2024 ATHABASCA BASIN URANIUM EXPLORATION PROGRAM COMMENCES

Key Highlights

- **Athabasca Basin Uranium Exploration programs commenced.**
- **Significant ground electromagnetic survey initiated at North Millennium and Marshall projects.**
    - Exploring for potential repetitions of Cameco's Millennium deposit (104.8Mlb at 3.8% U_3O_8) [1] located 7 kilometres to the south.
- **Key contracts signed for February exploration drilling at Geikie project.**
    - Phase 2 drilling targeting shallow (<300 metre) mineralisation in direct follow up to 2023 greenfield success.
    - Up to 2,500 metres planned for a minimum of 8 drill holes.
- **Positive uranium market sentiment continues to build, with U_3O_8 SPOT price exceeding US$105/Lb[2].**

Basin Energy Limited (**ASX:BSN**) ('**Basin**' or the '**Company**') is pleased to provide a progress update on winter exploration activities on its Athabasca uranium projects (collectively the '**projects'** or **'portfolio'**). Field work has now commenced for Basin's winter program across the entire of Basin's land portfolio. A high-resolution ground Stepwise Moving Loop Time-Domain Electromagnetic ('**EM**') survey is now underway at the North Millennium and Marshall projects, and final preparations are being made for phase 2 drilling at the Geikie project.

Basin's Managing Director, Pete Moorhouse, commented:

"Basin is taking an aggressive approach to its winter exploration program with teams back on the ground following the holiday season. 2024 is setting up to be a big year for the Company as the uranium market continues to heat up. We have no shortage of targets in the world's premier uranium district which we will be systematically testing.

Ground EM is being conducted at North Millennium and Marshall, as we look to explore for repeats of Cameco's Millennium deposit located just 7 kms to the south. This will pave the way for rapid follow up drilling of these targets.

Preparations for phase 2 drilling at Geikie are now well advanced and we are excited to be following up on the success of our phase 1 drill program, which intersected the key ingredients for Athabasca basement-hosted high-grade uranium deposits. We are happy to have secured the services of

[1] *Refer ASX Prospectus dated 22 August 2022, and release disclaimer for resource figures quoted.*
[2] *Refer www.numerco.com*

Athabasca Catering Limited Partnership and ITL Drilling to conduct the drilling for phase 2. The team completed the phase 1 program for Basin and demonstrated exceptional capabilities."

Winter 2024 Geophysics

The North Millennium and Marshall projects are located in the southeastern portion of the Athabasca Basin and situated 7 km north of Cameco's Millennium uranium deposit, host to 104.8 million pounds U_3O_8 at 3.76%[3] and just 40 kilometres from the prolific McArthur River Mine host to 674.9 million pounds U_3O_8 at 17.0%[4].

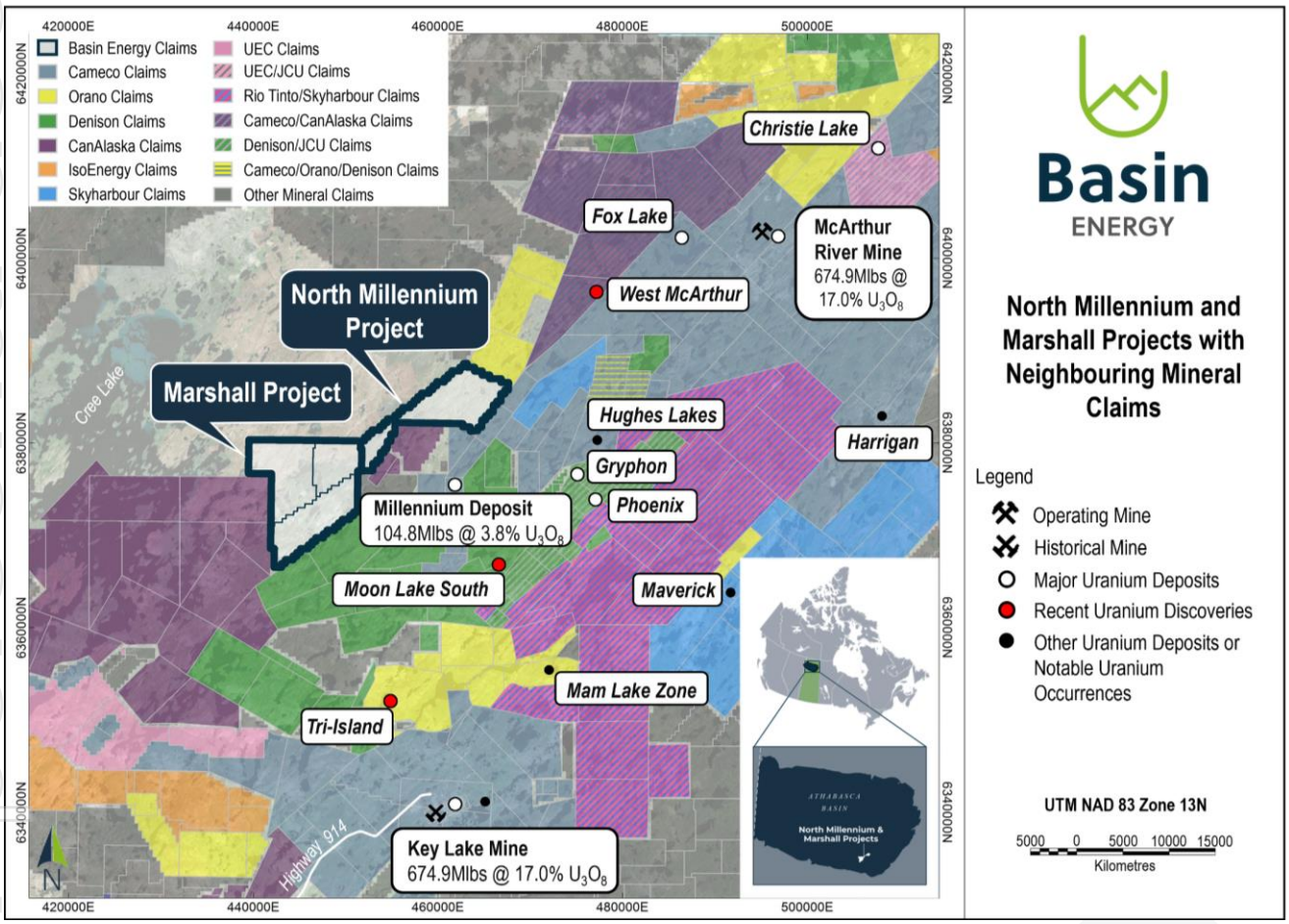


Figure 1: *Basin's North Millennium and Marshall uranium project locations*

A ground-based high-resolution Stepwise Moving Loop Time-Domain EM survey consisting of around 100-line kilometres has commenced, with Discovery International Geophysics Inc. conducting the work. The program is expected to take approximately 6 weeks to complete, with results due in early Q2 2024. The survey is the final step at North Millennium and Marshall to progress the projects to a drill ready status.

[3&4] *Refer ASX Prospectus dated 22 August 2022, and release disclaimer for resource figures quoted.*

At North Millennium, Basin are exploring along the interpreted extension of the “Mother Fault”, which is host to the Cameco majority owned Millennium deposit. Despite its proximity and geological similarities to significant uranium deposits, there has been minimal mineral exploration at the project with no known historical exploration drill holes. Historical drilling near the neighbouring project intersected a mineralized fracture immediately above the unconformity (0.05 m at 0.13% U_3O_8) and a wide graphitic-pyritic pelite interval in the basement[5]. Modelling of historic geophysical data by Basin in 2023 defined the extension potential of the Millennium Mother fault, known to be the conduit for mineralisation.

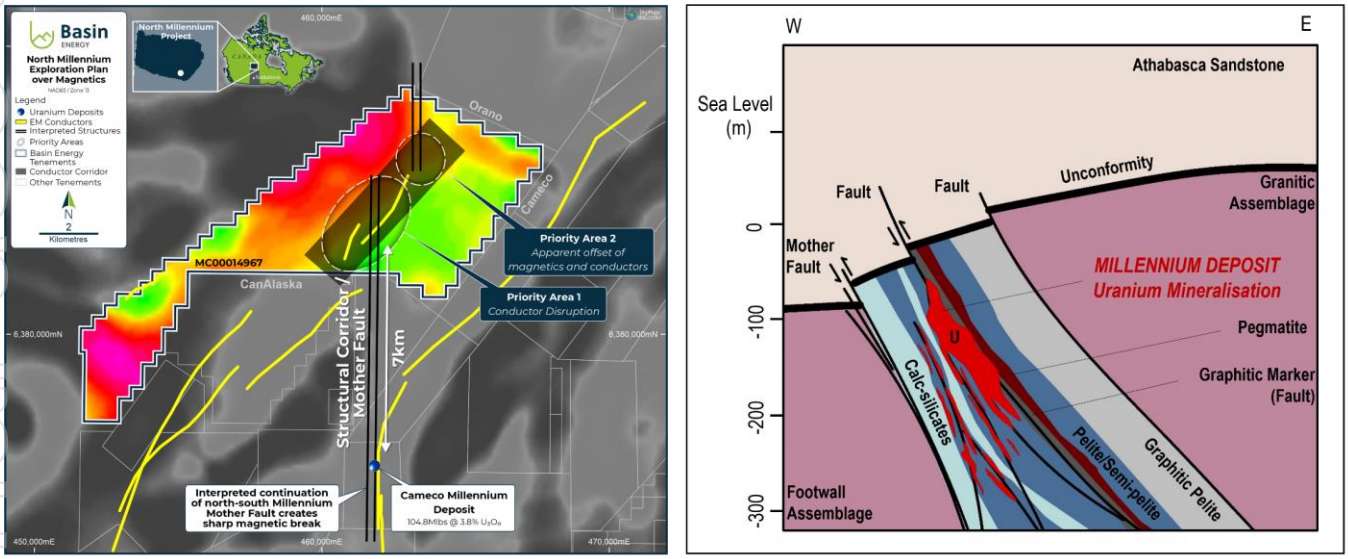


Figure 2: *North Millennium Project Exploration Plans (left) and Cameco’s Millennium Deposit type section (right)[6].*

At the Marshall Project, Basin are exploring a series of large-scale geophysical features. Modelling of historic geophysical data by Basin in 2022 defined a series of anomalies both below and above the Athabasca unconformity contact.

[5] *https://www.canalaska.com/project/mctavish/*
[6] *After Wood, G., et al, 2012, An interpretation of surface and borehole seismic surveys for mine planning at the Millennium uranium deposit, northern Saskatchewan, Canada. Geophysics, Vol.77, No.5 (September-October 2012).*

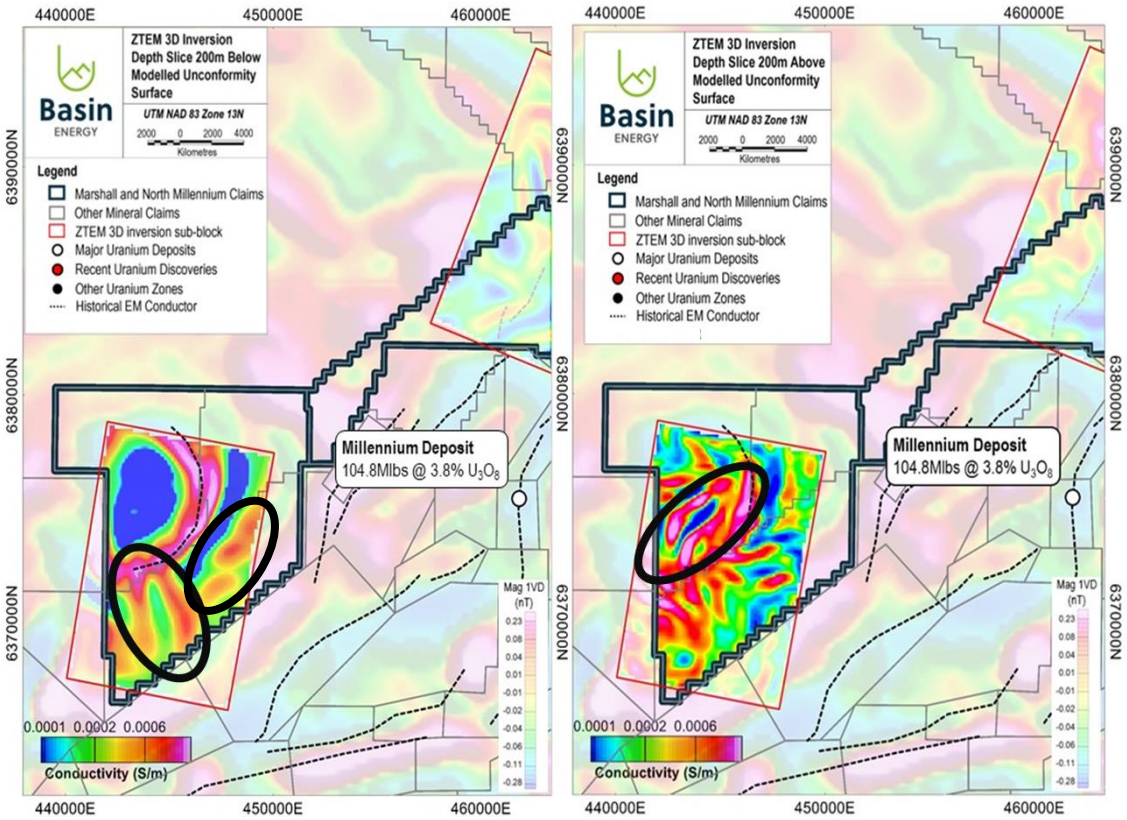


Figure 3 (left): *3D inversion ZTEM depth slice 200m below modelled unconformity surface over first vertical derivative magnetics.*
Figure 4 (right): *3D inversion ZTEM depth slice 200m above modelled unconformity surface over first vertical derivative magnetics.*

Winter 2024 Drilling

The up to 2,500-metre drill program is scheduled to mobilise in early February to the Geikie uranium project. This will allow drilling to commence by mid-February, with the program expected to take 6 to 8 weeks to complete. Drilling services have been awarded to Athabasca Catering Limited Partnership, a 100% First Nations-owned company, who are partnered with ITL Diamond Drilling Ltd. Basin will update the market on target specifics at the time of contractor mobilisation.

Basin's 2023 maiden drill program successfully identified large complex fault systems associated with locally extensive hydrothermal alteration patterns[7,8]. Assay results returned anomalous uranium intersected in four of the eight holes drilled and pathfinder element anomalism for uranium mineralisation, specifically lead isotopes, in five of the eight holes[6] drilled. Core logging data, combined with previous ground prospecting results[9], allowed increased confidence levels on lithological interpretations in areas of primary interest on the Geikie project.

[7] *Refer Basin Energy ASX release dated 10/08/2023 "Elevated Radioactivity and Significant Hydrothermal Alteration Identified at Geikie"*
[8] *Refer Basin Energy ASX release dated 20/09/2023 "Basin Energy Intersects Uranium Mineralisation up to 0.27% in Maiden Drilling at Geikie"*
[9] *Refer Basin Energy ASX release dated 14/12/2022 "Airborne EM survey commence at Geikie"*

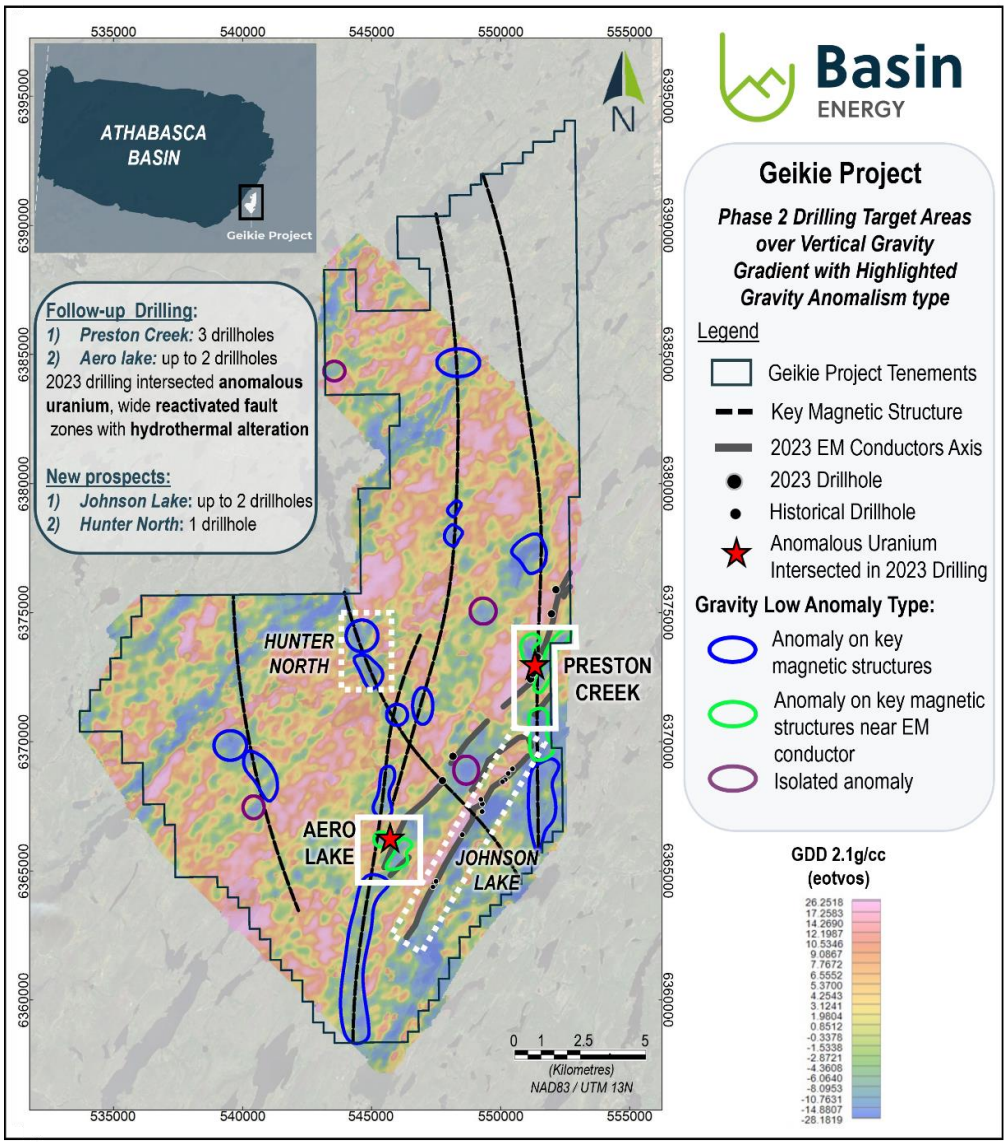


***Figure 5**: 2024 Exploration drilling priorities at Geikie*

Subsequent to the completion of maiden drilling, Basin has acquired high resolution Airborne Gravity Gradiometer ("AGG") data. The AGG data highlight a series of gravity low anomalies[10] coincident with key structural features identified through high-resolution magnetic data[11], some of which have been intersected in the 2023 drillholes. Modelling of select gravity low anomalies supports interpretation of active hydrothermal systems adjacent to drilling prospects.

The drill targets have been designed to test fault zones in key prospect areas. These faults zones provide an ideal location for mineralised fluids to focus and precipitate. This is evidenced by the nearby GMZ-ACKIO mineralised zone discovery on neighbouring tenements owned by 92 Energy and Baselode Energy, respectively. Basin's Geikie project is located less than 10 kilometres east of the GMZ-ACKIO mineralised zone and within a similar geological setting.

[10] *Refer Basin Energy ASX release dated 15/11/2023 "Gravity Survey Identifies Significant Anomalies at the Geikie Uranium Project"*
[11] *Refer Basin Energy ASX release dated 13/10/2022 "Maiden geophysical survey defines multiple priority targets at Geikie"*

This announcement has been approved for release by the Board of Basin Energy.

Enquiries

Pete Moorhouse
Managing Director
pete.m@basinenergy.com.au
+61 7 3667 7449

Chloe Hayes
Investor & Media Relations
chloe@janemorganmanagement.com.au
+61 458 619 317

Company Overview

About Basin Energy

Basin Energy (ASX: **BSN**) is a uranium exploration and development company with an interest in three highly prospective projects positioned in the southeast corner and margins of the world-renowned Athabasca Basin in Canada.

Directors & Management

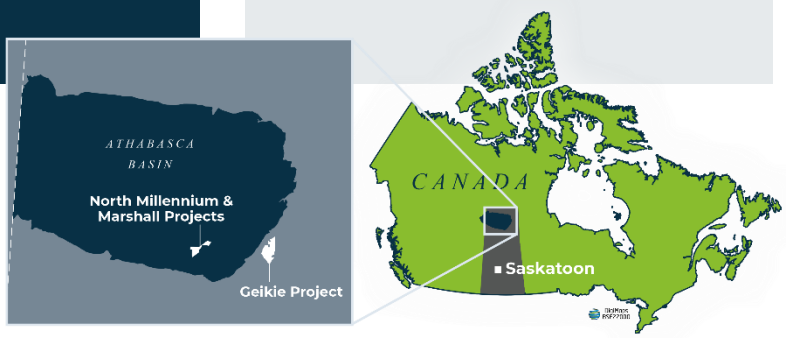
Pete Moorhouse	**Managing Director**
Blake Steele	**Non-executive Chairman**
Cory Belyk	**Non-executive Director**
Jeremy Clark	**Non-executive Director**
Peter Bird	**Non-executive Director**
Ben Donovan	**NED & Company Secretary**
Odile Maufrais	**Exploration Manager**

Basin Energy
ACN 655 515 110

Projects
North Millennium
Geikie
Marshall

Shares on Issue
83,479,697

ASX Code
BSN



Investment Highlights

Pureplay Uranium Company Leveraged to the global low carbon economy megatrends, with a North American focus

Well funded – Cash in bank to complete ongoing work, and conduct follow up drilling at Geikie to advance initial success exploring for shallow high-grade uranium

Direct exposure to high grade uranium within the world class uranium mining district of the Athabasca Basin, Saskatchewan, Canada – a top three global uranium producer for over 45 years

Strategically located near world-class high-grade uranium discoveries, mining and processing operations with a constant uranium mining industry for 65 years

Located in Saskatchewan, a globally attractive and proven mining jurisdiction – Ranked 2nd in Fraser Institute 2021 global mining investment attractiveness index

Systematic exploration approach Clear exploration strategy allowing a gated approach to target generation and testing

Leveraging an extensive high-quality geological database assembled over decades, with significant recent exploration success

Experienced and dedicated team with relevant uranium exploration and development track record

Appendix 1

Competent Persons Statement, Resource Figure Notes and Forward Looking Statement

The information in this announcement that relates to exploration results was first reported by the Company in accordance with ASX listing rule 5.7 in the Company's prospectus dated 22nd August 2022 and announced on the ASX market platform on 30th September 2022, and data announced in subsequent ASX press releases by Basin Energy relating to exploration activities. The information included within this release is a fair representation of available information compiled by Odile Maufrais, M.Sc., a competent person who is a Member of the Australian Institute of Mining and Metallurgy. Odile Maufrais is employed by Basin Energy Ltd as Exploration Manager. Odile Maufrais has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves. Odile Maufrais consents to the inclusion in this presentation of the matters based on her work in the form and context in which it appears.

All resource figures shown within this document of deposits within the Athabasca, unless stated are quoted from the International Atomic Energy Agency (IAEA) Tecdoc 1857. Resources are global and include mined resource and all classification of remaining resource. Resource Size (U_3O_8) is the amount of contained uranium (in Mlbs U_3O_8) and average grade (in % U_3O_8) of the deposit/system. This number is presented without a specific cut-off grade, as the cut-off value differs from deposit to deposit and is dependent on resource calculation specifications. Discrepancies between values in this field and other values in the public domain may be due to separate cut-off values used, or updated values since the writing of this document. For system entries, the values for the size were obtained by adding the individual deposits values whereas average grade values were derived using a weighted average of the individual deposits.

This announcement includes certain "Forward-looking Statements". The words "forecast", "estimate", "like", "anticipate", "project", "opinion", "should", "could", "may", "target" and other similar expressions are intended to identify forward looking statements. All statements, other than statements of historical fact, included herein, including without limitation, statements regarding forecast cash flows and future expansion plans and development objectives of Basin Energy involve various risks and uncertainties. There can be no assurance that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements.