

30 March 2021

ASX ANNOUNCEMENT
ASX: ASN, ASNOC

## **Anson Granted Additional Paradox Brine Project Claims**

## **Highlights:**

- Utah State government approves application for additional claims with a total 1,360 acres (5.5 km²) that abut the existing Paradox project area
- Lease granted as Other Business Arrangement (OBA), demonstrating State government's support for the Paradox Brine Project
- Lease includes the right to extract potash and mineral salts including lithium, bromine, boron, magnesium, sodium and calcium
- 80 acres located in the Long Canyon area where an Indicated Resource was estimated
- 1,280 acres adjacent to the Mineral Canyon well, the target of the next re-entry

Anson Resources Limited (ASX: ASN, ASNOC) (Anson or the Company) is pleased to advise that it's application for an additional area of 1,360 acres (5.5 km²) adjacent to its existing claims at the Paradox Brine Project located in Utah, USA (Paradox or the Project) has been approved by the School and Institutional Trust Land Administration (SITLA), a Utah State government authority. These areas are shown in blue on Figure 1.

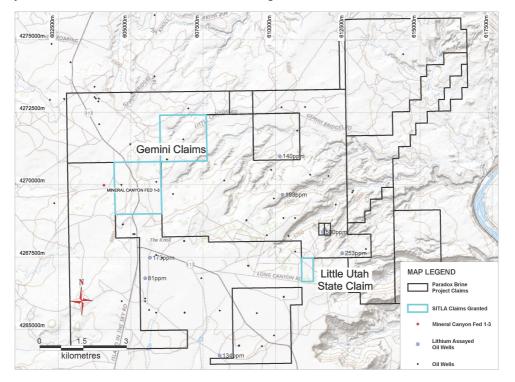


Figure 1: Plan showing the location of the Gemini and Little Utah State granted claims.

Anson Resources Limited Level 1, 35 Outram Street, West Perth, WA 6005, Australia Tel: +61 478 491 355

ABN: 46 136 636 005 www.ansonresources.com



The additional area includes 80 acres (0.3 km²), the "Little Utah State" claim, which are in close proximity to the Long Canyon #2 well, previously re-entered and tested by Anson. The two other claims totall 1,380 acres (5.2 km²), the "Gemini" claims, and are close to the Mineral Canyon Fed 1-3 well where Anson has lodged a Plan of Operation (PoO) with the Bureau of Land Management (BLM) to re-enter and test for lithium, bromine, boron, iodine and other minerals.

Significantly, the leases were granted under Other Business Arrangement (OBA) provisions which is one of two leasing arrangements utilised by SITLA. An OBA is used for special consideration to bring projects into production. The majority of leases are grant through a competitive sealed bid auction process. Anson has now included all available state government administered lands within the area of interest of the Paradox project.

It should be noted that the lease to Anson includes rights to extract potash and mineral salts, and enables the Company to produce potassium salts as well as salts of lithium (Li), boron (B), bromine (Br), magnesium (Mg), sodium (Na) and calcium (Ca). Anson has a multi-mineral/multi-revenue stream strategy but is focused on the extraction of bromine and lithium from the Paradox brines.

The additional claims are located within the areas of influence (AOI) for both the Inferred and Indicated categories of the JORC resource previously calculated, (see ASX announcement 11 May 2020 and Figure 2).

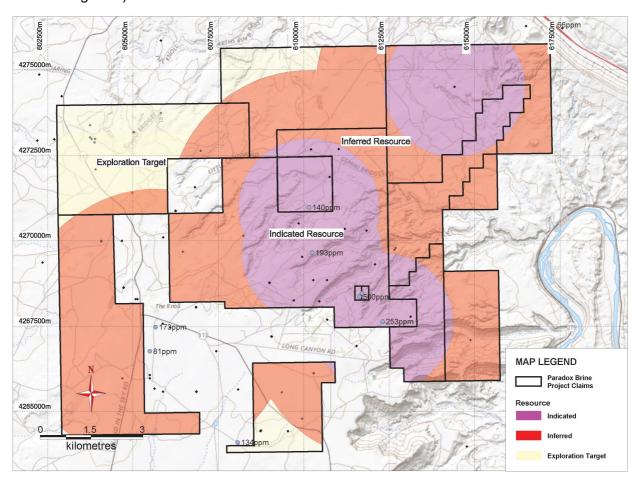


Figure 2: Map showing the previous indicated and inferred JORC resource areas used in estimates.

The addition of the 80-acre area will impact the Indicated Resource estimate and the additional 640-acre area will have an impact on the Inferred Resource, both of which have been modelled to enable an updated JORC Resource and updated Exploration Target to be estimated (see Table 1 below).



The southern block provides access to 80 acres of the Project area in close proximity to where the highest grades of lithium have been recorded to date, and where extensive fracturing has occurred in the sub-terranean rock which has resulted in higher pressure allowing the brine to flow to surface under its own pressure. This area is also very close to the pipeline corridor through which Anson intends to transport brine to its proposed Br/Li processing plant, and abuts Long Canyon Rd providing easy access to the area for the possible drilling of production wells.

The addition of the two 640-acre areas, "Gemini" claims, in the western area of the Paradox project is only 360m from the Mineral Canyon Fed 1-3 well, also increases the Inferred Resource estimate and upgrades some of the area into an Inferred Resource from exploration target, see Figure 3.

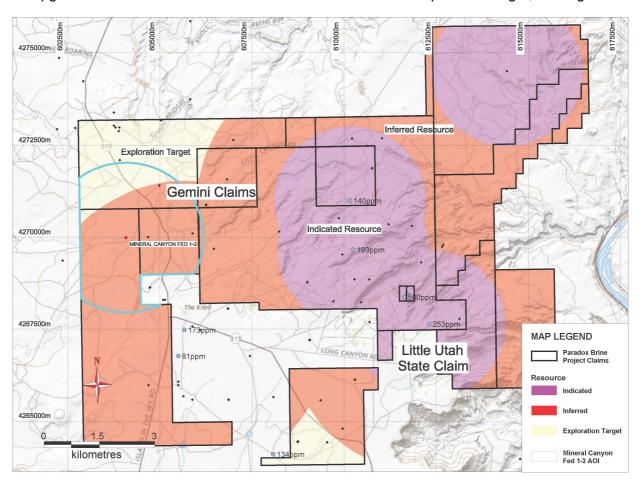


Figure 3: Map showing the updated inferred and indicated resource areas & the 2km area of influence of the Mineral Canyon Fed 1-3 well.

Furthermore, a 2km area of influence (AOI), surrounding the Mineral Canyon well that will be used to upgrade the JORC calculation for some of this area to the Indicated category should the re-entry program be successful, is also shown in Figure 3. The total AOI surrounding the Mineral Canyon well is 10.58km2. Anson has submitted a PoO application to re-enter and sample the Mineral Canyon well brine in the Paradox Formation, (see ASX Announcement 10 September 2020).

Anson has a total of 95km2 in the Paradox Brine project. As previously disclosed Anson did not renew a total of 233 claims (4,643 acres) in the north area of the Project due to the lack of prospectively of upgrading the Exploration Target and Inferred Resource previously announced for this area. The revised boundaries are shown in Figure 3.

Anson has previously entered into agreements with SITLA including an oil and gas lease, mineral salt lease over an area that contains the Cane Creek 32-1 well and three Special Use Lease



Arrangements (SULA's) including the proposed production site on the Blue Hills Road, (see ASX announcement 29 June 2020).

#### RESOURCE UPGRADE

develo its sup OBA p areas	yed an excellent port in the develor provisions, greatly to increase the Jetion wells and british.	working relappended pment of the adds to the ORC Resou	ationship wit ne Paradox I ne value of t urce and as	th the Uta Project by the project the futur	ah State of the gra ct. This le	nting of t ease add	his additid Is strateg	rity, SITLA onal area u jically impo	, and Inder Irtant
geolog abnorr compa increa	rticular, the Little lical feature in the mally high pressu any plans to conf se its indicated are molder value."	ne area, Ro ure resultino tinue to ado	obert's Rup g in the brin d area to th	ture, whi ne flowing ne projec	ch it is g to surfa t as it co	understo ace unde ontinues	od is the er its own to seek	e cause for pressure. opportunitie	r the The es to
RESO	URCE UPGRAD	E							
EIIO OI		ie granting	OI LITE HEW S		CNS. III <del>C</del>	uluudeu	CIAIIIIS W	ere catego	i is <del>e</del> u
as eith	ner an inferred red within the Indica	esource or ated, Inferre	an explorated and Explo	ration Ta	et. The narget area	ewly acc as of influ	quired SI uence, se	TLA blocks e Table 1.	ained
as eith locate	ner an inferred red within the Indica	esource or ated, Inferre	an explorated and Explo	oration Ta	et. The narget area	ewly acc as of influ	quired SI	TLA blocks e Table 1.	ained
as eith locate	ner an inferred red within the Indica	Brine Tonnes	ed and Explo	ration Ta	et. The narget area	ewly acc as of influ	quired SI uence, se	TLA blocks e Table 1. Conta ('00	ained Ot) <sup>11</sup>
as eith located	Clastic Zone	Brine Tonnes (Mt)	ed and Explored and Explored and Explored Effective Porosity (%)	Li (ppm)	Br (ppm)	B (ppm)	quired SI uence, se	TLA blocks e Table 1.  Conta ('00)	ained Ot) <sup>11</sup> Br <sub>2</sub>
Category Indicated	Clastic Zone	Brine Tonnes (Mt)	Effective Porosity (%)	Li (ppm)	Br (ppm)	B (ppm)	l (ppm)	Conta ('000 LCE	ained Ot) <sup>11</sup> Br <sub>2</sub> 126
Category Indicated Inferred	Clastic Zone	Brine Tonnes (Mt) 38	Effective Porosity (%)	Li (ppm)	Br (ppm) 3,304 2,542	B (ppm)	l (ppm)	Conta ('000 LCE	ained 0t) <sup>11</sup> Br <sub>2</sub> 126 185
Category  Indicated Inferred Resource	Clastic Zone  31	Brine Tonnes (Mt) 38 73	Effective Porosity (%) 14.5	Li (ppm) 172 177	Br (ppm)  3,304  2,542  3,292	B (ppm)  162 164 3,324	l (ppm)  141  164  153	Conta ('000 LCE 35 68	ained Ot) <sup>11</sup> Br <sub>2</sub> 126  185  311
Category  Indicated Inferred Resource Indicated	Clastic Zone  31  17,19,29,33	Brine Tonnes (Mt)  38  73  111	Effective Porosity (%) 14.5 16.9	Li (ppm) 172 177 173 74	Br (ppm)  3,304  2,542  3,292  3,397	B (ppm)  162 164 3,324 122	l (ppm)  141  164  153  54	TLA blocks e Table 1.  Conta ('000  LCE  35  68  103	ained Ot) <sup>11</sup> Br <sub>2</sub> 126  185  311  131

Table 1: Paradox Brine Project Mineral Resource Estimate.

The Mineral Resource estimate was calculated only for the brine aguifers of Clastic Zones 17, 19, 29, 31 and 33 within the Project area indicates 186,000 tonnes of contained lithium carbonate

<sup>&</sup>lt;sup>1</sup> Lithium is converted to lithium carbonate (Li<sub>2</sub>CO<sub>3</sub>) using a conversion factor of 5.32. Rounding errors may occur.



equivalent (LCE) and 1,012,000 tonnes of bromine. A summary table of JORC Compliant Mineral Resource Estimate is presented above in Table 1. Significant amounts of other minerals including Boron (Boric Acid,  $H_3BO_3$ ) and Iodine ( $I_2$ ) have also been estimated.

The Mineral Resource is centred within an Exploration Target of a further 365 to 700 million tonnes of brine and does not take into account the potential replenishment of the brine zones.

The Mineral Resource could be further increased by re-entering historic holes in the western and southern areas of the Project which are only classified as an Exploration Target due to the lack of data to date, see Figure 4. This would result in a significant increase in the block model tonnages and grades for the additional Clastic Zones as there has been no recorded assays in those locations.

The average mean lithium concentrations range from 11ppm to 196.1ppm with a maximum recorded concentration of 253ppm. The bromine concentrations range from 2,240ppm to 3,705ppm with a maximum recorded concentration of 5,041ppm.

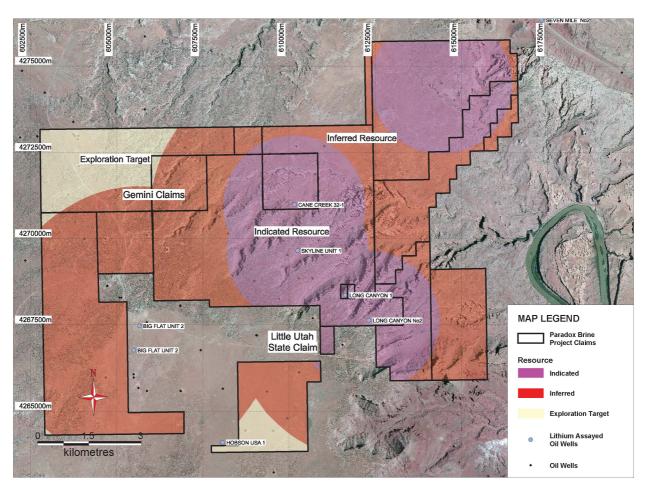


Figure 4: Plan showing the Resource classification for Clastic Zone 31.

Modelling of the Paradox Brine Project was performed using ARANZ Leapfrog Geo modelling software. Extracted images are presented in Figures 5 and 6.

The model estimated recoverable brine within the Project area using a static model and takes no account of pumping other than by the application of effective porosity.



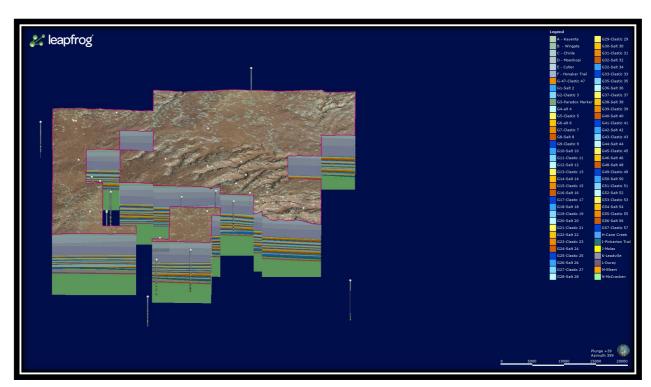


Figure 5: The 3D geological model created for the Paradox Brine Project.

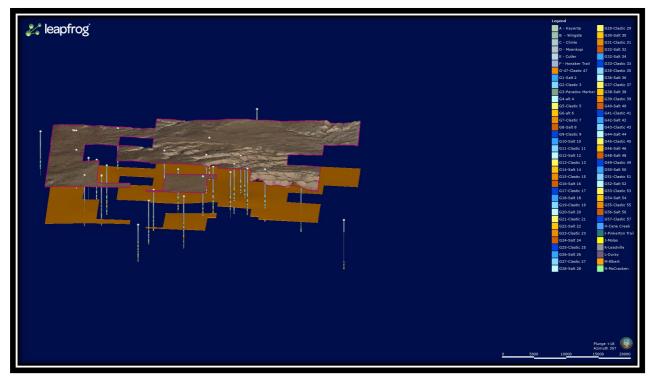


Figure 6: The 3D model showing the Clastic Zone 31 horizon and surrounding drillholes.

The conceptual hydrogeological model for the brine aquifer has four extensively fractured geological units comprising of the following interbedded units (from top to bottom).

• Anhydite;



- Black Shale;
- · Dolomite; and
- Anhydrite.

The fractured Clastic Zone 31 tests showed the aquifer has very high permeability (0.01 to >5,000mD).

It should be noted that the Mineral Resource is a static estimate; it represents the volume of potentially recoverable brine that is contained within the defined aquifer. It does not take into account the modifying factors such as the design of a pumping program, which will affect both the proportion of the Mineral Resource that is ultimately recovered and changes in grade associated with mixing between each aquifer unit and the surrounding geology that will occur once pumping starts. The Mineral Resource also takes no account of recharge to the aquifers within the clastic zones, which is a modifying factor that may increase brine-recovery from the units and may affect long-term grade. Pumping tests completed to date are of relatively short duration and provide data on aquifer hydraulic properties; they do not indicate the operational pumping rates that may be sustained from individual bores or the response of the brine aquifer to long-term operational pumping.

#### **Exploration Targets for all Clastic Zones:**

In addition to the Mineral Resource, an exploration target of a further 365 - 700 million tonnes of brine grading in the range of 50 mg/L to 300 mg/L lithium and 3,000 mg/L to 4,000 mg/L bromine has been estimated for Clastic Zones 17, 19, 29, 31 and 33, see Table 2. The Exploration Target occurs within the Project's placer claims totalling 11,373 hectares, see Figure 7.

Clarification Statement: An Exploration Target is not a Mineral Resource. The potential quantity and grade of an Exploration Target is conceptual in nature. A Mineral Resource has been identified in the centre of the Exploration Target, but there has been insufficient exploration to estimate any extension to the Mineral Resource and it is uncertain if further exploration will result in the estimation of an additional Mineral Resource.

Category	Clastic Zone	Brine Tonnes (Mt)		Li (ppm)			3r pm)
		Min	Max	Min	Max	Min	Max
Exploration Target	31	15	30	100	300	3,000	4,000
raiget	17, 19, 29, 33	350	670	50	300	3,000	4,000
TOTAL		365	700				

Table 2: The calculated Exploration Targets for each horizon of the JORC Resource.

The Mineral Resource could be further increased by re-entering historic holes in the western and southern areas of the Project which is only classified as an Exploration Target due to the lack of data to date. This would result in a significant increase in the block model tonnages and grades for the additional Clastic Zones as there has been no recorded assays in those locations.



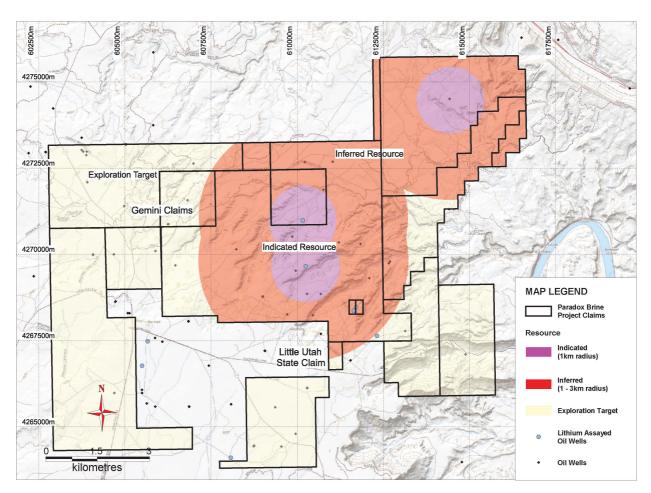


Figure 7: Plan showing the Resource and Exploration Target areas for additional horizons.

Historical data for the Paradox Brine Project area is more robust than many lithium exploration targets due to the Paradox Basin's long history of oil and gas production. Numerous well records and geophysical logs are readily available for the Project area. Furthermore, there is published historical data on the chemistry of brine fluids from a variety of horizons within the Paradox Formation, allowing for more precise targeting of prospective geologic horizons. However, historical assay data must be treated with caution as no original data records are available, and the first publication of this data is generally second hand.

Spinner-flowmeter logging carried out at the Long Canyon No 2 and Skyline Unit 1 wells show that the brine flows not just from the dolomite, but also from the anhydrite and shale units due to a secondary porosity.

This testing also indicates that lithological thickness vs. flow contribution for the shale unit has a higher transmissivity than the silty dolomite, which based on known textural differences, suggests significant secondary porosity (fracturing) within the shale.

A photo of the fractured black shale in core is shown in Figure 8. Testing on samples such as these were used to calculate an increase in the Effective Porosity. A number of techniques were used, including High Pressure Mercury Injection (HPMI), Gas Transport Model Analysis (GTMA) and Scanning Electron Microscopy (SEM) analysis. This test work was carried out by Core Labs in the USA.





Figure 8: A photo showing the fractured black shale in cuttings.

Anson completed build-up tests to estimate production interval permeability with the data analysed to determine the formation permeability (from the Horner Plot). The analysis was carried out by reservoir engineers from Energy Operating Company, Inc and Hansen Petroleum.

The permeability's ranged from 1,698 to 6,543 millidarcies (mD). The permeabilities were calculated for the clastic zone as a whole, with no differentiation between shale and dolomite lithologies.

In general, the permeability increases with increasing effective porosity and decreases with increasing pressure. However, secondary porosity in the form of fracturing increases the bulk permeability of a geologic unit, as well as increasing its sensitivity to effective pressure.

The hydraulic conductivity for the Clastic Zone ranges from 0.02 to 0.07 m/d and the transmissivity ranges from 0.099 to 0.5 m<sup>2</sup>/d. The high relative transmissivities shown by the shale lithologies, as well as the high permeability's indicate that the flow system is complex with varying porosity of the dolomite and shale units, which are in turn dominated by secondary porosity related to fracturing.

Porosity values were determined from downhole geophysical logs; published Government, academic and journal literature; and independent laboratory analysis conducted on well core and cuttings from within and surrounding the boundaries of the Paradox Brine Project. As such, porosity is an important part of evaluating the hydrogeology of the Paradox Formation and in resource modelling conducted for this project.

The effective porosity of the samples tested varied through the clastic zone based on the lithology from 4.1% to 21.3%. Typically, effective porosity is calculated from core laboratory analysis or through field testing. Effective porosity is an important parameter when assessing the mineral resource, as it is a measure of the interconnectedness of pores through which the brine would flow to production wells.



#### **Project Background:**

The Paradox Brine Project is located within a mature oil and gas district with brines with historically high published concentrations of lithium. The Paradox Formation, host to these brines, is a Pennsylvanian aged evaporite sequence deposited during multiple transgressive/regressive cycles. Following deposition, the basin was subject to structural alteration due to the further basin development. Deep structures which developed in this time, such as the Roberts Rupture which strikes to the north-east through the claims, potentially create a conduit for rising heated fluids. The Paradox Formation presents the factors required for genesis of a brine hosted lithium deposit.

The Paradox Basin brine aquifers geologic model has similarities to brine concentrations in Tertiary aged closed evaporative basins, as well as those associated with brine aquifer hosted in older Carboniferous and Palaeozoic sediments which can be associated with hydrocarbon deposits.

However, the formation of lithium rich bearing saline brines have several common primary characteristics (Bradley et al., 2013):

- An arid climate;
- A closed basin with an evaporative centre (playa/salar);
- Tectonically driven subsidence;
- Heat flow, generally associated with igneous or geothermal activity;
- · Contact with lithium source rocks;
- Presence of one or more groundwater aquifers through which fluid can circulate; and
- Sufficient time to concentrate salt minerals within the groundwater for creation of a brine fluid

Anson has re-entered 4 historic oil wells to depths of up to 2,300 metres in the Paradox Brine Project area. The wells have an average spacing of 1.6km (ranging between 1.3km and 3.0km). The bores have delineated an aquifer containing hyper-saline brine with total dissolved solids (TDS) ranging between 350,000 mg/L and 410,000 mg/L; the brine is enriched with respect to lithium. The sampling of the supersaturated brines from the clastic zones of the Paradox Formation have yielded concentrations up to 253 ppm lithium and 5,041 ppm bromine.

Pumping tests have allowed determination of the hydraulic properties of this aquifer. Four separate flow tests have been completed at rates ranging between 3L/s and 12L/s, for periods of 4 to 12 hours. No pumping was required due to the artesian flow. Flow tests allowed determination of the aquifer permeability and associated potential parameters for brine-abstraction.

#### Appendix A:

The following information and tables are provided to ensure compliance with the JORC Code (2012) requirements for the reporting of Exploration Results and Mineral Resources for the Paradox Brine Project. Please also refer to JORC Tables 1, 2 and 3 below.



### **Geology and geological interpretation**

The brine bearing units, clastic zones, have been interpreted from more than 100 oil and gas wells drilled throughout the Anson claims and the greater Paradox Basin. The lithological units have been correlated within the basin based on the drilling and are predictable over the whole basin. Twenty-eight wells (refer table 5) were used to interpret the depth and thickness of these horizons within the Anson claims.

The main brine zones in the project area have not been cored, but it has been adequately sampled and logged. There are four inter-bedded hydrogeological units within the clastic horizon from top to bottom:

- Anhydite;
- · Black Shale;
- Dolomite; and
- Anhydrite.

The dolomite is quite porous and permeable, whereas the anhydrite and black shale is crushed and broken. Usually the fractures are filled with salt, but where brine is present no salt filling occurs. The high flow rates from the two tested wells confirm this theory.

In the White Cloud No. 2 well, which offsets the Long Canyon No. 1 well, brine started to flow when the top anhydrite was penetrated, and rapidly increased by the time the underlying black shale was penetrated, so that no further drilling was done. The dolomite zone was not drilled. Vertical porosity, permeability, and communication are indicated. Brine flows have been encountered in Clastic Zone 31 over a distance of six miles north-south and eight miles east-west.

Previously the brine aquifer had been interpreted/limited to the dolomitic sands with known porosity and excluded the potential for brine fluids within the anhydrite and shale lithologies. Spinner-flowmeter logging completed in Long Canyon Unit 2 and Skyline Unit 1 suggests that these units produce brine fluids from secondary porosity, and that the brine aquifer within Clastic Zone 31 has dual porosity based on both lithology and secondary porosity from fracture flow. Therefore, the extent of the brine aquifer has been extended to include the entirety of the clastic zone for the purposes of exploration targeting and resource estimation.

Figures 9 and 10 illustrate the stratigraphy in the area of interest. Of importance is the correlation of the various sedimentary units between the wells. This correlation enables the clastic units of interest to be modelled over an extensive areal extent.



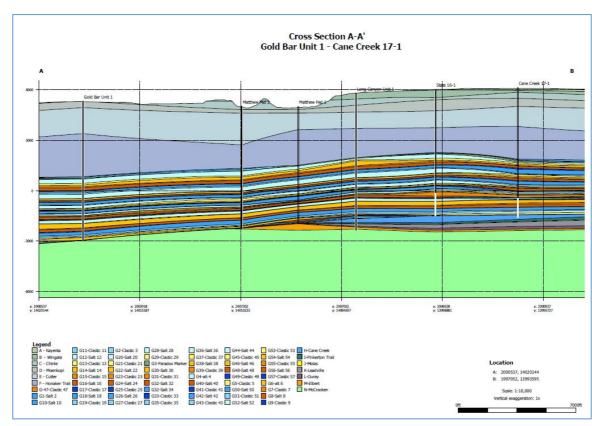


Figure 9: Section line AA showing lithology of Paradox basin in area of interest.

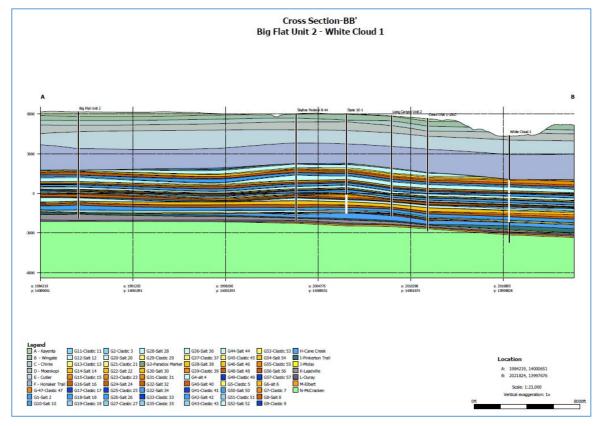


Figure 10: Section line BB showing lithology of Paradox basin in area of interest.



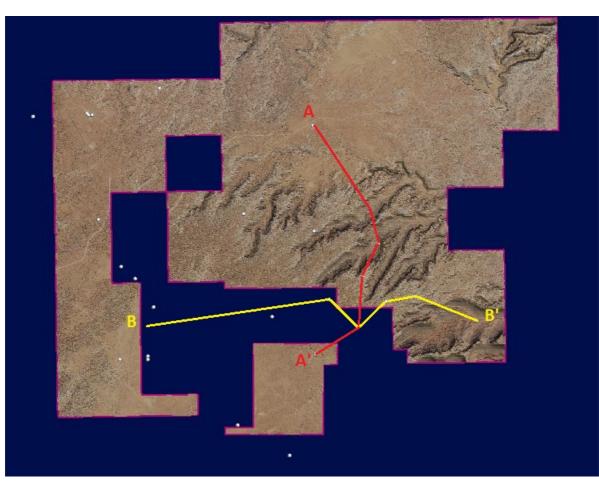


Figure 11: Plan view showing claim area, topography and section lines.



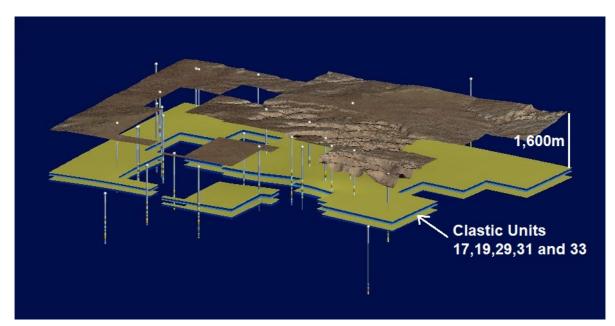


Figure 12: View showing surface topography, wells and modelled clastic zones.

### Brine Aquifer Hydraulic Properties

Porosity (or total porosity) is the amount of open space between mineral grains and/or fractures. Certain geophysical logs can be utilized to estimate total porosity with significant accuracy. Anson had previously analysed a small subset of these logs from wells within the project area to estimate porosity of the dolomite in Clastic Zone 31. Utilizing a combination of neutron density logs and sonic logs total porosity was estimated for three wells as shown in Table 3.

Hole Id	Clastic Zone	Depth From	Depth To	Thickness m	Porosity	Log
Big Flat Unit 1	31	1813.6	1819.7	6.1	26.0%	GR Neutron
Big Flat 2	31	1914.1	1917.2	3.0	21.0%	Neuton Density
Big Flat 3	31	1871.5	1874.5	3.0	31.0%	GR Neutron
Big Flat Unit 6	31	1896.5	1899.5	3.0	30.0%	Gr Neuton
Skyline	31	1895.9	1906.2	10.4	20.1%	Neuton Density
Long Canyon 1	31	1833.7	1839.8	6.1	24.2%	Sonic
Utah State 16	31	1854.7	1862.3	7.6	27.0%	Neutron Density
Matthew Fed 1	31	1716.0	1722.1	6.1	20.0%	Sonic
Mathew Fed 2	31	1837.9	1844.0	6.1	18.5%	Neutron Density
Gold Bar 1	31	2089.7	2094.0	4.3	20.0%	Sonic & Neutron Density
Gold Bar 2	31	2158.0	2164.7	6.7	17.5%	Sonic & Neutron Density
Coors	31	1926.3	1929.4	3.0	25.0%	Sonic
Cane Creek 32-1	29	1873.9	1880.6	6.7	21.0%	Neutron Density
Skyline	17	1642.3	1652.0	9.8	19.3%	Neutron Density
Skyline	19	1695.0	1706.0	11.0	20.8%	Neutron Density
Skyline	29	1878.0	1884.0	6.0	16.0%	Neutron Density

Table 3: The interpreted maximum porosities from down hole logs for Clastic Zone 31 within the Project area.



Spinner-flowmeter logging completed in Skyline Unit 1 and Long Canyon Unit 2 suggest that these units also produce brine fluids from a secondary porosity, and that the brine aquifer within Clastic Zone 31 has dual porosity based on both lithology and secondary porosity from fracture flow. Figure 13 shows the interpretation of a spinner flowmeter test completed across Clastic Zone 31 in Long Canyon Unit 2.

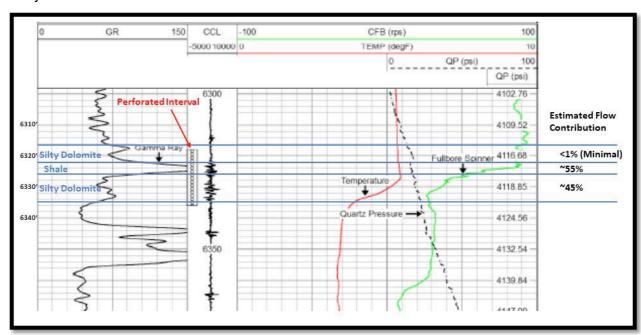


Figure 13: Spinner flowmeter log across perforated CZ 31 in Long Canyon Unit 2, with interpretations

The spinner-flowmeter log indicates there is significant brine production from both the silty dolomite and shale lithologies in Clastic Zone 31 of Long Canyon Unit 2. Lithological thickness vs. flow contribution suggests that the shale has a higher transmissivity than the silty dolomite, which based on known textural differences, suggests significant secondary porosity (fracturing) within the shale. Without secondary porosity from fracturing, the common range of effective porosity for shale ranges from 0.5 to 5% (Driscoll 1986), which would have a corresponding limit on the transmissivity of the lithology. The lack of brine production contribution in the upper silty dolomite is likely due to poorly developed perforations or backpressure on the system limiting the brine flow discharge rate within upper zones of lower transmissivity.

During the re-entry and the development of the perforated intervals within Skyline Unit 1 and Long Canyon Unit 2 wells, Anson completed build-up tests to estimate production interval permeability. Build-up tests consisted of a short period of measured flow, followed by an immediate shut-in of flow at the well head and measurement of the pressure recovery. See Table 4. The data was analysed to determine the permeability of the formation (Horner plot, see Figure 14).

Well ID	Initial Bottom Hole Pressure (psi)	Period of Flow (min)	Flow Rate (BWPD)	Flow Rate (gpm)	Permeability (md)
Long Canyon Unit 2	5,209.5	70	2,201	64.2	1,698
Skyline Unit 2	5,240.0	45	4,096	119.5	6,543

Table 4: Permeabilities determined from build-up testing from CZ 31 production.



In general, permeability increases with increasing effective porosity and decreases with increasing pressure. However, secondary porosity in the form of fracturing increases the bulk permeability of a geologic unit, as well as increasing its sensitivity to effective pressure.

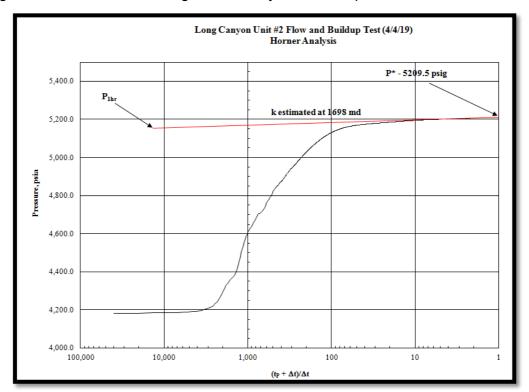


Figure 14: A plot of the Horner Analysis of the flow and build up test for Long Canyon No 2 well.

The locations of the historical oil wells from which the geophysical logs were obtained to calculate the volume of the Clastic Zone 31 brine horizons are shown in Figure 16 and the co-ordinates of the wells located within the project area are shown in Table 5.

Well Name	Co-Ordinates (UTM)		Depth (m)	CZ31 from (m)	CZ31 to (m)
	Northing	Easting	(111)		
SKYLINE UNIT 1	4269654	610245	2,339	1,897	1,905
LONG CANYON UNIT 2	4267637	612308	2,253	1,927	1,932
Cane Creek 32-1-25-20	4270986	610154	3,479	1,874	1,881
GOLD BAR UNIT 2	4274508	614414	2,953	2,159	2,166
LONG CANYON No 1	4268364	611636	2,480	1,835	1,841
Big Flat No 2	4267478	605659	2,459	1,886	1,894
Big Flat No 2 (Pure Oil)	4266772	605490	2,382	1,915	1,918
Hobson USA 1	4264099	608069	2,036	1,831	1,836
Seven Mile No 2	4276336	617325	2,874	1,551	1,554



MATTHEW FED 1	4269310	612087	2,119	1,717	1,723
MATTHEW FED 2	4270303	611836	2,212	1,839	1,850
COORS USA 1-10LC	4267776	613129	2,584	1,928	1,931
BIG FLAT UNIT 7	4270148	608230	2,376	1,931	1,938
Mineral Canyon Fed 1-3	4269985	604073	2,498	1,909	1,918
Big Rock Fed 1	4273747	605821	2,707	2,001	2,007
Fed Bartlett Flat 10-27	4273027	603745	2,356	1,902	1,906
Big Flat Unit 5	4272980	603792	2,208	1,896	1,903
Big Flat Unit 6	4272980	603893	2,231	1,898	1,901
WHITE CLOUD 1	4267097	614879	1,845	1,835	1,841
GOLD BAR UNIT 1	4272680	610212	2,527	2,091	2,095

Table 5: Historic drill holes within or close to the Paradox Brine Project area.

The super-saturated brines, typically with a high density (1.25 - 1.30 g/cm3) have been intersected throughout the clastic zones of the Paradox Basin. Analytical results for lithium to date have been highest (up to 253ppm lithium) in the central to southern area of the project.

#### Effective Porosity

Effective porosity was measured from core in one well, Big Flat 2 by mercury injection. Test-work was carried out by Core Laboratories, Petroleum Services Division in Houston, Texas. During the mercury injection test, each clean dry sample was immersed in mercury in a pressure-sealed chamber. The pressure of the surrounding mercury was gradually increased from 0 psia up to 55,000 psia. The increasing pressure gradually forced the mercury to intrude into the sample pore spaces and the amount of mercury injected, expressed as a fraction of the sample pore volume, was determined. The relationship of injection pressure to mercury saturation was used to calculate several parameters, including pore throat size distribution, capillary pressure for various fluid systems, and Swanson permeability.

The results for the effective porosity test-work are contained in table 6.

Well	Sample No.	Depth fro	om to (m)	Sample Material	Test / Analysis	thick (m)	Effective Porosity %	Geology description
Big Flat No2	277209	1914.1	1914.4	Chunk	MICP	0.30	8.2	Anhydrite and Dolomite
Big Flat No2	277210	1914.4	1914.8	Chunk	MICP	0.30	14.5	Silty Dolomite
Big Flat No2	277211	1914.8	1915.4	Chunk	MICP	0.61	19.1	Sugary dolomite, crumbly
Big Flat No2	277212	1915.4	1916.0	Chunk	MICP	0.61	6	Dolomite
Big Flat No2	277213	1916.0	1916.6	Chunk	MICP	0.61	4.1	Dolomite
	no sample	1916.6	1917.2		mean of either side	0.61	12.35	



	Big Flat No2	277215	1917.2	1917.8	Chunk	MICP	0.61	20.6	Shale
/ / /		no sample	1917.8	1918.4		mean of either side	0.61	20.95	
	Big Flat No2	277217	1918.4	1919.0	Chunk	MICP	0.61	21.3	Shaly dolomite
	Big Flat No2	277218	1919.0	1919.6	Chunk	MICP	0.61	4.8	Silty Anhydrite
			1914.4	1919.0			4.6	14.9	

Table 6: Effective Porosity test-work Big Flat 2.

Clastic Zone 31 (CZ31) has been previously logged to extend from 1914.1m to 1917.2m. CZ31 is located between two halite/anhydrite units (salt cycles 15 and 16)<sup>1</sup> so the examination of the chips here indicated that CZ31 may extend further to at least 1919 based on the geological description of shaly dolomite. The data within this zone is incomplete but the effective porosity for the missing interval has been estimated by averaging the results from either side of the non-sampled intervals. Clastic Zone 31 is considered to extend between zones where anhydrite has been logged and this corresponds to the interval 1914.4m to 1919.0m (highlighted in yellow in table). By estimating the missing intervals, the weighted average of effective porosity over a 4.6m width of CZ31 is 14.9%.

The neutron density log indicated a total porosity for CZ31 in the Big Flat 2 well of 21%. The ratio of total porosity to effective porosity in Big Flat 2 was applied to other data within CZ31 to estimate effective porosity in this clastic zone. Other clastic zones used an estimate of 14%. The other clastic zones are repeat sedimentary sequences with the Paradox Basin so hydraulic properties are assumed to be similar. Results of this can be found in Table 7.

Hole Id	Clastic Zone	Depth	Depth	Thickness	Total	Effective
		From	То	m	Porosity	Porosity
Big Flat Unit 1	31	1813.6	1819.7	6.1	26.0%	18.4%
Big Flat 2	31	1914.1	1917.2	3.0	21.0%	14.9%
Big Flat 3	31	1871.5	1874.5	3.0	31.0%	22.0%
Big Flat Unit 6	31	1896.5	1899.5	3.0	30.0%	21.3%
Skyline	31	1895.9	1906.2	10.4	20.1%	14.2%
Long Canyon 1	31	1833.7	1839.8	6.1	24.2%	17.2%
Utah State 16	31	1854.7	1862.3	7.6	27.0%	19.2%
Matthew Fed 1	31	1716.0	1722.1	6.1	20.0%	14.2%
Mathew Fed 2	31	1837.9	1844.0	6.1	18.5%	13.1%
Gold Bar 1	31	2089.7	2094.0	4.3	20.0%	14.2%
Gold Bar 2	31	2158.0	2164.7	6.7	17.5%	12.4%
Coors	31	1926.3	1929.4	3.0	25.0%	17.7%
Cane Creek 32-1	29	1873.9	1880.6	6.7	21.0%	14.9%
Skyline	17	1642.3	1652.0	9.8	19.3%	13.7%
Skyline	19	1695.0	1706.0	11.0	20.8%	14.7%
Skyline	29	1878.0	1884.0	6.0	16.0%	11.4%

Table 7: Effective porosity used in Clastic Zone 31 estimation.

\_

<sup>&</sup>lt;sup>1</sup> Massouth (2012)



Effective porosity in this case is essentially the same as drainable porosity as the re-entered wells at Cane Creek 32-1, Skyline and Long Canyon No2 all had high pressure flow to the surface with no pumping required.

Figure 15 shows the pressure build up test on the Long Canyon No 2 well during re-entry. Once the flow was stopped the pressure build-up occurred quickly.

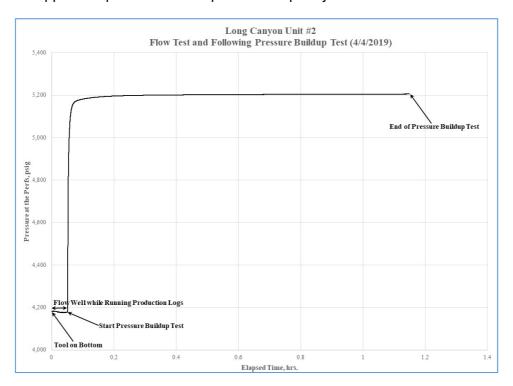


Figure 15: Pressure build up test Long Canyon No 2 Well.

#### Sampling and sub-sampling techniques

Anson has re-entered and sampled four wells within the claim area. Table 8 summarises the assay results from the brine analysis. The brine is under pressure so flows to the surface naturally. The Clastic Zone intervals were located through previous hole geophysical logs. Following perforation of the interval to be sampled, a mechanical packer was set below the interval to isolate the brine produced and prevent comingling of a sample. The open intervals were then developed by swabbing. Fluid produced from the swabbing process was collected in approximately 1,000 litre (L) clean, high density polyethylene (HDP) totes. Separation of oil and water occurred within the totes, allowing for decanted samples of the produced brine fluid to be collected from the totes. Samples were collected into clean polyethylene bottles, labelled and packaged on site for shipment to analytical laboratories.

#### Drilling techniques

No drilling was conducted as part of the sample collection. Previously drilled holes targeting different oil and gas producing horizons were utilised to access the clastic zones.



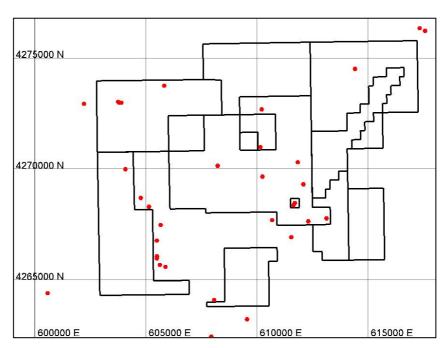


Figure 16: Anson Claim outlines showing wells used to delineate Clastic Zones.

#### Criteria used for classification

Anson has re-entered four holes (table 8) and collected samples for analytical test-work. These holes were used as the basis for indicated resources. The wells have produced free flowing brine and the samples have been analysed for elements of interest. For Clastic Zone 31 the indicated resources were estimated within a 2km radius of the re-entered holes. Inferred resources extend to a 4km radius. An additional four holes (table 9) intersecting CZ31 within the Anson claims have also been sampled by previous operators and the US Geological Survey. The samples have been used to estimate Inferred resources. The lack of sample and assay information precludes them being used to estimate resources of higher confidence. They have been used to estimate inferred resources based on the continuity of brine mineralisation with CZ31 backed up by Anson's well reentry test-work. Anson also sampled other clastic zones and these have also been included in the resource estimation. The radius for indicated resources in Clastic Zones 17, 19, 29 and 33 is 1km and for Inferred resources, 3km. The focus of test-work has been on CZ31 so these is a higher level of confidence in this zone hence the larger classification radius around them.

Well	Clastic Zone	From (m)	To (m)	Thickness (m)	Li	Br	I	В
LONG CANYON UNIT No2	31	1927	1932	5	253	2,282	138	360
SKYLINE UNIT 1	31	1897	1905	8	193	4,427	156	164
SKYLINE UNIT 1	29	1878	1884	6	164	3,508	38	178
SKYLINE UNIT 1	19	1695	1706	12	146	3,462	-	143
SKYLINE UNIT 1	17	1642	1652	10	61	2,515	28	70
CANE CREEK 32-1	33	1939	1951	12	51	7,277	-	-
CANE CREEK 32-1	29	1874	1881	7	101	5,041	126	145
CANE CREEK 32-1	19	1728	1738	10	68	3,345	-	114



CANE CREEK 32-1	17	1667	1678	10	62	3,210	-	84
GOLD BAR UNIT 2	31	2159	2166	7	23	1,390	-	96
GOLD BAR UNIT 2	29	2140	2145	5	27	2,830	140	32
GOLD BAR UNIT 2	17	1891	1897	6	9	2,600	-	8

Table 8: Assay results of the samples collected during the Re-entry drill programs1.

Well	Clastic Zone	From (m)	To (m)	Thickness (m)	Li	Br	I	В
LONG CANYON UNIT No1	31	1835	1841	6	500	6,100	300	-
BIG FLAT UNIT 2	31	1886	1894	8	173	1,150	-	-
NO. 1 USA HOBSON	31	1831	1836	6	134	1,612	-	1,260
Seven Mile No. 2	31	1551	1554	3	66	3,080	42	660
NO. 1 USA HOBSON	19	1659	1668	9	134	1,612	-	1,260

Table 9: Assay concentrations of all drill holes in the Project area<sup>2</sup>.

#### Sample analysis method

Samples taken by Anson from the four re-entry wells were assayed for a series of elements utilising different methodologies at different laboratories. SGS utilized EPA 6010B (ICP-AES) for analysis of cations, and a variety of standard methods for analysis of anions. WETLAB completed density analysis and anions by ion chromatography (EPA Method 300.0) for bromide, chloride, fluoride, and sulphate. WETLAB then subcontracted out the analysis for bromine (via Schoniger Combustion) to Midwest Microlab of Indianapolis, Indiana, and total metals by inductively coupled plasma – atomic emission spectrometry (ICP-AES) (EPA Method 200.7) for lithium, boron, and magnesium were subcontracted to Asset Laboratories of Las Vegas, Nevada.

The analysis of brines associated with oil and gas can be complex due to the interference of hydrocarbon organics when not properly prepared. Brines present challenges for analysis due the very high concentrations of anions such as calcium, chloride, and magnesium. The high concentrations of these elements drive the need for sample dilution in order to analyse for elements such as boron and lithium which can be anomalously high, yet significantly lower than calcium, chloride and magnesium. The dilution process inherently adds some level of uncertainty to the analysis and can create different analysis results between laboratories. Additionally, further work is required to characterize the in-situ parameters of the brine fluids so that the chemistry effects of changing temperature and pressure can be better understood.

### Estimation methodology

Grades were estimated by inverse distance squared grade interpolation. A minimum of one and maximum of three wells were used for the estimation. No top cuts were applied to the estimation. A maximum search distance of 11km was used to ensure all blocks in the model were informed

<sup>&</sup>lt;sup>1</sup> Refer to announcement on 23 October 2019

<sup>&</sup>lt;sup>2</sup> Refer to Anson announcements dated 1 April 2019, 17 June 2019 and 23 October 2019



with grades, porosity and brine density. A search box was used to eliminate the edge effects of using a search ellipse.

### Cut-off grade

No cut-off grades have been applied to the resource reporting.

### Mining and metallurgical methods

No mining of metallurgical assumptions or factors have been used in estimating the resource. The resource is reported as an in-situ, contained metal resource. Assumptions have been made regarding effective porosity. Effective porosity values of between 11.4% and 21.3% have been estimated for Clastic Zone 31 and 14% has been assumed for Clastic Zones 17,19, 29 and 33 based on test-work applied to Clastic Zone 31. The four wells re-entered and sampled by Anson have all recorded high pressure, free flowing, brine fluids at surface. To date test-work has not required pumping. While high permeabilities were recorded during well testing additional test-work is required to establish effective yield of the CZ31 unit.

#### Classification

The model has been classified by radius around sampled wells, see Figures 17 and 18. In Clastic Zones 17, 19, 29 and 33 indicated resources are within a 1km radius of wells sampled by Anson. Inferred resources are within 3km of wells either with Anson sampled wells or wells with historic sampling. For Clastic Zone 31, with increased confidence provided by effective porosity measurements on Big Flat 2 well, the indicated resources are with a 2km radius of wells sampled by Anson. Inferred resources are estimated with a 4km radius of wells sampled by Anson or with historic sampling. The following figures show the resource classification for Clastic Zone 31 and Clastic Zone 29.

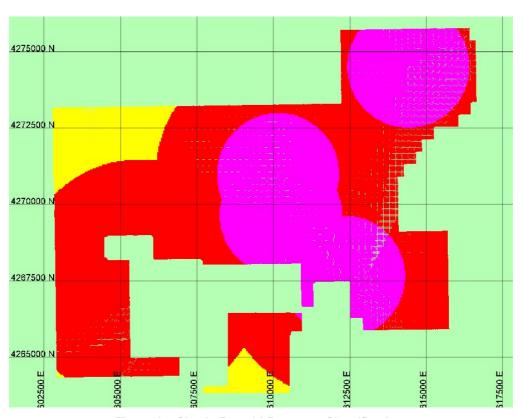


Figure 17: Clastic Zone 31 Resource Classification.



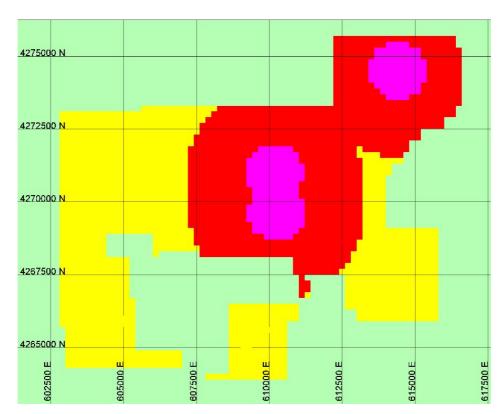


Figure 18: Clastic Zone 29 Resource Classification.

It can be seen that Clastic Zone 31 has the highest level of resource confidence due to greater levels of sampling and the effective porosity test-work conducted on the Big Flat 2 well.

#### Block Model Details

The clastic zones were modelled using stratigraphic data from Massouth (2012). Each of the clastic zones, 17, 19, 29, 31 and 33 were constructed in three dimensions using the top and bottom depths from the drillhole logs in the claim area. Block size was selected to maintain the stratigraphic delineation of each of the clastic units. The well logs extend beyond the claim boundaries, so the vertical positioning of the clastic units was delineated over the entire claim area. A point was placed at the top and bottom of each clastic unit for each well. These points were then used to construct a top and bottom surface for each clastic unit.

Estimation was done with inverse distance squared interpolation.

#### References

Mayhew, E., Heylman, E., <u>Concentrated Sub-surface Brines in the Moab Region</u>, Utah Geol. and Min. Survey, Special Study no. 13, 1965

Fetter, C.W., <u>Applied Hydrogeology</u> (4th Edition); Prentice-Hall Inc., Upper Saddle River, New Jersey, 592 p, 1988.

Massoth, T., Well Database and Maps of Salt Cycles and Potash Zones of the Paradox Basin, Utah, Utah Geological Survey, Open File Report 600, 2012

Manger, G.E., Porosity and Bulk Density of Sedimentary Rocks, USGC Bulletin 1144-E, 1963



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

#### **ENDS**

#### For further information please contact:

Bruce Richardson

Executive Chairman and CEO

E: info@ansonresources.com www.ansonresources.com

Ph: +61 8 478 491 355 Follow us on Twitter @anson\_ir

**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 and a consultant to Anson.

Competent Person's Statement 2: The information contained in this ASX release relating to Exploration Results and Mineral Resource Estimates has been prepared by Mr Richard Maddocks, MSc in Mineral Economics, BSc in Geology and Grad Dip in Applied Finance. Mr Maddocks is a Fellow of the Australasian Institute of Mining and Metallurgy (111714) with over 30 years of experience. Mr Maddocks has sufficient experience that is relevant to the style of mineralisation and type of deposit 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.

Mr Maddocks is an independent consultant to Anson Resources Ltd. Mr Maddocks consents to the inclusion in this announcement of this information in the form and context in which it appears. The information in this announcement is an accurate representation of the available data from exploration at the Paradox Brine Project.

Information is extracted from reports entitled 'Anson Obtains a Lithium Grade of 235ppm at Long Canyon No 2' created on 1 April 2019, 'Anson Estimates Exploration Target For Additional Zones' created on 12 June 2019, 'Anson Estimates Maiden JORC Mineral Resource' created on 17 June 2019, 'Anson Re-enters Skyline Well to Increase Br-Li Resource' created on 19 September 2019, 'Anson Confirms Li, Br for Additional Clastic Zones' created on 23 October 2019 and all are available to view on the ASX website under the ticker code ASN. Anson confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Anson confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.



## **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. 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 (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>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.</li> <li>The brine samples were collected in clean plastic bottles. Each bottle was marked with the location, sample interval, date and time of collection.</li> </ul>
Drilling Techniques	<ul> <li>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.).</li> </ul>	<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> </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 was available for review.</li> <li>Drilling procedures for well re-entry only produced cuttings from cement plugs.</li> </ul>
Logging	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> <li>No new drill holes were completed.</li> <li>Cuttings and core samples retrieved fro UGS and USGS core libraries</li> <li>Not all wells were cored, but cuttings were collected.</li> <li>Cuttings were recovered from mud returns.</li> <li>Sampling of the targeted horizons was carried out at the depths interpreted from the newly completed geophysical logs.</li> <li>Clastic Zones 17, 19, 29, 31 and 33 sampled.</li> </ul>
Sub-sampling Techniques and Preparation	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.	Bulk brine samples were stored for potential further analysis.



Criteria	JORC Code Explanation	Commentary
	<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>	
	<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>	Historic Wells  Sample size and quality were considered appropriate by operators/labs.  Re-Entries  Sampling followed the protocols produced by SRK for lithium brine sampling.  Samples were collected in IBC containers and samples taken from them.  Duplicate samples kept Storage samples were also collected and securely stored.  Bulk samples were also collected for future use.  Sample sizes were appropriate for the program being completed.
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 was completed at several laboratories including, Western Environmental Testing Laboratory (WETLAB), Asset Laboratories, Oilfield Environmental Compliance (OEC), and Enviro-Chem Analytical, Inc. All labs followed a standard QA/QC program that included duplicates, standards, and blind control samples.</li> <li>The quality control and analytical procedures used by the four analytical laboratories are considered to be of high quality.</li> <li>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.</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>	<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 independent 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>	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> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the</li> </ul>	<ul> <li>Data spacing is considered acceptable for a brine sample but has not been used in any Resource calculations.</li> </ul>



Criteria	JORC Code Explanation	Commentary
	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.	There has been no compositing of brine samples.
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 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.</li> <li>Sampling records did not indicate any form of sampling bias for brine samples.</li> </ul>
Sample Security	The measures taken to ensure sample security.	Brine samples were moved from the drill pad as necessary and secured.     All samples were marked with unique identifiers upon collection
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 Basin Brine Project is located approximately 12 km west of Moab, Utah, USA, and encompasses a land position of 8,947 hectares.</li> <li>The land position is constructed from 1,084 Federal placer mineral claims, and one mineral lease from the State of Utah.</li> <li>A1 Lithium has 50% ownership of 87 of the 1,084 mineral claims through a earn-in joint venture with Voyageur Mineral Ltd. All other claims and leases are held 100% by A1 Lithium's U.S. based subsidiary, A1 Lithium Inc.</li> <li>A1 Lithium also has 4 SITLA blocks for a further 2,000 hectares.</li> <li>The claims/leases are believed to be 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 have been completed in the area, nor has there been any historical economic production of bromine or lithium 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, however none of this work is considered complete for inclusion in a formal resource estimate.</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 and are generally hosted in the more permeable dolomite sediments.</li> <li>Controls on the spatial distribution of certain salts (boron, bromine, lithium, magnesium, etc.) within the clastic aguifers of the Paradox Basin is poorly understood but believed</li> </ul>



Criteria	JORC Code Explanation	Commentary
		to be in part dictated by the geochemistry of the surrounding depositional cycles, with each likely associated with a unique geochemical signature.  • The source and age of the brine requires further investigation.
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 over in 2018 and 2019 to collected brine samples. Although these wells may be directional, all wells are vertical (dip -90, azimuth 0 degrees) through the stratigraphy of interest.</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>The target horizons in the Paradox Formation are approximately 1,800 meters below ground surface.</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>	No weighting or cut-off grades have been applied.
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 CZ31.</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	A diagram is presented in the text showing the location of the properties and re-entered oil wells. A table is also included in the text which provides the location of these oil wells.
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.	All data generated by A1 Lithium through re-entry, workover, and sampling of historical oil wells is presented. No newly generated data has been withheld or summarized.



Criteria	JORC Code Explanation	Commentary
Other Substantive Exploration Data	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.	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>Additional well re-entries and sampling planned following acceptance of Plan of Operations with BLM and completion of an Environmental Assessment.</li> <li>Future well re-entries will focus on wells located on southern portion of claims.</li> <li>Future well re-entries will include further hydrogeological investigations.</li> </ul>

## **Section 3 Estimation and Reporting of Mineral Resource**

(Criteria listed in section 1 and where relevant in section 2, also apply to this section.)

Criteria	JORC Code Explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>Data has been verified by company personnel.</li> <li>Historic data used in the estimation has been sourced from Utah Geological Survey publications.</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	The competent person has not visited site.  Other consultants who have provided data and information for the estimate were onsite to supervise the well re-entry, sampling and assaying procedures.
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>The geological interpretation, location and depth of the brine bearing unit is very well known and documented through the drilling of hundreds of oil and gas wells over the past century.</li> <li>The Paradox Basin is a large, deep basin containing thousands of metres of sediments containing various levels of oil, gas and brine. The sedimentary layers have been correlated over most, if not all, of the basin. This enables an accurate assessment of the position of the brine units, CZ17, CZ19, CZ29, CZ31 and CZ33.</li> </ul>



	Criteria	JORC Code Explanation	Commentary
)	Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	<ul> <li>The brine bearing units are encountered at depth over the entire Anson claim area.</li> <li>Available data indicates that the units contains brine throughout its extent within the Anson claims</li> <li>The Anson claims cover an area of about 10km x 10km and this entire area has been covered by the estimation.</li> <li>Within the claim area the brine units are found at vertical depths of between 1450m to 2250m below surface.</li> <li>The producing units averages 2m-6m in thickness.</li> </ul>



Estimation and modelling
techniques

- The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.
- The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.
- The assumptions made regarding recovery of by-products.
- Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).
- In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.
- Any assumptions behind modelling of selective mining units.
- Any assumptions about correlation between variables.
- Description of how the geological interpretation was used to control the resource estimates.
- Discussion of basis for using or not using grade cutting or capping.
- The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.

- The brine grades were modelled using inverse distance squared grade interpolation.
- A single composite for the producing unit in each well was used to estimate grades.
- Lithium, Bromine, lodine, porosity and brine density were all modelled.
- A search box was used to eliminate the edge effect of using a search ellipse. The search box was 8000m x 8000m to ensure all the project area was covered.
- Minimum samples used in the estimation was 1 and the maximum was 3.
- A total of 202 wells were used to determine the depth and thickness of the brine producing units. Lithium grades are available for a total of 8 wells, some of which are outside the Anson claim; their grades were interpolated into the Anson claims.
- Bromine data was from 7 wells and lodine from 4. There were 4 density and 3 porosity measurements.
- The parent block size used was 500m x 500m with sub blocks to 20m x 20m to enable adequate definition of the brine unit.
- There is correlation between variables based on the total dissolved solid (TDS) content
  of the brine.
- Cutting of assays was not appropriate as grade is based on the TDS levels. Mapping of brine saturation levels indicates that the Paradox Basin does contain higher levels of saturation at its deeper center.
- One well with a high historic lithium grade of 1,700ppm was not included in the estimation as it is considered a potential outlier.
- The brine is contained within the producing units (Clastic Zones 17,19, 31,33). The contained brine is estimated by multiplying the volume by the effective porosity and then by the brine density. Test-work within clastic zone 31 was conducted to measure effective porosity. This was used to estimate effective porosity in CZ31. The effective porosity in Big Flat 2 was estimated at 14.9%. The ratio of this to the total porosity of 21% of Big Flat 2, measured on neutron logs, was applied to other total porosity measurements in CZ31. All other clastic zones were assumed to have an effective porosity of 14%.



Criteria	JORC Code Explanation	Commentary
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	<ul> <li>Tonnages are reported as in-situ, super saturated brine in liquid form.</li> <li>Density of the brine is approximately 1.2t/m³.</li> <li>Tonnages of product equivalent eg lithium carbonate are reported as dry tonnes.</li> </ul>
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	No cut-off grades were applied.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	<ul> <li>Testwork on re-entering historic wells has indicated that brine can be recovered from the producing unit.</li> <li>To date four drill wells have been re-entered successfully with pumping tests producing mineral bearing brine.</li> <li>This resource estimate represents a contained brine figure.</li> <li>Brine production will have a yield factor applied as not all of the brine will able to be extracted from the clastic zone.</li> </ul>
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	<ul> <li>No assumptions regarding the metallurgical or recoverability characteristics of the brine have been assumed in the estimation.</li> <li>However, lithium carbonate has been produced from bench top test-work from recently collected brine samples.</li> </ul>
Environmental factors or assumptions	<ul> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<ul> <li>Spent brines following processing and recovery of bromine and lithium will be injected back into receptive brine horizons in the lower Paradox Formation using Class V-1c Underground Injection Control (UIC) wells located near the processing facility. Spent brine will have similar characteristics to fresh brine minus concentrations of bromine, lithium and other transition metals captured through filtration.</li> <li>No waste products are left on site.</li> <li>No environmental assumptions were used in this estimation.</li> </ul>



Criteria	JORC Code Explanation	Commentary
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>Brine density measurements were based on samples from the pump tests carried out by Anson in 2018 and 2019.</li> <li>Data was measured in commercial laboratories.</li> <li>Total Porosity measurements were taken utilising a combination of neutron density logs and sonic logs for the three re-entry holes.</li> <li>Permeability was measured during the well re-entry. Skyline returned 6,543 md (milli darcys) and Long Canyon 1,698 md. These indicate high levels of permeability.</li> </ul>
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>The Mineral Resource estimate is reported here in compliance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' by the Joint Ore Reserves Committee (JORC). The resource was classified as an Indicated and Inferred Mineral Resource based on data quality, sample spacing, and lode continuity.</li> <li>The recent pump tests carried out by Anson have provided samples with a known provenance and assaying technique.</li> <li>These assays were used as the basis for the indicated resources.</li> <li>Indicated Resources are within 2km of the well.</li> <li>From 2 to 4km the resource is categorised as Inferred.</li> <li>Outside 4km the brine mineralisation is encompassed in the Exploration Target.</li> <li>The classification appropriately represents the level of confidence in the contained mineralisation and it reflects the competent persons view of the deposit.</li> </ul>
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	No audits or review of the Mineral Resource estimate has been conducted.



Criteria	JORC Code Explanation	Commentary
Discussion of relative accuracy/ confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available</li> </ul>	<ul> <li>The geology and stratigraphy of the Paradox Basin is very well known.</li> <li>The brine unit the subject of this resource estimation is known to contain super saturated brine at pressure from the drilling of many oil and gas wells.</li> <li>The resource is reported as in-situ tonnes of mineralisation.</li> <li>Further testwork is required to enable recoverable volumes of brine to be estimated.</li> </ul>