

High Quality Li Assays from the Thick Mississippian Units in the New Bosydaba#1 Well

ASX: **ASN** Announcement

Highlights:

- **Lithium grades up to 139ppm and 4,604ppm bromine through the thick Mississippian Units,**
 - **Confirms the massive, supersaturated brine aquifer is lithium and bromine rich,**
- **Similar to Mississippian grades in the Paradox Lithium Project JORC resource,**
 - **Mississippian units greater than 790 feet in thickness at Green River,**
- **Lower salt concentrations beneficial to proposed lithium extraction process,**
- **Drilling confirmed Anson interpretations,**
 - **Presence of supersaturated brines, and high pressures (5,100psi),**
- **Bosydaba#1 well will remain open for testing and production of samples for off-take partners at the Green River Sample Demonstration Plant,**

Anson Resources Limited (ASX: ASN) (“Anson Resources” or “the Company”) is pleased to announce that results up to 139ppm lithium (average 138.9ppm) and 4,604ppm bromine (average 4,569 ppm) have been obtained from the 790 feet thick Mississippian units containing supersaturated brine from the recently completed Bosydaba#1 well, *see ASX Announcement 22 April 2024*, at its Green River Lithium Project in south-eastern Utah, USA. Significantly, while the grades of lithium and bromine are like those assayed in the Paradox Lithium Project brines, 50km to the southwest, the iron, magnesium, calcium, potassium and boron are lower which is beneficial in the lithium extraction process, see Table 1.



Figure 1: Some of the Mississippian brine samples to be sent off to certified laboratories in the USA.

		Mississippian	
Cations		Green River (ppm)	Paradox (ppm)
	Li	139	141
	B	13.8	952.2
	Ca	18,639	46,342
	Mg	14,324	31,974
	Fe	115	278
	K	19,253	31,217
Anions			
	Cl	145,123	247,673
	Br	4,569	3,441

Table 1: The assay results of the various ions from the Mississippian units at both the Green River and Paradox Projects.

The Bosydaba#1 well remains open and will provide fresh brine for the Green River Sample Demonstration Plant (SDP) that was recently commissioned, *see ASX announcement 15 April 2024*. The significance of the availability of fresh brine from the Bosydaba#1 well is that it is expected that the test results to be fed into the production flow sheet design will be more accurate as the brine will be as near as possible to that to be used in production. In addition, it will also be possible to produce larger amounts of battery grade material for testing by offtake partners.

The lithium value is 40% higher than the assay used as the minimum value in the lithium grade range and the bromine grade is 177% higher than the maximum value in the bromine grade range used in the initial Exploration Target Calculations for the Green River Lithium Project (*see ASX Announcement 15 February 2023*). In addition, the thickness of the Mississippian is 263% higher than what was used in the calculation.

Lithological Unit	Range	Brine Tonnes (Mt)	Li Grade (ppm)	Br Grade (ppm)	Li (kt)	Li ₂ O ₃ (kt) ¹	Br (kt)
Mississippian & Clastic Zones	Minimum	2,000	100	2,000	200	1,065	3,200
	Maximum	2,600	150	3,000	390	2,076	7,800

Table 2: Exploration Target estimation for the Green River Lithium Project – for the combined Leadville and Paradox units.

The Exploration Target figure is conceptual in nature as there has been insufficient exploration undertaken on the Project to define a mineral resource for Leadville. It is uncertain that future exploration will result in mineral resources.

At the Green River project, the targeted Clastic Zones and the Mississippian units had no recorded historical lithium and bromine assays, but supersaturated brines have been intercepted during historical oil and gas drilling. As a result, the Green River Lithium Project is classified as an Exploration Target, *see ASX Announcement 15 February 2023*. The Exploration Target for both the Mississippian Leadville and Pennsylvanian Paradox Units has a combined range of 2.0 billion tonnes to 2.6 billion tonnes of brine, grading 100 – 150ppm Li and 2,000 – 3,000ppm Br, *see Table 2*.

¹ Lithium is converted to lithium carbonate (Li₂CO₃) using a conversion factor of 5.32. Rounding errors may occur.

The drilling program was designed to deliver a maiden lithium JORC Mineral Resource at the Project, which would substantially increase the Company's existing JORC Mineral Resource inventory in the Paradox Basin; Anson's flagship Paradox Lithium Project, located 50km to the south-east, has a current JORC Mineral Resources of 1.04Mt of Lithium Carbonate and 5.27Mt of Bromine, (ASX announcement, 2 November 2022).

The Mississippian Unit consists of layers of limestone and dolomite. These units have been altered by hydrothermal events which have enhanced the reservoir potential, and have increased the porosity by leaching, developing micro-porosity and fracturing.

The Bosydaba#1 well which is located 200 meters from the SDP will be left open to enable the extraction of additional fresh brine for on-going processing at the SDP. The SDP is fully commissioned and consists of both the Direct Lithium Extraction (DLE) and the downstream purification processes. The plant is capable of operating 24/7 and producing a high purity lithium carbonate product as samples for potential off-take partners.

Based upon the research Anson has conducted of drilling logs and other data bases, the geological characteristics of the Green River Lithium Project area indicate higher recorded thickness of brine bearing rock units, higher porosity and permeability, and higher recorded pressure in the Mississippian Units which has resulted in brine flowing almost to the surface in the drillholes completed. These key indicators, see Table 2, if confirmed in Anson's planned exploration program, suggest that the regional geology at its Green River Lithium Project is equal to or better than Anson's core asset, the Paradox Lithium Project.

	Paradox Lithium Project	Green River Lithium Project
Basin	Paradox	Paradox
Claims	2,642	1,271
Area (hectares)	23,135	10,620
Location	Abuts Colorado River	Abuts Green River
Infrastructure	Highway, Rail, Electricity	Highway, Rail, Electricity, Gas
Historic Drillholes	Drilled through the Mississippian	Drilled into the Mississippian
Rock Units	Dolomite, Limestone	Dolomite, Limestone
Thickness (m)	122 (400 ft)	>296 (>970 feet)
Porosity*(%)	8 - 14	10 - 14
Pressure (psi)	4,000 – 4,500	4,500 - 5,500
Flow	Flowed up the tubing	Flowed up the tubing (almost to surface)

Table 2: Table showing the similar geological characteristics between the Anson lithium brine projects.

About the Green River Lithium Project Geology

The Green River Project exhibits all the positive geological characteristics of the Paradox Lithium 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 Pennsylvanian and Mississippian rocks in almost every well that penetrated these units in the project areas. Brines like the Pennsylvanian 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.

The Mississippian units intersected in the Bosydaba#1 well consists of limestone, dolomite with minor sandstone, shale and anhydrite. These lithological units are the same as those at the Paradox project 50km to the south-east of the Green River Lithium Project indicating that the horizons are continuous between the two projects.

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 similar to the Paradox Lithium Project which are beneficial factors for the project in the extraction zones including:

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

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, it can be seen that the Leadville (khaki) is a massive aquifer compared to that of Clastic Zone 31 (brown) and is much thicker in the northern area of the model.

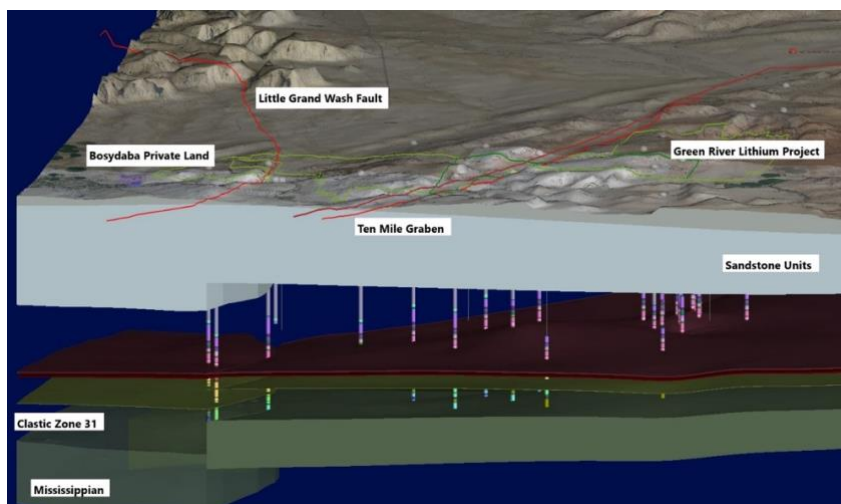


Figure 2: The 3D geological model showing the location of the Little Grand Wash Fault in relation to the Green River Project.

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 1: The information in this announcement that relates to exploration results, Exploration Target, 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.

JORC Code 2012 “Table 1” Report

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (e.g. cut channels, random chips, or specific specialized industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralization that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverized to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralization types (e.g. submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> Sampling will follow the protocols produced by SRK for lithium brine sampling. Samples will be collected in 1,000 litre IBC containers and samples taken from them to provide representative samples of the complete volume of brine collected. The brine samples to be assayed will be collected in clean plastic bottles. Each bottle will be marked with the location and sample interval. Duplicate samples will also be collected and securely stored. Bulk samples will also be collected for future use. Sample sizes will be appropriate for the program being completed.
Drilling Techniques	<ul style="list-style-type: none"> Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face sampling bit or other type, whether core is oriented and if so, by what method, etc.). 	<ul style="list-style-type: none"> Air drilling and oil-based mud drilling.
Drill Sample Recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> Chips will be recovered over the shaker table and collected by mudloggers.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> All samples were geologically logged in the field by a qualified geologist. Geological logging is qualitative in nature.

Criteria	JORC Code Explanation	Commentary
Sub-sampling Techniques and Preparation	<ul style="list-style-type: none"> • If core, whether cut or sawn and whether quarter, half or all core taken • If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples. • Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> • Samples will be submitted to Laboratories in Texas, USA that are certified and experienced with oilfield brines. • Sample preparation techniques represent industry good practice. • The sample sizes are considered to be appropriate for the material being sampled. • Sampling will follow the protocols produced by SRK for lithium brine sampling. • Samples will be collected in IBC containers and samples taken from them. • Duplicate samples kept Storage samples will also be collected and securely stored. • Bulk samples will also be collected for future use. • Sample sizes will be appropriate for the program being completed.
Quality of Assay Data and Laboratory Tests	<ul style="list-style-type: none"> • The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. • For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. • Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	<ul style="list-style-type: none"> • Analysis will be carried out by a certified laboratory.
Verification of Sampling and Assaying	<ul style="list-style-type: none"> • The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data. • 	<ul style="list-style-type: none"> • The results are considered acceptable and reviewed by geologists. • No adjustments to assay data has been undertaken.
Location of Data Points	<ul style="list-style-type: none"> • Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. • Specification of the grid system used. • Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> • The grid system used is UTM Zone 12 (NAD83). • Location of drillhole was positioned by a qualified land surveyor.
Data Spacing and Distribution	<ul style="list-style-type: none"> • Data spacing for reporting of Exploration Results. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied. 	<ul style="list-style-type: none"> • The grid system used is UTM Zone 12 (NAD83). • Data spacing is considered acceptable for a brine sample but has not been used in any Resource calculations. • There has been no compositing of brine samples.

Criteria	JORC Code Explanation	Commentary
<i>Orientation of Data in Relation to Geological Structure</i>	<ul style="list-style-type: none"> • Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • If the relationship between the drilling orientation and the orientation of key mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material. • 	<ul style="list-style-type: none"> • The Paradox Basin hosts bromine and lithium bearing brines within a sub-horizontal sequence of salts, anhydrite, shale and dolomite. • The Bositydaba#1 well has a vertical (dip -90), perpendicular to the target brine hosting sedimentary rocks.
<i>Sample Security</i>	<ul style="list-style-type: none"> • The measures taken to ensure sample security. 	<ul style="list-style-type: none"> • N/A
<i>Audits or Reviews</i>	<ul style="list-style-type: none"> • The results of any audits or reviews of sampling techniques and data 	<ul style="list-style-type: none"> • No audits or reviews have been conducted at this point in time.

Section 2 Reporting of Exploration Results

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code Explanation	Commentary
<i>Mineral Tenement and Land Tenure Status</i>	<ul style="list-style-type: none"> • Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. • The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area. 	<ul style="list-style-type: none"> • The Green River Lithium Project is located in southeastern Utah, USA, consisting of 1,251 placer claims that encompasses a land position of 10,620 hectares. • Purchased private property consists of a 55 hectare land parcel • All claims are held 100% by Anson's U.S. based subsidiary, Blackstone Minerals NV LLC. • The claims/leases are in good standing, with payment current to the relevant governmental agencies.
<i>Exploration Done by Other Parties</i>	<ul style="list-style-type: none"> • Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> • Historical exploration for brines within the Paradox Basin includes only limited work in the 1960s. No brine resource estimates had been completed in the area, nor has there been any historical economic production of bromine or lithium from these fluids. • The historical data generated through oil and gas development in the Paradox Formation has supplied some information on brine chemistry.
<i>Geology</i>	<ul style="list-style-type: none"> • Deposit type, geological setting and style of mineralization. 	<ul style="list-style-type: none"> • The geology of the Paradox Formation indicates a restricted marine basin, marked by 29 evaporite sequences. Brines that host bromine and lithium mineralization occur within the saline facies of the Paradox Formation and are generally hosted in the more permeable dolomite sediments. • Controls on the spatial distribution of certain salts (boron, bromine, lithium, magnesium, etc.) within the clastic aquifers of the Paradox Basin is poorly understood but believed to be in part dictated by the geochemistry of the

Criteria	JORC Code Explanation	Commentary
Drill Hole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> easting and northing of the drill hole collar elevation or RL (Reduced Level - elevation above sea level in meters) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> Drillhole collar LAT : 38°58'56.85510" LON : 110°08'35.14421" EL : 4070.1'
Data Aggregation Methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade Brine samples taken in holes were averaged (arithmetic average) without 14 Criteria JORC Code explanation Commentary truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> N/A
Relationship Between Mineralization Widths and Intercept Lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralization with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> The sediments hosting the brine aquifer are interpreted to be essentially perpendicular to the vertical oil wells. Therefore, all reported thicknesses are believed to be accurate. Brines are collected and sampled over the entire perforated width of the zone. The Mississippian Units are assumed to be porous and permeable over its entire vertical width based on drilling records.
Diagrams	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	<ul style="list-style-type: none"> Appropriate diagrams are shown in the text.
Balanced Reporting	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> N/A

Criteria	JORC Code Explanation	Commentary
Other Substantive Exploration Data	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples - size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	<ul style="list-style-type: none"> All available current exploration data has been presented.
Further Work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> The wells and sampling planned will cover the Paradox Formation and Leadville Limestone. Future wells will focus on wells surrounding the proposed locations to upgrade future JORC resources.