

# State of Utah Re-Confirms Green River Water (Brine) Extraction Right

### ASX: ASN Announcement

### **Highlights:**

- Final-approval from State of Utah, Department of Natural Resources, Division of Water Rights,
- First State of Utah approval related to large scale lithium production at Green River,
- The approval process confirms the water resources and surrounding areas will not be negatively affected by brine extraction.

Anson Resources Limited (ASX: **ASN**) ("**Anson Resources**" or "**the Company**") is pleased to announce that the application, which was initially filed on the 17 July, 2023 by its 100% owned subsidiary in the USA, Blackstone Minerals NV LLC to appropriate water (brine) for the extraction of lithium at its Green River Lithium Project (the Project) has reached final approval by the State of Utah, Department of Natural Resources, Division of Water Rights (the Division).

The Company initially received approval from the State engineer, see ASX Announcement 8th May 2024. The Company was subsequently notified that the State Engineer had granted an application to re-consider the extraction right, see ASX Announcement 19 June 2024. Today's notification confirms the reconsideration has been completed and the extraction of water (brine) right has been approved.

The approval allows for the non-consumptive use of 19 cubic feet per second (0.54 cubic meters per second) of brine through a lithium extraction process. The brine is then returned to the geological formation from which it was originally extracted. As all the brine will be returned to its origin, the Division determined that its use is non-consumptive. It was noted by the Division that the Company had submitted an Underground Injection Control (UIC) Technical Report for a "UIC Class 5 Spent Brine Return" Well to the Utah Division of Water Quality (DWQ) which has just been approved, *see ASX Announcement 26 August 2024*. The location of the four planned extraction wells is to be located on the private land that the Company successfully purchased last year, *see ASX Announcement 12 September 2023*. The extraction location is within meters of the proposed lithium extraction plant, *see Figure 1*.

Anson's Executive Chairman and CEO Bruce Richardson commented, "Through detailed community engagement and employment of local staff, our Company has developed deep community ties and an understanding of local issues. The Company always believed we were fully compliant with the requirements for this approval and will continue to work with all levels of government and the community to advance the Project. This approval is significant as it is the first granted to the Company by the State of Utah for the processing of brine for lithium extraction at Green River. The Company is moving quickly through the government permitting application process which is aided by the acquisition of private land at Green River. The planned extraction wells are to be located on that land, a brownfields site where there has already been surface disturbance. Importantly, the Department of Natural Resources acknowledged there was no connection between the brine that Anson intends to extract and surface waters including

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rivers and ground water systems and that the process the Company has determined to use to extract lithium and return the waste brine to the same formation from which the brine was extracted is a nonconsumptive process, unlike evaporation ponds.

This Direct Lithium Extraction process has less impact upon the environment, which is one of the company's key objectives. The Green River Lithium Project continues to develop at a rapid pace with the recent completion of the Bosydaba #1 well and the commissioning of the Sample Demonstration Plant, see ASX Announcements 15 April and 22 April 2024. The Company will continue to push forward with the development of the Green River Lithium Project to deliver increased shareholder value."

For personal use only 4315250n Bosydaba #1 4315000m 4314750r 4314500m 4314250

575500n 75000 574500 **Disposal Wells** traction Wells MAP LEGEND Blackstone Private Property Brine Extraction Well Locations **Disposal Well Locations** Wells 4314000m

Figure 1: Map showing Green River Lithium Project Proposed Extraction and Disposal Wells

The location of the extraction wells is proposed to be located on the private land that the Company successfully purchased last year, see ASX Announcement 12 September 2023.

It was further determined by the Division that the water/brine was unappropriated and that there was no existing water rights established in this area drawing water/brine. The withdrawal of brine/water at that depth will not impair existing rights or interfere with a more beneficial use of water and will not negatively affect water supply.

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# About the Green River Lithium Project Geology

The Green River Project exhibits all the positive geological characteristics of the Paradox Project including rock units and stratigraphy. The limestones and dolomites of the Mississippian units in south-eastern Utah are noted for vuggy and intracrystalline porosity, especially in areas that contain suitable geological structures. At both the Paradox and Green River projects these geological structures have resulted in high porosity and permeability.

Saturated brines have been encountered in both the Pennsylvanian Clastic Zones and the Mississippian rocks in almost every well that penetrated these units in the project areas. Similar brines of the clastic zones have also been found in the porous dolomites and limestones of Mississippian age in numerous wells in the project area. From the standpoint of reservoirs for brine accumulation, the Mississippian rocks have potential to hold as much promise as the Pennsylvanian clastic units. These limestone and dolomite units range from 100 to 250 metres thick and are noted for vuggy and inter-crystalline porosity.

At the Green River project there are many large geological structures such as the Ten Mile Graben, Little Grand Wash Fault, Green River Anticline and the Salt Wash Anticline which have resulted in advantageous attributes for the extraction of brines, *see ASX Announcement 21 September 2023*. These structures, along with the lithological units within the targeted zones, are geologically like the Paradox Lithium Project which are beneficial factors for the project in the extraction zones including:

- High pressure,
- Increased porosity,
- Increased permeability.



Figure 2: The 3D geological model showing a comparison of the thickness of the Mississippian Units at both lithium projects.

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These conditions provide strong indicators of low extraction costs and positive implications for ESG factors, see ASX Announcement, 30 May 2022.

From the 3D model created by Anson covering both lithium project areas, *see Figure 2*, the Mississippian units at Green River are much thicker than that intersected at Paradox. This will result in less drillholes being required to build a suitable resource, especially with similar or higher grades.

# **Conservation of Water Aquifers**

The exploration drilling program has been designed to ensure that there is no interaction between the surface waters and the supersaturated lithium brines with the well-being steel cased and cemented in place.

The majority of the water-yielding rock units in the area are part of either an upper or lower hydrologic system. The two systems are separated by the impermeable salt beds of the Pennsylvanian Paradox Formation, which underlies the counties in the region (Weir, Maxwell & Zimmerman, 1983) which is further supported by the salinity values intersected in this "surface" drilling recently completed by Anson.

	Bosydaba#1	Morrison Formation
Confining Unif	Morr	ison Aquifer
Confining Unit	(Slig Entrada Aqu	ifer Sandstone&Limestone
Confining Unit	Nav (Fresh Wark	ajo Aquifer sh Water)
Confining Unit		
Confining Unit	(Wing (Wolde)	rately saline) Chinle Formation
Confining Unit		
Confining Beds Siltstone		Moenkopi Formation 700 ft
Confining Beds F-C gr sandstone	Cuti (S	er Aquifer ialine) Cutler Formation 1,300 ft
Confining Beds Limestone		Honaker Trail 1,000 ft
Confining Beds (29 evaporite layers) Salt (Halite) Anhydrite Black Shale Anhydrite		Pennsylvannian Formation 4,000 ft
Black Shale Anhydrite Dolonite Anhydrite Salt (Halite)		Clastic Zone 31 30 ft
Confining Beds Limestone		Mississippian Units 800 ft
Confining Beds Limestone	Paleozoic Aquifer 10,800' (Saline)	Devonian Units 300 ft
Confining Beds		Cambrian

Figure 3: Section showing the Boysdaba#1 Well and the formations that were intersected



This announcement has been authorized for release by the Executive Chairman and CEO.

ENDS

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About Anson Resources Ltd

Anson Resources (ASX: ASN) is an ASX-listed mineral resources company with a portfolio of minerals projects in key demand-driven commodities. Its core asset is the Paradox Lithium Project in Utah, in the USA. Anson is focused on developing the Paradox Project into a significant lithium producing operation. The Company's goal is to create long-term shareholder value through the discovery, acquisition and development of natural resources that meet the demand of tomorrow's new energy and technology markets.

**Forward Looking Statements:** Statements regarding plans with respect to Anson's mineral projects are forward-looking statements. There can be no assurance that Anson's plans for development of its projects will proceed as expected and there can be no assurance that Anson will be able to confirm the presence of mineral deposits, that mineralisation may prove to be economic or that a project will be developed.

**Competent Person's Statement:** The information in this announcement that relates to exploration results and geology is based on information compiled and/or reviewed by Mr Greg Knox, a member in good standing of the Australasian Institute of Mining and Metallurgy. Mr Knox is a geologist who has sufficient experience which is relevant to the style of mineralisation under consideration and to the activity being undertaken to qualify as a "Competent Person", as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves and consents to the inclusion in this report of the matters based on information in the form and context in which they appear. Mr Knox is a director of Anson.