

First Lithium Carbonate Produced from Brines from Paradox Lithium Project

Samples to be provided to potential OEM offtake partners

Highlights:

- Anson has produced its first battery-grade lithium carbonate from brines from its Paradox Lithium Project in Utah
- Key milestone which enable Anson to provide product samples to potential off-take OEM partners including electric vehicle and lithium-ion battery manufactures
- Samples were produced from demonstration plant Anson has established at its Lithium Innovation Centre in Florida, USA - sample production to be progressively ramped-up
- Anson then plans to relocate the demonstration plant to the Paradox Project and use brine directly from extraction wells to generate increased production to meet expected demand from potential off-take partners
- The in-line production process produces battery-grade lithium carbonate using the flow sheet designed by Anson's DLE partner Sunresin for the Paradox Project's lithium-rich brines

Anson Resources Limited (ASX: ASN) (Anson or the Company) is pleased to announce that it has produced its first battery-grade lithium carbonate product (Figure 1) from brines from its Paradox Lithium Project in south-eastern Utah, USA.

The lithium carbonate has been produced utilising the flowsheet designed for Anson's lithium-rich brines at the Project by its direct lithium extraction (DLE) partner, Sunresin, and is a key milestone. It enables the Company to advance its lithium carbonate off-take and supply discussions, and provide samples to potential off-take Original Equipment Manufacturer (OEM) partners, including electric vehicle and lithium-ion battery manufactures.



Figure 1: Lithium Carbonate produced at Anson's Lithium Innovation Centre.

Sample Production to Ramp-up

The initial lithium carbonate samples have been produced from a sample demonstration plant located at Anson's newly established Lithium Innovation Centre (LIC) in Florida, USA. The equipment and DLE process replicates Sunresin's DLE process Anson plans to use at its proposed lithium production plant at the Paradox Project.

Anson proposes to gradually increase production from the demonstration plant to meet requests from potential off-take partners.

Since the commencement of processing start-up over the past month, Anson has produced 33 gallons of eluate from 99 gallons of raw brine, sourced from the Long Canyon Unit 2 well at the Paradox Project during the exploration program in 2022. Production is planned to ramp up over the next month.

From there, it is planned to relocate the sample demonstration plant to the proposed production site at the Paradox Project, using brine directly from extraction wells. This would enable continuous operation and further increase production from the demonstration plant to meet expected demand for increased sample sizes from potential off-take partners for evaluation purposes.



Figure 2: The benchtop Direct Lithium Extraction (DLE) setup in the independent laboratory in Salt Lake City.

Background to LCE production process

The first step in the LCE production process is the DLE which has already been successfully tested by Anson at an independent laboratory in Salt Lake City (ASX Announcement 14 February 2023). This test work was completed using a small scale DLE pilot plant incorporating both the adsorption and desorption processes (Figure 2).

The test work program examined the ability of the resin used in the DLE process, provided by Sunresin, to selectively adsorb lithium over other elements in the supersaturated brine, including magnesium, potassium, and sodium.

This was carried out by assaying numerous samples of the discharged, spent brine for the various elements present in the brine on completion of the adsorption process. All adsorption tests consistently showed the element concentrations remained near the feed brine concentrations throughout each cycle except for marked decrease in the lithium concentration – indicating that the lithium had been retained.

Following the adsorption tests, desorption tests were conducted on each lithium “loaded” resin column. Prior to the desorption cycle, the resin columns were allowed to drain of all the remaining feed brine.

Once the columns had drained, purified water (DI water) was used as the elution fluid to flush the resin; elution is the process of extracting a substance that is adsorbed to another by washing it with a solvent. The collected samples were analysed for lithium concentration to establish the desorption characteristics for the loaded resin.

The desorption process using DI water demonstrated the ability to readily release the lithium from the loaded resin. Of significance, the results of the desorption tests aligned with previous desorption tests conducted on brine from other wells; in previous test work the concentration of lithium in the eluate significantly increased (ASX Announcement 13 August 2021).

This announcement has been authorised 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 junior 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 target, mineral resources and 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.

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"> Historical oil wells (Gold Bar Unit #2, Cane Creek #32-1-25-20, Skyline Unit 1, and Long Canyon Unit 2) were utilized to access brine bearing horizons for sampling at the Paradox Project. Geophysical logging was completed to determine geologic relationships and guide casing perforation. Once perforated, a downhole packer system was utilized to isolate individual clastic zones and Mississippian Units (production intervals) for sampling. Perforation and packer isolated sampling moved from bottom to top to allow for the use of a single element packer. Brine fluid samples were discharged from each sample interval to large 1,000 L plastic totes. Samples were drawn from these totes to provide representative samples of the complete volume sampled at each production interval. The brine samples were collected in clean plastic bottles. Each bottle was marked with the location and sample interval. The same drilling and sampling procedures will be used at Green River. Sampling techniques for the one historical well assayed in the Mississippian units at the Green River Project are not known.
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"> Standard mud rotary drilling will be utilized to re-enter historical oil wells. The wells had been previously plugged and abandoned in some cases, requiring drill out of cement abandonment plugs. All drilling fluids were flushed from the well casing prior to perforation and sampling activities. Historical drilling techniques into the Mississippian are not known but the wells were deep exploratory wells accessing oil and gas.
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"> No new drill holes were completed. Therefore, no drill chips, cuttings, or core was available for review. Drilling procedures for well re-entry will only produce cuttings from cement plugs. Drilling of the new units resulted in cuttings being collected at the same time as the brine sampling was carried out.

Criteria	JORC Code Explanation	Commentary
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"> No new drill holes will be completed. Cuttings and core samples can be retrieved from UGS and USGS core libraries. Not all wells were cored, but cuttings were collected. Cuttings were recovered from mud returns. Sampling of the targeted horizons will be carried out at the depths interpreted from the historical records and newly completed geophysical logs. The Mississippian Units and Clastic Zones 17, 19, 29, 31 and 33 will be sampled.
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"> Bulk brine samples will be collected for potential further analysis. Core samples were collected in the Long Canyon No 1, Big Flat Unit 1, Big Flat Unit 2 and Big Flat Unit 3 wells from the Mississippian Units. Cuttings have been saved for most of the wells drilled in the area.
	<ul style="list-style-type: none"> 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. 	<p>Historic Wells</p> <ul style="list-style-type: none"> Sample size and quality were considered appropriate by operators/labs. <p>Re-Entries</p> <ul style="list-style-type: none"> 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 of brine fluids were completed at several laboratories including SGS (Applied Technology and Innovative Centre), Empact Laboratories and Enviro-Chem Analytical, Inc. All labs followed a standard QA/QC program that included duplicates, standards, and blind control samples. Future sampling will also be carried out at these laboratories. The quality control and analytical procedures used by the three analytical laboratories are considered to be of high quality. The assaying technique for the Big Flat No 2 well in the Mississippian is not known. The sample was assayed by the Ethyl Corporation. Duplicate and standard analyses are considered to be of acceptable quality. Limited downhole geophysical tools were utilized for orientation within the cased oil wells prior to perforation. These are believed to be calibrated periodically to provide consistent results.

Criteria	JORC Code Explanation	Commentary
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"> Accuracy, the closeness of measurements to the “true” or accepted value, was monitored by the insertion of laboratory certified standards. Duplicate samples in the analysis chain were submitted as part of the laboratory batch and results are considered acceptable. Laboratory data reports were verified by the C P. Historical assays are recorded in Concentrated Subsurface Brines, UGS Special Publication 13, printed in 1965.
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 location of historical oil wells within the Paradox Basin is well documented. Coordinates of historical oil wells utilized for accessing clastic zones for sampling is provided in Table 9-1 of the report. Re-entries re-surveyed by licensed 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"> 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.
Orientation of Data in Relation to Geological Structure	<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 historical oil wells are vertical (dip -90), perpendicular to the target brine hosting sedimentary rocks. Sampling records do not indicate any form of sampling bias for brine samples.
Sample Security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Brine samples previously collected were moved from the drill pad as necessary and secured. All samples were marked with unique identifiers upon collection.
Audits or Reviews	<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.

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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 Paradox Basin Brine Project is located in southeastern Utah, USA, and encompasses a land position of 21,450 hectares. The land position is constructed from 2,434 Federal placer mineral claims, and three mineral leases from the State of Utah. A1 Lithium has 50% ownership of 87 of the 2,434 mineral claims through an earn-in joint venture with Voyageur Mineral Ltd. All other claims and leases are held 100% by Anson's U.S. based subsidiary, A1 Lithium Inc. 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 surrounding depositional cycles, with each likely associated with a unique geochemical signature.
<i>Drill Hole Information</i>	<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"> Four existing oil wells were re-entered and worked at the Paradox Project to collect brine samples. Although these wells may be directional, all wells are vertical (dip -90, azimuth 0 degrees) through the stratigraphy of interest. Detailed historical files on these oil wells were reviewed to plan the re-entry, workover and sampling activities. Following geophysical logging to confirm orientation within the cased well, potential production intervals were perforated, isolated and sampled. The target horizons in the Paradox Formation are approximately 1,800 meters below ground surface. Data on hundreds of historic wells is contained with a database published by the Utah Geological Survey. Open File Report 600 'WELL DATABASE AND MAPS OF SALT CYCLES AND POTASH ZONES OF THE PARADOX BASIN, UTAH', published in 2012.

Criteria	JORC Code Explanation	Commentary
<p><i>Data Aggregation Methods</i></p>	<ul style="list-style-type: none"> <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade</i> <i>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.</i> <i>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.</i> <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	<ul style="list-style-type: none"> No weighting or cut-off grades have been applied.
<p><i>Relationship Between Mineralization Widths and Intercept Lengths</i></p>	<ul style="list-style-type: none"> <i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralization with respect to the drill hole angle is known, its nature should be reported.</i> <i>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').</i> 	<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.
<p><i>Diagrams</i></p>	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> A diagram is presented in the text showing the location of the properties and re-entered oil wells.
<p><i>Balanced Reporting</i></p>	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> All data generated by Blackstone Minerals through re-entry, workover, and sampling of historical oil wells has been previously presented. No newly generated data has been withheld or summarized.
<p><i>Other Substantive Exploration Data</i></p>	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> All available current exploration data has been presented.
<p><i>Further Work</i></p>	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> The well re-entries and sampling planned will cover the Paradox Formation and Leadville Limestone. Future well re-entries will focus on wells surrounding the proposed re-entry locations to upgrade future JORC resources.