

# Geotechnical Study Confirms Suitability for Processing Plant Location at Paradox Lithium Project

### **Highlights**:

- Anson has completed the geotechnical engineering study at the Paradox Lithium Project which has successfully confirmed the subsurface conditions are suitable for construction of foundations for the Project's proposed processing plant
- The geotechnical study collected data and subsurface conditions for general construction recommendations and consisted of 7 core holes and 7 trenches,
  - $\circ$  Depths of boreholes ranged from 9 to 62.5 feet,
  - $\circ$  Depths of the trenches ranged from 0.5 to 7 feet,
  - Geophysical surveys were carried out to test the dynamic properties of subsurface materials
- The proposed processing plant site is strategically located on privately-owned land ~10km from the well extraction site at the Paradox Project, immediately adjacent to the Colorado River

Anson Resources Limited (ASX: ASN) (Anson or the Company) is pleased to announce the completion of the geotechnical engineering study at its Paradox Lithium Project, in the Paradox Basin in south-eastern Utah, USA.

This engineering study formed a key component of the due diligence process undertaken to confirm the suitability for the location of the proposed Direct Lithium extraction (DLE) processing plant at the Paradox Project.

The study was designed to collect data on the subsurface conditions at the proposed processing plant site to help determine the design and construction of preliminary foundation options. The body of work under the study consisted of site reconnaissance, subsurface exploration, acquisition of geophysical data and engineering analysis (Figure 1).

The study has delivered a successful outcome, and has confirmed that the site is suitable for the construction of the foundations of the proposed processing plant. It recommended that prior to the laying of foundations, general site grading be carried out to provide proper support for foundations, exterior concrete flatwork and concrete slabs-on-grade.

# Background to Geotechnical Engineering Study

The study was carried out by independent engineering and geological consultants licensed in the state of Utah, and field services consisted of;

- 7 boreholes and 7 test pits (see Table 1)
  - Core samples to a maximum depth of 62.5 feet
  - Trenches to a depth of 7 feet
- Geophysical surveys
  - o Electrical resistivity lines,

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- Seismic MASW lines
- o Rippability lines,

The majority of the proposed processing plant site is underlain by sandstone and limestone with minimal areas of colluvium (Figure 1). Bedrock was intersected in all the boreholes and trenches, of the intended locations of the foundations (Table 1). Also of positive note, groundwater was not encountered in any of the boreholes or trenches and is not anticipated to affect the proposed construction.

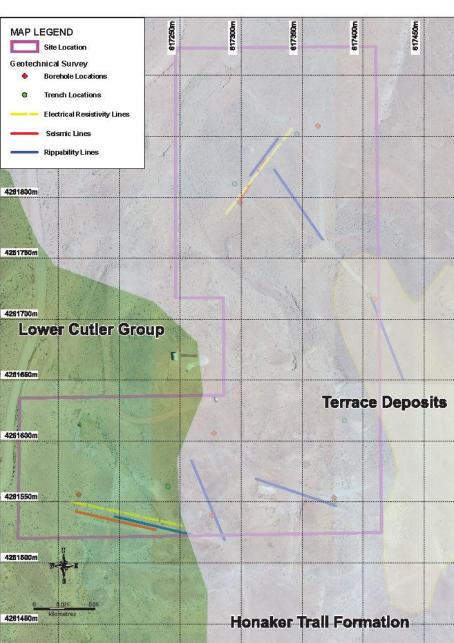


Figure 1: Plan showing boreholes, trenches and geophysical lines in the geotechnical engineering work.

#### **Boreholes**

The boreholes were collared with a 6-inch percussion hammer to depths of 0.61 to 3.96 metres (2 to 13 feet), and then bedrock was cored using a 7-inch diameter hollow-stem auger to final depths (see Figure 2). Standard Penetration Tests (SPT) were carried out on the core and then sent to the laboratory for further engineering test work.



# **Trenching**

The trenches were excavated using a 1.5-foot-wide bucket to depths of 0.15 to 2.13 metres (0.5 to 7 feet) for observation. Bulk samples of subsurface material were collected for testing of the various rock units intersected.

#### Geotechnical tests

Geotechnical laboratory tests were conducted on samples collected during the field investigation. The testing was designed to evaluate the engineering characteristics of rock units from different locations. Test work included:

- Grain size distribution analysis
- Atterberg limits (measure of the critical water content of fine-grained soils)
- 1D consolidation tests
- Unconfined compression tests
- Standard proctor and California Bearing Ratio (CBR) tests
- Water-soluble chloride and sulphate concentration
- Electrical resistivity and pH

Geotech ID	Easting	Northing	Depth (of coring)
B-1	617362.9	4261858.6	9
B-2	617299.2	4261795.5	10
B-3	617409.4	4261716.1	62.5
B-4	617277.6	4261606.5	45
B-5	617376.1	4261553.6	40
B-6	617166.7	4261556.1	15
B-7	617276	4261538.8	14
TP-1	617239.8	4261562.7	3
TP-2	617384.7	4261617	5
TP-3-upper	617405	4261719.4	7
TP-3-lower	617350.5	4261748.5	0.5
TP-4-upper	617345.5	4261851.7	7
TP-4	617294.7	4261811	0.1
TP-5	617376.1	4261550.2	5

Table 1: Borehole and test pit locations.





Figure 2: The core from Borehole 3 (B-3)

#### Soil and bedrock characteristics

Two multi-channel analysis of surface waves (MASW) surveys were used to evaluate soil and bedrock stiffness by measuring the shear-wave velocities. Based on this model, the site is classified as 'Site Class C' and it shows that there is a boundary between soft rock and hard rock at approximately 21.34 metres (70 feet). The resultant parameters show the design of the proposed structures will not be affected.

#### Rippability assessment

Rippability uses seismic refraction to estimate P-wave velocities to measure the degree of difficulty to excavate soils and or bedrock. It is a function of the site geology and the physical properties of rocks and soils and is useful to estimate the cost of excavation at a subject site. The results show that both the unconsolidated and the bedrock material should be rippable according to Caterpillar D8 Ripper specifications.

# About the Proposed Paradox Lithium Project Production Site

The proposed site for the Paradox Project processing plant is strategically located adjacent to the Colorado River, approximately 10km from the well extraction site and is mostly downhill (Figure 3).

It is situated on around 8.1 hectares (approximately 20 acres) of privately-owned vacant land, near large-scale potash producer Intrepid Potash's (NYSE: IPI) production facility and evaporation ponds in the district and hosts only sparse vegetation including native grasses and brush at an approximate elevation of around 1,280 metres (4,200 feet).



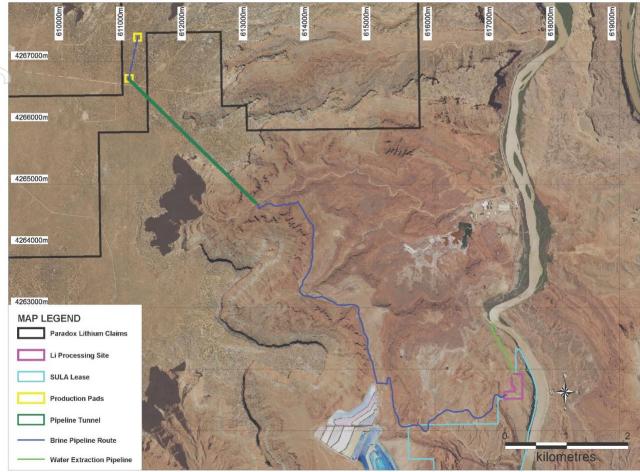


Figure 3: Plan showing the brine pipeline from the extraction site to the proposed processing plant site.

This proposed site has been selected as it provides access to water from the Colorado River which is essential to the operation of the direct lithium extraction process. The preferred water extraction point is 600m from the production location. A water rights agreement for the Project is in place (ASX announcement, 23 January 2023).

Access to the proposed site follows existing pipeline pathways and existing roads, which Anson anticipates may simplify and shorten the timeline for the Right of Way (ROW) approval process.

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

ENDS

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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 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>The Geotechnical survey was completed by Geostrata in November 2023</li> <li>The survey included 7 boreholes, 7 trenches and 2 resistivity lines.</li> <li>Drillcore sampling was carried out with a 7" diameter hollow-stem auger using a truck-mounted Mobile B80 rig.</li> <li>Standard Penetration Tests (SPT) using a 140 pound automatic hammer falling 30 inches in accordance with ASTM D1586.</li> <li>5 trenches were excavated as test pits using 310SL Deere backhoe with a 1.5ft wide bucket.</li> <li>2 two-dimensional electrical resistivity surveys using an R1 system were also completed.</li> <li>6 rippability lines were also completed.</li> <li>Figure 1 in text shows the location of this work.</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, facesampling bit or other type, whether core is oriented and if so, by what method, etc.).	Drilling techniques were acceptable for the geotechnical survey.
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>Drillcore was considered acceptable for geotechnical testing, see Figure 2 in Text.</li> <li>The R1 system consists of the SuperSting Unit data collector, the Swift Box, a communication cable and 56 stainless steel electrodes. Geostrata personnel used EarthImager 2D software for processing.</li> </ul>
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>	Drillcore and trenches were logged on site by a qualified geotechnical engineer.



Criteria	JORC Code Explanation	Commentary
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>Core was transported to Geostrata's laboratory for further testing to evaluate engineering properties.</li> <li>Disturbed samples were collected by driving a standard 1.4 inch inside diameter split-spoon sampler</li> <li>Undisturbed samples were collected by driving a 2 inch interior diameter (ID) and 2.5 inch outside diameter (OD) sampler.</li> <li>Bucket samples were collected from the trenches.</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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</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>Laboratory testing included: Grain size distribution Attenberg limits 1D consolidation tests Unconfined compression tests Water soluble chloride and sulphate concentration Electrical resistivity and pH</li> </ul>
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>	• N/A
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>	• The location of data points are shown in Table 1 and Figure 1 in the Text.

Criteria	JORC Code Explanation	Commentary
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>	Data spacing is considered suitable for the surveys carried out.
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>	• N/A
Sample Security	The measures taken to ensure sample security.	<ul> <li>Samples were transported to GeoStrata's laboratory on completion of the survey program.</li> </ul>
Audits or Reviews	• The results of any audits or reviews of sampling techniques and data	• N/A.

#### 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 Basin Brine Project is located in southeastern Utah, USA, and encompasses a land position of 23,135 hectares.</li> <li>The land position is constructed from 2,642 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.	No historical geotechnical surveys have previously been completed in the area.
Geology	• Deposit type, geological setting and style of mineralization.	• 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.



Criteria	JORC Code Explanation	Commentary
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>The borehole and trench co-ordinates and depth are listed in the text.</li> <li>All boreholes were drilled at -90° with an azimuth of 0°.</li> <li>The RL for the area is 4,200ft.</li> </ul>
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>	• N/A
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>	• N/A
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.	• Figures in the text represent the information reported in the text.
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.	• N/A



Criteria	JORC Code Explanation	Commentary
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>	No further geotechnical surveys are required at the present time.