

# HIGH-GRADE COPPER DRILL TARGETS DEFINED AT BASIN CREEK - JUNEE PROJECT, NSW

#### **HIGHLIGHTS**

- Wide disseminated copper sulphide system recognised at the Basin Creek Prospect, part of the Junee
   Project in NSW, following comprehensive relogging of half-a-century-old diamond drill core.
- Within this system, several zones of semi-massive copper sulphides (chalcopyrite) have been identified with historical high-grade intercepts including:
  - 21.3 metres at 4.51 % copper from 41.1 metres downhole in TDH01, including:
    - 9.2 metres at 1.23 % copper; and
    - 4.6 metres at 18.54 % copper
  - o 3.1 metres at 5.50 % copper from 59.4 metres downhole in TDH13
- Lachlan Star's relogging and geological observations support a north plunge to the high-grade copper system, which remains open at depth where the deepest hole intersected semi-massive copper sulphides, reporting:
  - 6.1 metres at 1.81 % copper from 205.7 metres downhole in TDH09, including:
    - 1.5 metres at 6.40 % copper
- Surface geochemistry indicates that the copper system is extensive, with over 1 kilometre of anomalous copper-in-soil geochemistry, up to 0.2 % copper, untested by drilling along strike.
- With no drilling having been undertaken to follow up these intercepts from 50 years ago, the Company
  is excited by the opportunity to drill test this copper sulphide system down-plunge from these highgrade intercepts.
- The Basin Creek Prospect is drill-ready with all necessary permits approved and land access in place.

**Lachlan Star Limited** (ASX: LSA, **Lachlan Star** or the **Company**) is pleased to advise that it has identified an exciting new high-grade copper sulphide drill target at the Basin Creek prospect, within its 100%-owned southern Junee Project in the Lachlan Fold belt of NSW.

Significant historical copper intercepts at Basin Creek from diamond drilling by Australian Oil & Gas Minerals Pty Ltd (AOG) between 1972 and 1975 were compiled from Government open file reports together with an extensive relogging program of the preserved diamond core by Lachlan Star geologists.

Multiple zones of semi-massive copper sulphide mineralisation were recorded from the diamond drilling, with high-grade copper intercepts reported and subsequently observed in preserved core trays. Notably, historical geological logs and Company relogging indicates a broader zone of unassayed disseminated copper sulphides (chalcopyrite and minor bornite) within the volcanic host rock ranging from trace to 1 % chalcopyrite.

No follow-up drill testing has occurred on the prospect in over 50 years. Both the Company's relogging and interpretation of the copper system indicates that the high-grade mineralisation remains open down-plunge and lies within a broader copper system that is open to the north and south.



#### **MANAGEMENT COMMENT**

Lachlan Star CEO Andrew Tyrrell said: "The team have been diligent with their review of the open-file exploration data across the southern Junee Project and have done an excellent job in identifying an exploration copper target that includes historic diamond core with very high copper grades."

"Through our review, we can demonstrate that the target offers considerable exploration upside with the potential to deliver further near-surface high-grade copper results plus numerous key target areas emerging along-trend. These attributes provide a clear pathway for potential growth of the mineralised system."

"We are excited by the potential for this project to deliver significant shareholder value and, with all the required permits and land access already in place, we are ready to drill this priority target in the near future."



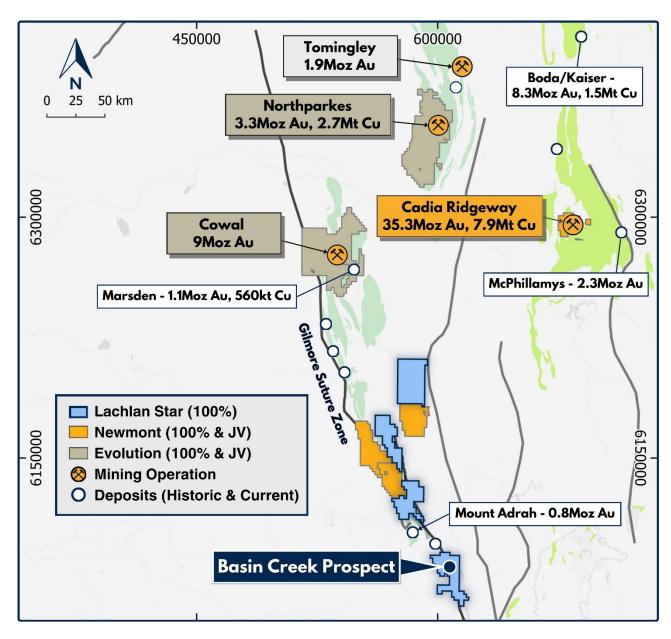
**Figure 1:** Photo of diamond core completed by Australian Oil & Gas Minerals Pty Ltd (1970's). Sample interval of **4.6 metres at 18.54 % Cu from 57.9 metres** in TDH01<sup>1</sup> containing massive chalcopyrite (copper sulphide). Core diameter is BQ (36.4mm) with quarter core retained as a representative sample. Chalcopyrite is tarnished brown by length of time in core tray.



**Figure 2:** Photo of diamond core completed by Australian Oil & Gas Minerals Pty Ltd (1970's). Sample interval of **1.5 metres at 6.40 % Cu from 205.8 metres** in TDH09¹ containing (tarnished) chalcopyrite (copper sulphide) in chlorite-magnetite-quartz altered intermediate volcaniclastic breccia. Core diameter is BQ (36.4mm) with half core retained as a representative sample.

<sup>1</sup> Nethery, J. A., (1975). Tumut EL200 Final Report on Exploration in the Five-Year Period to August 14, 1974. Australian Oil and Gas Minerals Pty Ltd.





**Figure 3:** Location map showing Lachlan Star tenements and position of the Basin Creek Prospect, within the southern Junee Project area. Major deposits (historic and current) and endowment shown<sup>3</sup>.

### **JUNEE (100% LSA)**

The southern Junee Project area is located within the Lachlan Fold Belt of central New South Wales, a region that is host to a number of Australia's premier mineral deposits, with over 110 million ounces gold and 19 million tonnes copper in current resource and past production<sup>2</sup> and includes the major porphyry copper-gold and epithermal gold deposits of Cadia (42 million ounces gold, 8.7 million tonnes copper), Northparkes (3.8 million ounces gold, 3.4 million tonnes copper) and Cowal (9.6 million ounces gold)<sup>3</sup>.

<sup>&</sup>lt;sup>2</sup> Future of Minerals in NSW Report, March 2020. NSW, Dept. of Planning, Industry and Environment

<sup>&</sup>lt;sup>3</sup> Phillips, G N (Ed), 2017. Australian Ore Deposits, The Australasian Institute of Mining and Metallurgy

#### **ASX Announcement**

#### 15 August 2024



The Project tenements straddle the southern extensions of the Gilmore Suture Zone (**Figure 3**), a regionally significant first order structure associated with other significant metalliferous deposits of the region. The Project has seen minimal modern exploration and contains notable copper occurrences, including the Basin Creek prospect, a copper-rich mineral system defined through historic diamond drilling.

All information in this release has been compiled from historical data reported directly from AOG annual technical reports from 1972 – 1975. Information is considered as historical by nature and while all care has been taken to review previous reports, along with site visits and visual confirmation of high-grade intercepts in drill core by the Competent Person, confirmation work is yet to be completed. Further details are provided in Appendix 1 (JORC Code - Table 1).

At Basin Creek, a surficial copper and base metal geochemical anomaly was first identified in 1972 by AOG, which completed diamond drilling over the prospect, defining significant copper mineralisation within bedrock for over 250 metres of strike, 150 metres in width and to a depth of 200 metres.

AOG intersected multiple high-grade shoots, returning individual assays of up to 25.6 % copper (TDH01). Historical sampling typically targeted higher grade occurrences of copper sulphides leaving the lower grade disseminated copper sulphide intervals unsampled.

On occasion, systematic sampling of the wider zones occurred (see **Figures 5 & 6**). Visual observations and confirmation of the chalcopyrite in core has been completed by Lachlan Star.

Better intercepts reported by AOG include:

- 4.6 metres at 18.54 % copper from 57.9 metres (TDH01)
- 4.6 metres at 3.09 % copper from 74.7 metres (TDH08)
- 1.5 metres at 6.40 % copper from 205.7 metres (TDH09)
- 3.1 metres at 5.50 % copper from 59.4 metres (TDH13)

Notably, only discrete sections of drill core were selectively sampled by AOG and assayed for copper, lead, zinc and silver, with much of the core remaining unsampled and unassayed.

Fortunately, drill core was stored at the NSW Geological Survey W B Clarke Drill Core Library in Londonderry and is in excellent condition. The core was made available to Lachlan Star for relogging, assessment of rock and mineralisation properties and for assaying.

Accessibility to, and review of, the drill core has been instrumental in characterising the copper system and the potential for this area to host significant mineralisation.

High-grade copper mineralisation occurs as accumulations of semi-massive chalcopyrite, within a halo of lower grade, veined to fracture fill sulphides (chalcopyrite + bornite and lesser pyrite). Mineralisation sits within a broader envelope of chlorite +/- magnetite alteration.

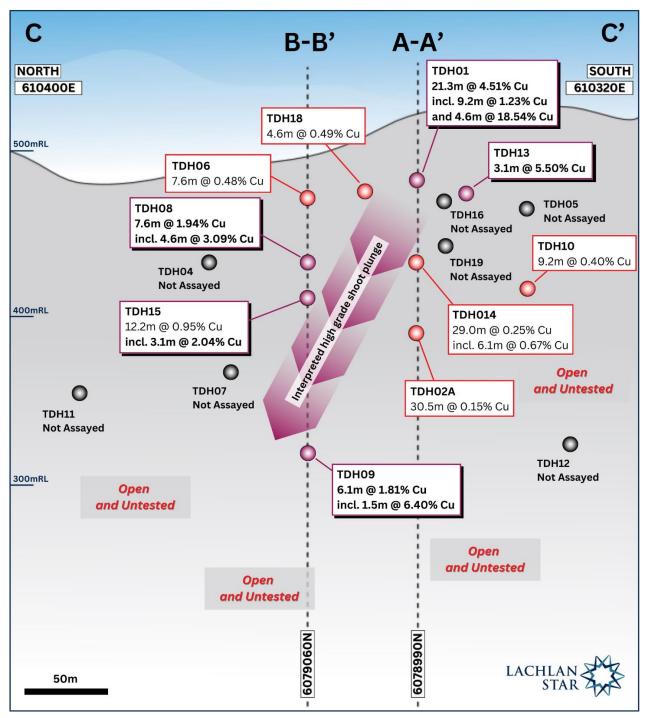
A second zone of low-grade mineralisation (chalcopyrite +/- bornite) and magnetite-chlorite alteration was also intersected towards the bottom of drillholes TDH01, TDH02A and TDH09 and remains open at depth.

Selective sampling completed by Lachlan Star of unsampled sections immediately adjacent to existing highgrade intercepts and of other zones containing chalcopyrite, to confirm the presence of copper sulphides beyond the historical intercepts, returned significant results of up to 1.35 % copper.

Follow-up sampling was completed in July and results for these samples are anticipated in early-September.

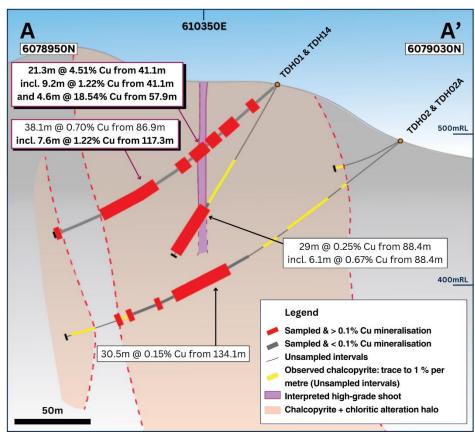
Encouragingly, the mineralisation intersected within historic drilling is interpreted to be open both along strike and down-plunge (Figure 4).



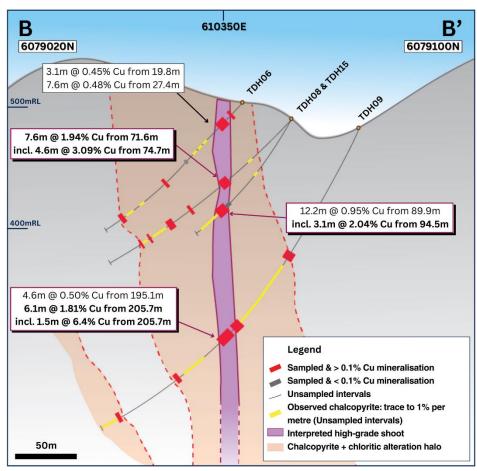


**Figure 4:** Schematic long section (30 metre window looking towards 080°) of the mineralised zone at Basin Creek showing pierce points of AOG diamond holes and significant intersections highlighted.





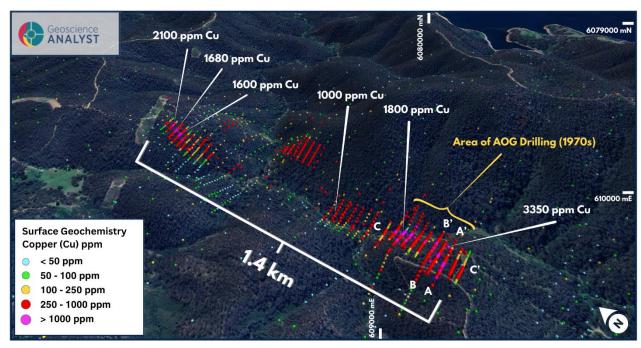
**Figure 5:** Schematic cross section A-A' (looking towards 350°) through Basin Creek prospect.



**Figure 6:** Schematic cross section B-B' (looking towards 350°) through Basin Creek prospect.



Furthermore, existing anomalous copper surface geochemistry extends beyond the drilled portions of the system and contains assays up to 2,100 ppm (0.2 % Cu) copper-in-soils (Figure 7). The total strike length of the surface copper anomaly is approximately 1,400 metres, with the scale and tenor of this footprint indicating the potential of the project to host further significant high-grade copper mineralisation.



**Figure 7:** Isometric plan view (looking northeast, GDA94 MGA zone 55) showing distribution of surface geochemical samples (soils and rock chips) with copper assay results (in ppm) shown. Area of historic AOG drilling and significant surface assays also shown. Note, 1000 ppm Cu is equivalent to 0.1 % Cu.

#### **Next Steps - Planned Drill Testing of Targets**

Lachlan Star has received approvals for the necessary drilling permits to test the high-grade copper target at Basin Creek, with Land Access Agreements also in place.

The Company will prioritise diamond drill testing, with subsequent downhole electromagnetics (DHEM) also planned to confirm the scale and geometry of the high-grade component to the copper-rich system.

Additionally, geophysics and drill testing over other priority targets defined by significant surface copper geochemistry will also be planned.



This ASX announcement has been authorised for release by the Board of Lachlan Star Limited.

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#### **Cautionary Statement**

The Information in this report that relates to historical Exploration Results has been sourced from quarterly and annual technical reports by AOG from 1972 - 1975 and cross checked against annual reports that subsequent companies have reported to the NSW Government. The Company is not aware that these historical Exploration Results have ever previously been released in public domain reporting. Due diligence by the Competent Person to confirm the validity of these results has included a site visit to the project area and two separate visits of three and four days at the NSW Geological Survey W B Clarke Drill Core Library in Londonderry. At the core library, viewing, logging and sampling of the historical core holes was undertaken with drill core verified in conjunction with the original drill logs and assay results, with the latter cross checked against laboratory certificates where available. The drill core has been very well stored and preserved and is in excellent condition. Soil sampling assay results were able to be verified against laboratory certificates with evidence of duplicates and check surveys carried out over elevated samples, however the Competent Person can make no comment on the quality of the soil sampling collection process. The Company notes that nothing has come to its attention that causes it to question the accuracy or reliability of AOG's exploration results. Whilst it is the Competent Person's opinion that the historical Exploration Results can be disclosed in accordance with the JORC Code 2012, based on the above information, they do not form part of a Mineral Resource and are reported here, by the Company, as a vector to further exploration activities and programs.

#### **Competent Person's Statement – Exploration Results**

The Information in this report that relates to Exploration Results is based on and fairly represents information and supporting documentation prepared by Mr Alan Hawkins, who is a Competent Person, Member (3869) and Registered Professional Geoscientist (10186) of the Australian Institute of Geoscientists (AIG). Mr Hawkins is the Exploration Manager and a full-time employee of the Company and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Hawkins consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



#### **Forward Looking Statements**

This announcement may contain forward-looking statements and projections. Such forward-looking statements are estimates only, involve a number of risks and uncertainties and should not be relied upon. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. While the information contained in this report has been prepared in good faith, neither Lachlan Star Limited nor any of its directors, officers, agents, employees or advisors give any representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this announcement.

#### **About Lachlan Star Limited**

**Lachlan Star Limited** (ASX: LSA) is focused on the discovery of gold and copper resources across a portfolio of early-stage high-potential exploration projects located in central New South Wales. The Company has three priority projects situated within the highly endowed mineral Lachlan Fold Belt province of New South Wales and includes North Cobar, Bauloora North and Junee.

The Company also has the Koojan Joint Venture with Minerals 260 Ltd in the northern Julimar Province of Western Australia, the Princhester Magnesite Project in the New England Orogen of Queensland and the Killaloe Gold and Nickel Project in the Eastern Goldfields of Western Australia.





Appendix 1 – Table of Selected Significant Drill Intercepts - Diamond

Hole ID	North	East	RL	Dip	Azi	From	То	Length	Cu_%
TDH01	6079002	610389	528.5	-45	256	12.19	15.24	3.05	0.17
			520.5	.5		27.43	30.48	3.05	0.14
						30.48	33.52	3.04	0.12
						33.52	36.57	3.05	0.30
						36.57	38.10	1.53	0.12
						41.14	62.48	21.34	4.51
					Inc.	41.14	50.29	9.15	1.23
					&	57.91	62.48	4.57	18.54
					α				
						64 65 53	65.53	1.53	0.28
						65.53	68.58	3.05	0.12
						86.86	124.96	38.10	0.70
					Inc.	117.34	124.96	7.62	1.22
						149.35	151.43	2.08	0.29
TDH02A	6079021	610461	496.9	-45	256	0	121.92	121.92	Not Sampled
						134.11	164.59	30.48	0.15
						176.78	179.83	3.05	0.27
						195.07	204.21	9.14	0.22
						210.31	232.87	22.56	Not Sampled
						234.39	243.84	9.45	Not Sampled
TDH06	6079072	610378	503.7	-45	256	0	19.81	19.81	Not Sampled
. 51.00	00/30/2	010376	303.7	-43	230				
						19.81	22.86	3.05	0.45
						22.86	27.43	4.57	Not Sampled
						27.43	35.05	7.62	0.48
						35.05	68.58	33.53	Not Sampled
						70.10	91.44	21.34	Not Sampled
						92.96	94.48	1.52	0.12
						94.48	137.16	42.68	Not Sampled
						137.16	140.20	3.04	0.19
						140.20		12.2	
TDUIO	6070077	C1041C	400 C	45	250		152.40		Not Sampled
TDH08	6079077	610416	488.6	-45	256	0	71.62	71.62	Not Sampled
						71.62	79.24	7.62	1.94
					Inc.	74.67	79.24	4.57	3.09
						79.24	109.72	30.48	Not Sampled
						109.72	111.25	1.53	0.46
						111.25	128.01	16.76	Not Sampled
						128.01	129.54	1.53	0.19
						129.54	131.06	1.52	0.30
						131.06	132.58	1.52	0.65
						132.58	134.11	1.53	0.72
						134.11	150.87	16.76	Not Sampled
						150.87	152.40	1.53	0.32
						152.40	160.02	7.62	Not Sampled
						161.54	190.45	28.91	Not Sampled
TDH09	6079091	610468	484.1	-65	256	0	195.07	195.07	Not Sampled
			<i>y</i>			195.07	199.64	4.57	0.50
						199.64	204.21	4.57	Not Sampled
						205.74	211.83	6.09	1.81
					Inc.	205.74	207.26	1.52	6.40
						211.83	254.50	42.67	Not Sampled
						254.50	256.03	1.53	0.23
						256.03	331.32	75.29	Not Sampled
TDH10	6078956	610467	531.199	-45	256	0.00	57.91	57.91	Not Sampled
	3000					57.91	59.43	1.52	0.12
						59.43	70.10	10.67	Not Sampled
						70.10	71.62	1.52	0.59
						70.10	74.67	3.05	Not Sampled
						71.62 <b>74.67</b>	74.67 <b>76.20</b>	1.53	1.85
						76.20	134.11	57.91	Not Sampled
						135.63	137.16	1.53	0.66
						137.16	138.68	1.52	1.00
						138.68	140.20	1.52	2.05
						140 20	1/1/70	1.53	0.34
						140.20 141.73	141.73 155.44	13.71	Not Sampled



Hole ID	North	East	RL	Dip	Azi	From	То	Length	Cu_%
TDH10						155.44	156.97	1.53	0.44
(Cont'd)						156.97	158.49	1.52	0.17
						161.54	163.06	1.52	0.52
						164.59	166.11	1.52	0.10
						166.11	167.64	1.53	0.12
						169.16	170.68	1.52	0.11
						170.68	172.21	1.53	0.55
						172.21	173.73	1.52	0.90
						173.73	175.26	1.53	0.13
						175.26	176.78	1.52	0.10
						182.88	192.02	9.14	0.39
						192.02	214.88	22.86	Not Sampled
						216.40	217.93	1.53	1.75
						217.93	237.74	19.81	Not Sampled
						237.74	239.26	1.52	0.39
TD1140	5070070	640005	507.4		256	239.26	245.97	6.71	Not Sampled
TDH13	6078970	610395	537.1	-50	256	0	33.52	33.52	Not Sampled
						33.52	36.57	3.05	0.34
						36.57	39.62	3.05	Not Sampled
						39.62	41.14	1.52	0.15
						41.14	42.67	1.53	0.68
						42.67	57.03	14.36	Not Sampled
	Sampled by	Lachlan Star				57.03	58.03	1.00	0.41
	Sampled by Lachlan Star					58.03	59.43	1.40	0.21
						59.43	62.48	3.05	5.50
	Sampled by	Lachlan Star				62.48	63.40	0.91	0.02
	Sampled by	Lachlan Star				63.40	64.71	1.31	1.36
	Sampled by					64.71	65.56	0.85	1.32
	oup.cu by	240				65.56	106.68	41.12	Not Sampled
TDH14	6079001	610390	528.9	-65	256	0	88.39	88.39	Not Sampled
						88.39	117.34	28.95	0.25
					Inc.	88.39	94.48	6.09	0.67
					IIIC.	117.34	122.07	4.73	Not Sampled
TDH15	6079078	610415	488.9	-60	256	0	89.91	89.91	Not Sampled
151115	0075076	010415	400.5	00	230	89.91	102.11	12.19	0.95
					Inc.	94.48	97.53	3.05	2.04
						102.11	122.15	20.04	Not Sampled
TDH18	6079028	610369	517.865	-55	256	0	38.1	38.1	Not Sampled
						38.1	42.67	4.57	0.49
						42.67	44.80	2.13	Not Sampled
						44.80	45.11	0.31	0.80
						45.11	62.94	17.83	Not Sampled

Selected intercept parameters are 0.1 % Cu cut-off and up to 3.05 metres (10 feet) of grades below that cut-off for intervals less than 20m or up to 6.10 metres (20 feet) of grades below that cut-off for intervals greater than 20m. Percent (%) copper rounded to two decimal places.

Refer to Table 1, Section 2, 'Other substantive exploration data' for information relating to percussion drilling from 1971.



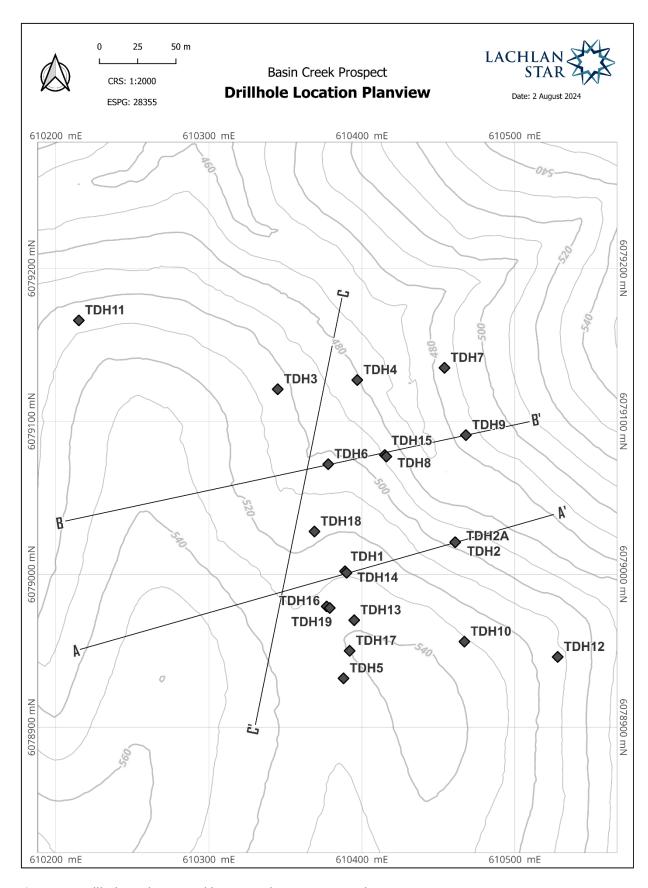


Figure 8: Drillhole and sectional location plan – Basin Creek Prospect



## Appendix B: JORC Code, 2012 Edition Table 1 Section 1 Sampling Techniques and Data

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

	is section apply to all succeeding sections.)	
Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sounds, 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>All historical exploration drilling results contained in this release were taken from the Annual Technical Reports that Australian Oil &amp; Gas Minerals Pty Ltd presented to the NSW government between 1972 to 1975.</li> <li>All historic drilling sample results reported in this release are based on a compilation of historical data as referenced in the body of this release. In historical reports, the accuracy and description of sampling techniques cannot be independently verified and are considered as a guideline only and subject to further validation.</li> <li>At this stage the Company has no reason to believe there are any issues with the reliability of these drilling sample results.</li> <li>Intervals of diamond core were selectively cut and sampled by Lachlan Star employees, where observations were made of alteration and mineralisation characteristic of the target. Sample intervals were generally over 3-foot (0.91 metre) intervals and submitted to ALS for preparation and analysis.</li> </ul>
Drilling techniques	<ul> <li>Drill type (e.g. core, reverse circulation, open- hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</li> </ul>	<ul> <li>Diamond core samples are NQ (47.6 mm) and BQ (36.4mm) in diameter.</li> <li>There was no evidence of diamond core being orientated.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Diamond core trays contained core blocks marking intervals of core runs and where core loss had occurred. Recoveries were also noted in the original core logs. For all holes viewed by Lachlan Star employees, it was noted that there was no core loss within the sections sampled and assayed.</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>Logging information is qualitative in nature, and quantitative for geochemical data.</li> <li>Relevant information was recorded for each core sample interval collected, including Hole ID, sample ID, date, lithology, alteration, mineralisation, veining, structure, sampler and comments.</li> </ul>



assay data and laboratory tests  Pro 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.  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.  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.  Pty Ltd (Geomin) at 74, McLachlan Avenue, Rushcutters Bay, NSW, 2011, by AA: between 1971 – 1974. Cu, Pb and Zn were analysed by AAS/HClO4, with Ag between 1971 – 1974. Cu, Pb and Zn were analysed by AAS/HClO4, with Ag between 1971 – 1974. Cu, Pb and Zn were analysed by AAS/HClO4, with Ag between 1971 – 1974. Cu, Pb and Zn were analysed by AAS/HClO4, with Ag between 1971 – 1974. Cu, Pb and Zn were analysed by AAS/HClO4, with Ag between 1971 – 1974. Cu, Pb and Zn were analysed by AAS/HClO4, with Ag between 1971 – 1974. Cu, Pb and Zn were analysed by AAS/HClO4, with Ag between 1971 – 1974. Cu, Pb and Zn were analysed by AAS/HClO4, with Ag between 1971 – 1974. Cu, Pb and Zn were analysed by AAS/HClO4, with Ag between 1971 – 1974. Cu, Pb and Zn were analysed by AAS/HClO4, with Ag between 1971 – 1974. Cu, Pb and Zn were analysed by AAS/HClO4, with Ag between 1971 – 1974. Cu, Pb and Zn were analysed by AAS/HClO4, with Ag between 1971 – 1974. Cu, Pb and Zn were analysed by AAS/HClO4, with All Scalary and Analysed using 30g nominal stength fire assay with ICP finish (Au-ICP2) in the Pty Ltd (Geomin at ASA/Aqua Regia. Internal Standards were inser	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 subsampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the insitu 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> <li>The nature, quality and appropriateness of the assaying and laboratory</li> </ul>	<ul> <li>Competent diamond core samples were cut in half using a diamond core saw. Half core samples were collected for assay, and the remaining half core samples returned to the core trays. For heavily broken core, representative sections of core were cut in half and sampled with the remaining half core returned to the core trays.</li> <li>The sample sizes are appropriate for the material being sampled.</li> <li>Australian Oil &amp; Gas Minerals Pty Ltd field soil sampling method: Approximately two pounds of soil and rock fragments were collected at each sample location using a 5" diameter hand auger (post-hole digger). After transportation to Tumut they were sieved through a ⅓ inch mesh garden sieve, wrapped in aluminium foil and dried in a slow oven, before sieving to -80 mesh. The -80 mesh fraction was retained for Atomic Absorption Spectrophotometry (AAS) determination.</li> <li>For field duplicates, Australian Oil &amp; Gas Minerals Pty Ltd Annual Technical Reports refer to 'Check Soil Sampling' programs which involved resampling the original point of an anomalous sample and collecting four samples around the original at a spacing of 61 metres (200 feet).</li> <li>All historical exploration drilling and soil sample analysis by Australian Oil &amp; Gas</li> </ul>
sampling and alternative company personnel.  • All data is backed up to Cloud storage.	assay data and laboratory	<ul> <li>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</li> </ul>	<ul> <li>Minerals Pty Ltd was carried out at Geochemical and Mineralogical Laboratories Pty Ltd (Geomin) at 74, McLachlan Avenue, Rushcutters Bay, NSW, 2011, by AAS, between 1971 – 1974. Cu, Pb and Zn were analysed by AAS/HClO4, with Ag by AAS/Aqua Regia. Internal standards were inserted by Geomin at every 50th sample interval.</li> <li>For core samples collected by Lachlan Star employees, samples were prepared and analysed using 30g nominal weight fire assay with ICP finish (Au-ICP21) and multi-element four acid digest ICP-AES/ICP-MS method (ME-MS61). Au-ICP21 lower detection limit for Au (0.001 ppm). ME-MS61 lower detection limit for Ag (0.01 ppm), Cu (0.2 ppm), Pb (0.5 ppm) and Zn (2 ppm). Core samples were prepared at the ALS laboratory where samples were dried and pulverised to 85% passing 75µm. A sub-sample of approximately 200g was retained and a nominal 30g was used for analysis. The procedure is appropriate for this type of sample and analysis.</li> <li>No duplicates were collected for the cut diamond core</li> <li>Internal QAQC was completed by ALS on each batch of samples submitted.</li> </ul>
	-		· · · · · · · · · · · · · · · · · · ·
assaying   ● The use of twinned holes.   ● No adjustments were made to the assay data	assaying ana	<ul> <li>alternative company personnel.</li> <li>The use of twinned holes.</li> </ul>	<ul> <li>All data is backed up to Cloud storage.</li> <li>No adjustments were made to the assay data.</li> </ul>



	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	• Refer to 'Exploration done by other parties' for verification of significant intersections.
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and downhole 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> <li>Co-ordinate grid system is GDA94 MGA Z55.</li> <li>All historical exploration drilling data, including collar location and survey data, were taken from the Annual Technical Reports that Australian Oil &amp; Gas Minerals Pty Ltd presented to the NSW government between 1972 to 1975.</li> <li>At this stage the Company has no reason to believe there are any issues with the reliability of the location of the reported data points.</li> <li>A field check was carried out for four of the nineteen holes (TDH01 – TDH04) in July 2024, with historic star pickets found at the GPS collar location.</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>All historical exploration drilling data, including collar location and survey data, were taken from the Annual Technical Reports that Australian Oil &amp; Gas Minerals Pty Ltd presented to the NSW government between 1972 to 1975.</li> <li>The data spacing is appropriate for the stage of exploration and results presented.</li> </ul>
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>All historical exploration drilling data, including collar location and survey data, were taken from the Annual Technical Reports that Australian Oil &amp; Gas Minerals Pty Ltd presented to the NSW government between 1972 to 1975.</li> <li>The orientation of drill holes (36.5-70 degrees dip, 256 degrees azimuth) is approximately perpendicular to the strike and dip of mineralisation.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>This information was not provided in the Annual Technical Reports that Australian Oil &amp; Gas Minerals Pty Ltd presented to the NSW government between 1972 to 1975.</li> <li>For core samples collected and handled by Lachlan Star, an employee of the Company completed the work. All samples were cable tied and labelled in polyweave bags as soon as was possible after collection and delivered to ALS by Lachlan Star employees directly or managed through a transport agency.</li> <li>Chain of custody was maintained through delivery to the ALS laboratory.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>Sampling and assaying techniques completed by Lachlan Star are industry standard.</li> <li>No information is available for the work completed by Australian Oil &amp; Gas Minerals Pty Ltd in the Annual Technical Reports presented to the NSW government between 1972 to 1975.</li> <li>At this stage the Company has no reason to believe there are any issues with the reliability of the data reported by Australian Oil &amp; Gas Minerals Pty Ltd.</li> </ul>



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	<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>All activities relate to current tenement EL8939, which covers the area of EL200 at the time of the Australian Oil &amp; Gas Minerals Pty Ltd drill holes.</li> <li>There are no registered heritage sites within the tenement.</li> <li>All tenements are owned by TRK Resources Pty Ltd, a 100% owned subsidiary of Lachlan Star Limited and are in good standing with the New South Wales Titles Management System. The tenements lie within rural free-hold land requiring TRK Resources Pty Ltd to enter into formal land access agreements with individual landowners, prior to any field activity, as prescribed by New South Wales State Law including the Mining Act 1992. The Company has rural land access agreements in place over the work areas reported in this release.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	From 1969-1982, the Basin Creek area of the southern Junee project was explored under a series of joint ventures between Australian Oil & Gas Minerals Pty Ltd (AOG), Australian Anglo American Limited (AAA), North Broken Hill and Jododex Australia Pty Ltd for base metal/Volcanic-Hosted Massive Sulphide (VHMS) deposits.  At the Basin Creek No1 prospect, 27 vertical drillholes, for 709 metres (maximum 30.48 metre depth) were initially completed on 5-10 metre centres, on three fences 61 metres apart. The best intersection was 1.52 metres at 2.15 % Cu, from 9.14 metres in TRD021 (610330E 6078992N GDA94 MGA Z55). Refer to 'Other substantive exploration data' for further information. Nineteen inclined core holes (ranging from -36.5° to -70° dip, all towards 256° azimuth) were subsequently drilled between 1972 and 1974, testing from 50 to 200 metres vertical depth. The best intersections are shown within the body of the report.  Between 1987-2012, the Basin Creek prospect area was held by Billiton/Shell, Newcrest Mining, Vulcan Mines (1995-2003), Austminex, Golden Cross and Totem Resources who completed minimal on-ground work. Most of the relevant work was completed by Vulcan who digitised the Australian Oil & Gas Minerals Pty Ltd data, sampled historic core from Basin Creek No 1 for gold and attempted to complete a fixed loop SMARTEM on the Basin Creek No 1 and No 2 prospects which was terminated halfway through the survey.  The intersection in TDH01 was re-assayed in 2001 as part of a Vulcan / Austminex sampling program (21 samples) with a focus on the previously unassayed gold. The



		showed repeated hole Information	-	able below, w	ith collar details ta	bulated in the 'Drill
		Hole ID	From (m)	To (m)	Interval (m)	Cu_ppm
		TDH01	26.49	29.54	3.05	856
		TDH01	29.54	32.58	3.05	1470
		TDH01	32.58	35.54	2.96	2430
		TDH01	48.16	49.07	0.91	33000
		TDH01	58.22	60.35	2.13	240000
		TDH01	143.56	145.39	1.83	767
		TDH02A	57.30	57.91	0.61	2490
		TDH02A	82.30	83.52	1.22	335
		TDH02A	88.39	89.00	0.61	256
		TDH02A	127.10	128.32	1.22	74
		TDH02A	140.21	143.26	3.05	2070
		TDH02A	168.86	172.82	3.96	251
		TDH02A	216.10	216.71	0.61	54
		TDH02A	220.37	221.28	0.91	439
		TDH02A	232.87	234.39	1.52	26
		TDH03	33.53	35.05	1.52	75
		TDH03	36.76	38.89	2.13	171
		TDH04	44.07	44.68	0.61	834
		TDH05	149.96	153.01	3.05	389
		TDH06	27.43	30.48	3.05	4860
		TDH09	130.15	131.98	1.83	51
		gold exploration  Between 2020 chip sampling	on in the Main Rid -2022, DevEx Reso over the Basin C	ge area to the ources Ltd con reek prospect	north of Basin Cree npleted a gridded s area which confire	oil survey and rock med the tenor and
Denosit tyr	pe, geological setting and style of mineralisation.				s historical assay res	of Tumut, in south-
Deposit typ	e, geological setting and style of inflictalisation.					a incorporates the
						y sequence of the
		_				talliferous Gilmore
		Suture (Fault	Zone). Local ge	eology is des	scribed as compri	sing volcaniclastic
		sediments, wit	h zones of extrusi	ve felsic to inte	ermediate volcanic	rocks and porphyry



rocks (ranging from rhyolite, to dacite and andesite). The Ordovician units in the Project area form part of the Wagga Metamorphic Belt and include the Nacka Metabasic Igneous Complex and overlying Wagga Metamorphic Belt sediments. These units are intruded along the western margin by the Silurian Wondalga Granodiorite. The Silurian sequence, from west to east is comprised of the Jackalass Slate (andesitic to dacitic volcaniclastic, slate and siltstone, plus minor volcanics, sandstone and conglomerate with rare chert and limestone), conformably overlain by the Bumbolee Creek Formation (quartz rich shale/slate, siltstone and sandstone with minor conglomerate), which in turn is conformably overlain by the Blowering Formation (dacitic volcaniclastics). The entire sequence is in the order of 8,000 metres thick and moderately to strongly deformed. This sequence is intruded by the Devonian Gocup Granite (I-type). The Gilmore Fault Zone is a wide (up to 6 kilometres) long-lived imbricate fault system, which separates the Wagga Metamorphic Belt from the Tumut Block. The fault zone has two distinct periods of sinistral, transpressional movement during the Siluro-Devonian Bowning Orogeny and during the Mid Devonian and/or mid Carboniferous.

The Basin Creek area is located within the Lachlan Fold Belt, a major metalliferous province which hosts world-class copper-gold deposits such as Cadia-Ridgeway (Newmont Corporation) and Northparkes (Evolution Mining), as well as several large-scale Silurian age gold deposits including the McPhillamys Gold Mine (Regis Resources Limited), a +2Moz gold deposit. The project area contains potential for volcanogenic massive sulphide, structurally controlled gold and base metal and high-level gold epithermal mineralisation.

#### 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
  - 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 historical exploration drilling data, including collar location and survey data, were taken from the Annual Technical Reports that Australian Oil & Gas Minerals Pty Ltd presented to the NSW government between 1972 to 1975.

Hole ID	North	East	RL	Dip/Azi	Depth (m)
TDH01	6079002	610389	528.5	-45/256	151.43
TDH02	6079021	610461	496.986	-36.5/256	47.55
TDH02A	6079021	610461	496.986	-45/256	243.84
TDH03	6079121	610345	503.062	-45/256	144.78
TDH04	6079127	610397	481.109	-45/256	171.91
TDH05	6078932	610388	537.986	-45/256	166.12
TDH06	6079072	610378	503.702	-45/256	152.4
TDH07	6079135	610454	484.103	-55/256	309.98
TDH08	6079077	610416	488.6	-45/256	190.45
TDH09	6079091	610468	484.1	-65/256	331.32
TDH10	6078956	610467	531.199	-45/256	245.97



		TDH11 6079166 610215 505.596 -50/256 274.	32					
		TDH12 6078946 610528 510.325 -50/256 304.	8					
		TDH13 6078970 610395 537.1 -50/256 106.	68					
		TDH14 6079001 610390 528.924 -65/256 122.	07					
		TDH15 6079078 610415 488.967 -60/256 122.	15					
		TDH16 6078979 610377 533.754 -60/256 79.2	7					
		TDH17 6078950 610392 539.437 -70/256 99.6	7					
		TDH18 6079028 610369 517.865 -55/256 62.9	4					
		TDH19 6078978 610379 534.337 -70/256 107.	14					
		All historical exploration drilling depths and sample intervals were rec	ordec					
		Imperial feet and inches. Imperial data have been converted to metric	: using					
		foot = 0.3048m.						
ata	In reporting Exploration Results, weighting averaging technique	All historical exploration drilling results were taken from the Annual 1	Гесhn					
ggregation	maximum and/or minimum grade truncations (e.g. cutting of high	Reports that Australian Oil & Gas Minerals Pty Ltd presented to t	he N					
nethods	grades) and cut-off grades are usually Material and should be stated.	government between 1972 to 1975.						
	Where aggregate intercepts incorporate short lengths of high-gra	• The majority of sample intervals were on 5ft (1.53m) and 10ft (3.05m)	lengt					
	results and longer lengths of low-grade results, the procedure used f	with rare (<1%) niche intervals <1.53m.						
	such aggregation should be stated and some typical examples of su							
	aggregations should be shown in detail.	technique with the following criteria:						
		>1,000ppm (0.1%) Cu edge cut-off						
		Maximum of 3.05m (10ft) of internal 'waste' <1,000ppm Cu, for interval						
		Maximum of 6.10m (20ft) of internal 'waste' <1,000ppm Cu, for interval						
		For example, the intercepts for TDH01 have been calculated as follows	:					
		21.34m @ 4.51% Cu, from 41.14m						
		(3.05×14400+3.05×3400+3.05×19000+3.05×40+3.04×280+1.53×1600+1.52×25						
		1.53×231000+1.52×69000) / (3.05+3.05+3.05+3.05+3.04+1.53+1.52+1.53+1.52 Including;	) = 451					
		9.15m @ 1.22% Cu, from 41.14m						
		(3.05×14400+3.05×3400+3.05×19000) / (3.05+3.05+3.05) = 12266						
		and; 4.57m @ 18.54% Cu, from 57.91m						
		$(1.52 \times 256000 + 1.53 \times 231000 + 1.52 \times 69000) / (1.52 + 1.53 + 1.52) = 185433$						
		Using the following data range:						
		Using the following data range:						
		Using the following data range:    Hole_ID   Depth_From   Depth_To   Interval_Length   Cu_ppm	_					

TDH01

TDH01

44.19

47.24

47.24

50.29

3.05

3.05

3400

19000



					1	T	1	<del></del> 1
			TDH01	50.29	53.34	3.05	40	
			TDH01	53.34 56.38	56.38 57.91	3.04 1.53	280 1600	
			TDH01	57.91	59.43	1.52	256000	
			TDH01	59.43	60.96	1.53	231000	
			TDH01	60.96	62.48	1.52	69000	
			TDH01	62.48	64	1.52	800	
		•	No top cuts ha	ave been applied	to the repo	rting of these assay	results	
Relationship between mineralisation	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle</li> </ul>		completed an	d reported in th	ne Annual Te	nown due to the sechnical Reports that I government betw	at Australiar	n Oil &
widths and	is known, its nature should be reported. If it is not known and only the					e widths, true wid		
intercept lengths	down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').		established.	are reported a	3 down 1101	e mains, trae me	ien die yee	
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>		Refer to Figure	es in the body o	f this release			
Balanced	Where comprehensive reporting of all Exploration Results is not	•	All historical e	exploration drilli	ng results w	ere taken from the	Annual Te	chnical
reporting	practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of		Reports that government b	Australian Oil 8 etween 1972 to	& Gas Mine 1975.	rals Pty Ltd prese	nted to the	e NSW
	Exploration Results.	•	Refer to: Appe	endix 1 – Table d	of Selected Si	gnificant Drill Interd	cepts - Diam	nond
Other substantive	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical descriptions.		been presente	ed within this rel	lease.	including geochen		
exploration data	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.	•	Prospect in 19 along three lir copper soil an and validated and the assay inclusion unnet the subsequer New meaning	71. A total of 27 nes spaced 61m omaly. Whilst the assay results againesults have not ecessary and notally drilled mateful and material	holes (TRD1 (200ft) apart he Competer ainst laborat t been includ t material, h rial diamond data will be	reported on as it be	325ft) were lefined area wed these dril it is deeme ated and an ecomes avai	drilled of the rill logs Il holes d their nalysed
Further work	The nature and scale of planned further work (e.g. tests for lateral	At	the Basin Creek	prospect, explo	oration activi	ities will focus on th	ne area of d	lefined
	<ul> <li>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>	col	per mineralisat	tion. Activities m	nay include f	urther surface geoc orne/ground geoph	hemical sar	