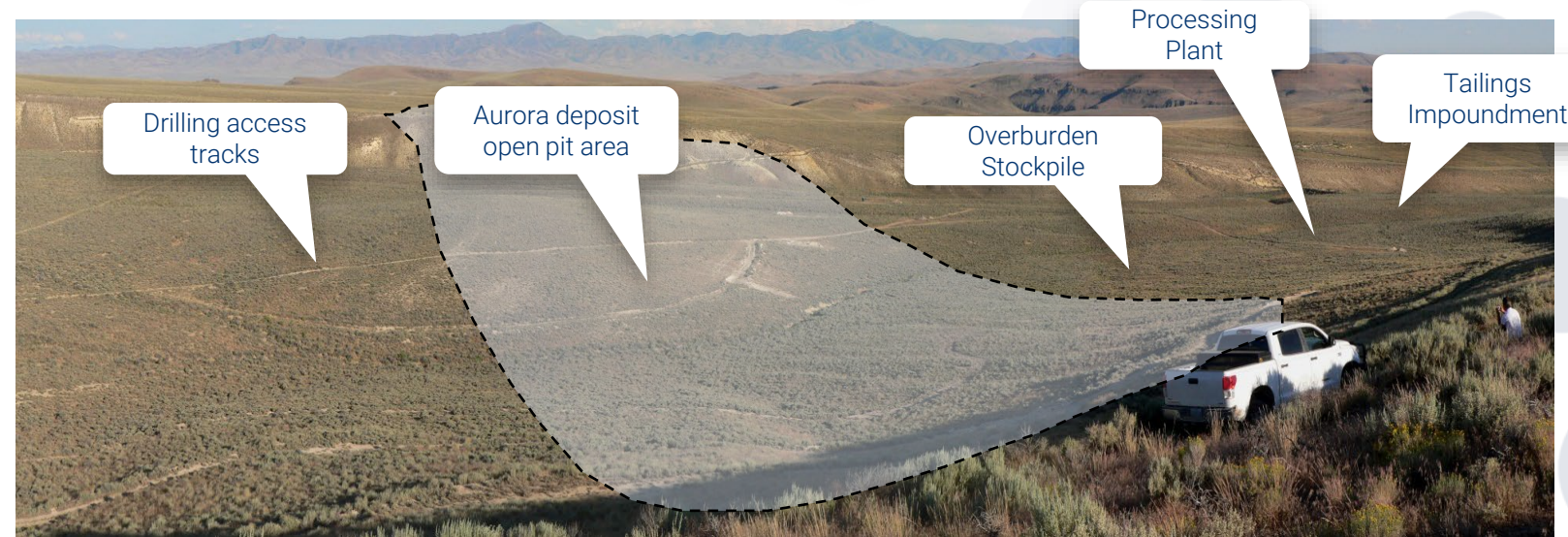
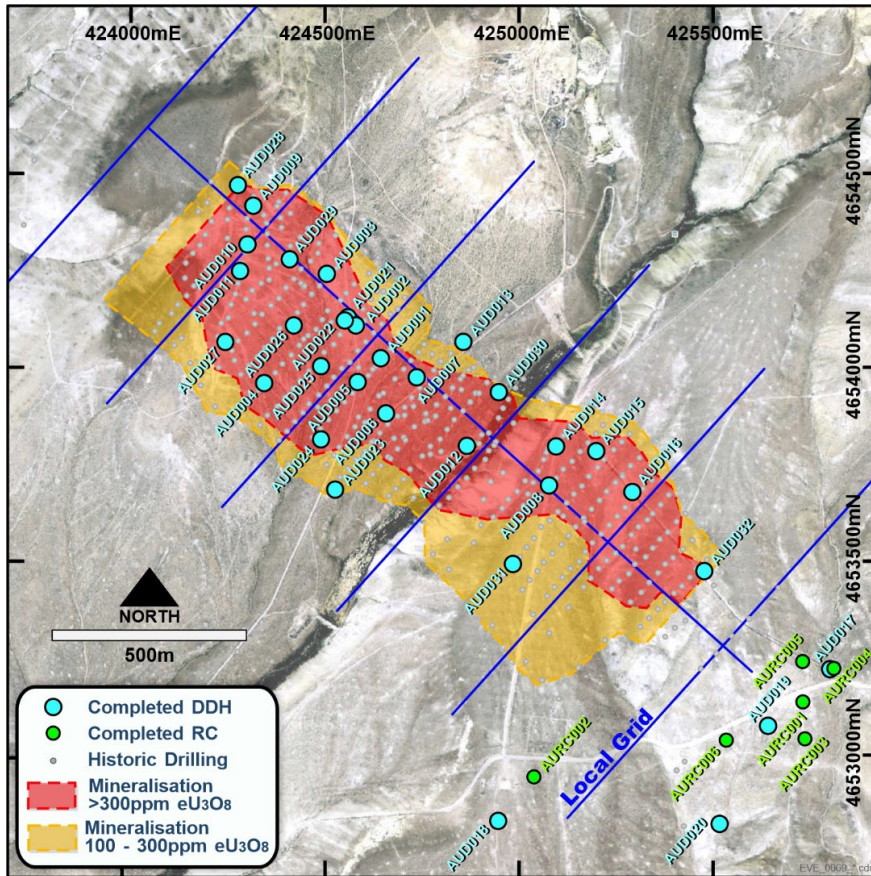
AEMP – Uranium and Project Infrastructure

- Volcanic-hosted deposit, discovered in 1979, within a historic mining district.
- Over 600 drillholes completed, plus extensive metallurgical testwork and studies.
- Near surface, flat-lying geometry amenable to very low strip ratio open-pit mining.
- Low-cost mining possible due to free-dig lake sediment overburden.
- Majority of uranium contained within fine fraction, amenable to low-cost scrubbing and screening upgrades.
- Excellent infrastructure, offering tangible ESG advantages:
 - low-cost renewable power
 - hydro-electricity, 2022 YTD price: US\$ 6.5 c/kWh
 - McDermitt town nearby
 - sealed roads to within 12km of deposit.



Excellent infrastructure

AEMP – Uranium

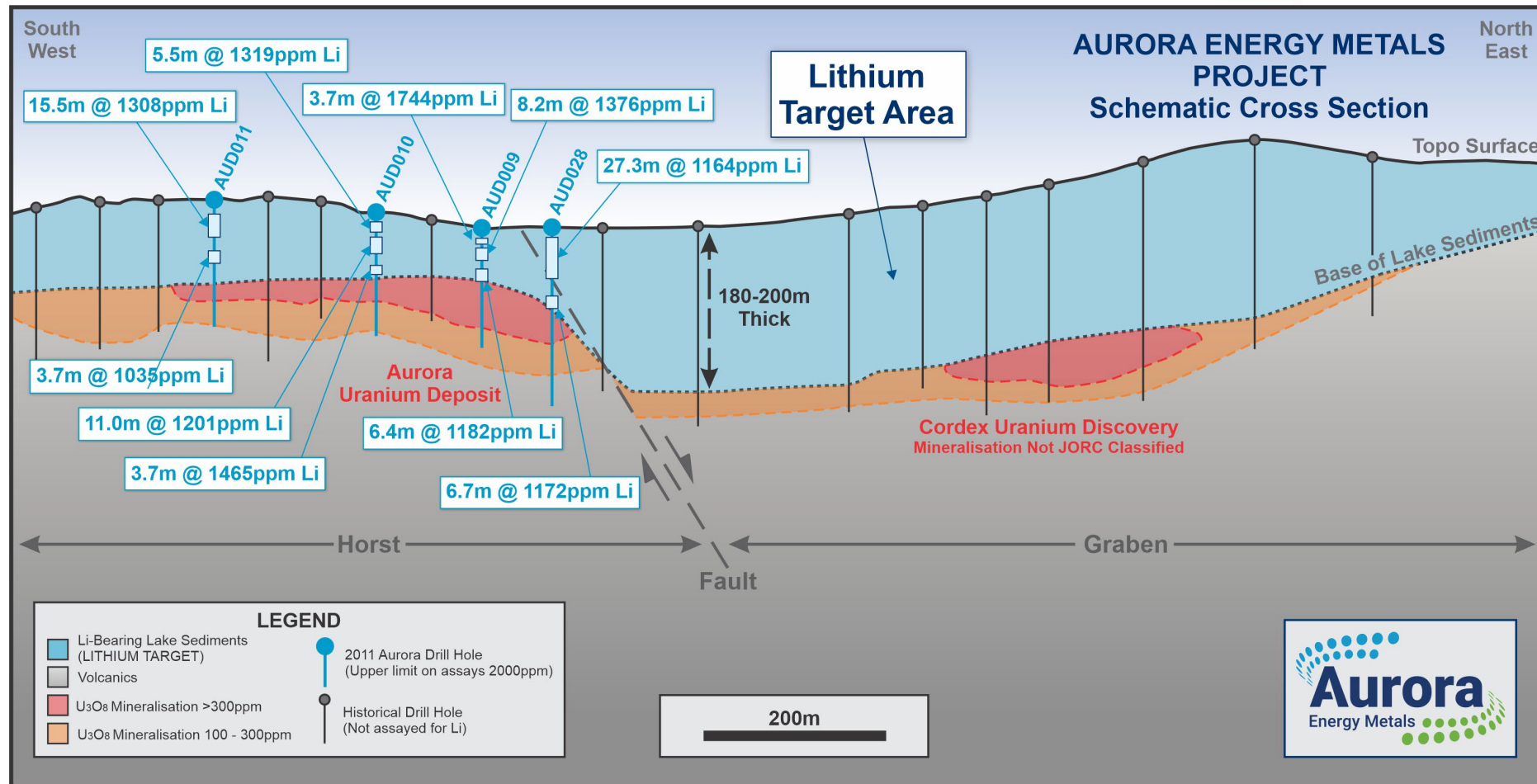


Earlier, uranium only conceptual layout

- Previous studies demonstrated a conventional open pit mine:
 - Shallow, low-strip ratio operation.
 - Overburden potentially free-dig.
- On-site full or partial processing plants.
- Overburden is mineralised lakebed lithium sediments, which when removed could be stockpiled and processed later.

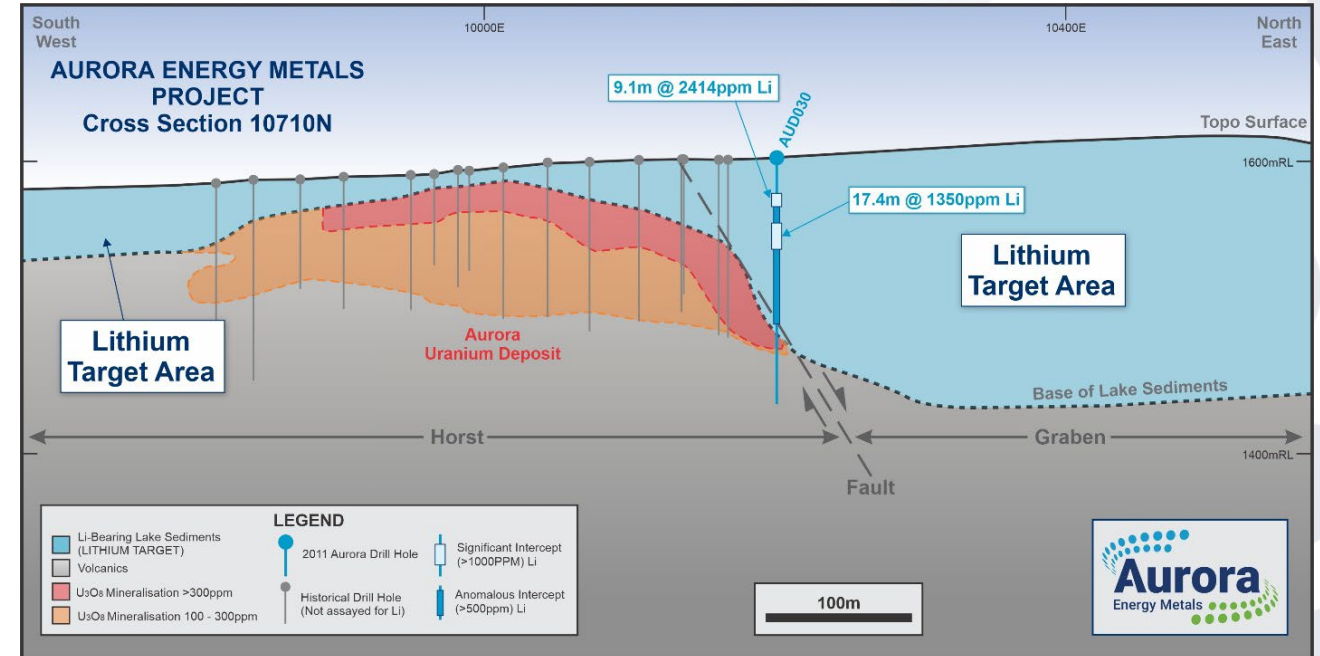
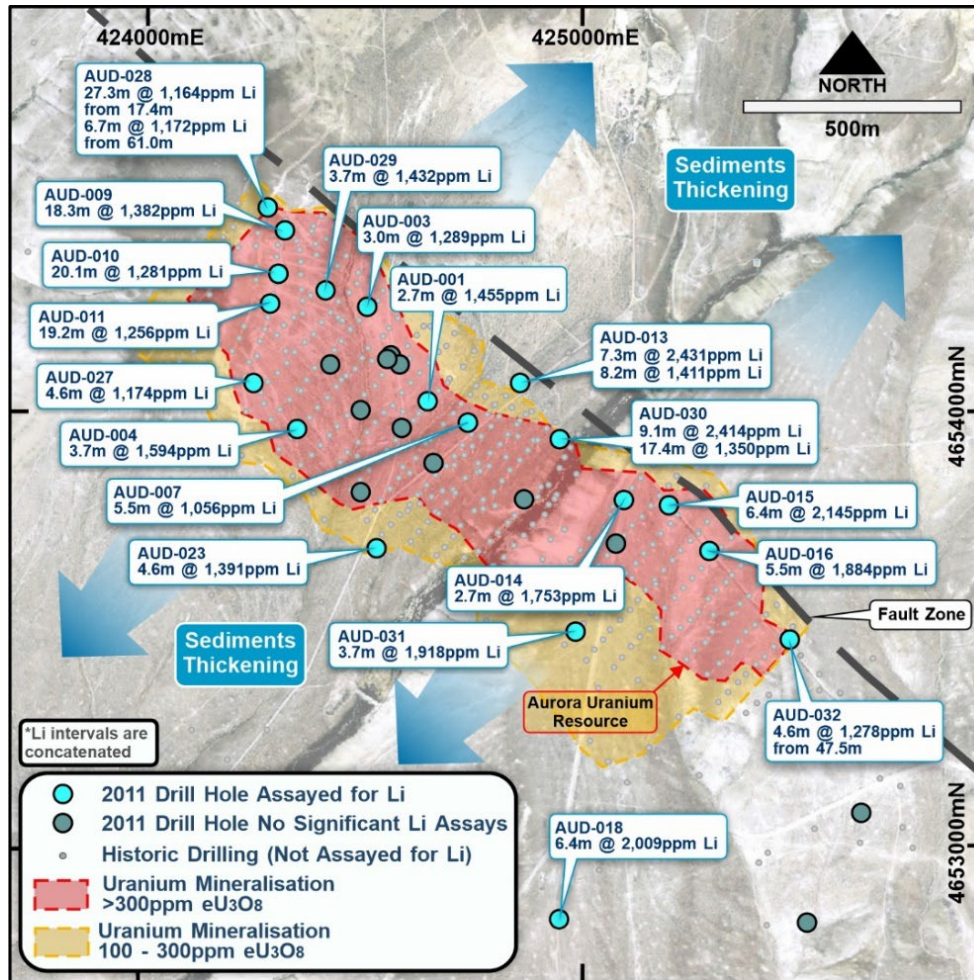
AEMP – Uranium and Lithium

- Historically, uranium was the *only* target from the 1970's, although lithium was known to occur in the area
- 1AE's 2010 diamond core holes were therefore subsequently assayed for lithium, with encouraging results



AEMP – Lithium

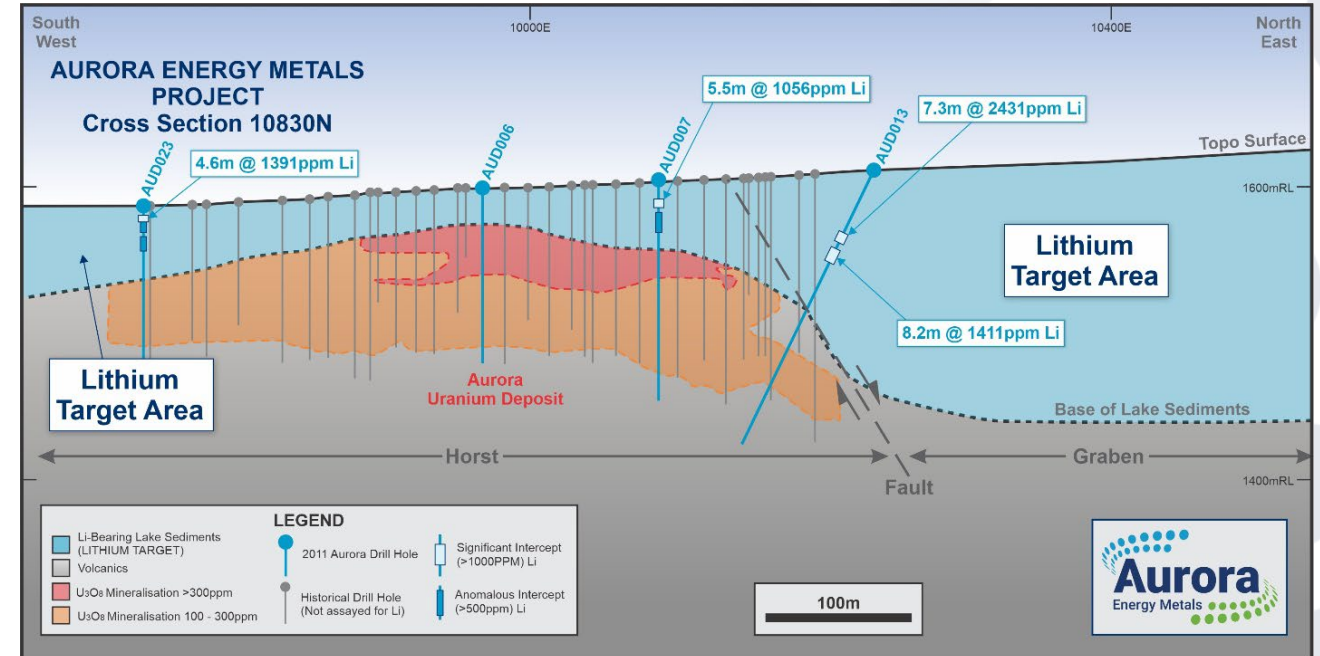
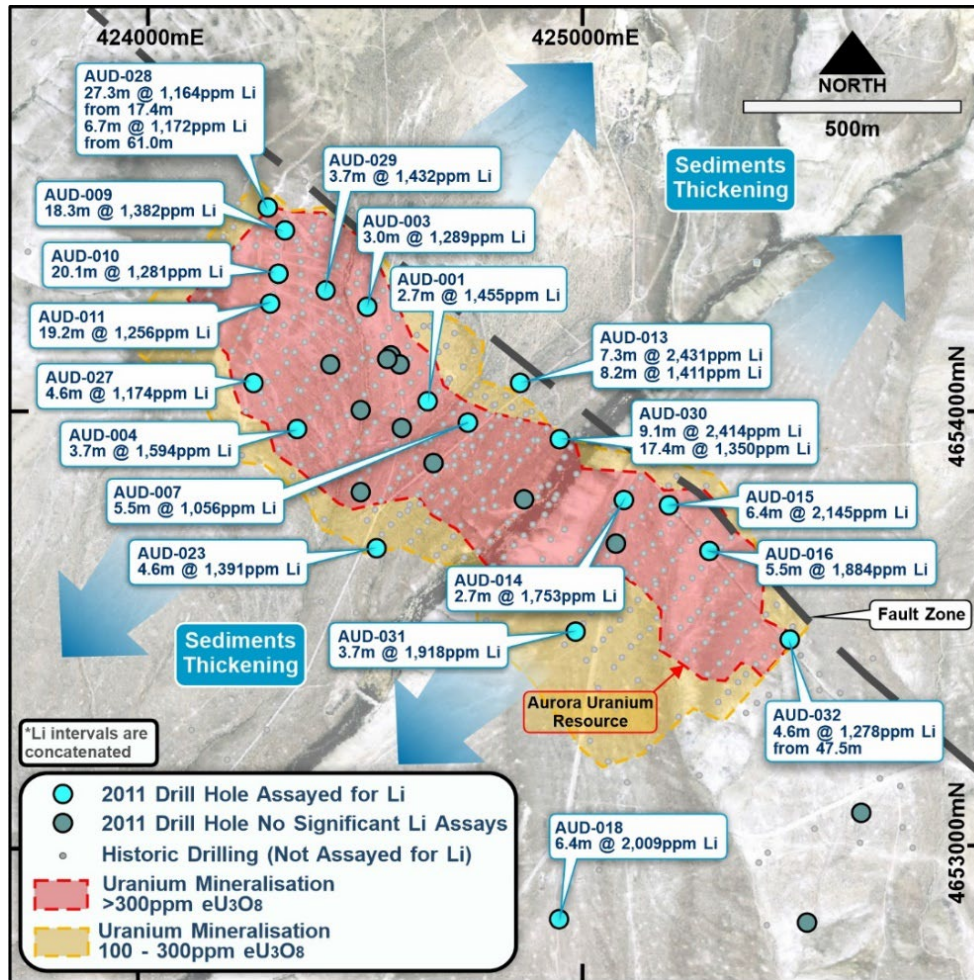
- The remaining core, securely stored for 10 years, has now been assayed for lithium, returning encouraging results



Note: 2414 ppm Li = 0.520% Li₂O

AEMP – Lithium

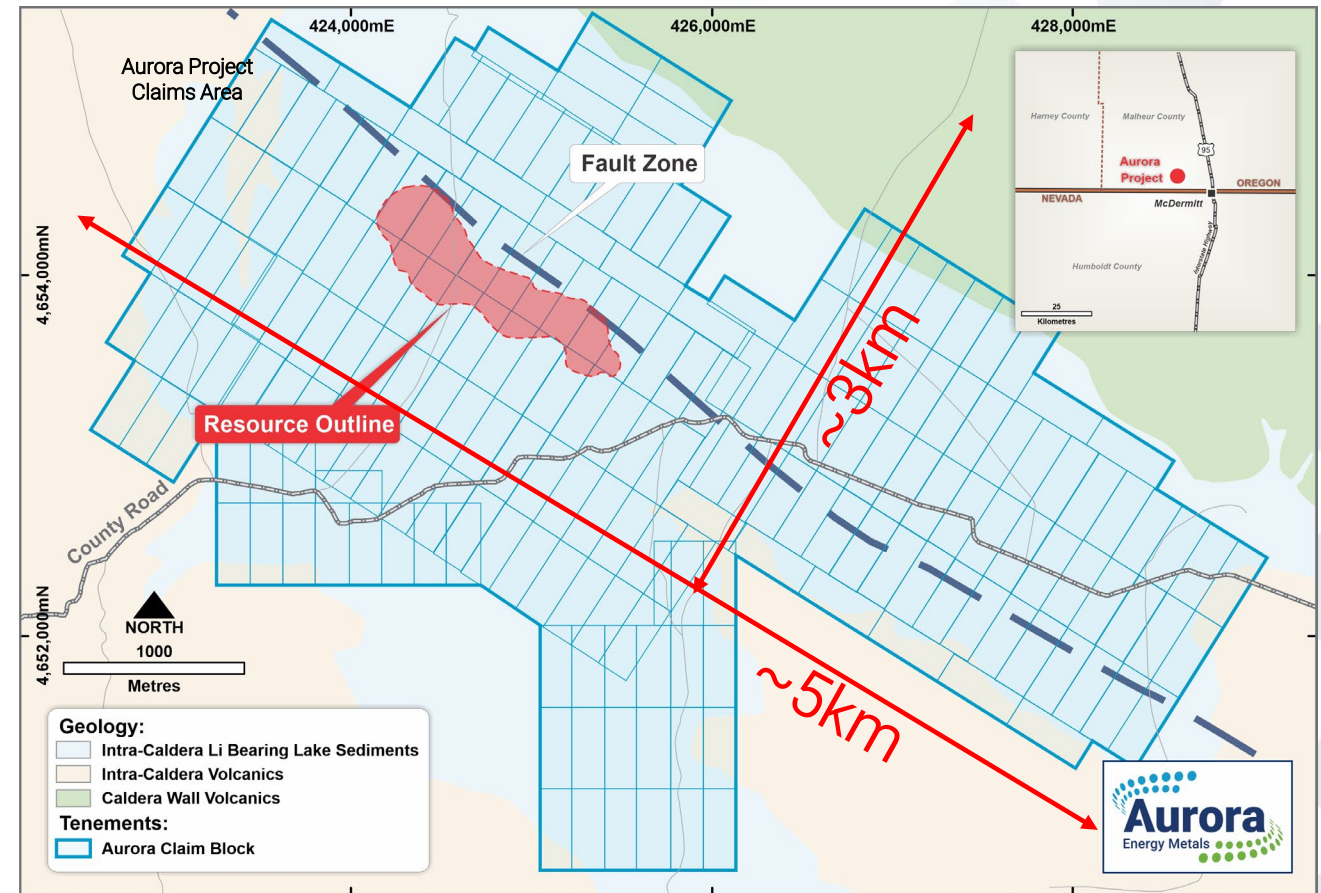
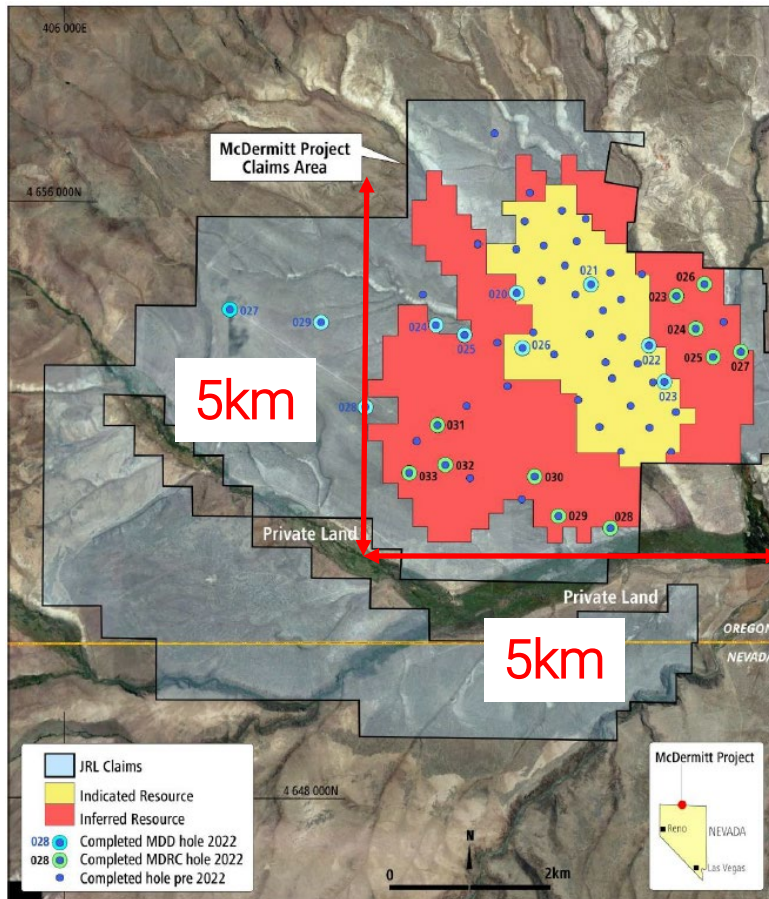
- The remaining core, securely stored for 10 years, has now been assayed for lithium, returning encouraging results



Note: 2431 ppm Li = 0.523% Li₂O

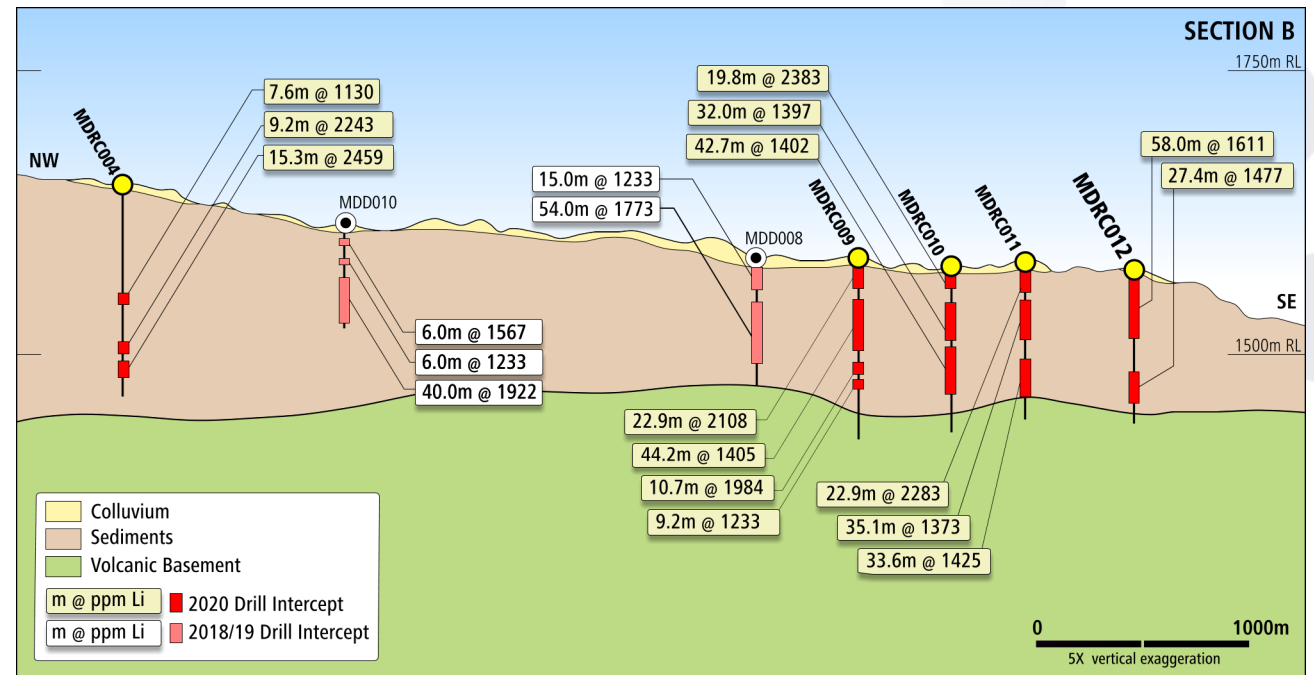
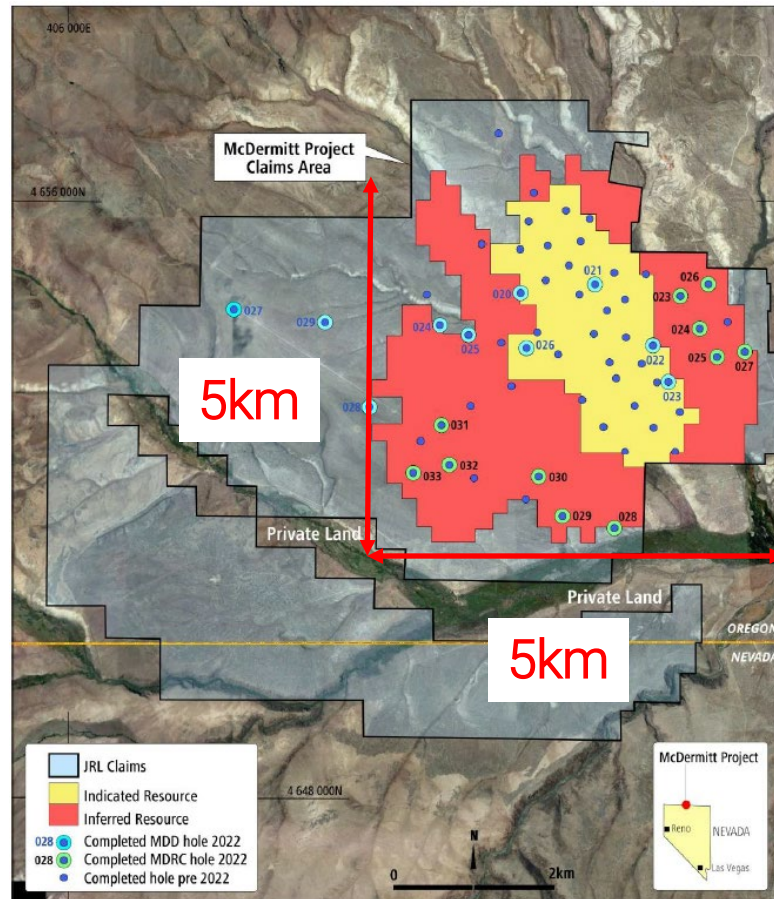
AEMP – Lithium Exploration Potential

- AEMP's current claim area is similar in size to Jindalee's McDermitt Lithium Project and the Aurora Uranium Deposit is only a small part of the claim area



McDermitt Lithium Project - Jindalee

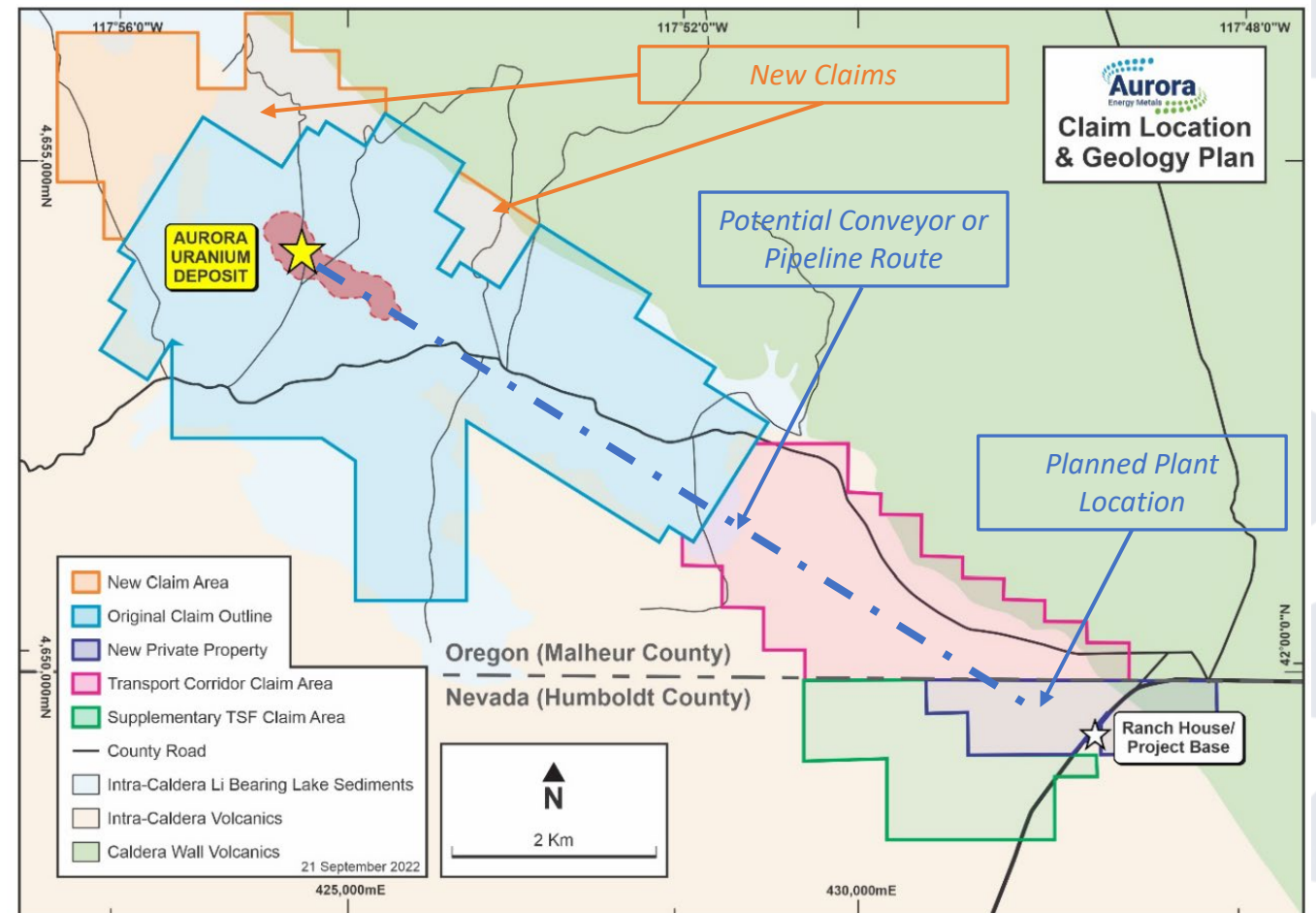
- Jindalee's exploration program has demonstrated that lithium is present in wide intersections from close to/at surface to depths of well over 100 metres



A typical McDermitt Project Cross Section

Plant to be located in Nevada, on private property

- 410-acre private property purchased in Nevada for plant and related infrastructure.
- Nevada is a top tier mining jurisdiction.
- Property serviced by excellent infrastructure close to the Project.
- Offers tangible environmental, permitting and operational advantages.
- Hydroelectricity, US\$ 6.5 cents/kWh
- Ranch house purchased for Project Operations base.
- Additional claims staked to extend area of lakebed sediments.
- Claims also staked leading back to Nevada & in Nevada for transport corridor.



Ore transport solution powered by emissions free, low cost hydro-electricity

Mineral Resource upgrade announced on 23 November 2022

Highlights¹

- 12.7 Mlb (34%) Increase in Total Uranium Mineral Resource to 50.6 Mlb U_3O_8 .
- Maiden Measured Mineral Resource Declared.
- Grade of the High-Grade Zone increased by 10%, to 485 ppm U_3O_8 .
- 90% of existing Indicated Mineral Resource converted to the Measured Category.
- 91% of 19.2 Mlb U_3O_8 High Grade Zone (17.5 Mlb U_3O_8) classified as Measured.
- Over 82% of the Mineral Resource now in the Measured and Indicated Category.
- Open along strike and to the northwest, drilling underway.
- Unquestionably one of the largest uranium deposits in the USA.

See ASX Release dated 23 November 2022, titled:

"34% Increase in Total Uranium Resource to 50.6 Mlbs, Maiden Measured Resource Declared at Aurora Uranium Deposit"

Thick lithium and uranium zones in maiden drill program

- Phase 1, 17-hole RC/DDH program for ~3,414m.
- Program targeting uranium extension & testing aerial extent of lithium lakebed sediments.
- Thick uranium intersections from geophysical logging:
 - 34.1m @ 610ppm eU_3O_8
 - ~3x the existing mineral resource grade
- Wide zones of lithium bearing clays:
 - 19.8m @ 1,206ppm Li (0.26% Li_2O)
 - 24.4m @ 1,138ppm Li (0.25% Li_2O)
 - 19.8m @ 1,298ppm Li (0.28% Li_2O)
- Total holes planned in Phase 1 & 2 program:
 - RC holes – 47
 - Diamond – 21
- Approvals currently being processed.



First hole to be drilled since 2011 program

Work Plan – Uranium News flow



- Phase 2 DOGAMI diamond drill permit approvals for existing uranium resource area (Q1 CY2023).
- Assays results from drill program (Q1 CY2023).
- Release results of metallurgical testwork review (Q1 CY2023).
- DD program to generate core for metallurgical testwork (H1 CY2023).
- Metallurgical testwork (H1 CY2023)
- Scoping/Pre-Feasibility Study (H1/H2 2023).



Current drilling program

Work Plan – Lithium News flow



- Phase 2 DOGAMI RC drill permit approvals to extend area of known mineralisation (Q1 CY2023).
- Assays results from drill program (Q1 CY2023).
- Drill program (H1 CY2023).
- Define lithium exploration target (assuming success from drill program) (H1 CY2023).
- Preliminary metallurgical testwork (H1 CY2023).
- Targeting maiden lithium mineral resource (H1 CY2023).



Current drilling program

Investment Proposition

Four key reasons to invest in Aurora Energy Metals



Minerals critical to the USA's energy transition



Large, advanced uranium project with significant blue sky lithium potential



Accelerated, dual-stream work program underway



Deeply experienced, quality management team

Appendices

Uranium Resource Summary

	Measured			Indicated			Inferred			Total		
Resource Zone	Mt	U ₃ O ₈ ppm	MIb U ₃ O ₈	Mt	U ₃ O ₈ ppm	MIb U ₃ O ₈	Mt	U ₃ O ₈ ppm	MIb U ₃ O ₈	Mt	U ₃ O ₈ ppm	MIb U ₃ O ₈
High Grade Zone ¹	16.3	487	17.5	1.6	467	1.6	0.1	425	0.1	18.0	485	19.2
Low Grade Zone ²	43.2	162	15.4	19.8	161	7.0	26.3	155	9.0	89.3	160	31.5
Total	59.5	251	32.9	21.4	184	8.7	26.4	157	9.1	107.3	214	50.6

1. High grade zone estimated using a 300 ppm U₃O₈ cut-off
2. Low grade zone estimated using a 100 ppm U₃O₈ cut-off
3. Appropriate rounding applied

JORC Disclaimer:

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Information in this announcement relating to Mineral Resources is extracted from the Announcement released by the ASX on 23 November 2022. Aurora Energy Metals Limited confirms that it is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning the Mineral Resource continue to apply and have not materially changed. Aurora Energy Metals Limited confirms that the form and context in which the Competent Persons' findings are presented in this announcement have not been materially modified from the original market announcement.



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