

## **December 2022 Quarterly Activities Report**

#### HIGHLIGHTS

#### KANGAROO HILLS LITHIUM PROJECT (LSR - 20%) - Lithium

- Subsequent to the end of the quarter, Auroch commenced a 3,000m RC drill programme to test high priority Kangaroo Hills lithium targets.
- Drilling will target 2.37% Li2O in outcropping pegmatite and test strike continuation of mineralised intercept of 6m @ 1.38% Li2O, including 2m @ 3.26% Li2O from 198m, in NPRC084.
- In all, three targets are identified for phase 1 drilling testing over a strike length of 1.5km.

#### EARAHEEDY (LSR - 100%) - Base Metals, Gold

- Results from the ultrafine (UFF+) soil sampling in partnership with CSIRO shows strong base metal and gold anomalies.
- PoW approved over the MC-8 and MC-9 conductors, drilling will start after completion of a flora survey.

#### ASSAY RESULTS AT JUBILEE WELL (LSR - 100%) - Gold

Results of the RC holes returned 12m @ 1.2 g/t Au from 64m in LJWC005.

#### NEPEAN JV (LSR – 20%) - Nickel

 The Nepean Nickel Project JV received assays for the Nepean RC drilling at the Nepean Nickel Project which will increase the proportion of Indicated Resources in the shallow Mineral Resource Estimate (MRE) of September 2022. High grade lithium was discovered at the Nepean North Prospect while targeting nickel mineralisation. There is high potential for LCT (lithium, caesium, tantalum) mineralisation which was confirmed by field mapping which identified spodumenebearing pegmatites outcropping at surface. These new targets will be followed up by RC drilling in January 2023.

#### **CORPORATE**

- Bill Clayton retired from his position as a Managing Director of the Company but to continue in a consulting role.
- Appointment of Ed Turner as a Non-Executive Director.
- Appointment of Coraline Blaud as the Exploration Manager overseeing the Company's exploration programs.



#### Coolgardie West (LSR – 100%, Lithium, Gold)

Soil sampling at Coolgardie west has identified a Li, Cs, Nb, Rb, Tl soil anomaly and gold target zones which are planned to be drilled during the 1Q 2023 following heritage clearances and PoW approval (see Lodestar's ASX announcement dated 23rd December 2022).

#### Earaheedy (LSR – 100%, Base Metals, Gold)

A PoW has been granted for a ~1000m RC program to test the best Airborne Electromagnetics (AEM) and fixed loop electromagnetic (FLEM) anomalies within the "Troy Creek Beds" formation at the Earaheedy Project, which has already demonstrated high Copper (Cu) and Gold (Au) potential within the outcropping gossan. At the "Main Gossan" historic drilling has intersected 1.5m @ 2.9% Cu from 108.9m in TCD002 and 2m @ 4.65% Cu from 91m in TCRC08-02 (Figure 1). No holes have been drilled to test for depth or strike extensions of the mineralisation under cover. A first phase of drilling by Lodestar will be targeting the continuation of this mineralisation under cover at the best electromagnetic anomalies and faults zone areas. Gold anomalies have also been identified and will be targeted at a later stage. The PoW for ~1000m RC drilling has been granted under the condition of a flora survey which has been scheduled and will be performed in March. Following the survey and the results of the report, the clearing of access tracks and drill pads will commence. The clearing, which will be supervised by the Traditional Owners is expected to start in late April, with the drilling to commence shortly afterwards.

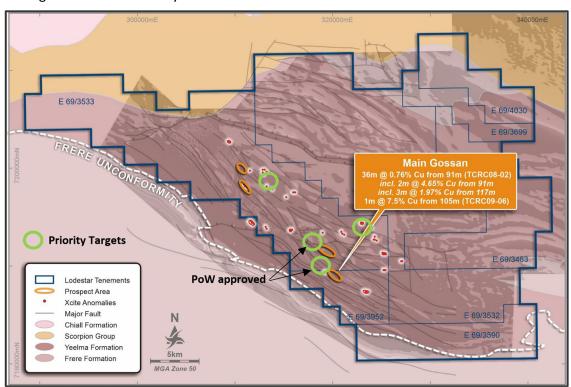


Figure 1: Imbin Prospect priority drill targets



An ultrafine (UFF+) soil sampling programme completed in conjunction with CSIRO was focussed on the 30 EM conductors defined by the previous AEM survey conducted by Lodestar. These targets were grid sampled and the samples were sent to LabWest for ultrafine analysis. This analysis takes the smallest fraction of the samples (<2 μm) and runs it for multi element analysis. The results are then processed by CSIRO's methodology (https://research.csiro.au/ultrafine/ultrafine-next-gen/) which incorporates machine learning to define landscape maps which are then used to help in the interpretation of the results. To identify new targets, it is important to classify the regolith landscape (or clusters) which will then allow us to map anomalous concentration within the same unit. Base level concentrations vary depending on the origin of the regolith unit. Analysing the results of this study, we have identified four high priority targets with potential for Cu, Zn-Pb-Ag and Au within our 30 targets identified by the AEM (Figure 2). These targets will be the focus of exploration in 2023. Figure 2 shows the high priority targets with the Copper (Cu) values, highlighting the outliers (triangles on the map) which represent the values above usual background values. A full review of the available geophysical and geochemical data has started to identify highly prospective areas which will be explored in parallel with the Imbin Prospect drilling. These areas haven't been sampled through the first program of the ultrafine project and are at this stage conceptual (see Lodestar's ASX announcement dated 23rd December 2022).

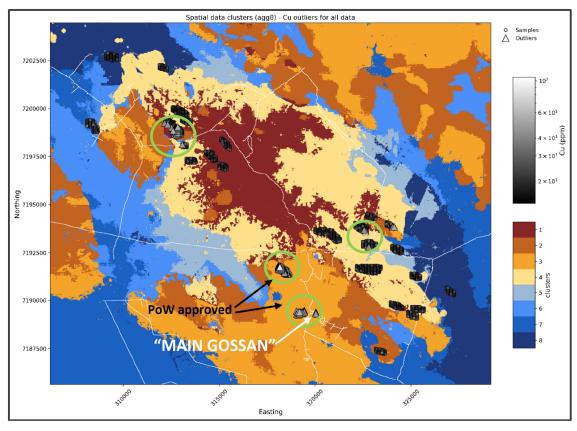


Figure 2: Copper (Cu) outliers (values above background) overlying the clusters/landscape map showing the 8 types of landscape defined for this region. Image from CSIRO. The four priority target areas have been highlighted.



#### Jubilee Well (LSR - 100%, Gold)

At Jubilee Well, nine holes for a total of 1,312m were completed, over a strike distance of 150m. Best results included 12m @ 1.2 g/t Au from 64m in LJWC005 (Figure 3, Table 1) from the silica-sericite alteration with fine grained disseminated sulphide mineralisation which has been the indicator of the mineralisation in the area as described by PosGold and Acacia. The mineralised shear remains open, and a further study of the results will decide of the next targets (see Lodestar's ASX announcement dated 23rd December 2022).

Table 1: Significant interceptions (> 1g/t Au)

Hole ID	Depth From (m)	Depth To (m)	Interval (m)	Au (g/t)
LJWC001	70	74	4	1.05
LJWC005	64	76	12	1.17
LJWC006	71	75	4	1.20
LJWC007	71	75	4	1.62

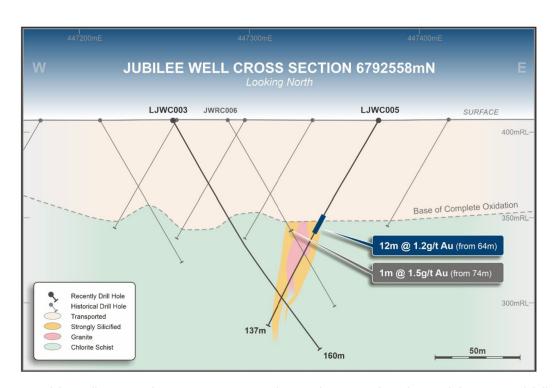


Figure 3: Jubilee Well interpreted cross section 6792558N showing alteration within sub-vertical shear zone and drilling results.

#### Ned's Creek (Vango Mining (ASX:VAN) earning 51%, Gold)

Three holes were completed at Neds Creek to a maximum depth of 218m for a total of 594m. There were no significant intersections. The magnetic anomaly that was targeted is attributed to a less altered diorite unit (see Lodestar's ASX announcement dated 23rd December 2022).



#### Nepean Nickel Joint Venture (LSR – 20%: AOU – 80%)

Two drill-holes targeted the northern portion of the shallow (top ~120m from surface) MRE at Nepean, with the aim to potentially upgrade a significant portion of the current Nepean Resource from an Inferred category to an Indicated category. Significant results from these two holes are 1m @ 2.08% Ni, 0.25% Cu & 0.83g/t PGE's (Pt & Pd) from 47m down-hole (NPRC083), and 1m @ 1.18% Ni, 0.11% Cu & 0.49g/t PGE's from 29m within a wider mineralised zone of 4m @ 0.84% Ni, 0.05% Cu from 28m (NPRC083); and 1m @ 0.72% Ni, 0.07% Cu & 0.15g/t PGE's from 52m (NPRC082). Importantly, these results correlate closely with the results from nearby historic drill-holes used in the current MRE of 236kt @ 1.5% Ni and 0.11% Cu for 3,625t of contained nickel and 252t of contained copper<sup>1</sup>. The data from both the new drill-holes and the historical drill-holes will be used to update the shallow Nepean MRE, with the aim to materially increase the proportion of Indicated Resources, which is currently approximately Inferred (50%): Indicated (50%) (see Auroch's ASX announcement dated 15th November 2022).

Recently completed exploration drill-holes NPRC084 and NPRC085 at the newly named Kangaroo Hill Lithium Project were re-assayed for lithium, caesium and tantalum (LCT) mineralisation for all pegmatite intercepts. Assays returned exceptional lithium down-hole grades, including: **6m @ 1.38% Li2O** from 198m, including **2m @ 3.26% Li2O** from 198m (NPRC084) (see Auroch's ASX announcement dated 24th November 2022). The two holes were drilled approximately 150m apart, and 420m north of previously reported lithium results in NPRC058 which suggests potential LCT-enriched pegmatites over a significant strike length. This has been confirmed by **field mapping which has identified multiples outcropping pegmatites** (see Figure 4) **including spodumene-bearing pegmatites** which are considered a good indication for prospective Lithium enrichment (see Auroch's ASX announcement dated 20th December 2022).

Subsequent to the end of the quarter, Auroch commenced a 3,000m RC drill programme to better test these high priority Kangaroo Hills lithium targets (see Auroch's announcement dated 18<sup>th</sup> January 2023). The drilling will target 2.37% Li2O in outcropping pegmatite and test strike continuation of mineralised intercept in NPRC084. In all three targets are identified for phase 1 drilling testing over a strike length of 1.5km.

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<sup>&</sup>lt;sup>1</sup> Refer to Auroch's 1 September 2022 ASX Announcement



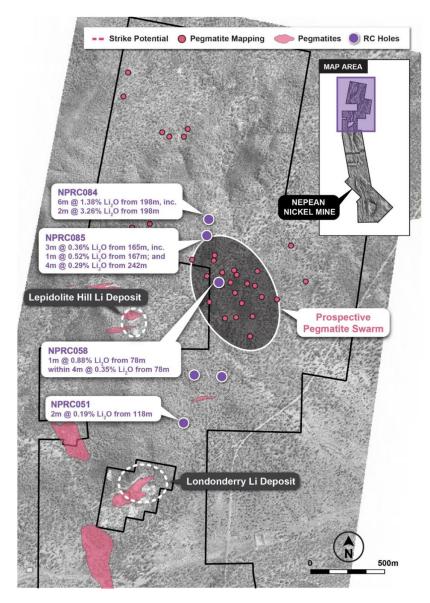


Figure 4: Kangaroo Hill LCT Prospect, showing mapped pegmatite locations and Auroch RC exploration drilling.

#### **Corporate**

On 2 December 2022, long standing Managing Director Bill Clayton retired as a Director of the Company. Mr Clayton has been the Managing Director since the inception of the Company and has made an enormous contribution to the Company during his tenure. Although he is stepping down as a Director, Mr Clayton will continue in a consulting role.

Effective 2 December 2022, Mr Ed Turner joined the Board as a Non-Executive Director. Mr Turner has 35 years of experience in the mining industry. He is a geologist with extensive experience in exploration management, underground mining, resource development, capital raisings, and commercial acquisitions and divestments. He has worked in precious metals,



base metals, uranium and lithium in Australia, Africa, Eastern Europe, and South America. Recent Executive roles have included Technical Director for Riedel Resources Ltd, CEO for Galena Mining Ltd and CEO of Kingwest Resources Ltd.

Mr Ross Taylor, formerly Non-Executive Chair, has assumed the role of Executive Chair of the Company (see Lodestar's ASX announcement dated 28<sup>th</sup> November 2022).

Ms Coraline Blaud has been appointed as the Exploration Manager for Lodestar Minerals. Ms Blaud has been working as a geologist in the junior mining sector across multiple commodities (Li, K, Au, Pb, Ag, Cu, Ni) within Western Australia as well as in Europe and Africa. She has significant experience in Greenfields exploration and Resource Definition including the Abra Base Metal Deposit (Galena Mining) and the Menzies Gold Project (Kingwest Resources Ltd) (see Lodestar's ASX announcement dated 23<sup>rd</sup> December 2022).

#### **Appendix 5B Disclosures**

ASX LR 5.4.1: Exploration expenditure during the quarter totalled \$341k

ASX LR 5.4.3: Tenement schedule is attached to activities report.

ASX LR 5.4.5: Payments to related parties totalled \$162k and was in respect of Directors' salaries and superannuation payments, in addition to payments for corporate management services to Director related entities.

#### **Upcoming News Flow for the March 2023 Quarter**

- Nepean JV Kangaroo Hill Prospect RC drilling results
- Coolgardie West

Aircore drilling of the gold anomalies.

RC drilling of the lithium target.

Earaheedy

Flora Survey

#### **Contacts**

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#### **About Lodestar**

Lodestar Minerals is an active Western Australian gold, base metal and lithium explorer.

Lodestar's projects comprise the advanced Nepean Nickel Project JV, the Ned's Creek JV and the 100% owned Camel Hills, Earaheedy-Imbin, Jubilee Well, Bulong and Coolgardie West projects (Figure 5).

The Earaheedy-Imbin Project is a major strategic land holding in the emerging Earaheedy Province, site of Rumble Resource's recent and potentially world-class Zinc-Lead discoveries. The Imbin Project is located on the northern margin of the prospective basin and is the site of significant historic copper intersections in drilling.

Lodestar discovered multiple zones of syenite intrusion-related gold mineralisation at the Ned's Creek Project on the Yilgarn craton margin, 150km west of Imbin. Vango Mining Limited is earning a 51% interest in the Ned's Creek JV by contributing \$5M of expenditure over 3 years.

Bulong and Jubilee Well are in highly endowed gold districts; first-pass drill programs have been planned. Coolgardie West, located 10km west of Coolgardie, has potential for greenstone hosted gold, nickel and LCT pegmatite mineralisation with priority lithium and gold drill targets identified by soil geochemistry.

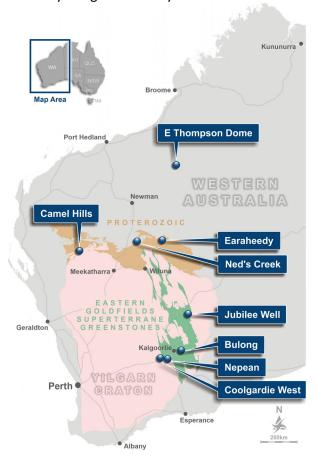


Figure 5: Lodestar project locations



#### **Competent Person Statement**

The information in this report that relates to Exploration Results is based on information compiled by Bill Clayton, Managing Director until December 2, 2022, now a consultant geologist for Lodestar, who is a Member of the Australasian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Clayton consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

The information in this announcement that relates to previously released exploration results was disclosed under JORC 2012 in the ASX announcements dated

- 18<sup>th</sup> January 2023 Auroch "Drilling Commences at Kangaroo Hills Lithium Project".
- 23<sup>rd</sup> December 2022 "Exploration Update".
- 20<sup>th</sup> December 2022 Auroch "Field Mapping defines pegmatite targets".
- 28th November 2022 "Board Changes".
- 24<sup>th</sup> November 2022 Auroch "High Grade Lithium discovered at Nepean".
- 15<sup>th</sup> November 2022 Auroch "Nepean Nickel Project Exploration Update".

These announcements are available to view on the Lodestar website. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

# **JORC Code, 2012 Edition – Table 1 report template**

### **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (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. 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> <li>RC drill holes were sampled at 1m intervals throughout, with 4m composites routinely collected from exploration drill holes. Samples collected from the cyclone were laid in sequence on the ground in rows of 20.</li> <li>Soil Sampling: A clear space in the landscape is selected, field notes are recorded. Then the top 1cm is discarded on an area of ~ 15 x 15 cm. Then 5-10 cm are dug with a scoop to collect a ~500g sample which will be sieved to remove all the coarse material (&gt;2 mm) and discarded. Then 200g of the remaining &lt;2 mm fraction is placed in a paper Geotech sample bag. The hole is then back filled and returned to a flat surface.</li> <li>Sample representivity is maintained by placing the samples in a pre-numbered calico bag with a corresponding sample book entry and for drill samples maintaining dry sampling and good drilling practice, avoiding sample over runs and contamination. Certified reference materials, field duplicates and laboratory repeat samples are analysed routinely.</li> <li>1m RC samples were collected as a 2.5kg split in calico bags attached to the onboard cone splitter. Composite 4m metre samples were collected by spearing the sample pile using a PVC spear and combined to create a 2.5 to 3.0kg composite sample. The samples were submitted to a commercial laboratory for drying, crushing, and pulverising to produce a 40g charge for fire assay of gold or aqua regia digest for gold and multi-elements by multi-acid digest.</li> </ul>
Drilling techniques	<ul> <li>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).</li> </ul>	<ul> <li>RC drilling using a 5.5" or 4.75" face sampling hammer.</li> <li>RC holes were surveyed with a north-seeking gyro survey tool.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain</li> </ul>	<ul> <li>Sample recoveries and wet samples were monitored and recorded qualitatively in Lodestar's drill hole database. Recoveries were generally 80 -100%. Approximately 3% were reported as wet samples at Jubilee Well, these samples were not in mineralisation.</li> <li>High pressure air used to maintain a dry sample and drill sampling equipment was cleaned regularly to minimise</li> </ul>

Criteria	JORC Code explanation	Commentary
	of fine/coarse material.	<ul> <li>contamination. Duplicate samples were taken routinely with satisfactory results.</li> <li>There is no apparent relationship between sample recovery and grade.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Chip samples were routinely geologically logged throughout the hole.</li> <li>Logging is qualitative in nature.</li> <li>All RC holes are geologically logged in full.</li> <li>All soil sample location were described with date, time, conditions, regolith setting, vegetation and geology types</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to 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>	<ul> <li>No core samples taken.</li> <li>RC Drilling:</li> <li>Individual 1m split samples collected from the drill rig on board cone splitter or composites of 1m chip piles are submitted for assay. The great majority of samples were dry. Selected intervals were composited from 1m bulk samples to produce a 2.5kg 4m composite using a PVC spear. All samples for assay are stored in pre-numbered bags and submitted to Bureau Veritas Laboratories for sample preparation and analysis.</li> <li>Sample preparation for drill samples involves drying the whole sample, crushing to 3mm and pulverising to 90% passing -75 microns. The pulverised sample was split with a rotary sample divider to obtain a 40 gram charge.</li> <li>Duplicate field samples (1:40), certified reference standards (1:40) and laboratory repeats are used to monitor satisfactory reproducibility and accuracy of sampling and assays.</li> <li>Sample size is appropriate for early exploration drilling where mineral grainsize is unknown.</li> <li>Soil Sampling:</li> <li>A clear space in the landscape is selected, field notes are recorded. Then the top 1cm is discarded on an area of ~ 15 x 15 cm. Then 5-10 cm are dug with a scoop to collect a ~500g sample which will be sieved to remove all the coarse material (&gt;2 mm) and discarded. Then 200g of the remaining &lt;2 mm fraction is placed in a paper Geotech sample bag. The hole is then back filled and returned to a flat surface.</li> <li>A field duplicate was taken every 20 samples and lab standards were added every 20 samples and laboratory repeats are used to monitor satisfactory reproducibility and accuracy of sampling and assays.</li> </ul>
Quality of assay	The nature, quality and	<ul> <li>Sample are air dried (collected dry) and then sent to LabWest for analysis.</li> <li>The aqua regia digest is considered a</li> </ul>

Criteria	JORC Code explanation	Commentary
data and laboratory tests	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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	partial digest for refractory minerals but is used industry-wide in exploration for gold analysis. Multi-elements were analysed by ICP-MS or ICP-OES after a multi-acid digest that will bring most refractory minerals into solution.  • For the soil sampling, the UltraFine+® method, the UltraFine+® standard are part of the CSIRO Next Gen Analytics project which uses a separation technique to extract the <2 µm particle size fraction and provides geochemistry, spectral mineralogy, particle size distribution and a number of other parameters.  • No geophysical tools were used to determine any element concentrations.  • Reference standards and duplicates were inserted at 1:40 throughout the drill program for RC and 1:20 for the soil sampling. Results indicate satisfactory
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> <li>Accuracy and quality of surveys used to</li> </ul>	<ul> <li>accuracy and precision was achieved.</li> <li>No verification of significant intersections (generally low grade gold intersections).</li> <li>Twinned holes were not drilled in this program.</li> <li>Field and laboratory data are collected electronically and entered into a relational database. Data collection protocols are recorded in Lodestar's operation manual.</li> <li>No adjustment to assay data.</li> <li>A hand-held GPS has been used to locate</li> </ul>
points	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. Quality and adequacy of topographic control.	<ul> <li>the drillhole collars and the soil samples with estimated 3-5m accuracy.</li> <li>Drill hole coordinates were recorded in MGA94 Zone 50 grid (Ned's Creek) or MGA94 Zone 51 grid (Jubilee Well and Earaheedy).</li> <li>The topography within prospect areas is generally flat. In the Contessa and Central Park areas drill hole collar RL's have been adjusted to the DEM surface derived from a detailed aeromagnetic survey using Bendix/King radar altimeter equipment with a resolution of 0.3m. The Jubilee Well drill hole collars have been estimated from the RL's reported for surrounding historic drill holes.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>40 m x 80m grid over the previously defined EM targets are considered as adequate for this type geochemical of information.</li> <li>Single traverse of drill holes to test magnetic anomaly at Ned's Creek. Drill hole spacing is adequate for this purpose. At Jubilee Well the drilling tested 150m of strike at approximately 40m intervals with two or one hole per section.</li> <li>Exploration drilling and soil sampling are not for resource estimation.</li> <li>Sample compositing over 4m intervals throughout the drilling program with 1m split samples available for check assays</li> </ul>

Criteria	JORC Code explanation	Commentary
		where anomalous grades are reported.
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>At Ned's Creek the granite contact is believed to dip towards the north based on limited drilling however a southerly dip is possible. At Jubilee Well the dip of the shear zone had not been established. Current drilling suggests a sub-vertical or steep dip to the west.</li> <li>At Ned's Creek the drilling is oriented perpendicular to strike and true thickness is interpreted to be approximately 0.6x drill hole intercepts. At Jubilee Well the shear zone strikes North to South with a sub-vertical dip. Intersection widths are believed to represent ~0.86x drill hole intercepts.</li> </ul>
Sample security	<ul> <li>The measures taken to ensure sample security.</li> </ul>	<ul> <li>Samples were stored at Lodestar's exploration camp in sealed bags under supervision prior to dispatch by Lodestar contractors to Bureau Veritas Laboratories in Canning Vale for the RC samples and LabWest for the soil sampling.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	No audit or reviews carried out.
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The drilling is located on E52/2456 or E38/3054 within Lodestar's Ned's Creek and Jubilee Well projects, respectively. Vango Mining Limited are earning a 51% interest in the Ned's Creek project by spending \$4.5M. The tenement is owned by Audacious Resources, a wholly owned subsidiary of Lodestar Minerals and expires on 16/09/2022. An application for extension of term has approved to 16th September 2024. The tenement is within the Gingirana #4 native title claim and Lodestar is in negotiations to implement an access and heritage agreement with the claimants. The Jubilee Well tenement E38/3054 expires on 12/9/2022. E38/3054 is held by Oro Del Sur Pty Ltd (a wholly owned subsidiary of Lodestar Minerals Limited) and was granted on 13/9/2017. Lodestar has applied for an extension of term. The tenement is within the Nyalpa Pirniku native title claim WAD91/2019 and Lodestar has a heritage protection agreement with the claimants. Lodestar has applied for an extension of term for E38/3054 and awaits the outcome of the applications.</li> <li>The soil sampling is located on E69/3533, E69/3952 and E69/3532 owned by Lodestar Minerals Ltd. The tenements are within the Marputu Wiluna TMP and the Matuwa Piarku Aboriginal Corporation (TMPAC).</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Exploration commenced at McDonald Well in the late 1960's, WMC explored for Zambian Copper Belt style mineralisation and completed regional geological mapping and sampling, followed by minor</li> </ul>

Criteria JORC Code explanation	percussion drilling. CRA Exploration
	completed regional mapping and auger sampling, also at McDonald Well. No significant anomalies were identified on the tenements. Minor exploration drilling by Barrick and CRA Exploration east and south of Contessa intersected ultramafic lithologies, confirming the extent of the greenstone sequence in this area. There has been no material exploration by other parties over the Contessa area.  Gold exploration in the Plutonic Well greenstone belt commenced in 1986. Marymia Exploration, in their 1994 report, declares that there had been little or no previous exploration within the Yowereena (Ned's Creek) tenements.  Extensive exploration for gold has been carried out in the Jubilee Well (E38/3053) tenement area, including surface geochemistry, aircore and RC drilling. Drilling has targeted palaeochannel and supergene mineralization, BIF—hosted mineralization and intrusion-related mineralization in bedrock. The main campaigns of drilling on the tenement have been carried out by Poseidon Exploration Limited (1991) and Acacia Resources (1996 to 1998). Poseidon and Acacia completed drilling along strike from the Golden Delicious discovery on the eastern side of the tenement.  On Earaheedy tenements, several episodes of exploration for gold, diamonds and base metals have been carried out in the area, include surface geochemistry, aeromagnetics, EM surveys, vacuum, RAB, RC and diamond drilling. Systematic exploration completed by Sons of Gwalia, Aztec Exploration and MIM defined and tested the main targets, identifying anomalous gold and significant copper mineralisation in drilling at the Main Gossan prospect. Follow up drilling by Empire Resources has (to 2011) in the main targeted the outcropping, siliceous ironstones representing sulphide-bearing strata within complexly deformed metasediments and discrete magnetic anomalies within the regional aeromagnetic data. Large areas under shallow aeolian sand cover remain unexplored.
<b>Geology</b> • Deposit type, geological setting and style of mineralisation.	The geology of the Ned's Creek project area comprises the northern margin of the Proterozoic Yerrida Basin. The geology forms two discrete units; Paleaoproterozoic sediments of the Yerrida Basin that are prospective for sediment-hosted copper and base metal mineralisation in black shale and carbonate sequences, with evidence of secondary and primary copper

Criteria	JORC Code explanation
	TURL LODE explanation

mineralisation in the Thaduna district, overlie Archaean basement rocks on the northern margin of the Yerrida Basin. The basement-sediment contact trends eastwest and Lodestar's exploration has identified extensive gold anomalism adjacent to this contact. The basement consists of granite and fringing mafic to intermediate and ultramafic rocks that have minimal outcrop. The mafic-ultramafic rocks and the adjacent granite that hosts gold mineralisation are thought to be Archaean in age. Identification of syenite-hosted, intrusion-related gold mineralisation at Brumby and Gidgee Flat indicates that this region differs from other lode gold occurrences in the Plutonic Well greenstone belt and the surrounding Proterozoic fold belt and does not form part of the adjacent Marvmia Inlier.

Commentary

E38/3054 is located within the Laverton tectonic zone; the major gold deposits of Granny Smith and Sunrise Dam (Cleo) are located along strike to the north and south of the tenement, respectively. mineralization is widespread and occurs in a variety of settings, at Sunrise Dam gold mineralization is related to the shallow west to northwest dipping Sunrise shear; gold is associated with pyrite replacement within stacked lenses of BIF that parallel to main shear zone, ankerite-silica-sericite-pyrite alteration within intermediate volcanoclastic rocks of the Sunrise shear and steeply dipping, narrow quartz-carbonate vein systems that host high grade gold. The Sunrise shear is part of a regional, northsouth trending shear system that links the Red October, Sunrise and Granny Smith deposits. The Granny Smith deposit is associated with the sheared contact between a large granodiorite intrusion and surrounding metasediments. The shear trends north north west and dips to the east. Gold is associated with silica-albitecarbonate-sericite-chlorite alteration and a carbonate-quartz-pyrite-filled system.

The Golden Delicious deposit is associated with faulted granite-syenite and monzonite intrusives and contacts with the surrounding metavolcanics. Most gold is hosted by brittle structures within the intrusives. Alteration within the granite/syenite is sericite-haematite-carbonate-pyrite and as locally intense haematite and pyrite altered zones within monzonite. Away from the intrusive contacts haematite alteration is less common and sericite-pyrite veins are the main host to gold mineralisation.

Criteria	JORC Code explanation	Commentary
		• The Earaheedy tenements are located on the northeastern margin of the Earaheedy Basin, a NW-trending asymmetric east-plunging synclinal basin 250km long and 150km wide. The northern margin has been locally strongly deformed by folding and faulting and was formerly known as the Stanley Fold Belt. Early explorers assigned the sedimentary sequence in the Earaheedy Project to the "Troy Creek Beds" that were thought to predate the Earaheedy Basin. The sediments have since been assigned to the Yelma Formation. MIM state that conformable dolerite sills intrude the sequence in the area of the North Chert prospect, raising the possibility of syn-sedimentary volcanic activity on the northern margin. Bunting (1986) regards the northern margin as tectonically active, the presence of mafic intrusives and ultramafic rocks indicates potential for a rifted margin and Besshi-style VMS mineralisation with SEDEX and epigenetic structurally controlled mineralisation styles also possible.
Drill hole	A common of all information material to the	See tables in the main text.
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:	
	<ul> <li>easting and northing of the drill</li> </ul>	
	hole collar	
	<ul> <li>elevation or RL (Reduced Level - elevation above sea level in metres)</li> <li>of the drill hole collar</li> </ul>	
	<ul> <li>dip and azimuth of the hole</li> </ul>	
	<ul> <li>down hole length and interception</li> </ul>	
	depth	
	o hole length.	
	<ul> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	
Data	In reporting Exploration Results, weighting	Minimum cut off 1g/t Au, with dilution of
aggregation methods	averaging techniques, maximum and/or	maximum 4m @ 0.5g/t Au.
	minimum grade truncations (eg cutting of	
	high grades) and cut-off grades are usually	
	Material and should be stated.	
	<ul> <li>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.         <ul> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul> </li> <li>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').</li> </ul>	<ul> <li>Drilling of the Ned's Creek magnetic anomaly was oriented perpendicular to the southeast dipping magnetic model (LNRC102 at 320 degrees), perpendicular to the regional strike of magnetic body. LNRC103 &amp; LNRC104 were drilled towards 130 degrees, perpendicular to the regional strike. Measurement of foliation in the area indicates steep dips. Mineralisation is interpreted to dip steeply to the northwest with true thickness approximately 60% of drill hole intersections however the regional dip of the granite contact has not been established and southeast dipping layering has been observed in drill core. A contact dipping towards the southeast is possible.</li> <li>Drilling at Jubilee Well in-filled the historic drilling targeting a north-south trending shear zone. Holes were drilled perpendicular to the shear from the west and east.</li> </ul>
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	For illustration refer Figures 3 for interpreted geological drillhole cross section.
Balanced reporting	<ul> <li>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.</li> </ul>	<ul> <li>All assays greater than 1g/t gold are reported.</li> </ul>
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.	No other information to report.
Further Work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>At Ned's Creek a review of the results of the current program will determine the future exploration.</li> <li>At Jubilee Well drilling has confirmed the presence of strong alteration within a steeply dipping shear zone where historic drilling intersected anomalous gold. Follow up work to be determined subsequent to a review of the results of the current program.</li> <li>At Earaheedy drilling will be following up the newly defined high priority targets and additional soil sampling will be done in fully unexplored areas.</li> </ul>

**APPENDIX 1: Schedule of Exploration Tenements as at 31 January 2023** 

Tenement description	Tenement number	Status	Percentage interest
Ned's Creek			Subject to JV: Vango Mining earning 51%
Yowereena Hill	E52/2456	Granted	100% - Audacious Resources
Yowereena Hill	E52/2493	Granted	100% - Audacious Resources
Yowereena Hill	E52/2734	Granted	100% - Lodestar Minerals
Yowereena Hill	E52/3473	Granted	100% - Lodestar Minerals
Yowereena Hill	E52/3476	Granted	100% - Lodestar Minerals
Yowereena Hill	M52/779	Granted	80% - Lodestar Minerals - 20% Vango Mining
Yowereena Hill	M52/780	Granted	80% - Lodestar Minerals - 20% Vango Mining
Yowereena Hill	M52/781	Granted	80% - Lodestar Minerals - 20% Vango Mining
Yowereena Hill	M52/782	Granted	80% - Lodestar Minerals - 20% Vango Mining
Ned's Creek			Not Subject to JV
Pinyrinny	E52/3798	Granted	100% - Lodestar Minerals
Earaheedy-Imbin			
Ingebong Hills	E69/3483	Granted	100% - Lodestar Minerals
Ingebong Hills	E69/3532	Application	100% - Lodestar Minerals
Ingebong Hills	E69/3533	Granted	100% - Lodestar Minerals
Ingebong Hills	E69/3590	Granted	100% - Lodestar Minerals
Ingebong Hills	E69/3699	Granted	100% - Lodestar Minerals
Ingebong Hills	E69/3952	Granted	100% - Lodestar Minerals
Ingebong Hills	E69/4030	Granted	100% - Lodestar Minerals
Camel Hill / Mt Erong			
Meekatharra	E09/2099	Granted	100% - Lodestar Minerals

Tenement description	Tenement number	Status	Percentage interest
Nepean			
	M15/709	Granted	Nepean JV: Auroch Minerals – Lodestar Minerals (80:20)
	M15/1809	Granted	Nepean JV: Auroch Minerals – Lodestar Minerals (80:20)
	M15/1887	Application	Nepean JV: Auroch Minerals – Lodestar Minerals (80:20)
	M15/1890	Application	Nepean JV: Auroch Minerals – Lodestar Minerals (80:20)
	E15/1828	Application	Nepean JV: Auroch Minerals – Lodestar Minerals (80:20)
	P15/5738	Granted	Nepean JV: Auroch Minerals – Lodestar Minerals (80:20)
	P15/5740	Granted	Nepean JV: Auroch Minerals – Lodestar Minerals (80:20)
	P15/5741	Granted	Nepean JV: Auroch Minerals – Lodestar Minerals (80:20)
	P15/5742	Granted	Nepean JV: Auroch Minerals – Lodestar Minerals (80:20)
	P15/5743	Granted	Nepean JV: Auroch Minerals – Lodestar Minerals (80:20)
	P15/5749	Granted	Nepean JV: Auroch Minerals – Lodestar Minerals (80:20)
	P15/5750	Granted	Nepean JV: Auroch Minerals – Lodestar Minerals (80:20)
	P15/5963	Granted	Nepean JV: Auroch Minerals – Lodestar Minerals (80:20)
	P15/5965	Granted	Nepean JV: Auroch Minerals – Lodestar Minerals (80:20)
	P15/6681	Application	Nepean JV: Auroch Minerals – Lodestar Minerals (80:20)
Jubilee Well	E38/3054	Granted	100% - Lodestar Minerals
Bulong			
	P25/2593	Granted	100% - Lodestar Minerals
	P25/2594	Granted	100% - Lodestar Minerals
	P25/2595	Granted	100% - Lodestar Minerals
	P25/2596	Granted	100% - Lodestar Minerals
	P25/2626	Granted	100% - Lodestar Minerals
	P25/2627	Granted	100% - Lodestar Minerals
	P25/2628	Granted	100% - Lodestar Minerals
	P25/2629	Granted	100% - Lodestar Minerals
Coolgardie West	E15/1813	Application	100% - Lodestar Minerals

## Appendix 5B

# Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity	
Lodestar Minerals Limited	
ABN	Quarter ended ("current quarter")
32 127 026 528	31 December 2022

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(341)	(751)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(154)	(228)
	(e) administration and corporate costs	(18)	(137)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	7	11
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (Farm-out funds received)	-	-
1.9	Net cash from / (used in) operating activities	(506)	(1,105)

2.	Cash flows from investing activities		
2.1	Payments to acquire:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant, and equipment	(10)	(97)
	(d) exploration & evaluation	-	-
	(e) investments	-	-
	(f) other non-current assets	-	-

Cons	solidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant, and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets		-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	(10)	(97)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	<b>-</b>
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (lease liabilities right of use assets)	(2)	(7)
3.10	Net cash from / (used in) financing activities	(2)	(7)

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	1,235	1,926
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(506)	(1,105)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(10)	(97)

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(2)	(7)
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	717	717

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	717	1,235
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	717	1,235

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amounts of payments to related parties and their associates included in item 1	162
6.2	Aggregate amounts of payments to related parties and their associates included in item 2	-
	if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must includ nation for, such payments.	e a description of, and an

<b>7.</b>	Financing facilities  Note: the term "facility' includes all forms of financing arrangements available to the entity.  Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amounts at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	_
7.3	Other (provide details if material)	-	-
7.4	Total financing facilities	-	-
7.5	Unused financing facilities available at qua	rter end	_
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(506)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(506)
8.4	Cash and cash equivalents at quarter end (item 4.6)	717
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	717
8.7	Estimated quarters of funding available (Item 8.6 divided by Item 8.3)	1.42

Note: if the entity has reported positive relevant outgoings (i.e., a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.

- 8.8 If Item 8.7 is less than 2 quarters, please provide answers to the following questions:
  - 8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

No. The quarter-on-quarter exploration spend varies for Lodestar dependent on various factors and drilling programs. Q2/2023 includes a \$108,000 drilling program of Ned's Creek. Lodestar performed the Ned's Creek drilling as operator due to time and financial constraints on JV partner Vango Mining. The Ned's Creek exploration costs will be recovered under the JV agreement. Q2/2023 also includes \$67,000 of annual and long service leave paid (including PAYG) out to Bill Clayton following his resignation as Managing Director.

8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Yes. The Company anticipates receiving reimbursement of the exploration costs (approx. \$635,000) undertaken in its capacity as operator on behalf of JV partner Vango Mining. The Company is also able to raise cash when required, and the capacity to delay or cancel expenses that are discretionary in nature, including administrative costs and exploration expenditure that are not contractually binding, should the need arise.

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Yes. The Group expects to be able to continue operations based on responses provided in 8.8.1 and 8.8.2 above. One of the Company's JV partners, Vango Mining, is responsible for all minimum exploration expenditure commitments on Ned's Creek tenements.

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

#### **Compliance statement**

- This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 31 January 2023

Authorised by: Board of Directors

(Name of body or officer authorising release - see note 4)

#### Notes

- 1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- 2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee e.g. Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.