SALT LAKE POTASH LTD

**22 February 2016**

# LAKE WELLS RESOURCE INCREASED BY 193% TO 85Mt of SOP

*The Board of Salt Lake Potash Limited (**the Company**) is pleased to advise that, following the recent deeper drilling program, the total Mineral Resource estimate at the Company's Lake Wells Project has increased to 80-85 million tonnes (**Mt**) of SOP, representing an increase of 193% on the previous Resource estimate.*

***Highlights:***

- *The expanded Mineral Resource Estimate (**MRE**) at Lake Wells totals 80-85 million tonnes of SOP, representing an additional 51-56 Mt of Inferred Resource calculated in the strata below the previously reported shallow Resource of 29 Mt (ASX Announcement 11 November 2015).*

| Classification | Bulk Volume (Million $m^3$) | Porosity | Brine Volume (Million $m^3$) | Average SOP ($K_2SO_4$) Concentration ($kg/m^3$) | $K_2SO_4$ Tonnage (Mt) |
|---|---|---|---|---|---|
| Measured | 5,427 | 0.464 | 2,518 | 8.94 | **23** |
| Indicated | 775 | 0.464 | 359 | 8.49 | **3** |
| Inferred* | 18,521 | 0.368 | 6,814 | 8.68 | **59** |
| **Total** | **24,723** | **0.392** | **9,691** | **8.74** | **85** |

** Using Porosity of 0.30 for the Fractured Siltstone Aquifer*

- *Excellent brine chemistry featuring very high consistency both laterally and at depth, with an average concentration equivalent to 8.74 kg SOP per cubic metre of brine.*

- *The Mineral Resource estimate is based on an average thickness of 52 metres and a total brine pool of 9.7 billion cubic metres. The brine pool remains open at depth and laterally in a number of areas.*

- *A portion of the Inferred Resource is attributed to the Fractured Siltstone Aquifer (**FSA**) which is calculated on a range of porosities from 22-30%. The Company will revisit this Resource when intact core samples have been collected from the FSA and porosity analysis completed.*

*The increased SOP Resource estimate at Lake Wells provides further confirmation of the outstanding potential of the Project. The following activities are currently underway or commencing shortly:*

- *Laboratory and field evaporation trials on bulk brine samples to define the evaporation patterns, estimate the salting points of mixed salts and predict the conditions for production of SOP.*

- *Further drilling to improve the geological and hydrological model at Lake Wells, including pump testing of 3 aquifer units and measuring the hydraulic properties (flow rates and transmissivity) of the aquifers hosting the brine.*

- *A Scoping Study on the Lake Wells Project incorporating the upgraded Resource.*

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## Mineral Resource Estimate

The Mineral Resource is reported in accordance with the JORC Code 2012 and comprises 80-85 Mt of SOP (26 Mt in the Measured and Indicated categories). The total Resource demonstrates excellent brine chemistry with an average of 8.7 kg/m$^3$ of $K_2SO_4$.

The Company engaged an independent hydrogeological consultant with substantial salt lake brine expertise, Groundwater Science Pty Ltd, to complete the Mineral Resource Estimate upgrade for the Lake Wells project as set out in Table 1 below.

| Classification | Geological Unit | Bulk Volume (Million m$^3$) | Porosity | Brine Volume (Million m$^3$) | Average SOP[1] ($K_2SO_4$) Concentration (kg/m$^3$) | $K_2SO_4$ Tonnage (Mt) |
|---|---|---|---|---|---|---|
| Measured | Playa Lake Sediments [2] | 5,427 | 0.464 | 2,518 | 8.94 | **23** |
| Indicated | Playa Lake Sediments [2] | 775 | 0.464 | 359 | 8.49 | **3** |
| Inferred | Playa Lake Sediments [2] (Islands) | 1,204 | 0.464 | 558 | 5.34 | **3** |
| Inferred | Palaeovalley Sediment | 10,600 | 0.40 | 4,240 | 9.07 | **38** |
| Inferred | Fractured Siltstone Aquifer | 6,717 | 0.22-.30 | 1,477 - 2,015 | 8.79 | **13 - 18** |
| **Total** | | **24,723** | | **9,154 - 9,691** | **8.74** | **80 - 85** |

*Note: 1) Conversion factor to K to SOP ($K_2SO_4$ equivalent) is 2.23*
*2) Playa Lake Sediment resource estimate reported previously as maiden resource 11/11/2015.*

**Table 1: Lake Wells Project – Mineral Resource Estimate (JORC 2012)**

The total Resource Estimate of 80-85 Mt is hosted within approximately 24.7 billion cubic metres of rock with an average thickness of 52 metres, beneath 477 km$^2$ of Playa Lake surface.

The estimated tonnage represents the in-situ contained brine with no recovery factor applied. It will not be possible to extract all of the contained brine by pumping of bores or trenches; the amount which can be extracted depends on many factors including the permeability of the sediments, the drainable porosity, and the recharge dynamics of the aquifers

### Initial Resource Estimate for Lake Wells

In November 2015, the Company completed it's maiden JORC Mineral Resource estimate for the Lake Wells Project, totaling 29 Mt of SOP with approximately 80% in the 'Measured' category, with excellent brine chemistry of 8.31 kg/m$^3$ of SOP. The Resource was calculated on the shallow (16m average depth) Playa Lake Sediment. The Resource estimate was reported in the Company's ASX Announcement dated 11 November 2015 and remains unchanged from that release.

### Extended Deeper Inferred JORC Resource Estimate

The estimated tonnage of SOP in the deeper Resource is 51-56 Mt. The additional Resource estimate is classified as an Inferred Resource. The brine chemistry is consistent with the Maiden Resource. The deeper resource reports an average SOP concentration of 8.99 kg/m$^3$.

The Resource estimate for the deeper brine is based on data from 27 aircore drillholes with an average drill spacing of 4.2 km. The brine is hosted within 17.3 billion cubic metres of Tertiary Palaeovalley Sediments (PVS) and weathered Proterozoic Fractured Siltstone Aquifer (FSA), with an average thickness of 36.3m.

Aircore drilling does not provide an intact sample for porosity analysis, therefore the deeper Resource estimate is based on porosity of analogous deposits and other published data.

The Paleovalley Sediment unit was assigned a porosity value of 40%. The Fractured Siltstone Aquifer unit was assigned a porosity value of 22% for the base estimate and 30% for an upper estimate.

The Company anticipates future drilling at Lake Wells will provide intact samples for porosity analysis, which should allow upgrading of the Resource category from Inferred.

The current resource estimate is limited to the mapped salt lake boundary. There is potential for additional high grade brine to be defined by drilling off the Lake margins (see Figure 3).

From the observations during the air core program most drillholes ended in fractured, brine yielding aquifer and were constrained by the capacity of the aircore drilling method. The siltstone aquifer and brine pool potentially continues some depth below the range of the current drilling program which indicates the possibility of future resource increases.

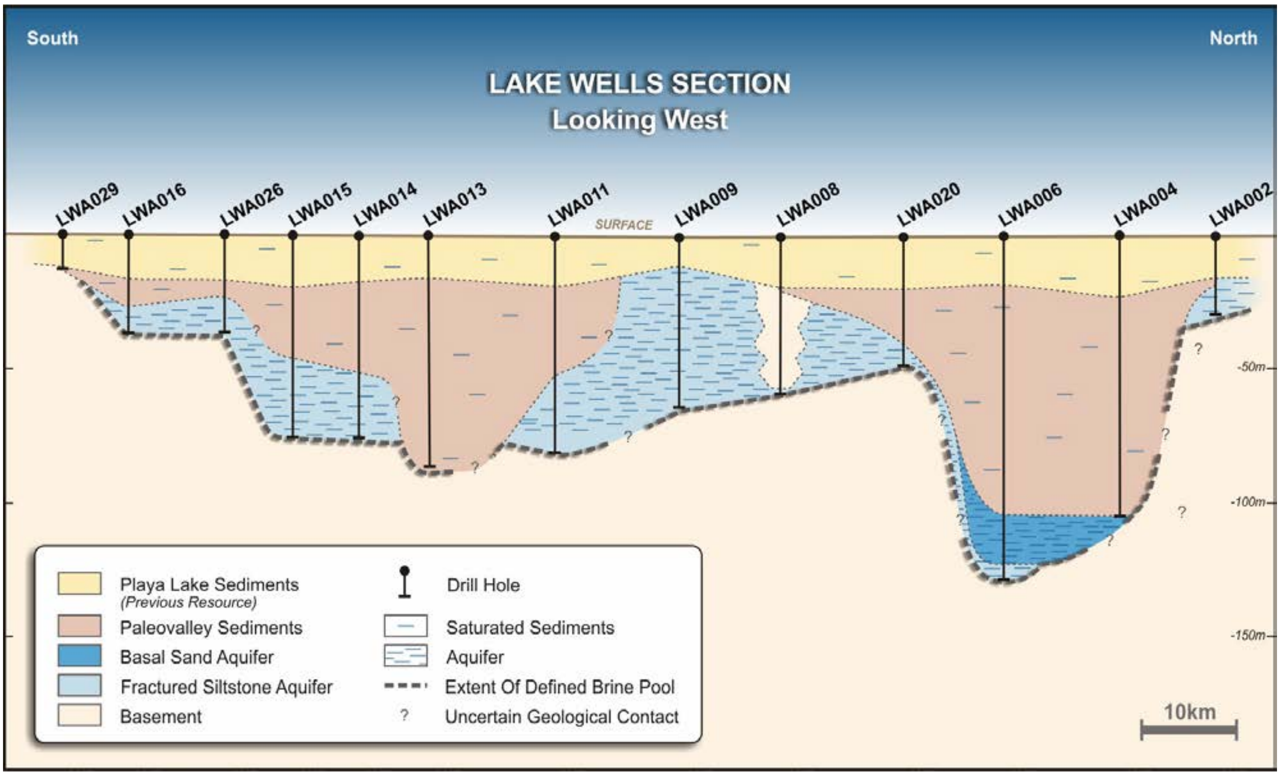


**Figure 1: North South Transect at Lake Wells**

**Air Core Drill Rig at Lake Wells**

## Lake Wells Project

The Lake Wells Project is located in the Northern Goldfields of Western Australia approximately 200 km north of Laverton. The area is well sourced by existing infrastructure, including the Great Central Road, the Goldfields Highway, the Goldfields gas pipeline and the railway sidings at Malcolm and Leonora.

The Lake Wells Project comprises 1,126 $km^2$ of Exploration Licences covering the Lake Wells Playa, and substantial area immediately contiguous to Lake Wells.

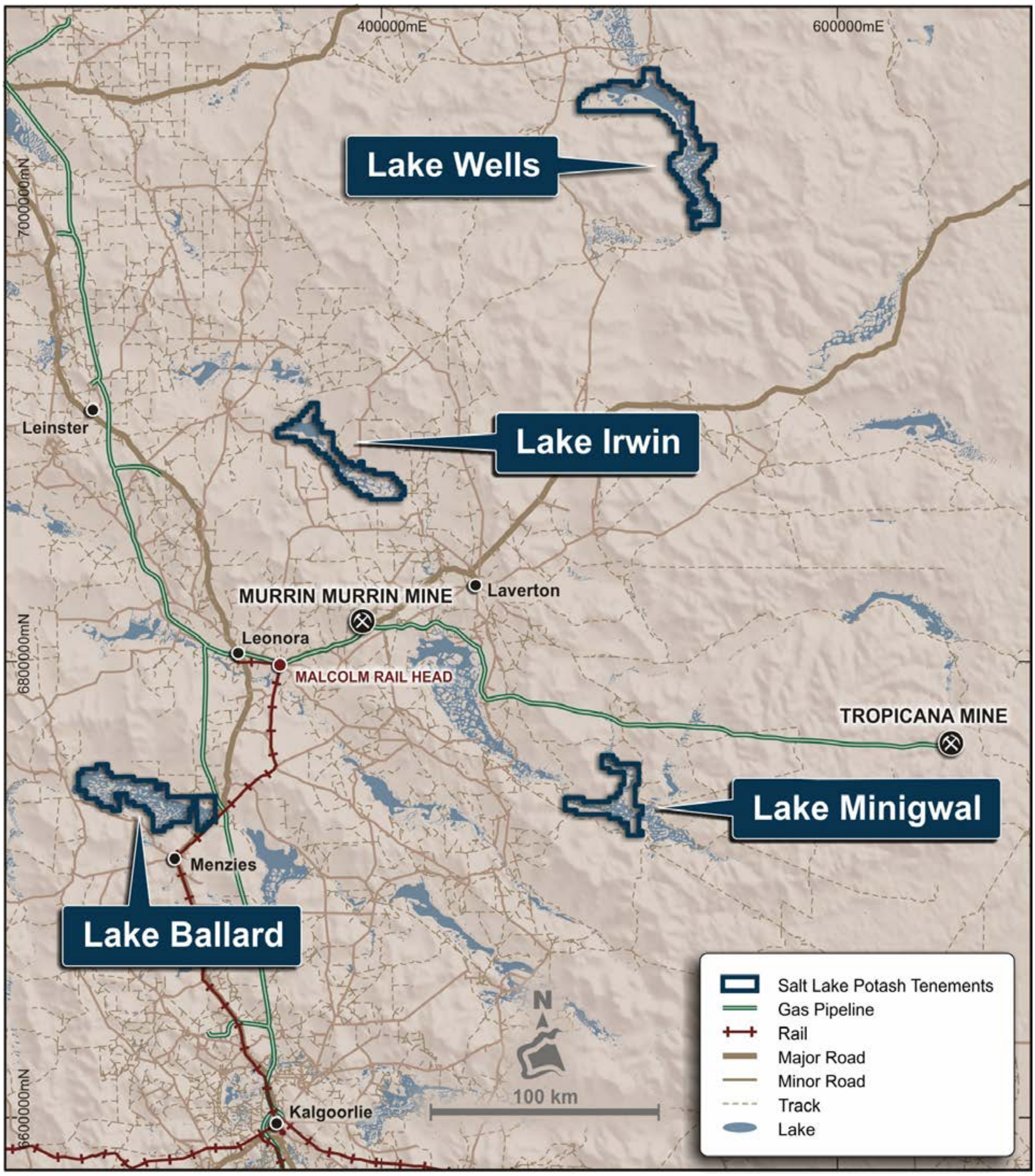


**Figure 2: Map of Western Australian project locations**

# SUMMARY OF RESOURCE ESTIMATE AND REPORTING CRITERIA

## Geology and Geological Interpretation

### Geological Setting

The investigation area is in the North Eastern Goldfields Province at the margin of the Archaean Yilgarn Craton. The province is characterised by granite–greenstone rocks that exhibit a prominent northwest tectonic trend and low to medium-grade metamorphism. The Archaean rocks are intruded by east–west dolerite dykes of Proterozoic age, and in the eastern area there are small, flat-lying outliers of Proterozoic and Permian sedimentary rocks. The basement rocks are generally poorly exposed owing to low relief, extensive superficial cover, and widespread deep weathering.

A palaeovalley is incised into Proterozoic basement beneath Lake Wells. The lateral extent of the palaeovalley appears well defined by basement outcrop mapped on the 250K geological mapsheet. The palaeovalley appears to be entirely enclosed by basement outcrop, with outcropping basement providing separation from Lake Carnegie to the north, and a ring of outcropping basement providing closure to the south. The palaeovalley is infilled with inferred Tertiary sediment to a maximum intersected depth of 126 m in the northern arm, and exceeding 84 m in the southern arm. These sediments thin toward the lateral margins of the channel and also at the northern extent, southern extent and in the central "neck" area.

The brine resource is hosted within the sediments infilling the palaeovalley, and within the underlying weathered Proterozoic basement.

### Geological Interpretation

The geological structure hosting the brine pool comprises the units described in the following Sections:

***Playa Lake Sediment***

Recent (Cainozoic), unconsolidated silt, sand and clay sediment containing variable abundance of evaporite minerals, particularly gypsum. The unit is ubiquitous across the salt lake surface. The thickness of the unit ranges from approximately 10 to 20m. This unit hosts the Measured, Indicated and Inferred Resource, estimated on the basis of shallow Auger Core drilling (see ASX Announcement dated 11 November 2015).

The upper part of the unit comprises unconsolidated, gypsiferous sand and silt with a strong overprint of ferric oxides from 0.5 to around 3 – 8m depth. The unit is widespread, homogeneous and continuous with the thickest parts in the centres of the northern arm and southern arm respectively. This is underlain by well sorted, lacustrine silt and clay, from 5 to 20m depth. This zone is relatively homogeneous across the lake. Permeability is variable and is likely controlled by grainsize and sorting of the soft sediment.

***Palaeovalley Sediment***

Clay silt and sand: Tertiary, unconsolidated clay with variable inter-beds of silt and sand. The thickness varies considerably, from negligible at the southern and northern margins of the lake, to greater than 60m thick in the central and northern parts of the lake. Recovery of brine samples from this unit was difficult due to the fine grained lithology. Intermittent samples were obtained from more permeable silt and sand inter- beds. Some brine samples were obtained by compression of the aircore chips to yield a small volume of brine for assay. These few samples exhibited high grade brine, consistent with overlying and underlying strata.

The upper part comprises grey, massive, firm to indurated, plastic, lacustrine clay, with rare fine quartz grains throughout. The topography of this unit essentially mirrors the morphology of the lake and these sediments are interpreted to drape the underlying sediments in the lake.

The grey clay is underlain by dark-coloured, firm to indurated, lacustrine, massive clays. These sediments are similar to the overlying plastic grey clays but contain organic material.

***Paleochannel Basal Sand***

Tertiary, unconsolidated medium to coarse grained sand. This unit was intersected in only a few holes that reached the deepest parts of the paleochannel in the northern part of the lake. The maximum intersected thickness was 15m (LWA006). The inferred permeability is high on the basis of coarse-grained lithology and relatively high brine flow rates observed during air core drilling. This unit is expected to represent a productive aquifer. The extent of the unit is poorly defined since most drillholes in the deeper sections of the northern part of the lake failed to reach the basal units.

***Basement (Basal) Siltstone***

Proterozoic age siltstone, representing the primary basement rocks, and interpreted as the equivalent of regional Proterozoic metasediments. These rocks are red to brown to green, well indurated, fine-grained, meta-siltstone and meta-sandstone. These rocks are composed of predominately quartz and lithic fragments with common presence of muscovite and chlorite and an interlocking texture suggesting metamorphism up to Lower Greenschist facies. Foliation is prevalent and occurs parallel to the original bedding suggesting burial, rather than dynamic, metamorphism, without significant large-scale folding.

The upper part of the basement yielded water at variable rates for most drillholes which demonstrates elevated permeability. The permeability of this unit is likely to be associated with weathering and fracturing of the rock matrix. Where fractured, the rock is expected to act as a productive aquifer. The maximum thickness of fractured, brine yielding aquifer was 45m (LWA009).

Most drillholes ended in fractured brine yielding aquifer and were constrained by the capacity of the aircore drilling method. The siltstone aquifer and brine pool potentially continues some depth below the range of the current drilling program.

Basement structure is variable. Basement is shallow (<30m) at the southern and northern margins of the lake and also in the central "neck" portion of the lake (Refer North-South transect). Basement lows are observed in the central southern and northern parts of the lake. In both areas, a number of holes drilled to below 100m depth, failed to intersect the Basement siltstone.

**Lake Hydrology**

***Surface Water***

The hydrology (surface water run-off and inundation) of Lake Wells has not yet been studied in detail. The lake exhibits a catchment 19,000 km$^2$, making it the tenth largest salt lake basin in Australia. The total lake area is approximately 477 km$^2$ yielding a catchment to lake area ratio of 40.

The morphology of the salt lake shape and surface is consistent with the classification system described by Bowler, (1986)[1]. The Northern part of the Lake exhibits morphology typical of some degree of surface water influence and periodic inundation (smooth lake edges, no islands). The southern part of the lake exhibits morphology consistent with a groundwater dominated lake with rare inundation (irregular shoreline, numerous islands).

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[1] Turk, 1973 Hydrogeology of the Bonneville Salt Flats, Utah. Water-Resources Bulletin 19 Utah Geological Survey

The inference is that the northern part of the Lake receives episodic surface water inflow from the drainage line to the north, and that this water rarely if ever reaches the southern parts of the Lake.

Surface conditions on the lake observed during drilling were wetter at the northern part of the Lake compared to the southern part, which is consistent with this concept.

The Lake is a terminal feature in the surface water system, i.e. there are no drainage lines that exit the Lake.

***Groundwater***

The Lake is inferred to be a terminal groundwater sink on the basis of the large area of the lake and the shallow water table observed at all sites beneath the lake which will facilitate evaporative loss. Groundwater beneath the lake is hypersaline and comprises the brine potash resource.

The drilling undertaken at Lake Wells has identified 3 aquifer units:

Cainozoic Playa Lake Sediments exhibit variable lithology comprising sand, silt and clay. An upper zone of evaporite rich sediment approximately 5m thick is likely to provide the most permeable zone. Some coarser grained sand horizons are logged in the deeper sediment which will yield water.

Tertiary Palaeovalley Sediments (PVS) represent essentially the palaeovalley valley fill and comprised of unconsolidated clay with variable inter-beds of silt and sand. The thickness varies considerably, from negligible at the southern and northern margins of the lake, to greater than 60m thick in the central and northern parts of the lake.

At the base of the PVS, a basal sand unit has been identified in some drillholes. This unit comprises fine to coarse grained, well sorted sand and, accordingly it is expected to represent a productive aquifer. The extent is poorly defined by the current widely spaced drilling. Basal sands typically infill the "Thalweg" or deepest part, of the paleochannel which typically range from 60 to 2.5 km in width (deBroekert and Sandiford (2005))[2].

While the unit is very important as a potential production zone for pumping brine to the surface via deep bores, for the purpose of resource estimation it has been incorporated in the PVS unit.

Underlying the Tertiary PVS the Proterozoic siltstone exhibits some permeability due to fracturing and weathering. Aircore drilling produced yields up to 0.8 L/s from this unit (constrained by the annulus of the drill pipe). Permeability is variable, as some drillholes did not yield water. The permeability is likely controlled by structure (faulting) where faulted areas facilitated weathering and fracturing. Any structural control on fracturing has not yet been defined, though it is suggested that fracturing might be associated with regional lineaments mapped on the basis of regional gravity and aeromagnetic survey.

*Relationship between mineralisation widths and intercept lengths*

The brine resource is inferred to be consistent and continuous through the full thickness of the defined geological units. The unit is flat lying and drillholes are vertical hence the intersected downhole depth is equivalent to the inferred thickness of mineralisation.

[2] de Broekert, P.P., Sandiford, M., 2005. Buried inset-valleys in the Eastern Yilgarn Craton, Western Australia: geomorphology, age, and allogenic control. The Journal of Geology 113, 471–493.

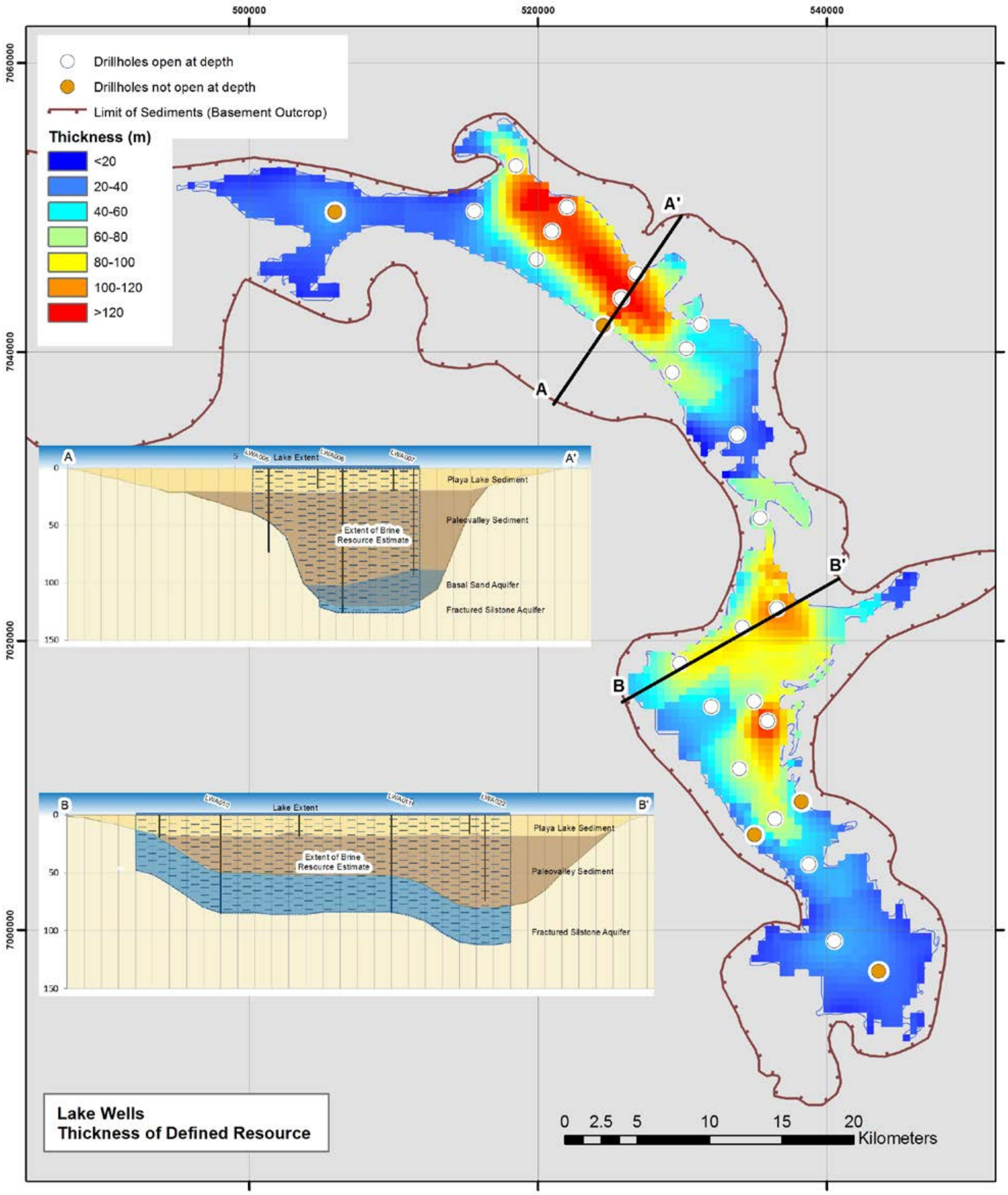


**Figure 3: Lake Wells Thickness of Defined Resource**

## Drilling and Sampling Techniques

Drilling entailed drilling 85 mm holes using conventional aircore rig. A total of 27 holes have been completed for 1,697m of drilling with the average depth being approximately 63m, with a range of 15m- 126m. Brine samples were recovered at nominal 3m intervals and sent for laboratory analysis. Drillhole Locations are presented as Figure 4.

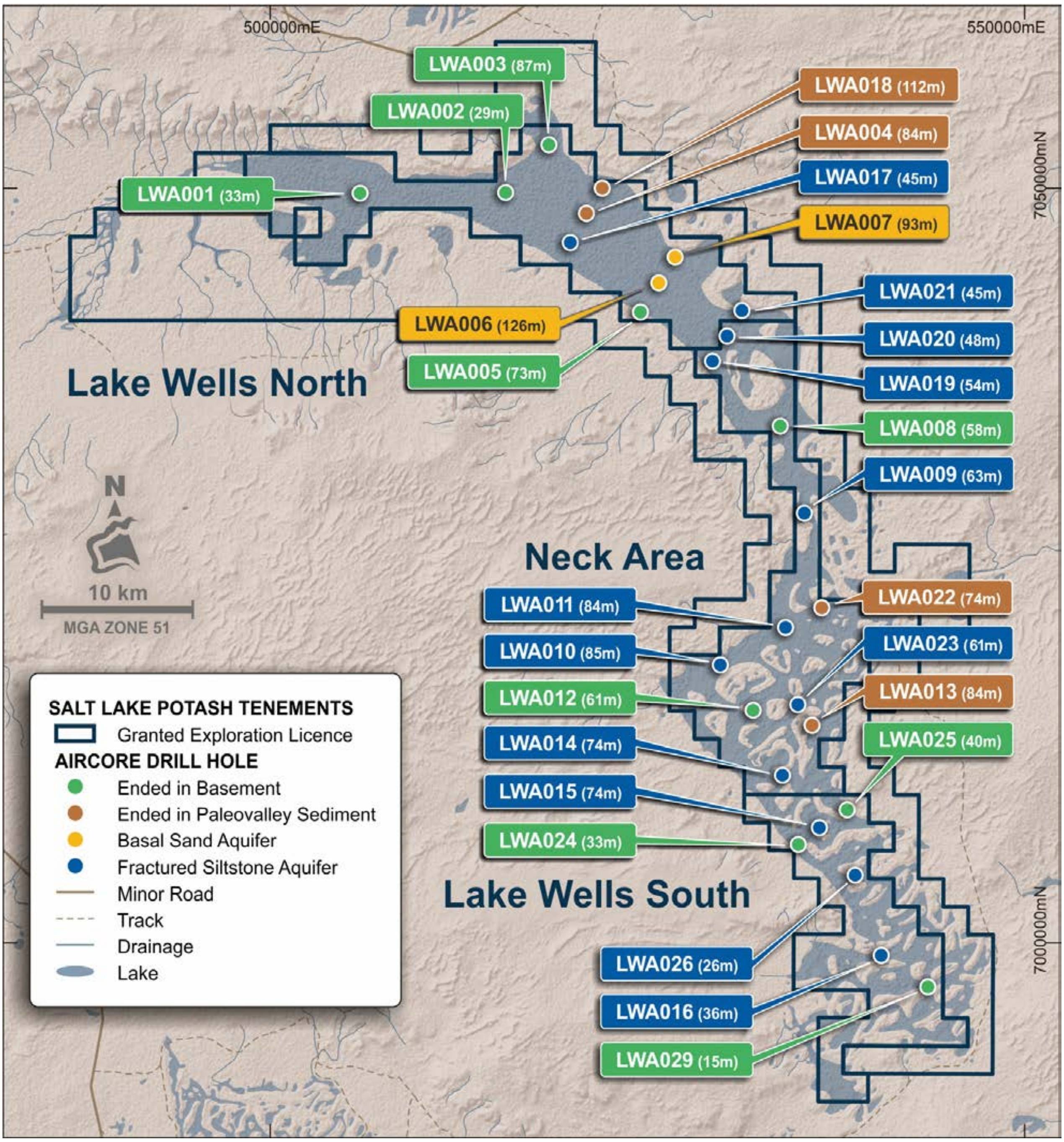


**Figure 4: Location of Air Core Drill Holes**

### *Drilling Techniques*

The drill program utilised a track mounted aircore drill rig using conventional aircore blade bit. Drillhole size was 85mm.

***Sampling Techniques***

Geological chip samples were taken every meter. Brine samples were taken from the cyclone at the end of each 3m drill rod where possible. Penetration was stopped at the end of each rod, and the hole purged with low pressure air. Once brine flow had stabilised flow rate was measured by timing flow into a bucket, and a brine sample then taken.

***Drill sample recovery***

Geological sample recovery was high, effectively 100%.

Brine sample recovery was low, approximately 40%. Fine grained lithologies do not yield brine at a rate that can be sampled by aircore methods. A subset of samples was obtained by compression of the chip samples. This method was successful at recovering a small brine sample volume from the chip samples.

Sample bias is not considered to have occurred. There is a relationship between brine recovery and lithology, but no identified relationship between brine recovery and brine concentration.

***Logging***

All drill holes were geologically logged by a qualified geologist, noting in particular moisture content of sediments, lithology, colour. Log sheets were developed specifically for this project.

***Sub-sampling techniques and sample preparation***

No sub-sampling was undertaken.

*Quality of assay data and laboratory tests*

*Overview*

Quality assurance checks are described below. Following QA/QC and removal of deficient data as described below the data set is considered suitable for estimation of a potash resource for the project.

## Sample analysis method

***Brine Chemistry***

*Inter-lab Duplicate analysis*

The Primary Laboratory was Bureau Veritas Minerals Laboratory in Perth. Duplicate samples were sent to Intertek, Perth. Differences in analysis are summarised in Table 2.

| Parameter | Largest percentage error [1] | Average percentage error [1] |
|---|---|---|
| K | -6.5 | -4.2 |
| $SO_4$ | -5.3 | -2.6 |
| Mg | -4.0 | -2.0 |
| Ca | -4.2 | -1.3 |
| Na | -4.1 | -0.1 |
| Cl | -2.2 | 0.0 |

Notes 1) Calculated as the relative difference from the mean of the analyses.

**Table 2: Inter-laboratory duplicate analysis**

*Standard Solutions*

A reference standard solutions were procured and analysed by the primary laboratory and the secondary laboratories. Errors in analysis are summarised in Table 3.

| Parameter | Primary Lab - BV (%) | Secondary Lab - Intertek (%) |
|---|---|---|
| K | 6.7 | 15.2 |
| $SO_4$ | 3.3 | 9.4 |
| Mg | -4.2 | 0.3 |
| Ca | -0.7 | 3.4 |
| Na | 1.5 | 4.1 |
| Cl | 4 | 5.1 |

Notes 1) Calculated as the relative difference from the reference concentration.

**Table 3: Reference Standard Solutions analysis mean percentage error[1]**

### *Charge Balance*

Analysis of charge balance was undertaken. Charge balance checks the sum of all positively charged ions against the sum of all negatively charged ions. These should be equal. Charge balance is calculated as the difference between positive and negative ions divided by the sum of all ions.

For analysis of groundwater systems, the acceptable limit for charge balance error is 5% (Drever 1988[3], APHA 1999[4]) Seven samples (W100383, W100385, W100387, W100390, W100392, W100394, W100396) failed this check. However the maximum error was 6.2% and these samples did not present as outliers hence the samples were retained in the dataset. A single sample W100169 failed charge balance and presents as an outlier. This data point was removed from the dataset.

### *Ionic Ratios*

Ionic ratios are the ratios of dissolved ions against total dissolved ions, and/or chloride (Chloride is used as the most soluble conservative ion). The analysis is qualitative and looks for anomalous trends in the data. For instance samples where only one parameter is elevated compared to all other parameters. Anomalous results are summarised in Table 4.

| Sample | Comment | Action |
|---|---|---|
| W100169 | Anomalous Mg and failed charge balance | Removed from dataset |
| W100167<br>W100171<br>W100173 | Anomalous Mg | Consistent results for one drillhole<br>Retained in data set |

**Table 4: Anomalous results identified through ionic ratio analysis**

### *Verification of sampling and assay*

The brine is relatively homogenous and no significant intersections required verification. The database was checked for transcription errors by comparison to the primary laboratory reports Assay data were not adjusted.

### *Data point location, spacing and distribution*

Data point locations are presented as Figure 4. Drillhole Coordinates are presented in Appendix 1. Data points are distributed on approximate 5 km spaced transects across the Lake with some irregularity due to access constraints on the lake surface, and the irregular lake shape. The drilling data comprises 27 holes for 477 $km^2$ area equating to an average drill hole spacing of

[3] Drever (1988) Geochemistry of Natural Waters. Prentice Hall New Jersey

[4] APHA (1999) Standard Methods for the Examination of water and wastewater. American Public Health Association, Washington DC

4.2km. Downhole sample spacing averaged 1m and 7.6m for geology and brine samples respectively. Brine samples were not evenly distributed. Brine yielding horizons were sampled at 3m intervals, whilst tight horizons were sampled only where a brine sample could be obtained.

### *Orientation of data in relation to geological structure*

All drill holes are vertical as geological structure is generally flat lying. Drilling transects are aligned perpendicular to the Lake orientation in order to provide cross sections across the lake.

### *Sample Security*

Samples are labelled and kept onsite before transport to Perth where they are delivered to the laboratory. A Chain of Custody system is maintained.

### *Audits or Reviews*

Data review is summarised above. No audits were undertaken.

### *Database integrity*

The database used for resource modelling comprised:

- Drill collar data,
- Geological drill logs, and
- Brine analysis data

The database was cross-checked with the source data sets. Assay quality control procedures are described above.

## Classification criteria

The MRE has been classified and is reported as Inferred in accordance with the requirements of the 2012 JORC Code. Classification of the Mineral Resource estimates was carried out taking into account the robustness of the geological understanding of the deposit, the quality of the sampling and density data, and drill hole spacing.

The geology (rock volume) and brine grade (concentration) are reasonably well defined. However the porosity value applied in the resource calculation is not measured and is based on analogy to similar projects which limits the confidence of the estimate to Inferred.

**Air Core Drilling in Progress at Lake Wells**

## Resource Estimation Methodology

### Overview

The resource is calculated as the tonnage of minerals dissolved in the liquid brine contained in pores within the host rock. Tonnages are calculated as dissolved minerals in brine on a dry weight by volume basis e.g. kilograms potassium per cubic meter of brine. The potassium tonnage of the resource is then calculated as: Rock volume x volumetric porosity = brine volume Brine volume x concentration = tonnage.

The deeper resource estimate considers only the deeper resource which underlies the previously defined shallow brine resource hosted within the Playa Lake Sediments (Refer to ASX Announcement 11 November 2015).

### Area

The lateral extent of the resource is constrained by the salt lake boundary as defined in Geoscience Australia's 1:250K topographic dataset supplied by the Company. The resource is further constrained by the tenement boundaries which do not encompass the entire lake surface. The total area of the resource is 477 $km^2$.

The current resource estimate is limited to the mapped salt lake boundary. There is potential for additional high grade brine to be defined by drilling off the Lake margins (see Figure 3). Particularly in areas to the south of the Southern arm and to the south of the Northern arm where discontinuous small saline playas provide evidence of shallow water table and evaporative concentration of groundwater.

### Thickness

The top of the resource is defined by the base of the PLS geological unit which is the base of the previously defined resource. The base of the PVS unit was defined by the basement contact in drillholes. Cross sections were constructed, and the shape of the paleo-valley was modelled manually. The modelled shape of the palaeochannels was generally u-shaped on the basis of typical Yilgarn craton paleochannel morphology described by deBroekert and Sandiford, (2005)[5]. The cross sections were imported into Mapinfo as xyz data points on a 500m spacing. Basement outcrop mapped on the 250K geological map series was used to define paleochannel extent zero thickness at the margins. A grid of PVS thickness was then modelled using a minimum curvature algorithm. Grid size was 500 x 500m.

The thickness of the FSA was defined by the thickness of brine yielding basement rock intersected at each drillhole that penetrated basement. Thickness between drillholes was then interpolated using an Inverse Distance algorithm with exponential model to the power of 4. This produced a roughly polygonal model around each drillhole, expressed as a 500 x 500m grid. Drillholes which yielded no brine from basement were assigned a zero thickness, and hence a polygon with a volume of zero was defined around the drillhole.

### Porosity

Total porosity (Pt) relates to the volume of brine filled pores contained within a unit volume of aquifer material. A fraction of this pore volume can by drained under gravity, this is described as the specific yield (or drainable porosity). The remaining fraction of the brine, which is held by surface tension and cannot be drained under gravity, is described as the specific retention (or un-drainable porosity). The form of porosity used in brine resource estimation varies with different proponents. The Company elected to use total porosity to assess the Lake Wells resource.

[5] de Broekert, P.P., Sandiford, M., 2005. Buried inset-valleys in the Eastern Yilgarn Craton, Western Australia: geomorphology, age, and allogenic control. The Journal of Geology 113, 471–493.

Porosity was not sampled during the aircore drilling program. The aircore drilling method results in destruction of the sediment structure and the insitu porosity is lost. For this resource estimate porosity values from literature are applied. This is analogous to the use of assumed values of rock density for inferred resource estimation in conventional hard rock deposits, though the possible range of porosity values is larger than for typical rock density values.

### *Palaevalley Sediment*

The PVS unit was assigned a porosity value of 40% v/v. This value is based on the measured porosity of a limited number of samples recovered from the upper part of the unit during auger drilling and typical values for fine grained un-consolidated sediment. Reference values for porosity of unconsolidated sediment are presented as Table 5.

| Reference | Porosity (%) | Comments |
|---|---|---|
| Houston and Eren (2011)[6] | 32-44 (Sand, silt, clay mix) | Salar de olaroz lithium brine project |
| Spitz and Moreno (1996)[7] | 40-44 (Lacustrine Clay) | |
| Athy (1930) [8] | 40-44 (Shale 20m to 100m depth) | Equation estimating porosity reduction with depth of Palaeozoic shale<br>Implemented with porosity of 46.4% at surface. |
| Domineco and Shwartz (1990) [9] | 34-61 (Silt and Clay)<br>38-41 (Silty Clay) | |

**Table 5: Paleo valley sediment porosity reference values.**

### *Fractured siltstone aquifer*

The FSA unit was assigned a porosity value of 22% for the base estimate up to an upper estimate of 30%. Proterozoic rocks are by definition old, typically metamorphosed and lithified. In a fresh (unweathered) state the porosity is typically low. Data exists for Proterozoic sandstone evaluated as petroleum reservoirs and the porosity ranges from 5 to 20% averaging around 10%. The tighter sandstones (i.e. finer grained) report porosity consistently <10%. At Lake Wells the porosity of the shallow basement rock drilled is likely at the upper end of the Proterozoic range due to weathering (chemical alteration) and fracturing. This assumption is based on:

1. The altered and weathered soft rock logged during the aircore program.
2. The brine yielded during aircore drilling which indicate secondary porosity (fracturing).
3. Review of data from Reward Minerals drilling at Lake Disappointment reporting an extensive data-set of porosity measurement for a basement siltstone, tentatively identified as the Proterozoic Yeneena Group (Williams Et Al, 1975). Reported porosity for the siltstone averaging approximately 22% (standard deviation 8%) for 82 samples.
4. Review of data from Rum Jungle Resources drilling at the Karinga Lakes chain in the Northern Territory. A porosity of 36% is reported for the upper weathered Palaeozoic Horseshoe Bend Shale.

[6] Houston and Ehren, (2010) Technical Report on the Olaroz Project, NI 43-101 report prepared for Orocobre Ltd.

[7] Spitz and Moreno (1996) A Practical Guide to Groundwater and Solute Transport Modelling. John Wiley and Sons, New York 461pp

[8] Athy (1930) Density, porosity and compaction of sedimentary rocks. Association of Petroleum Geology Bulletin. V14, p 1-24

[9] Domenico and Schwartz (1990) Physical and Chemical Hydrogeology, Wiley, New York, 824 pp.

| Reference | Porosity (%) | Comments |
|---|---|---|
| Spitz and Moreno (1996) [10]<br>Citing USGS (1967) [11] | 21-41% Siltstone | (mean 35%, 7 samples) |
| Domenico And Schwartz (1990) [12]<br>Citing USGS, (1967) | 21-41% Siltstone | (mean 35%, 7 samples) |
| Reward Minerals -Lake Disappointment | 22% mean<br>Proterozoic Siltstone (Yeneena Group) | (std dev 8% for 82 samples) |
| Rum Jungle Resources - Karinga Lakes | 36% | Paleozoic Siltstone |

**Table 6: Fractured siltstone aquifer porosity reference**

### Solute Concentration

The brine concentration is relatively consistent with depth. The maximum downhole variance from the drillhole mean was 15.8%, whilst the average variance was 5.3%. Average solute concentration for the full thickness of the geological unit penetrated at each drillhole was calculated as a length-weighted average of all samples taken from that unit. The resulting dataset was used for interpolation of brine concentration for each geological unit across the lake.

### Modelling / Interpolation

Solute concentration was interpolated across the lake area using inverse distance weighting algorithm with power of 2, search radius of 3800m, single search sector, three grid passes, and a requirement for minimum of 1 sample point per sector. The interpolated grid had a cell size of 500 x 500m.

The contained solute in each cell was calculated as the product of the area, thickness (from the geological model), porosity, and interpolated solute concentration for that 500 x 500m cell.

## Cut-off grades

No cut-off grades were applied.

## Mining and metallurgical methods and parameters

### Mining factors or assumptions

Mining of the resource is assumed to be undertaken by gravity drainage of the brine by pumping from wells.

### Metallurgical factors or assumptions

No metallurgical factors or assumptions have been applied. The brine is characterised by elevated concentration of potassium, magnesium and sulphate elements and distinctly deficient in calcium and carbonate ions. Such a chemical makeup is considered highly favourable for efficient recovery of SOPM from the lake brines (the main feedstock for SOP fertiliser production), using conventional evaporation methods (Arakel, pers. comm., 2015).

[10] Spitz and Moreno (1996) A Practical Guide to Groundwater and Solute Transport Modelling. John Wiley and Sons, New York 461pp
[11] USGS, (1967) Summary of hydrologic and physical properties of rock and soil materials, as analyzed by the hydrologic laboratory of the U.S. Geological Survey, 1948-60 Water Supply Paper 1839-D
[12] Domenico and Schwartz (1990) Physical and Chemical Hydrogeology, Wiley, New York, 824 pp.

## Total Mineral Resource Estimate

| | | | | | Potassium (K) | | Magnesium (Mg) | | $SO_4$ | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Area ($km^2$) | Sediment Volume ($M\ m^3$) | Porosity | Brine Volume ($M\ m^3$) | Concent -ration ($kg/m^3$) | Tonnage (Mt) | Concent-ration ($kg/m^3$) | Tonnage (Mt) | Concent-ration ($kg/m^3$) | Tonnage (Mt) |
| **Measured** | 341 | 5,427 | 0.464 | 2,518 | 4.009 | 10.1 | 6.886 | 17.3 | 19.175 | 48.3 |
| **Indicated** | 59 | 775 | 0.464 | 359 | 3.806 | 1.4 | 6.968 | 2.5 | 17.809 | 6.4 |
| **Inferred** | 77 | 18,521 | 0.368 | 6,814 | 3.949 | 26.5 | 7.058 | 47.7 | 17.855 | 120.3 |
| **Total** | **477** | **24,723** | **0.392** | **9,691** | **3.921** | **38.0** | **7.011** | **67.5** | **18.218** | **175** |

**Table 7: Mineral Tonnage Calculation**

| Classification | Sulphate of Potash (Mt) |
|---|---|
| Measured | 23 |
| Indicated | 3 |
| Inferred | 59 |
| **Total** | **85** |

**Table 8: SOP Resource Estimate**

### *Competent Persons Statement*

*The information in this report that relates to Mineral Resources and Exploration Results for Lake Well's is based on information compiled by Mr Ben Jeuken, who is a member Australian Institute of Mining and Metallurgy and a member of the International Association of Hydrogeologists. Mr Jeuken is employed by Groundwater Science Pty Ltd, an independent consulting company. Mr Jeuken has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which he is undertaking 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 Jeuken consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

*With regard to the Maiden Resource Estimate for the shallow brine resource at Lake Wells refer to ASX announcement 11 November 2015. That announcement contains the relevant statements, data and consents referred to in this announcement. Apart from that which is disclosed in this document, Salt Lake Potash, its directors, officers and agents, are not aware of any new information that materially affects the information contained in the 11 November 2015 announcement.*

## APPENDIX 1 - LAKE WELLS PROJECT AIRCORE DRILLHOLE DATA

| Hole | East | North | RL | Dip | Azimuth | Total Depth (m) |
|---|---|---|---|---|---|---|
| LWA001 | 505951 | 7049667 | 440 | -90 | 0 | 33 |
| LWA002 | 515587 | 7049711 | 443 | -90 | 0 | 29 |
| LWA003 | 518455 | 7052875 | 443 | -90 | 0 | 87 |
| LWA004 | 520945 | 7048340 | 443 | -90 | 0 | 84 |
| LWA005 | 524525 | 7041800 | 443 | -90 | 0 | 73 |
| LWA006 | 525740 | 7043736 | 443 | -90 | 0 | 126 |
| LWA007 | 526820 | 7045435 | 443 | -90 | 0 | 93 |
| LWA008 | 533788 | 7034246 | 443 | -90 | 0 | 58 |
| LWA009 | 535393 | 7028485 | 443 | -90 | 0 | 63 |
| LWA010 | 529817 | 7018427 | 443 | -90 | 0 | 85 |
| LWA011 | 534138 | 7020901 | 443 | -90 | 0 | 84 |
| LWA012 | 531992 | 7015423 | 443 | -90 | 0 | 61 |
| LWA013 | 535896 | 7014425 | 443 | -90 | 0 | 84 |
| LWA014 | 533942 | 7011114 | 443 | -90 | 0 | 74 |
| LWA015 | 536387 | 7007649 | 443 | -90 | 0 | 74 |
| LWA016 | 540485 | 6999193 | 443 | -90 | 0 | 36 |
| LWA017 | 519881 | 7046397 | 443 | -90 | 0 | 45 |
| LWA018 | 521990 | 7050010 | 443 | -90 | 0 | 112 |
| LWA019 | 529290 | 7038550 | 443 | -90 | 0 | 54 |
| LWA020 | 530257 | 7040205 | 443 | -90 | 0 | 48 |
| LWA021 | 531247 | 7041902 | 443 | -90 | 0 | 45 |
| LWA022 | 536539 | 7022221 | 436 | -90 | 0 | 74 |
| LWA023 | 534960 | 7015800 | 443 | -90 | 0 | 61 |
| LWA024 | 534990 | 7006535 | 443 | -90 | 0 | 33 |
| LWA025 | 538225 | 7008825 | 443 | -90 | 0 | 40 |
| LWA026 | 538755 | 7004507 | 443 | -90 | 0 | 26 |
| LWA029 | 543567 | 6997102 | 443 | -90 | 0 | 15 |

# APPENDIX 2 – JORC TABLE 1

## Section 1: Sampling Techniques and Data

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Sampling techniques*** | *Nature and quality of sampling (eg cut channels, random chips, or specific specialised 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.*<br>*Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>*Aspects of the determination of mineralisation that are Material to the Public Report.*<br>*In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised 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 mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.* | Drilling and sampling was undertaken using aircore drilling.<br>Geological chip samples were taken every meter.<br>Brine samples were taken from the cyclone at the end of each 3m drill rod where possible. |
| ***Drilling techniques*** | *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).* | Aircore drilling, 85mm hole diameter. All holes vertical. |
| ***Drill sample recovery*** | *Method of recording and assessing core and chip sample recoveries and results assessed.*<br>*Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>*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.* | Geological sample recovery was high, effectively 100%<br>Brine sample recovery was low, approximately 40%. Fine grained lithologies do not yield brine at a rate that can be sampled by aircore methods.<br>Sample bias is not considered to have occurred. There is a relationship between lithology and brine recovery, but no identified relationship between brine concentration and brine recovery. |
| ***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.*<br>*Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*<br>*The total length and percentage of the relevant intersections logged.* | All drill holes were geologically logged by a qualified geologist, noting in particular moisture content of sediments, lithology, colour, induration, grainsize, matrix and structural observations. A digital drill log was developed specifically for this project. |
| ***Sub-sampling techniques and sample preparation*** | *If core, whether cut or sawn and whether quarter, half or all core taken.*<br>*If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*<br>*For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br>*Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br>*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.*<br>*Whether sample sizes are appropriate to the grain size of the material being sampled.* | Brine was sampled directly from the cyclone. This ensures that the sample is recovered from the inside return, i.e from the bit face.<br>Careful aircore drilling with low pressure air aims to collect a brine sample that is representative of the interval immediately above the bit face. However this method does not categorically exclude the potential for downhole mixing of brine. The fact that for this project tight intervals did not yield brine, whilst underlying permeable intervals did yield brine provides confidence that representative samples with depth have been obtained. The use of reverse circulation, double walled drilling methods (i.e. aircore or RC) for preliminary brine resource definition is an established technique (Refer Lithium Americas , Lithium One, Rodinia Lithium, and Rum Jungle Resources' technical disclosures to market).<br>Sample bottles are rinsed with brine which is discarded prior to sampling.<br>Geological logs are recorded in the field based on inspection of cuttings. Geological samples are retained for each hole in archive.<br>All brine samples taken in the field are split into three sub-samples: primary, potential duplicate, and archive. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Quality of assay data and laboratory tests*** | *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*<br><br>*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.*<br><br>*Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.* | Primary samples were sent to Bureau Veritas Minerals Laboratory, Perth.<br><br>Brine samples were analysed using ICP-AES for K, Na, Mg, Ca, with chloride determined by Mohr titration and alkalinity determined volumetrically. Sulphate was calculated from the ICP-AES sulphur analysis<br><br>Reference standard solutions were sent to Bureau Veritas Minerals Laboratory to check accuracy. Reference standards analysis reported an average error of less than 10%. |
| ***Verification of sampling and assaying*** | *The verification of significant intersections by either independent or alternative company personnel.*<br><br>*The use of twinned holes.*<br><br>*Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br><br>*Discuss any adjustment to assay data.* | Data entry is done in the field to minimise transposition errors.<br><br>Brine assay results are received from the laboratory in digital format to prevent transposition errors and these data sets are subject to the quality control described above.<br><br>Independent verification of significant intercepts was not considered warranted given the relatively consistent nature of the brine. |
| ***Location of data points*** | *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.*<br><br>*Specification of the grid system used.*<br><br>*Quality and adequacy of topographic control.* | Hole co-ordinates were captured using hand held GPS.<br><br>Coordinates were provided in GDA 94_MGA Zone 51.<br><br>Topographic control is obtained using Geoscience Australia's 3-second digital elevation product.<br><br>Topographic control is not considered critical as the salt lakes are generally flat lying and the water table is taken to be the top surface of the brine resource. |
| ***Data spacing and distribution*** | *Data spacing for reporting of Exploration Results.*<br><br>*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.*<br><br>*Whether sample compositing has been applied.* | Drill hole spacing is is on average 4.1 km. The drilling is not on an exact grid due to the irregular nature of the salt lake shape and difficulty obtaining access to some part of the salt lake. |
| ***Orientation of data in relation to geological structure*** | *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*<br><br>*If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.* | All drill holes were vertical as geological structure is flat lying. |
| ***Sample security*** | *The measures taken to ensure sample security.* | All brine samples were marked and kept onsite before transport to the laboratory.<br><br>All remaining sample and duplicates are stored in the Perth office in climate-controlled conditions.<br><br>Chain of Custody system is maintained. |
| ***Audits or reviews*** | *The results of any audits or reviews of sampling techniques and data.* | Data review is summarised in Quality of assay data and laboratory tests and Verification of sampling and assaying. No audits were undertaken. |

## Section 2: Reporting of Exploration Results

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Mineral tenement and land tenure status*** | *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.*<br><br>*The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.* | Tenements drilled were granted exploration licences 38/2710, 38/2821, 38/2824, 38/3055, 38/3056 and 38/3057 in Western Australia.<br><br>Exploration Licenses are held by Piper Preston Pty Ltd (fully owned subsidiary of ASLP). |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Exploration done by other parties*** | *Acknowledgment and appraisal of exploration by other parties.* | No other known exploration has occurred on the Exploration Licenses. |
| ***Geology*** | *Deposit type, geological setting and style of mineralisation.* | Salt Lake Brine Deposit |
| ***Drill hole Information*** | *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:*<br>o *easting and northing of the drill hole collar*<br>o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*<br>o *dip and azimuth of the hole*<br>o *down hole length and interception depth*<br>o *hole length.*<br>*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.* | Exploration drilling comprised 27 aircore holes. Details are presented in the report. |
| ***Data aggregation methods*** | *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.*<br>*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.*<br>*The assumptions used for any reporting of metal equivalent values should be clearly stated.* | Within the salt lake extent no low grade cut-off or high grade capping has been implemented.<br>Data aggregation comprised calculation of a length weighted average brine concentration of all brine samples per drillhole for a given geological unit. |
| ***Relationship between mineralisation widths and intercept lengths*** | *These relationships are particularly important in the reporting of Exploration Results.*<br>*If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*<br>*If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').* | The brine resource is inferred to be consistent and continuous through the full thickness of the sediments. The unit is flat lying and drillholes are vertical hence the intersected downhole depth is equivalent to the inferred thickness of mineralisation. |
| ***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.* | Addressed in the announcement. |
| ***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 results have been included. |
| ***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 material exploration data reported. |
| ***Further work*** | *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*<br>*Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | Hydraulic testing be undertaken, for instance pumping tests from bores and/or trenches to determine, aquifer properties, expected production rates and infrastructure design (trench and bore size and spacing).<br>Diamond Core drilling to obtain sample for porosity determination.<br>Lake recharge dynamics be studied to determine the lake water balance and subsequent production water balance. For instance simultaneous data recording of rainfall and subsurface brine level fluctuations to understand the relationship between rainfall and lake recharge, and hence the brine recharge dynamics of the Lake. |

## Section 3: Estimation and Reporting of Mineral Resources

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Database integrity*** | *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.*<br><br>*Data validation procedures used.* | Cross-check of laboratory assay reports and database<br><br>QA/QC as described in Section 2 Quality of assay data and laboratory tests |
| ***Site visits*** | *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*<br><br>*If no site visits have been undertaken indicate why this is the case.* | A site visit was undertaken by the Component Person from 14 to 17 August 2015. The outcome of the visits was refinement of: lithology logging, core storage, porosity determination, brine sampling procedures. |
| ***Geological interpretation*** | *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*<br><br>*Nature of the data used and of any assumptions made.*<br><br>*The effect, if any, of alternative interpretations on Mineral Resource estimation.*<br><br>*The use of geology in guiding and controlling Mineral Resource estimation.*<br><br>*The factors affecting continuity both of grade and geology.* | The resource is contained within Tertiary Palaeovalley Sediment (PVS) and the underlying Fractured Siltstone Aquifer (FSA).<br><br>The geological model for the PVS is well constrained. Drillhole coverage is consistent, and the deposit is not structurally complex; it is simply sedimentary fill in a paleo-valley depression.<br><br>The geological model for the FSA is less certain, the continuity and structural controls on rock fracturing are not understood, however the fracturing is relatively consistent.<br><br>The geological interpretation informs the volume of the resource.<br><br>Geology does not impact on grade. The grade is relatively homogenous throughout the geological structure. |
| ***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.* | The resource extends beneath 477 $km^2$ of salt lake surface. The top of the resource is defined by the base of the previously defined shallow resource. The average thickness is 36 m. |
| ***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.*<br><br>*The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*<br><br>*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).*<br><br>*In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*<br><br>*Any assumptions behind modelling of selective mining units.*<br><br>*Any assumptions about correlation between variables.*<br><br>*Description of how the geological interpretation was used to control the resource estimates.*<br><br>*Discussion of basis for using or not using grade cutting or capping.*<br><br>*The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.* | Brine concentration was interpolated using inverse distance weighted calculation (power of 2, search of 3800m single search sector, 3 grid passes). MapInfo and Discover software was used.<br><br>The block size was 500 x 500m. Each block extended the full thickness of the resource. Solute contained in each block was calculated as the product of block area, thickness, porosity and interpolated solute concentration.<br><br>Average drillhole spacing was 4,200.<br><br>Downhole sample spacing varied between drillholes and averaged 7.6 m.<br><br>No check estimates were available<br><br>No recovery of by-products was considered<br><br>Deleterious elements were not considered<br><br>Selective mining units were not modelled.<br><br>Correlation between variables was not assumed.<br><br>The geological interpretation was used to define the thickness of the orebody.<br><br>Grade cutting or capping was not employed due to the homogenous nature of the orebody. |
| ***Moisture*** | *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.* | Not applicable to brine resources. See discussion of moisture content under Bulk Density |
| ***Cut-off parameters*** | *The basis of the adopted cut-off grade(s) or quality parameters applied.* | No cut-off parameters were used |
| ***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.* | Mining will be undertaken by gravity drainage of brine from bores or trenches. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***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.* | The brine is characterised by elevated concentration of potassium, magnesium and sulphate elements and distinctly deficient in calcium ions. Such a chemical makeup is considered highly favorable for efficient recovery of Schoenite from the lake brines (the main feedstock for Sulphate of Potash production), using conventional evaporation methods |
| ***Environmental factors or assumptions*** | *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.* | Environmental impacts are expected to be; localized reduction in saline groundwater level, surface disturbance associated with trench, bore, and pond construction and accumulation of salt tails. The project is in a remote area and these impacts are not expected to prevent project development. |
| ***Bulk density*** | *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.*<br><br>*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.*<br><br>*Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.* | Bulk density is not relevant to brine resource estimation.<br><br>Volumetric moisture content (Porosity) was not sampled during the aircore drilling program. The aircore drilling method results in destruction of the sediment structure and the insitu porosity is lost. For this resource estimate porosity values from literature and analogous deposits are applied.<br><br>The PVS unit was assigned a porosity value of 40% v/v. This value is based on the measured porosity of a limited number of samples recovered from the upper part of the unit during the previous auger drilling campaign and typical values for fine grained un-consolidated sediment.<br><br>The FSA unit was assigned a porosity value of 22% for the base estimate up to an upper estimate of 30%. At Lake Wells the porosity of the shallow basement rock drilled is likely at the upper end for Proterozoic rock due to weathering and fracturing. This assumption is based on<br>• The altered and weathered soft rock logged during the aircore program.<br>• The brine yielded during aircore drilling which indicate secondary porosity (fracturing).<br>• Review of reported data from Reward Minerals drilling at Lake Disappointment reporting an extensive data-set of porosity measurement for a basement siltstone, tentatively identified as the Proterozoic Yeneena Group (Williams Et Al, 1975) . Reported porosity for the siltstone averages 22% (standard deviation 8%) for 82 samples.<br>• Review of data from Rum Jungle Resources drilling at the Karinga Lakes chain in the Northern Territory. A porosity of 36% is reported for the upper weathered Palaeozoic Horseshoe Bend Shale. |
| ***Classification*** | *The basis for the classification of the Mineral Resources into varying confidence categories.*<br><br>*Whether appropriate account has been taken of all relevant factors (i.e. 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).*<br><br>*Whether the result appropriately reflects the Competent Person's view of the deposit* | The data is considered sufficient to assign an inferred resource classification to brine beneath the lake surface which exhibits low lateral and vertical variability.<br><br>The geology (rock volume) and brine grade are well defined. However the porosity value applied in the resource calculation are less well defined and limits the confidence of the estimate to Inferred.<br><br>The result reflects the view of the Competent Person |
| ***Audits or reviews*** | *The results of any audits or reviews of Mineral Resource estimates.* | No audit or reviews were undertaken. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Discussion of relative accuracy/ conence*** | *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.*<br><br>*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.*<br><br>*These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.* | The estimated tonnage represents the in-situ brine with no recovery factor applied. It will not be possible to extract all of the contained brine by pumping of bores or trenches. The amount which can be extracted depends on many factors including the permeability of the sediments, the drainable porosity, and the recharge dynamics of the aquifers.<br><br>No production data are available for comparison |