impact MINERALS

ASX Code: IPT

19th November 2024

CORPORATE RELEASE

Maiden Measured Resource for the Lake Hope High Purity Alumina (HPA) Project, WA

- A maiden Measured Resource of 730,000 tonnes at 25.8% alumina (Al_2O_3) for a contained 189,000 tonnes of alumina has been defined at the Lake Hope HPA Project in Western Australia.
- The Measured Resource supports the first 15 years or more of proposed HPA production from Lake Hope. It will underpin a maiden Probable or Proven Reserve, subject to ongoing mining studies, test work, and economic studies to be completed as part of the Pre-Feasibility Study on Lake Hope.
- Impact aims to bring Lake Hope into production to deliver low-cost, high-margin end products to a rapidly expanding global market. Current prices for benchmark 4N HPA (99.99% Al_2O_3) and related products are more than US$20,000 per tonne.
- The Pre-Feasibility Study will be completed in Q1 2025 after the final reports from various contractors and consultants are received, which are expected in December and January.
- Following an agreement with the Federal government, the first monies from the recent $2.87 million grant for the CRC-P research and development project with CPC Engineering and Edith Cowan University to construct a pilot plant for Lake Hope will be received by the end of November, a few months ahead of schedule. This will accelerate the construction of the pilot plant.

Impact Minerals Limited (ASX:IPT) is pleased to announce a substantial and high-grade maiden Measured Resource estimate for its flagship Lake Hope High Purity Alumina (HPA) Project, located about 500 km east of Perth in Western Australia. Impact has the right to earn an 80% interest in Playa One Pty Ltd, owner of the Lake Hope project, via an incorporated joint venture by completing a Pre-Feasibility Study (PFS) currently in progress (Figure 1 and ASX Release 21st March 2023).

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The Measured Resource comprises 730,000 tonnes of lake clay at a grade of 25.8% alumina (aluminium oxide, Al_2O_3) for a contained 189,000 tonnes of alumina (Table A). It is part of a much larger resource that includes Indicated and Inferred Resources within a unique deposit of high-grade alumina hosted in extremely fine-grained evaporite and clay minerals in the top two metres of two small dry salt lakes in the Lake Hope playa system (West Lake and East Lake, Figure 3 and ASX Release March 21st 2023).

The Measured Resource will underpin a maiden Probable or Proven Reserve Statement for an initial mine life of at least 15 years at the proposed benchmark production rate of 10,000 tonnes per annum of High Purity Alumina. The Reserve Statement is subject to further mining, metallurgical test work and economic studies that are part of the ongoing PFS (ASX Release October 9th 2024).

The larger resource underpins a potentially much longer mine life of at least 25 years, as reported in the Scoping Study on Lake Hope. The study showed that the project had very robust economics, with an after-tax Net Present Value (NPV_8) of A$1.3 billion and one of the lowest operating costs per tonne of HPA globally (ASX Release November 9th, 2023). Impact confirms that all material assumptions underpinning the production target and forecast financial information in the Scoping Study continue to apply.

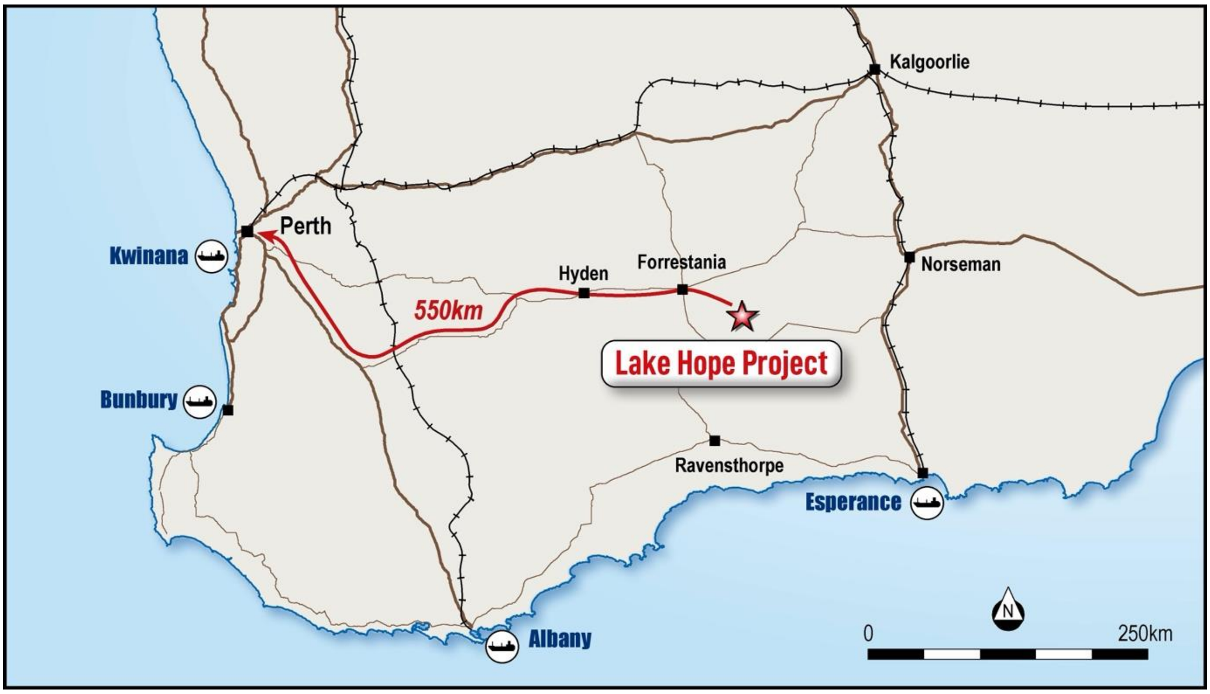

Figure 1. Location of Lake Hope Project E63/2086

The Mineral Resource estimate is shown in Table A and is reported in accordance with the requirements of the JORC Code 2012 by resource consultants H and S Consultants Pty Ltd (HSC) of Brisbane, Queensland. All details relevant to the Resource Estimate are given below and in the JORC Tables 1, 2 and 3 at the end of this report. Drill hole information and assay data have been reported previously (ASX Release 19th June 2023).

Mineral Resources			
Category	**Tonnes**	**Al_2O_3 %**	**Contained Al_2O_3**
Measured	730,000	25.8	189,000
Indicated	1,880,000	25.0	471,000
Inferred	170,000	23.1	40,000
Total	**2,780,000**	**25.1**	**700,000**

Table A. Lake Hope Alumina Mineral Resources.

About 60% of the Measured Resource lies within West Lake, over which Impact recently pegged a Mining Lease Application (ASX Release August 12th, 2024). When required, further low-cost push-tube sampling of the lake can significantly increase the size of the measured resource (Figure 2).

Figure 2. Lake Hope showing the push tube sampling method used to drill out the resource and an example of the lake clay from the push tube showing excellent sample recovery.

The alumina block grade distribution for the resources is shown in Figure 2. The grade increases towards the centre of the lakes, offering an opportunity for preferential mining of the higher-grade material in the early stages of any future mine development. Initial geometallurgical studies examining the variability of the mineral assemblages across the lakes have also been completed, and these are being incorporated into the mining schedules being prepared for the PFS.

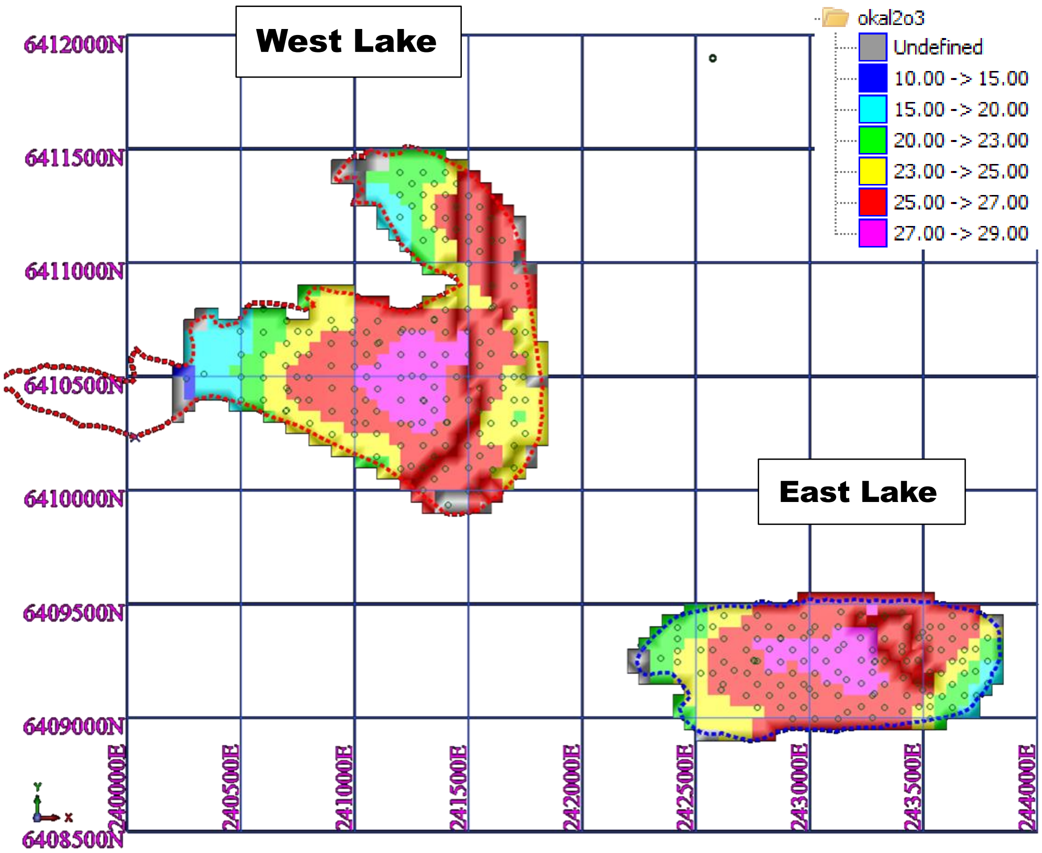

Figure 2. Percentage (%) Alumina Block Grade Distribution for the Lake Hope Mineral Resources (Drill hole collars are shown as circles.)

The new Mineral Resource Estimate will be incorporated, as per the JORC 2012 Code, into the Pre-Feasibility Study for Lake Hope, which is nearing completion. Final reports from the engineering and design studies, mining schedules, and mining cost estimates, as well as from other contractors and consultants, are awaited. Some of these are expected in mid-December, and accordingly, the PFS is expected to be completed in Q1 2025.

Early Access to the CRC-P Research and Development Grant Funding

Impact recently announced that, in collaboration with CPC Engineering and the Mineral Recovery Research Centre (MRRC) at Edith Cowan University, it had been awarded a $2.87 million grant to commercialise its innovative process for producing High-Purity Alumina from Lake Hope (ASX Release October 22nd, 2024).

The grant is provided under the Federal Government's Cooperative Research Centres Projects (CRC-P) program and is part of a more extensive research and development project designed to provide Impact with the relevant information required to complete a Definitive Feasibility Study. A vital component of the grant funding will be to construct a pilot plant, which is an essential milestone for 2025, and this will provide consistent HPA samples for off-take and qualification trials.

The federal government has agreed to an early start to the project, which will kick off with the first monies received before the end of November 2024, a few months ahead of schedule. This will further accelerate the entire research programme, and updates on this exciting project will be given as the project progresses.

The research project brings together three groups with the unique assets and skills to bring the Lake Hope project to fruition.

Impact has developed innovative metallurgical processes to produce HPA and fertiliser by-products from the salts in the Lake Hope deposit, which will be mined and trucked to Kwinana for processing. The mining and processing will have a minimal environmental footprint, with no on-site beneficiation required at the mine, nominal long-term rehabilitation requirements and one of the lowest Scope 1 and Scope 2 CO_2 emissions of any HPA production process globally (ASX Release June 19th 2024).

The Mineral Recovery Research Centre (MRRC) at ECU, led by Associate Professor Amir Razmjou, is a world leader in Membrane Selective Technology (MST) in which plastic or ceramic membranes are used to remove various contaminants from reagents and water. The technology is well-established in water treatment, and the MRRC is adapting the technology to the mining industry.

Impact believes MST will be a further game-changer for producing HPA, particularly for cost-effective reagent regeneration and removal of contaminants in the wastewater. This, in turn, will lead to lower energy costs, emissions, and, in particular, operating costs for the project. It adds to the overall small environmental footprint of the Lake Hope project, and the research aims to design a "zero-liquid discharge" outcome to minimise or eliminate waste from the process.

CPC Engineering is completing the engineering design studies and estimates of the operating and capital costs for the proposed 10,000-tonne-per-annum HPA plant as part of Impact's Pre-Feasibility Study on Lake Hope (ASX Release October 9th, 2024). Eugenia Phegan of CPC has previous experience building HPA pilot plants and recognised the potential of MST for Lake Hope.

CPC will design, build, and manage the pilot plant under the research project. Impact will also work with ECU and CPC to generate new uses for HPA.

About the Lake Hope Resource

Below is a summary of the material information used to estimate the resource, as ASX Listing Rule 5.8.1 requires. Further information is provided in the JORC Table, Sections 1, 2, and 3. All drill hole information and assay data used in the resource has been reported previously (ASX Release June 19th 2023).

Drilling Information

The resource was defined by 340 short, vertical drill holes (for 320.55 metres) drilled on a nominal 100 metre by 100 metre grid with infill at 50 metres by 50 metres in places (Figure 2). The drilling consisted of 160 auger holes using a 70 mm screw hand-auger (for 193.55m) and 140 push tube holes hammered into the lake clays (for 106.44m). An additional 40 twin push tube holes for 20.56m were completed to provide additional QAQC information for the auger holes.

Sample recovery was at least 95% and sample quality is considered good to excellent.

All holes were visually logged at 5-10cm intervals for colour, mineralogy, grain size, moisture content and plasticity.

Sampling and Sub-sampling Techniques

Sampling was on a nominal 0.5m interval or by geological contacts, with the core cut by a knife or simply broken by hand. The samples contained little moisture with a consistency similar to hard plasticine.

The entirety of all samples was sent for analysis at Intertek laboratories in Perth, WA where they were dried and coarse crushed to 1 mm diameter, with a 300 g split pulverised to 80% passing 75 microns to ensure sample homogenisation.

Screening was deemed unnecessary as 100% of the sample particles are <100 microns as established by laser particle sizing (ASX Release 21st March 2023). All mineralised clay can be included in the metallurgical process without physical screening.

Field duplicates for the auger drilling involved sampling one side of the screw thread (50% of the sample). For the push tube drilling, selected cores were cut in half (along the long core axis) with a knife to produce a field duplicate sample.

Sample Analysis Method

Samples were assayed for 16 elements using a lithium borate fusion and XRF quantification via the FB1/XRF10 or FB1/XRF30 method. Calculated oxide values included Al_2O_3 (alumina), CaO, Fe_2O_3, K_2O, MnO_2, Na_2O, P_2O_5, SiO_2, SO_3 and TiO_2 together with Loss on Ignition (LOI).

X-Ray Diffraction analysis for mineralogical species was completed at Intertek Mineralogy with a variety of sulphate and clay ore minerals identified with lesser quartz and minor feldspar, mica and opaline silica.

QAQC data was limited to nine standards and 15 field duplicate samples. Laboratory performance for standards was acceptable for most major elements, with Loss On Ignition and silica exceeding the published values slightly. Duplicates showed acceptable deviance for 13 of the 15 duplicates (+/- 10%).

One auger hole from the East Lake was twinned with a push tube hole with acceptable agreement for the alumina grade.

The QAQC programme included the use of sample weights for sample recovery for most auger holes. There is no relationship between alumina grade and sample recovery. Umpire lab checks for the analytical results are in progress.

Database

Data was collated by Impact from hardcopy logging sheets into Excel prior to validation and import into Impact's DataShed database.

The drilling data was supplied to H&SC as a series of CSV files for further validation in MSAccess and Surpac, which included manual checking of logging codes for consistency, plausibility of drill hole trajectories and assay grades.

Geological Interpretation

A 3D wireframe model was constructed from the drill hole data with north-south oriented cross sections produced every 50 metres for both the West Lake and East Lake. The mineralisation shows very good continuity and is flat-lying, extending from the surface to a depth of up to about 2 metres. The clays are underlain by weathered granite.

A single mineral zone was defined for each the two deposits using a nominal basal Al_2O_3 cut-off grade of 20% and geological logging in conjunction with assays for SiO_2, K_2O, Fe_2O_3 and SO_3. The boundaries of the mineralisation are well defined by drilling and by the lake edge as defined by satellite imagery.

Dimensions for the two mineral zones are listed below and shown in plan view in Figure 2.

- West Lake: areal extent 1.6 km by 1.6 km with an average thickness from the sampling of 0.95 metres, maximum depth is 1.6m and a surface area of 1.33 million m^2.
- East Lake: areal extent 1.6 km by 0.6 km with an average thickness from the sampling of 0.98 metres, maximum depth is 2.0m and a surface area of 0.76 million m^2.

Estimation Methodology

HSC used the Ordinary Kriging estimation technique on drillhole composites loaded into a 3D block model. The mineral zone was treated as a hard boundary during the estimation process and composites were generated using the 'best fit' option in Surpac.

A total of 251 and 212 composites, for West Lake and East Lake respectively, of nominal 0.5m length were used to estimate the contained Al_2O_3 for the mineralised lake clays. No top cuts were applied to the data due to an absence of extreme values and low coefficients of variation for the modelled element.

2D variography in the X (E-W) and Y (N-S) directions was performed for all composite data for both deposits. Grade continuity for alumina was reasonable for the West Lake and modest for the East Lake because of a zone of slightly lower grade in the middle of the lake.

Grade interpolation used an expanding 3D search pass strategy with search parameters that accounted for the geometry of the mineralisation, the drill spacing and the Al_2O_3 variography. Modelling consisted of one set of three horizontal search passes. The minimum search used was 180 metres by 180 metres (X & Y) and 0.5m (Z) expanding to 360 metres by 360 metres by 1 metre. The minimum number of composite data points was 8 samples for Passes 1 and 2 decreasing to a minimum of 4 data for Pass 3. The maximum extrapolation of the estimates is 360 metres and the maximum number of composite data points is 20.

Block dimensions are 50 metres by 50 metres in the X and Y directions with 0.75 metres in the Z direction. No sub-blocking was considered necessary with the Mineral Resources reported using a partial percent volume adjustment generated by the mineral wireframes. The X- and Y-axis dimensions were chosen based on the 100m spaced drilling, the Z dimension was a function of the composite data length. Block discretisation was set to 5 x 5 x 2 (X, Y and Z respectively).

Metal grades were estimated in 3D using Ordinary Kriging (GS3M software) with the grades loaded into a Surpac mining software 3D block model for validation and resource reporting.

No assumptions were made regarding the recovery of any by-products. No deleterious elements have been factored in. No production has taken place, so no reconciliation data is available.

Tonnages are estimated on a dry weight basis. Moisture was determined by the laboratory using gravimetric methods to determine weight loss on drying the samples at 105°C for 12 hours.

Both dry and wet density measurements were made from 141 samples. Dry density measurement was by the weight in air/weight in water method (Archimedes Principle) and wet density measurements by the was sealing method. The average wet density was $1.86t/m^3$ and the average dry density, used for reporting tonnages for the Mineral Resources was $1.37t/m^3$.

The final block model was validated by H&SC using a variety of histograms, gridded seam models and summary statistics as well as a visual review. They concluded that the block model fairly represents the alumina grades observed in the drill holes.

Classification Criteria

Resource classification is based primarily on the drillhole spacing (and hence the data point density) with consideration of other factors such as grade continuity (the variography), the geological model, density data, sample recoveries and the improved QAQC data including hole twinning. It is also assumed that extraction will be bulk mining via an open pit method. These factors lead to the estimation results for Pass 1 being classed as Measured Resources and Passes 2 and 3 being classed as Indicated and Inferred Resources respectively.

Cut-off Grades

The reported Mineral Resources are constrained to the mineral wireframe with a partial percent volume adjustment for the block in contact with the wireframe. No cut-off grade was applied to the Mineral Resources, although the mineral wireframe had been designed to a nominal 20% Al_2O_3 cut-off. The lack of an actual cut-off grade at which the resource is quoted reflects an intended bulk-mining approach of the entire wireframed extent of the mineralisation.

Mining, Metallurgical and Environmental Assumptions

It is envisaged that the deposit, which will be free-digging and require no crushing or screening, will be bulk mined in an open pit using a track mounted scraper or grader removing modest increments of material every 3 to 5 years. Track mounted trucks will be used to remove the mineralisation from mined areas to ROM stockpiles. The model block size (50 m by 50 m) is effectively the minimum mining dimension for this estimate. Any internal dilution has been factored in with the modelling and as such is appropriate to the block size.

The raw lake clay will be transported to an offsite processing facility, likely to be an industrial yard in Kwinana. Processing will comprise a simple wash and filter circuit to recover the lake clays which will then be subject to low temperature leaching, crystallisation and purification. It is assumed that there will be no significant problems in generating a HPA product and no penalty elements have been identified thus far.

The area lies within flat terrain with broad watercourses and dry bed lakes. The landscape also comprises sand dunes up to ~10m height, but with low relief. Vegetation comprises eucalyptus marri scrub to 12m height, heath, and scrub, with significant gum trees around the eastern dune areas, typical for that part of Western Australia.

The groundwater in the lake is naturally hypersaline and acidic and the lake clay is a nett acid generating material. The intention is to line the ROM pads with an impermeable membrane such that all run off will be collected and returned to the lake surface. There are large flat areas available adjacent to the lake for ROM pad construction that have limited or no native vegetation. Baseline flora and fauna studies have been completed with no Threatened or Priority species identified. A Heritage survey by the Ngadju group over the surface of both West Lake and East Lake has been completed with no artefacts or ethnographic concerns identified.

Reasonable Prospects for Eventual Economic Extraction

Impact considers that work to date indicates that the Mineral Resource at Lake Hope has a reasonable prospect of eventual economic extraction (RPEEE). This includes:

- Alumina of 99.99% purity (HPA) has been produced from the representative material via two different process routes (ASX Releases February 19th and February 27th 2024).
- The HPA produced meets available chemical purity specifications for a range of end uses and it is assumed that it may eventually be sold.
- No fatal deleterious elements have been identified within the mineralisation, mineral resource or HPA product.
- The proposed mining process is a low-risk, low cost free-dig, open pit truck and shovel operation.
- Initial economic modelling shows the proposed metallurgical processing and mining method could be profitable based on preliminary process modelling and various assumptions applicable to the data available.
- The Mineral Resource is of a sufficient size that the proposed mining rates are capable of being sustained for a sufficient length of time, potentially more than 20 years, to allow economic extraction.
- No impediment to extraction exists from cultural, heritage or environmental considerations.

Insufficient technical and economic study work has been completed to define any ore reserves.

About the Lake Hope Project

The Lake Hope Project covers numerous prospective salt lakes between Hyden and Norseman in southern Western Australia, a Tier One jurisdiction (Figure 1). It comprises six granted exploration licences and two exploration licence applications covering the Lake Hope deposit already discovered (E63/2086) and seven other licences (EL63/2318, 63/2319, 63/2370, EL74/673, 74/779 and ELA63/2492 and ELA2493) which are poorly explored. In addition, applications for a Mining Lease (MLA63/684) and associated Miscellaneous Licence (L63/99) were recently lodged (ASX Release August 12th 2024). The tenements cover about 225 km^2 and are all 100% owned by Playa One Pty Limited.

Impact has the right to earn an interest in the company Playa One Pty Limited as follows (ASX Release 21st March 2023):

1. Upon completion of a PFS, Impact can enter an incorporated joint venture with the Playa One shareholders (through an entity representing them, Playa Two Pty Ltd). If so, it will acquire an immediate 80% interest in Playa One by issuing up to 120 million fully paid ordinary shares capped at a maximum value of $8 million (based on the 5-day VWAP before the election) to the Playa One Shareholders.

2. Upon completion of a Definitive Feasibility Study, which Impact will solely fund, Impact will issue up to 100 million fully paid ordinary shares to the Playa One shareholders, capped at a maximum value of $10 million (based on the 5-day VWAP before the ASX announcement of the completion of the DFS).

3. Playa One shareholders will be free-carried to a Decision to Mine. Impact will maintain all Playa One tenements in good standing during this time.

4. If a Decision to Mine is made, the Playa One Shareholders may contribute to mine development costs or be diluted. If their interest falls below 7.5%, it will convert to a 2% net smelter royalty.

Dr Michael G Jones
Managing Director

Competent persons statements

The information in this report that relates to Exploration Results and metallurgical test work is based on, and fairly represents, information and supporting documentation prepared by Roland Gotthard, a consultant geologist to Impact Minerals Limited. Mr Gotthard is a Member of the Australasian Institute of Mining and Metallurgy, and he has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which has been 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" (The JORC Code). Mr Gotthard consents to the inclusion in this release of the matters based on the information in the form and context in which they appear.

The data in this report that relates to Mineral Resource estimates is based on information compiled by Mr Simon Tear who is a Member of The Australasian Institute of Mining and Metallurgy (MAusIMM) and who has sufficient experience 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 (the "JORC Code"). Mr Tear is a Director of H&S Consultants Pty Ltd and he consents to the inclusion in the report of the Mineral Resource in the form and context in which they appear.

Forward Looking Statements: This announcement contains 'forward-looking information' that is based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the Company's business strategy, plans, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, mineral reserves and resources, results of exploration and related expenses. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'potential', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this announcement are cautioned that such statements are only predictions, and that the Company's actual future results or performance may be materially different. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information.

Impact Minerals Limited Interactive Investor Hub
Engage with us directly by asking questions, watching video summaries, and seeing what other shareholders have to say about this and past announcements at our Investor Hub https://investors.impactminerals.com.au/welcome

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. 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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *Description of 'industry standard' work*	• Mineralisation comprises light brown to light grey, dense, plasticine-consistency salt • The salt is a nanometre sized colloidal precipitate of various sulphates including alunite, clays and silica • Sampling comprised two methods: hand auger drilling and push-tube drilling • Samples were generally of 0.5m in length (generally 3-4kg in weight) or under geological control, with the whole sample bagged in plastic bags sealed with cable ties. • Sample preparation and analysis was completed at a commercial laboratory (Intertek WA) using industry standard practices. • Mineralisation comprises a flat-lying evaporitic lake sequence and is bound by the margins of the lake by sand dunes

Drilling techniques

- *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*

- Auger drilling using a 70mm hand auger with spoon bit within dry clay horizons.
- Auger samples recovered by removing cut salt clay from the drill bit
- Push tube drilling using 55mm and 65mm PVC tubes hammered into salt.
- Samples recovered from push tubes by hammering or cutting the salt interval out of the tube.
- Core is unoriented
- Drill hole summary

Deposit	Year	Hole Type	No of Holes	Metres
West Lake	2021	Auger	3	4.50
East Lake	2021	Auger	7	7.50
		sub-total	10	12.00
West Lake	2022	Auger	4	4.78
		Push Tube	49	32.71
		sub-total	53	37.49
East Lake	2022	Auger	10	17.34
		Push Tube	22	14.13
		sub-total	32	31.47
West Lake	2023	Auger	81	97.65
		Push Tube	29	23.12
		sub-total	110	120.77
East Lake	2023	Auger	69	83.90
		Push Tube	19	11.56
		sub-total	88	95.46
West Lake	2024	Push Tube	45	22.36
East Lake	2024	Push Tube	2	1.00
West Lake		Auger	88	106.93

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<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
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<tr><td></td><td></td><td>Push Tube</td><td>123</td><td>78.19</td></tr>
<tr><td></td><td></td><td>sub-total</td><td>211</td><td>185.12</td></tr>
<tr><td>East Lake</td><td></td><td>Auger</td><td>86</td><td>108.74</td></tr>
<tr><td></td><td></td><td>Push Tube</td><td>43</td><td>26.69</td></tr>
<tr><td></td><td></td><td>sub-total</td><td>129</td><td>135.43</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td>Total</td><td>340</td><td>320.55</td></tr>
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<tr><td>Drill sample recovery</td><td>
Method of recording and assessing core and chip sample recoveries and results assessed.
Measures taken to maximise sample recovery and ensure representative nature of the samples.
Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.
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Auger sample quality is considered good based on visual observation of salt consistency, moisture, and recovery.
Auger sample recovery was observed to be good to excellent with no wet samples.
Core recovery for Push tube sample is based on measurement of the material in the Perspex tube compared to hole depth. Measured vs recovered length was near 100% in all cases.
The push tube method is considered more appropriate for the type of deposit.
Qualitative auger recovery data precludes observing any relationship between metal grade and recovery for this method
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<tr><td>Logging</td><td>
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.
</td><td>
100% of holes logged visually by Playa One and Impact personnel on 5-10cm increments for colour, grain size, moisture and stiffness.
Photography of intact core specimens exists for 40 holes. For push tube holes where core was not intact enough to be meaningful, no photos were taken.
Photographs of 168 holes were taken.
Logging is qualitative in nature as the grain size is too fine to allow visual identification of mineralogy even under hand lens or electron microscope .
X-ray diffraction analysis was undertaken on 100 samples. XRD was used to infer mineralogical composition to a minimal level of confidence and infer mineral percentages for samples via regression of XRF assays.
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<tr><td>Sub-sampling techniques and sample preparation</td><td>
If core, whether cut or sawn and whether quarter, half or all core taken.
If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.
For all sample types, the nature, quality and appropriateness of the sample preparation technique.
Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.
Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.
Whether sample sizes are appropriate to the grain size of the material being sampled.
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0.5m sampling intervals were utilised where practicable
Whole core sample intervals were submitted for analysis
Samples were dried, crushed to 1mm and then riffle split to give a 300g sub sample that was then pulverised to 80% passing 75 microns, which homogenised the clay.
Limited pulverising QAQC has been undertaken to ensure laboratory homogenisation of the samples.
No wet samples were encountered. Most samples would be classed as moist clay.
Sample preparation techniques are considered appropriate.
49 Field duplicates were taken. For auger drilling this involved sampling 50% to each duplicate from the opposite sides of the auger. A video is available to show this process.
For the push tube drilling, cores were cut in half with a knife to produce a duplicate of the sample.
Sample sizes are appropriate to grain size of the material being sampled
</td></tr>
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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.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• Samples were assayed via lithium borate fusion and XRF quantification via FB1/XRF10 or FB1/XRF30. The technique is considered a total digest technique. • The assay method is considered appropriate for the material and elements reported • Samples were assayed by laser sizer, reporting 100% of particles <16 microns. Scanning electron microscope imagery demonstrates particle sizes of 40-300 nanometres. Laser sizing is considered incapable of adequately measuring the natural particle sizes. • Ten pulps were assayed for specific gravity via gas pycnometer • 34 solid clay samples from test pitting were measured for SG via wax immersion, with a minimum SG of 1.83 • Moisture content was measured by LOD/GR1 on 34 solid mud samples obtained by test pitting, and 90 clay sub-samples, showing an average moisture content of 27% • 46 field duplicate samples from push tube holes LHP162-208 were assayed (3% of sample population). Duplicates showed acceptable deviance for 44 of the duplicates (+/-10%). • No CRMs exist which are an exact matrix match for the lake clays. Bauxite and iron ore CRM's were used to check laboratory Al2O3 performance. • Five replicates of Bauxite Certified Reference Material GBAP-16 were inserted blindly in the sample runs. Laboratory performance was within published ranges for all elements except Loss On Ignition and SiO_2. • Four replicates of Iron Ore standard GIOP-128 were assayed, with results within acceptable parameters. • No field blanks were submitted. This is not material. • Internal laboratory checks included assaying of internal standards, duplicates, and blanks. • Laboratory assays of GBAP-16 were within range of company supplied GBAP-16 CRMs. • Laboratory performance of blanks were acceptable. • Laboratory duplicates were within acceptable variability.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Mike Jones MD of Impact made two visits to site to review the drilling and core samples. • No independent verification has been completed. • 53 auger holes were twinned by push tube and were similar in grade, with minor variation (~1-2% Al_2O_3) • Discrepancies between assay averages of auger and push tube holes are considered related to drilling method as well as assay methodology. • Drill holes were logged in the field on 5-10cm basis with data recorded into a notebook and transcribed into digital format. • Data is stored in a Datashed relational database and is backed up physically and virtually. • No adjustments to primary assay data haves been made except for MnO% which is below detection limit. • Where an assay is below detection limit a value of ½ of the lower detection limit is used.
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.* • *Specification of the grid system used.*	• 272 auger holes and push tube holes surveyed by LJ21 RTK DGPS to 0.03m triaxial accuracy • 68 push tube and auger holes surveyed by handheld GPS to +/-3m accuracy • No downhole surveys were undertaken. Holes are vertical and generally <2m long ie minimum chance of significant

Criteria	JORC Code explanation	Commentary
	• *Quality and adequacy of topographic control.*	deviation. • Datum is MGA94 Zone 51 South • Topographic control is based on the DGPS measurements but it should be noted that the mineralisation is a lake deposit and therefore can be considered almost flat. • A centimetre resolution digital terrain model of the entire tenement has been completed
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Spacing is a nominal offset 200m x 100m grid • Downhole sampling is generally 0.5 m to 0.75 m • No sample composites were collected for primary assays. • The observed logging demonstrates excellent continuity of mineralisation between adjacent holes • Continuity is sufficient to support reporting of a Mineral Resource
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.* • *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.*	• Vertical drilling of flat lake beds results in orthogonal penetration angle • Down hole widths are true widths, and therefore no sampling bias has been introduced.
Sample security	• *The measures taken to ensure sample security.*	• Samples were sealed in individually numbered plastic bags with zip ties • Where necessary plastic bags were packed in polyweave sacks and sealed with a zip tie • Samples were delivered to the laboratory directly by company personnel to ensure complete chain of custody
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews of sampling techniques and data have been completed.

Section 2 Reporting of Exploration Results

Criteria listed in the preceding section also apply to this section

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.* • *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.*	• E63/2086 Lake Hope • MLA63/684 (application) • L63/99 (application) • E63/2318 • E63/2319 • E63/2370 • E63/2492 (application) • E63/2493 (application) • E74/673 • E74/779 • 100% Playa One Pty Ltd. Impact has the right to earn an 80% interest in Playa One by completing a Pre-Feasibility Study. • Native Title Agreements are in place with Native Title parties • No known impediment to exploitation is known • No national parks, nature reserves or other licenses interact with E63/2086L63/99 or M63/684

Criteria	JORC Code explanation	Commentary
		• L63/99 grant is subject to negotiation of access agreement with interacting tenure applications • MLA63/684 100% Playa One Pty Ltd and has been applied for subject to the Earn In Agreement
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Nil
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Evaporite salt deposit • Salt lakes within evaporitic basins within the granite terrane of the Yilgarn Craton, Western Australia • Lacustrine evaporite sulphate salts hosted within flat-lying sheet deposits
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:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* • *dip and azimuth of the hole* • *down hole length and interception depth and hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• All drill hole and sample assay data has been reported previously (ASX Release June 19th 2023).
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Intersections containing multiple samples are weighted by length into a total intersection. • No lower cut-off grade as it is possible all of the material can be mined. • No upper cut-off is used as the material is homogeneous with no extreme values
Criteria	*JORC Code explanation*	Commentary
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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').*	• All intervals are true width as they are vertical holes drilled into flat-lying mineralisation
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should*	• A map showing the project location has been included • Maps showing exploration results are provided

Criteria	JORC Code explanation	Commentary
	include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	
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 assay data has been reported previously (ASX Release June 19th 2023)
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.*	• Metallurgical testing was undertaken by ISO accredited metallurgical testing laboratories • Commercially sensitive data on metallurgy is not reported
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Further drilling may be undertaken to increase the Measured Resource. • Pre-Feasibility Studies will be completed in Q1 2025

Section 3 Estimation and Reporting of Mineral Resources

Criteria listed in the preceding section also apply to this section

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.* • *Data validation procedures used.*	• Data collated by Impact from hardcopy logging as a series of Excel spreadsheets. • Logging data is validated by Impact's database manager and then imported into the Impact DataShed database. • Responsibility for the data resides with Impact. • Data supplied to HSC as a series of CSV files for collars, surveys, alteration, lithology, assays (XRF & XRD) and density. • HSC has compiled an MSAccess database for the Lake Hope deposits that was then linked to the Surpac mining software for further work. • Database checks completed by HSC include: o Data was imported into an MSAccess database with indexed fields, including checks for duplicate entries, unusual assay values and missing data. o Additional error checking using the Surpac database audit option for incorrect hole depth, sample/logging overlaps and missing downhole surveys. o Manual checking of logging codes for consistency, plausibility of drill hole trajectories and assay grades. Modifications made to lithology codes for easier use in interpretation. • Assessment of the data confirms that it is suitable for resource estimation.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Roland Gotthard, Consultant Geologist & Project Manager for Impact completed numerous site visits, undertook and supervised the logging and sampling, and all geological mapping. • No site visit to the project was completed by HSC due to time and budgetary constraints.

Criteria	JORC Code explanation	Commentary
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• Interpretation of the drillhole database allowed for the generation of 3D mineral constraining solids on 50m spaced N-S sections for both West Lake and East Lake deposits. • Definition of the wireframes was relatively straightforward with snapping of strings to drillholes at the appropriate downhole position allowing for a reasonable level of confidence. • A single mineral zone was defined for each deposit using the lake surface boundary and the geological logging of alunite in conjunction with Al_2O_3, SiO_2, K_2O, Fe_2O_3 and SO_3 grades plus geological sense eg tapering margins. A nominal 20% Al_2O_3 was used to define the base of mineralisation. • A 2D digital plan outline of the two lake deposits was taken from Impact's geological mapping and used to constrain the mineral wireframe. • The drilling has generally reached the base of mineralisation. Some of the earlier holes stopped short of the mineral base. An occasional drillhole has terminated in granitic alunite material. • Where the base of mineralisation was not necessarily intersected in the drilling the interpreted basal surface was horizontally extrapolated from nearby holes which had passed through the mineralisation. • The basic geological model of a flat lying stratiform alunite lake bed deposit appears to be reasonable and appropriate for resource estimation. • Alternative interpretations are possible for the mineral zone definition but are unlikely to significantly affect the estimates. • The style of mineralisation and the orebody type means there is a strong horizontal control to the alunite grade & geological continuity.

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.*	• Mineralisation is flat lying.
		• Mineral Resource dimensions are:
		  ○ West Lake: areal extent 1.65km by 1.6km with an average thickness from the sampling of 0.95m, maximum depth is 1.6m and a surface area of $1.33Mm^2$.
		  ○ East Lake: areal extent 1.6km by 0.65km with an average thickness from the sampling of 0.98m, maximum depth is 2.0m and a surface area of $0.76Mm^2$.
		• Mineralisation is exposed at surface.

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*	• The estimation technique employed by HSC for both deposits was a standard 3D block model with Ordinary Kriging of composited assay data. • Surpac mining software was used for the geological interpretation, compositing and the block model validation and reporting. The variography and Ordinary Kriging were completed using the GS3M software. • A nominal 0.5m composite interval was employed, generated using the mineral wireframe and the 'best fit' option in Surpac (considerably reduces the number of residual samples). The mineral zone was treated as a hard boundary during estimation. • Al_2O_3 was modelled separately for both lake deposits. Other elements including some deleterious elements that were modelled include CaO, Cl (West Lake only), F, Fe_2O_3, K_2O, LOI, MgO, Na_2O, P_2O_5, SO_3, SiO_2 , TiO_2 and moisture. • H&SC considers the Ordinary Kriging technique to be an appropriate estimation technique for this type of mineralisation based on visual observations of the drilling data and the outcomes from the summary statistics for the composite data. • No top cuts were applied to the data due to an absence of extreme values and low coefficients of variation for the modelled elements.

Criteria	JORC Code explanation	Commentary
	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.*	• A total of 251 and 212 composites, for the West Lake and East Lake respectively, of variable length were used to estimate the mineralised lake sediments. • Domaining was limited to the 3D outline of the mineral zone. • No assumptions were made regarding the recovery of any by-products. • 2D variography in the X (E-W) and Y (N-S) directions was performed using the composite data. Grade continuity was reasonable for the West Lake and modest to weak for the East Lake. • Drill holes are spaced on a relatively regular grid with a nominal spacing of 100m by 100m. • Block dimensions are 50m by 50m in the X & Y directions with 0.75m in the Z direction. No sub-blocking was considered necessary with the Mineral Resources reported using a partial percent volume adjustment generated by the mineral wireframes. • The X- and Y-axis dimensions were chosen based on the 100m spaced drilling. Discretisation was set to 5 x 5 x 2 (X, Y & Z respectively). • Grade interpolation used an expanding 3D search pass strategy with the search parameters taking in the geometry of the mineralisation, the drill spacing and the variography. Modelling consisted of two sets of 3 search passes. The minimum search used was 150m by 150m (X & Y) and 0.5m (Z) and expanding in 150m increments to 600m by 600m. The minimum number of data was 6 samples for Pass 1 decreasing to a minimum of 1 data for Pass 6. The search orientations were horizontal in keeping with the geometry of the mineralisation. • The maximum extrapolation of the estimates is 360m. • The estimation procedure was reviewed as part of an internal H&SC peer review. • No deleterious elements have been factored into the reporting of the Mineral Resources. • The final block model was reviewed visually by HSC and it was concluded that the block model fairly represents the grades observed in the drill holes. HSC also validated the block model statistically using a variety of histograms and summary statistics. • Initial resource models using the gridded seam technique were completed for both the West and East Lake deposits. prior to the supply of the 2023 drilling data. The East Lake gridded seam model showed no significant difference with the eventual 2023 model on account of the new drilling being infill drilling. The West Lake gridded seam model indicated a very similar grade to the eventual 2023 model with the larger size of the current model due to a new area to the north being drilled, plus increased depths due to the new infill drilling. • Validation confirmed the modelling strategy as acceptable with no significant issues. • No production has taken place so no reconciliation data is available.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages are estimated on a dry weight basis. • Moisture was determined by using the laboratory process LOD105/SG Loss on drying at 105°C for 12 hours. • 154 samples weighing between 20 and 80g were collected with an average moisture content of 16.6% for the West Lake and 23.9% for the East Lake.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The reported Mineral Resources are constrained to the mineral wireframe with a partial percent volume adjustment for the block in contact with the wireframe. • No cut-off grade was applied, although the mineral wireframe had been designed to a nominal 20% Al_2O_3 cut off along with geological sense. • The Mineral Resources are reported to a maximum depth of 1.8m below surface as part of the consideration for "reasonable prospects for eventual of economic extraction". • The lack of a cut-off grade at which the resource is quoted

Criteria	JORC Code explanation	Commentary
		reflects an intended bulk-mining approach.
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.*	• HSC's understanding is that the deposits will be mined using a bulk mining open pit scenario. • Mining method, as advised by Impact, is likely to be a track mounted scraper or grader with a low ground bearing capacity, removing modest increments of material (up to 25cm or so) on a 3-5 year campaign strategy. Track mounted trucks will be used to remove the mineralisation from mined area. • The model block size (50m by 50m) is the effective minimum mining dimension for this estimate. • Any internal dilution has been factored in with the modelling and as such is appropriate to the block size. • Groundwater impacts can be managed.
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.*	• XRD mineralogy has identified alunite and kaolinite as the major minerals present with localised accumulations of silica, generally on the periphery of the deposit. Other minor mineral components include opaline silica, feldspar and mica. • HSC's understanding is that the mined material will be subject to a standard processing technique for this type of commodity and deposit. • A simple wash and filtering to recover the alunite mud will be followed by a low temperature pre-treatment leach, acid leaching crystallisation and purification followed by calcining to produce HPA. • No screening of coarse material is necessary as the grain size of the material is 100% <16 microns for the vast majority of the lake mud. • It is assumed that there will be no significant problems in generating a High Purity Alumina product at scale. HPA has been produced numerous times by this process at the bench scale. • No penalty elements have been identified in the work so far.
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.*	• The landscape comprises sand dunes up to ~10m height, with low relief. • The area lies within flat terrain with broad watercourses and dry bed lakes. • Vegetation comprises eucalyptus marri scrub to 12m height, heath, and scrub, with significant gum trees around the eastern dune areas, typical of that part of Western Australia. • The mud itself and associated groundwater are very acidic with a pH of 3 as measured in situ. Accordingly whilst there may be some acid mine drainage it will be the same as the natural conditions thus limiting environmental rehabilitation. However, further field studies and ground water monitoring are required. • The groundwater is naturally hypersaline and acidic and will require appropriate management. • There are large flat areas for tailings and ROM pad 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.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vughs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.*	• Density data was supplied as a series of selected samples with the density sampling being completed by two methods, both of which are considered appropriate for the deposit type: ○ Individual push tube samples ranging between 30 and 70 cm long. With the inside diameter of tube known ie volume, and the weight of sample is known wet density can be calculated. A total of 141 samples were collected but of those only 120 samples had wet and dry density recorded. Dry density was the result of oven-drying the samples at 105°C for 12 hours. ○ Small scale surface pitting produced 36 'sample cubes' from the top 20cm of each lake. Density was

Criteria	JORC Code explanation	Commentary
	• *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	determined using the weight in air/weight in water method (Archimedes Principle) on waxed sealed samples. • Loss on drying was performed at 45ºC and 105ºC. Given the uniform volume of the push tube samples, the SG_Residue (45ºC) and SG_Dry (105ºC) are calculated with the residue and dry weights. • For the push tube samples an average value for wet density for the West Lake was 1.86t/m^3 with an average dry density value of 1.49t/m^3 whilst for the East Lake the wet density average was 1.87t/m^3 and the dry density average was 1.37 t/m^3. The wet density average values for the surface cubes was 1.88t/m^3 for the West Lake and 1.80t/m^3 for the East Lake (no dry density data was available). Measured density showed a very subtle increase with depth. • Using the 120 push tube samples a regression equation using Conditional Expectation was developed to generate dry density from wet density (using the rank X upon Y option) and is listed as follows: **Dry density = 0.9182*(Wet density) – 0.2359** • This equation was applied to all the wet density data for both deposits and resulted in a total of 177 dry density samples. These samples were used for the grade interpolation of wet and dry density using Ordinary Kriging. Search ellipse parameters for the density modelling comprised an initial 180m by 180m by 0.5m with 8 minimum data and 4 octants expanding to 500m by 500m by 5m with a minimum of 4 data and 2 octants. Maximum number of data was 20 in all cases. A horizontal search ellipse was used. • Any mineral zone blocks with missing density data were allocated a default density relevant to the surrounding block grades. For very marginal mineral zone blocks and the basement weathered granite a default density value of 2.1t/m^3 was added.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *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).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• Mineral Resources have been classified on sample spacing, grade continuity, QAQC data and geological understanding. • All other relevant factors have been taken into consideration eg drilling methods, density data, topography etc. • Estimation search Pass 1 is classified as Measured Resources, Pass 2 is classified as Indicated Resources whilst Pass 3 is used to allocate Inferred Resources. • The classification appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• No audits have been completed. • The estimation procedure has been reviewed as part of an internal HSC peer review including check models.
Discussion of relative accuracy/ confidence	• *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.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to*	• The relative accuracy and confidence level in the Mineral Resource estimates are considered to be in line with the generally accepted accuracy and confidence of the nominated Mineral Resource categories. This has been determined on a qualitative, rather than quantitative, basis, and is based on the Competent Person's experience with similar deposits. • The geological nature and interpretation of the deposit, the grade interpolation technique, the composite/block grade comparison (block model validation) and the modest coefficients of variation lend themselves to a reasonably high level of confidence in the resource estimates. • The Mineral Resource estimates are considered to be reasonably accurate globally, but there is some uncertainty in the local estimates due to the current drillhole spacing, which may not pick up some small scale clustering of grade and/or localised domains of different grade.

Criteria	JORC Code explanation	Commentary
	technical and economic evaluation. Documentation should include assumptions made and the procedures used. • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• No mining of the deposit has taken place so no production data is available for comparison.