

## Anson Groundwater Flow Model Confirms Pressure Will Remain Constant During Production

### Model to be used in Reserve Calculations for Future Funding

This updated announcement contains additional information to give a better understanding on how groundwater flow model is derived.

### Highlights:

- Simulations of lithium rich brine being extracted from the Skyline Unit 1 and Long Canyon Unit 2 wells over a 5-year period shows that the pressure will remain constant,
- Anson 3<sup>rd</sup> party consultant completed Numerical Groundwater Flow Model will also be used to facilitate project planning, permitting, operations and resource estimation,
- Digital simulations completed to confirm the regional flow parameters,
- Flow model will be used to convert the Indicated Resources into Reserves,
  - Reserve calculations required for project funding.

Anson Resources Limited (ASX: ASN) (Anson or the Company) is pleased to announce the completion of a Numerical Groundwater Flow Model for the region covering both the Paradox and Green River Lithium Projects in south-eastern Utah, USA. The already created 3D geological model was imported directly into the flow modelling software to create the conceptual flow model, see Figure 1. Initial digital simulations have been completed to confirm the known flow parameters for the project area.

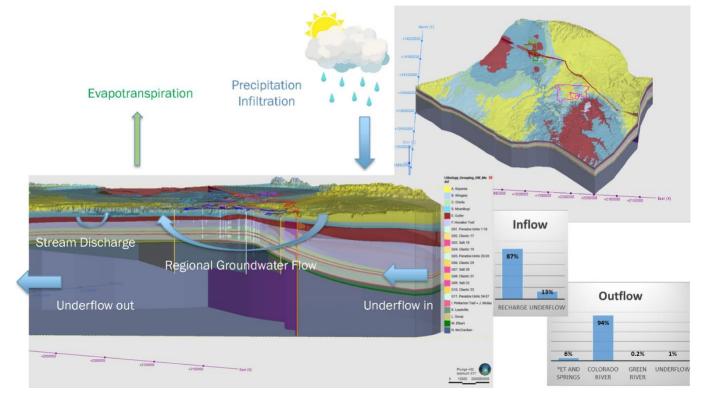


Figure 1: A plan showing the Conceptual Flow Model for Anson's Lithium Projects.

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Simulations of lithium rich brine being extracted from the Skyline Unit 1 and Long Canyon Unit 2 wells over a 5-year period shows that the pressure remains constant after a minimal drop when artesian flow begins, see Figure 2. The transient calibration results in the model were derived from the "spinner flowmeter" logs run by A1 Lithium (wholly owned subsidiary of Anson), *see ASX Announcement 6 and 11 May 2019*, and a calibration was completed to best match the time-drawdown graphs at both locations. The model was then run to simulate artesian flowing conditions for 5 years with pressure relief at the ground surface at the two well locations. The model shows the constant high pressure over this period will result in the continuation of the artesian flow seen in the re-entry drill programs.

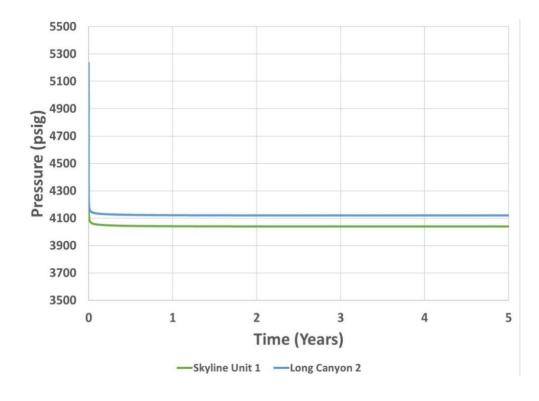


Figure 2: A graph showing the predicted Pressure versus Time for the Paradox Lithium Project.

The model can be used to estimate flows and aquifer characteristics for which direct measurements are not available and can be used to simulate responses of the aquifer under hypothetical conditions, eg the requisite flow rates over the Life of Mine to match the future production volumes.

Further sensitivity analysis and predictive simulations will facilitate project planning, permitting, operations, and reserve estimations. The flow model will allow independent consultants to use the digital results as "Modifying Factors" which are required to convert the JORC Indicated Resources into Reserves.

Converting the lithium JORC Indicated Resources into Reserves is essential for future funding opportunities for the Project's construction. This funding can be from the Department of Energy (DOE) grants, banks, or institutions. Anson is currently submitting its DOE application and continually talking with various global banks.

The flow model software represents conditions related to groundwater flow such as evapotranspiration, recharge, drainage, river interaction among others. Its finite different approach



gives the capability to calculate the flow regime with exceptional control on water budget discrepancy.

The groundwater model utilizes sophisticated computer programs, or codes, to solve complex problems involving recharge, discharge, wells, drawdown, and groundwater-surface-water interactions.

The initial simulations to calibrate and confirm the accuracy of the flow model used the data collected from both Anson's exploration programs, eg pump testing that was carried out, and historical oil and gas drilling. In addition, water data for the region was collated from USGS sources and research reports.

The hydrological model can generate stream flow estimates and trends over long periods. While a model can generate historical, current, or natural stream flow records, it can also be used to generate future yields or scenario modelling.

Executive Chairman & CEO, Bruce Richardson commented, "One of the most frequent questions that we are asked about the Paradox Lithium Project is when it is expected that the pressure will drop and to what level. A drop in pressure often occurs in oil projects where reservoirs are usually in pods. The brine reservoir at the Paradox has been discovered by historic drilling programs to cover an extensive area both in the Paradox Formation clastic zones and the Mississippian within the Leadville Formation. The 3D modelling that we have done using the data from these drilling programs confirms that the pressure of the brine as it is extracted remains constant providing a continuous feed without the need for pumping. Similar to geothermal projects this naturally occurring energy source provides a feed to the production plant at no cost and also can be used to power the extraction process. This is a unique project and Anson is working to maximise the opportunity presented to further lower production costs."

### **Groundwater Flow Model Summary**

Once the Conceptual Model was created the model domain and discretization was determined for the Paradox Project area. With the 3D geological model already created and imported, *see ASX Announcement 17 July 2023*, the hydrogeologic units and parameters were determined.

The following information was then imported from within the model domain:

- Data from stream gage stations,
- Recharge data,
- Potentiometric surface data for all the local formations<sup>1</sup>,
- Hydrological data (such as pressure, flow rate, specific yield, permeability, transmissivity etc).

The hydrological and pressure data was collected by A1 Lithium during flow testing with additional data being collated from historic well files from the Utah Division of Oil, Gas and Minerals (UDOGM) and USGS reports.

<sup>1</sup> Anson build up tests, and Hanshaw & Hill, 1968



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

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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 results, mineral resources, 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> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralization that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>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.</li> <li>Well data was obtained from Utah Department of Oil, Gas and Minerals (UDOGM).</li> <li>Brine flow rates and pressures were recorded from the re-entered wells, see ASX Announcements 6 April 2018, 27 February 2019, 26 March 2019 &amp; 6 May 2019.</li> <li>Historical assays, flow rates and pressures are recorded in Concentrated Subsurface Brines, UGS Special Publication 13, printed in 1965 and also the individual well files for the historical wells.</li> <li>Brine fluid samples were discharged from each sample interval to large 1,000 L plastic totes. Samples were collected in clean plastic bottles. Each bottle was marked with the location and sample interval.</li> </ul>
Drilling Techniques	• 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> <li>Standard mud rotary drilling was 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.</li> <li>Historical drilling techniques into the Clastic Zones and Mississippian are all not known but the wells were deep exploratory wells accessing oil and gas.</li> </ul>
Drill Sample Recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>No new drill holes were completed. Therefore, no drill chips, cuttings, or core were available for review.</li> <li>Drilling procedures for well re-entry will only produce cuttings from cement plugs.</li> <li>Drilling of the new units resulted in cuttings being collected at the same time as the brine sampling was carried out.</li> </ul>



Criteria	JORC Code Explanation	Commentary
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>No new drill holes was completed.</li> <li>Cuttings and core samples have been retrieved from UGS and USGS core libraries for hydrological test work see ASX Announcements 11 March 2020 &amp; 6 July 2022.</li> <li>Not all wells were cored, but cuttings were collected, see ASX Announcement 10 November 2017.</li> <li>Cuttings were recovered from mud returns and logged by the geologist in the field.</li> <li>Sampling of the targeted horizons was carried out at the depths interpreted from the historical records and newly completed geophysical logs.</li> <li>The Mississippian Units and Clastic Zones 17, 19, 29, 31 and 33 were sampled.</li> </ul>
Sub-sampling Techniques and Preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Bulk brine samples will be collected for potential further analysis.</li> <li>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, see ASX Announcement 6 July 2022.</li> <li>Cuttings have been saved for most of the wells drilled in the area, see ASX Announcement 10 November 2017.</li> </ul>
	<ul> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples.</li> <li>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.</li> </ul>	<ul> <li>Historic Wells <ul> <li>Sample size and quality were considered appropriate by operators/labs.</li> </ul> </li> <li>Re-Entries <ul> <li>Sampling followed the protocols produced by SRK for lithium brine sampling.</li> <li>Samples were collected in IBC containers and samples taken from them.</li> <li>Duplicate samples kept in Storage and additional samples were also collected and securely stored.</li> <li>Bulk samples were also collected for future use.</li> <li>Sample sizes were appropriate for the program being completed.</li> </ul> </li> </ul>
Quality of Assay Data and Laboratory Tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>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.</li> <li>The assaying technique for the Big Flat No 2 well in the Mississippian is not known. The sample was assayed by the Ethyl Corporation.</li> <li>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.</li> </ul>



Criteria	JORC Code Explanation	Commentary
Verification of Sampling and Assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Accuracy, the closeness of measurements to the "true" or accepted value, was monitored by the insertion of laboratory certified standards.</li> <li>Duplicate samples in the analysis chain were submitted as part of the laboratory batch and results are considered acceptable.</li> <li>Laboratory data reports were verified by the CP.</li> <li>Historical assays are recorded in Concentrated Subsurface Brines, UGS Special Publication 13, printed in 1965.</li> </ul>
Location of Data Points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>The location of historical oil wells within the Paradox Basin is well documented and data for each well can be obtained from Utah Department of Oil, Gas and Minerals (UDOGM).</li> <li>Coordinates of historical oil wells utilized for accessing clastic zones for sampling are provided in ASX Announcement 2 November 2022.</li> <li>Re-entries re-surveyed by licensed surveyor.</li> <li>The locations are in Zone 12, NAD 83.</li> </ul>
Data Spacing and Distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Data spacing is considered acceptable for a brine sample.</li> <li>There has been no compositing of brine samples.</li> </ul>
Orientation of Data in Relation to Geological Structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>The Paradox Basin hosts bromine and lithium bearing brines within a subhorizontal sequence of salts, anhydrite, shale and dolomite. The historical oil wells are vertical (dip -90), perpendicular to the target brine hosting sedimentary rocks.</li> <li>Sampling records do not indicate any form of sampling bias for brine samples.</li> </ul>
Sample Security	• The measures taken to ensure sample security.	<ul> <li>Brine samples previously collected were moved from the drill pad as necessary and secured.</li> <li>All samples were marked with unique identifiers upon collection.</li> </ul>
Audits or Reviews	• The results of any audits or reviews of sampling techniques and data	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
Mineral Tenement and Land Tenure Status	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The Paradox Lithium Project is located in southeastern Utah, USA, and encompasses a land position of 21,450 hectares.</li> <li>The land position is constructed from 2,437 Federal placer mineral claims, and three mineral leases from the State of Utah.</li> <li>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.</li> <li>The claims/leases are in good standing, with payment current to the relevant governmental agencies.</li> </ul>
Exploration Done by Other Parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>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 lithium or bromine from these fluids.</li> <li>The historical data generated through oil and gas development in the Paradox Formation has supplied some information on brine chemistry.</li> </ul>
Geology	• Deposit type, geological setting and style of mineralization.	<ul> <li>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, see ASX Announcement 2 November 2022</li> <li>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.</li> </ul>
Drill Hole Information	<ul> <li>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> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul> <li>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, see ASX Announcement 2 November 2022.</li> <li>Detailed historical files on these oil wells were reviewed to plan the re-entry, workover and sampling activities.</li> <li>Following geophysical logging to confirm orientation within the cased well, potential production intervals were perforated, isolated and sampled.</li> <li>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.</li> </ul>



Criteria	JORC Code Explanation	Commentary
Data Aggregation Methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade</li> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>No weighting or cut-off grades have been applied.</li> </ul>
Relationship Between Mineralization Widths and Intercept Lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralization with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul> <li>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.</li> <li>Brines are collected and sampled over the entire perforated width of the zone.</li> <li>The Mississippian Units and Clastic Zones are assumed to be porous and permeable over their entire vertical width based on drilling records and hydraulic test work.</li> </ul>
Diagrams	• 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> <li>A diagram is presented in the text showing a plan and cross section of the Groundwater Conceptual Model.</li> <li>The cross section also shows the hydrological units and drillhole locations.</li> <li>Plans and sections of the drill hole locations have been previously presented in numerous ASX Announcements, see ASX Announcement 2 November 2022.</li> </ul>
Balanced Reporting	• 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> <li>All data generated by A1 Lithium through re-entry, workover, and sampling of historical oil wells has been previously presented. No newly generated data has been withheld or summarized.</li> </ul>
Other Substantive Exploration Data	<ul> <li>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.</li> </ul>	• All available current exploration data has been presented.
Further Work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>The well re-entries and sampling planned will cover the Paradox Formation and Leadville Limestone.</li> <li>Future well re-entries will focus on wells surrounding the proposed re-entry locations to upgrade future JORC resources.</li> </ul>