



22 JAN 2021

ASX: TMG

## ASX ANNOUNCEMENT

# High-grade results from initial air-core drilling confirm SOP potential at Lake Throssell Project

*Grades of up to 11,519mg/L sulphate of potash (SOP) returned from basal aquifers in maiden air-core drilling, with ~50% of the drilling program completed to date.*

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### Lake Throssell Sulphate of Potash Project – new *high-grade discovery*

- Maiden air-core drilling confirms the high-grade tenor and scale of the Lake Throssell Sulphate of Potash (SOP) Project, located near Laverton in Western Australia.
- Assays received for a total of 16 air-core holes for 1,806m (~50% of the proposed program), completed in December 2020 before inclement weather temporarily postponed field activities.
- A total of 74 brine samples from the holes completed to date were submitted for assay prior to Christmas, with results returning high grades of up to 11,519mg/L SOP (11.5kg/m<sup>3</sup>), with an average grade of 9,772mg/L SOP.
- Of the 74 samples assayed, 93% returned grades exceeding 9,000mg/L SOP with 32% of samples returning over 10,000mg/L SOP, confirming the high-grade tenor of the Lake Throssell palaeovalley system.
- Drilling of the remainder of the program is due to re-commence on Friday 22 January.
- The air-core program is expected to pave the way for a maiden JORC Mineral Resource Estimate for the Lake Throssell Project next Quarter, once all the results are received and interpreted. A maiden JORC Exploration Target is expected to be published in February, based on the results received to date.

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**Trigg Mining Limited (ASX: TMG) (Trigg or the Company)** is pleased to report very encouraging initial assay results from the partially completed maiden air-core drilling program at its highly prospective 100%-owned **Lake Throssell Sulphate of Potash (SOP) Project**, located east of Laverton in Western Australia.

The maiden air-core program commenced at Lake Throssell in late November 2020, with a total of 16 holes for 1,806m completed (representing ~50% of the proposed program) before inclement weather temporarily postponed field activities in mid-December 2020.

The drilling, which was confined to the northern half of the project area, has confirmed the presence of a broad palaeovalley at least 1km wide and potentially up to 3-4km wide in places. The palaeovalley is typically around 100m deep with multiple potential aquifers identified in places (see ASX announcement December 2020).

A total of 74 brine samples collected during this first phase of drilling were submitted before Christmas for analysis, with results returning **high grades of up to 11,519mg/L SOP (11.5kg/m<sup>3</sup>) with an average grade of 9,772mg/L SOP** (Figure 1 and Table 2).

The brine chemistry also suggests favorable characteristics for solar evaporation concentration and lower waste salt levels, with a low Na:K ratio and high SO<sub>4</sub> concentration.

Of the brine results returned so far from the air-core drilling targeting the basal aquifer system, 93% returned grades exceeding 9,000mg/L SOP with 32% of samples returning grades over 10,000mg/L SOP.

These results, combined with the previously reported surficial aquifer results (see ASX Announcement 10 August 2020), confirm the high-grade tenor of the Lake Throssell SOP project.

Preliminary interpretation based on visual inspection of drill samples suggests that the palaeovalley system comprises multiple aquifer zones with a thick upper sequence of lacustrine clays and sequences of polymictic medium-coarse grained rounded to angular lithic clasts (e.g., gravels and rock fragments) occurring towards the base of the sequence.

This is significant because these zones will have the highest porosity/permeability within the palaeovalley sequence and are therefore likely to host the most significant brine resources.

These lithic zones, located in the deepest parts of the palaeovalley tested to date, range in thickness from a few metres up to 9m and, in some instances, there are multiple lithic horizons within the one drill hole – for example, LTAC008 (72-79m and 99-105m) and LTAC006 (88-93m and 96-99m).

Brine production was also reported from some drill holes either at the contact with the basement metasediment (for example, LTAC005 @ 102m, at contact with basement shale) or within the basement metasediments (for example LTAC016, within basement quartzite and mudstone).

Air-core drilling is scheduled to recommence in late January 2021 (weather permitting), with assay results from the remainder of the drilling expected by early March.

A maiden JORC Mineral Resource Estimate is expected to be released next Quarter once the air-core drilling is complete and all results have been received and analysed.

The Company's exploration team, with assistance from independent consultants, has commenced work to estimate a maiden JORC Exploration Target for the Lake Throssell Project, based on all available data gathered to date.

This Exploration Target is expected to be published next month and will provide investors with an initial indication regarding the scale of this first stage of the project with additional surrounding tenement applications to be included in future drilling programs, once granted.

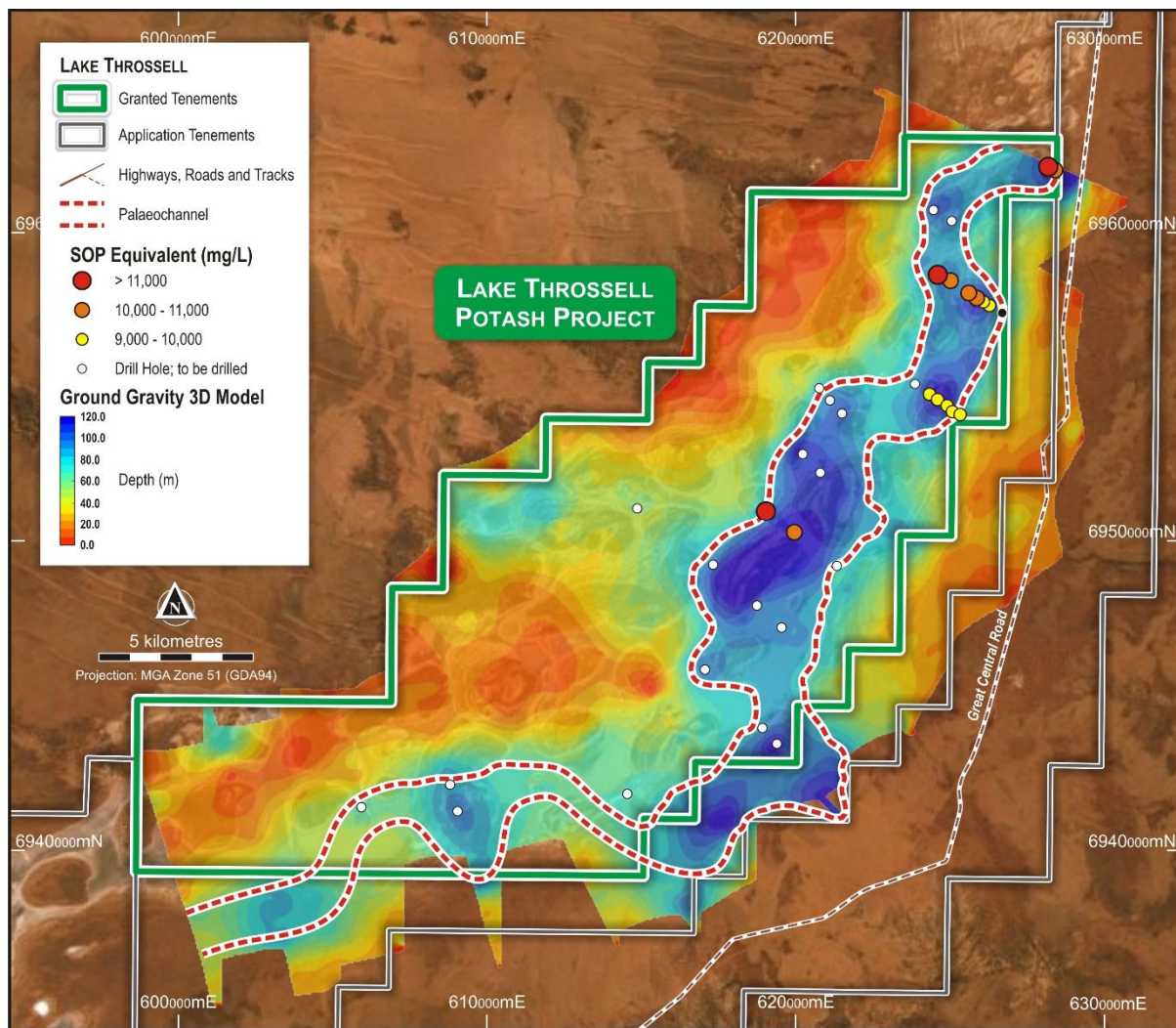


Figure 1: Maximum down-hole SOP from the aircore drilling completed to date

**Trigg Mining's Managing Director, Keren Paterson, said:** "We are pleased to have started the New Year with excellent assay results from the brine samples submitted to the laboratory prior to Christmas. This provides the first definitive indication that we have a high-grade sulphate of potash discovery at Lake Throssell in both the surficial aquifer and the underlying palaeovalley.

"Subject to access and weather conditions, we expect to be drilling again shortly at Lake Throssell to complete the balance of the air-core program. In the interim, we have started work on a maiden Exploration Target and we expect to be in a position to complete our maiden JORC Inferred Mineral Resource next quarter.

"This will be the second Mineral Resource estimate for the Company since listing – putting Trigg Mining on a clear path towards the development of a significant new Sulphate of Potash production hub east of Laverton in Western Australia."

This announcement was authorised to be given to ASX by the Board of Directors of Trigg Mining Limited.

*Keren Paterson .*

**Keren Paterson**  
Managing Director & CEO  
Trigg Mining Limited

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### Competent Person Statement

The information in this announcement that relates to exploration results is based upon information compiled by Mr Jason Cherry, Exploration Manager and Mr Adam Lloyd, Principal Hydrogeologist. Mr Cherry and Mr Lloyd are Members of the Australasian Institute of Geoscientists and have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and the activity to which they are undertaking to qualify as a Competent Person for reporting of exploration results as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Cherry and Mr Lloyd consent to the inclusion in the announcement of the matters based upon the information in the form and context in which it appears.



**Table 1:** Aircore drill collar locations

Hole ID	Easting (GDA94 Z51)	Northing (GDA94 Z51)	Azimuth	Dip	RL	EOH (m)
LTAC001	628388	6962021	0	-90	372	105
LTAC002	628176	6962125	0	-90	372	102
LTAC003	625859	6957880	0	-90	383	105
LTAC004	626076	6957761	0	-90	387	110
LTAC005	626271	6957639	0	-90	380	103
LTAC006	625599	6958044	0	-90	375	102
LTAC007	625013	6958442	0	-90	374	105
LTAC008	625073	6954204	0	-90	380	120
LTAC009	624590	6954598	0	-90	370	109
LTAC010	624330	6954770	0	-90	381	129
LTAC011	624900	6954397	0	-90	344	105
LTAC012	625321	6954113	0	-90	378	120
LTAC013	626684	6957399	0	-90	376	87
LTAC014	624598	6958634	0	-90	374	106
LTAC015	619031	6950979	0	-90	370	97
LTAC016	619951	6950276	0	-90	369	130

**Table 2: Aircore drilling brine sample results**

Hole ID	From	To	Ca	K	SOP equiv. <sup>1</sup>	Na	Mg	S	SO4	TDS
	(m)	(m)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
LTAC001	102	102	570	4,420	9,848	77,000	8,000	7,470	22,400	248,000
LTAC001	105	105	555	4,700	10,472	79,700	8,420	7,550	22,700	258,000
LTAC002	0	3	1,090	4,150	9,246	51,000	5,270	4,380	13,100	161,000
LTAC002	90	90	828	4,730	10,538	64,700	6,930	5,820	17,500	204,000
LTAC002	96	96	454	5,170	11,519	89,300	9,420	8,400	25,200	284,000
LTAC002	99	99	560	4,670	10,405	81,600	8,420	7,630	22,900	261,000
LTAC002	102	102	450	5,070	11,296	87,500	9,250	8,310	24,900	288,000
LTAC003	54	54	646	4,770	10,628	81,900	7,810	6,310	18,900	257,000
LTAC003	93	93	617	4,430	9,870	78,800	8,420	7,040	21,100	255,000
LTAC003	96	96	605	4,430	9,870	76,000	8,300	7,010	21,000	252,000
LTAC003	99	99	609	4,370	9,736	78,300	8,390	6,990	21,000	251,000
LTAC004	12	12	1,120	2,210	4,924	40,400	4,100	4,010	12,000	128,000
LTAC004	96	96	601	4,340	9,670	78,600	8,500	7,290	21,900	257,000
LTAC004	99	99	662	4,160	9,268	77,100	8,220	7,050	21,200	244,000
LTAC004	102	102	624	4,130	9,202	73,600	8,100	7,000	21,000	246,000
LTAC004	108	108	575	4,410	9,825	80,400	8,400	7,290	21,900	258,000
LTAC005	75	75	700	3,580	7,976	67,700	7,210	6,460	19,400	216,000
LTAC005	90	90	692	3,750	8,355	69,400	7,560	6,700	20,100	225,000
LTAC005	93	93	600	4,070	9,068	74,200	8,190	7,150	21,500	249,000
LTAC005	99	99	584	4,230	9,424	74,400	8,390	7,100	21,300	253,000
LTAC005	102	102	610	4,030	8,979	70,300	8,070	6,930	20,800	248,000
LTAC006	87	87	576	4,890	10,895	78,800	8,010	6,450	19,400	273,000
LTAC006	90	90	579	4,480	9,981	77,300	8,490	6,890	20,700	258,000
LTAC006	93	93	593	4,480	9,981	78,400	8,410	7,080	21,200	257,000
LTAC006	96	96	583	4,510	10,048	75,300	8,460	7,060	21,200	259,000
LTAC007	90	90	586	4,480	9,981	76,800	8,090	7,240	21,700	255,000
LTAC007	93	93	582	4,490	10,004	77,200	8,030	7,290	21,900	252,000
LTAC007	99	99	589	4,360	9,714	73,900	7,930	6,990	21,000	252,000
LTAC007	102	102	581	4,410	9,825	75,000	8,080	7,220	21,700	271,000
LTAC008	75	75	589	4,390	9,781	75,400	8,280	6,970	20,900	256,000
LTAC008	81	81	597	4,300	9,580	75,000	8,200	6,880	20,600	253,000
LTAC008	99	99	639	4,020	8,957	72,300	7,760	6,560	19,700	261,000
LTAC008	105	105	621	4,160	9,268	73,300	7,880	6,760	20,300	249,000
LTAC008	108	108	618	4,250	9,469	75,900	8,120	7,130	21,400	250,000
LTAC008	111	111	621	4,170	9,291	73,000	8,060	6,740	20,200	255,000
LTAC008	114	114	640	4,140	9,224	75,200	7,890	6,780	20,300	263,000
LTAC008	117	117	643	4,120	9,179	75,000	7,790	6,680	20,000	260,000
LTAC009	72	72	578	4,230	9,424	73,600	8,240	7,020	21,100	256,000
LTAC009	75	75	595	4,250	9,469	75,800	8,220	7,080	21,200	269,000
LTAC009	78	78	587	4,260	9,491	74,200	8,300	6,920	20,800	269,000
LTAC009	81	81	564	4,370	9,736	76,000	8,710	7,360	22,100	267,000
LTAC009	87	87	589	4,280	9,536	75,100	8,510	7,310	21,900	260,000

<sup>1</sup> SOP equivalent is calculated by potassium multiplied by 2.23

Hole ID	From (m)	To (m)	Ca (mg/L)	K (mg/L)	SOP equiv. <sup>1</sup> (mg/L)	Na (mg/L)	Mg (mg/L)	S (mg/L)	SO4 (mg/L)	TDS (mg/L)
LTAC009	90	90	596	4,240	9,447	75,600	8,300	7,070	21,200	254,000
LTAC009	96	96	596	4,220	9,402	75,500	8,270	6,790	20,400	256,000
LTAC009	105	105	543	4,390	9,781	81,900	8,750	7,350	22,100	265,000
LTAC010	120	120	515	4,440	9,892	81,300	9,160	7,630	22,900	272,000
LTAC010	126	126	529	4,440	9,892	80,300	9,180	7,900	23,700	269,000
LTAC011	15	15	539	4,230	9,424	77,600	7,960	7,090	21,300	250,000
LTAC011	72	72	618	4,250	9,469	73,200	8,120	6,710	20,100	251,000
LTAC011	81	81	636	4,250	9,469	74,800	8,140	6,870	20,600	249,000
LTAC012	75	75	668	4,160	9,268	73,800	7,780	6,580	19,700	242,000
LTAC012	78	78	674	4,180	9,313	73,600	8,060	6,690	20,100	243,000
LTAC012	81	81	562	4,430	9,870	80,300	8,520	6,970	20,900	262,000
LTAC012	96	96	645	4,150	9,246	72,400	7,860	6,670	20,000	247,000
LTAC012	99	99	672	4,140	9,224	74,900	7,810	6,490	19,500	245,000
LTAC012	105	105	626	4,340	9,670	77,900	8,180	6,890	20,700	254,000
LTAC012	108	108	554	4,480	9,981	81,100	8,680	7,070	21,200	269,000
LTAC012	114	114	680	4,130	9,202	73,700	7,790	6,440	19,300	243,000
LTAC012	120	120	681	4,110	9,157	73,800	7,770	6,510	19,500	242,000
LTAC014	36	36	520	4,990	11,118	81,300	8,740	7,640	22,900	270,000
LTAC014	51	51	555	4,630	10,316	77,900	8,260	7,450	22,400	270,000
LTAC014	60	60	555	4,520	10,071	77,800	8,150	7,380	22,100	260,000
LTAC014	99	99	536	4,670	10,405	79,200	8,750	8,050	24,200	268,000
LTAC015	60	60	482	5,110	11,385	84,400	9,010	8,310	24,900	280,000
LTAC015	84	84	517	4,750	10,583	81,700	8,890	8,260	24,800	271,000
LTAC015	87	87	544	4,710	10,494	79,400	8,610	8,170	24,500	265,000
LTAC015	90	90	455	4,910	10,939	86,500	9,110	8,620	25,900	285,000
LTAC015	93	93	536	4,630	10,316	81,800	8,580	8,130	24,400	264,000
LTAC016	99	99	458	4,900	10,917	88,500	9,430	8,460	25,400	285,000
LTAC016	102	102	482	4,920	10,962	89,900	9,580	8,670	26,000	286,000
LTAC016	117	117	517	4,620	10,293	81,400	9,000	7,800	23,400	274,000
LTAC016	123	123	495	4,680	10,427	88,900	9,090	8,100	24,300	276,000
LTAC016	126	126	495	4,510	10,048	81,900	8,780	7,930	23,800	271,000
LTAC016	129	129	499	4,560	10,160	83,200	8,590	8,010	24,000	271,000

Table 3 – JORC Table One

Section 1 – Sampling Techniques and Data

Section 1: Sampling Techniques and Data		
Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Brine sampling was carried out via airlifting during drilling at specific depths governed by the geology encountered. Brine samples were collected in a bucket, with approximate flow rates measured during sample collection. Fine sediment was allowed to settle prior to the brine sample being collected by decanting from the top of the bucket.</li> <li>The samples are considered representative of the zone at the drill face and directly above it. Downhole flow in low permeability formations cannot be ruled out.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>Lake Throssell air core drilling was at 3.5" diameter.</li> <li>All holes were drilled vertically.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>Lithological sample recovery was very good from air core drilling, indicated by large piles of lithological sample.</li> </ul>
<b>Geologic Logging</b>	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>All geological samples collected during all forms of drilling are qualitatively logged at 1 m intervals, to gain an understanding of the variability in aquifer materials hosting the brine.</li> <li>Geological logging and other hydrogeological parameter data is recorded within a database.</li> <li>Drilling lithological samples are washed and stored in chip trays for future reference.</li> </ul>
<b>Subsampling techniques and</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	<ul style="list-style-type: none"> <li>No physical core sample results are reported.</li> </ul>



Section 1: Sampling Techniques and Data		
Criteria	JORC Code explanation	Commentary
<b>sample preparation</b>	<ul style="list-style-type: none"> <li>• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>• For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>• Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/ second-half sampling.</li> <li>• Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>• For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>• Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>• All samples are being submitted to Bureau Veritas Pty Ltd in Perth for analysis.</li> <li>• Brine samples (250ml bottles) have been submitted for determination of Ca, Mg, K and S (as SO<sub>4</sub>) via ICP-AES analysis.</li> <li>• Other parameters including TDS (Gravimetric), pH, chloride and SG will also be determined.</li> <li>• Selected samples have also been submitted for a comprehensive multi-element suite via ICP-MS determination.</li> <li>• Duplicates have been collected at a rate of 1 in 10 samples for QA/QC purposes.</li> <li>• Lab repeats have been completed at approximately 1 in 10 samples.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>• The verification of significant intersections by either independent or alternative company personnel.</li> <li>• The use of twinned holes.</li> <li>• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>• Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>• No verification sampling has been completed to date.</li> <li>• The data has not been adjusted.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>• Specification of the grid system used.</li> <li>• Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>• Hole location coordinates obtained by handheld GPS.</li> <li>• The grid system used was MGA94, Zone 51.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• Data spacing for reporting of Exploration Results.</li> <li>• Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>• Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>• At Lake Throssell to date drilling has resulted in nominal drill hole spacing of between 300-500m along drill transects and between 3-5km along strike.</li> <li>• No geological modelling, Mineral Resources or Ore Reserves have been estimated to date.</li> </ul>

Section 1: Sampling Techniques and Data		
Criteria	JORC Code explanation	Commentary
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable, considering the deposit type.</li> <li>All drill holes are vertical.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples collected during the work programs were delivered directly from site to the laboratory by field personnel.</li> </ul>
<b>Audits or reviews</b>	The results of any audits or reviews of sampling techniques and data.	<ul style="list-style-type: none"> <li>None.</li> </ul>