ASX Code: ESS

Corporate Profile
Shares on issue: 175 million
Cash: $3.4m (30 Sep 2020)
Debt: Nil

Corporate Directory

Non-Executive Chairman
Craig McGown

Non-Executive Directors
Paul Payne
Warren Hallam

Managing Director
Timothy Spencer

CFO & Company Secretary
Carl Travaglini

Exploration Manager
Andrew Dunn

Key Projects

Sole Funded
Juglah Dome (Au)
Blair-Golden Ridge (Au, Ni)
Dome North (Li)
Sinclair Caesium Mine (Cs)
Mavis Lake (Li)

Free Carried to Decision to Mine
Acra (Au) 25%
Kangan (Au) 30%
Balagundi (Au) 25%

Investor Relations

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ESSENTIALMETALS
for a sustainable future

1 December 2020

GOLD-FOCUSED DRILLING UNDERWAY AT JUGLAH DOME

Drilling programme expanded to include the Dwyer prospect and additional holes at Golden Shovel. Four exciting prospects will now be tested.

HIGHLIGHTS

- The first stage Juglah Dome drill programme will commence today and is expected to take approximately three weeks.
- The expanded programme, initially designed to test the Gards, Golden Shovel and Moonbaker prospects, will now include the Dwyer prospect and additional holes at Golden Shovel. Further holes will be added where warranted as the drilling progresses.
- The Dwyer prospect is less than 3km along strike from the Trojan Gold Mine, recently acquired by Black Cat Syndicate (ASX:BC8). Previous RAB drilling at the Dwyer prospect included:
    - 4m @ 0.51g/t Au from 38m (DB44); and
    - 13m @ 0.66g/t Au from 30m, incl. 2m @ 2.22g/t Au (DB49).
- The three other prospects to be tested are:
    - **Gards**: A standout drill target confirmed with 1.2km of outcrop/sub-crop mapped.
    - **Golden Shovel**: The site of multiple historical workings and is geologically similar to the Gards prospect.
    - **Moonbaker**: Widespread sporadic gold anomalism identified by extensive soil sampling.

Essential Metals Managing Director, Tim Spencer, said: *"This drill programme will test the first four high-priority targets at Juglah Dome. The additional funds raised in our recent oversubscribed $2M placement allows us to expand the drilling program to include the Dwyer prospect, more holes at Golden Shovel, as well as the capacity to undertake additional holes where warranted as the drilling progresses.*

"Besides testing for gold mineralisation, the programme will also provide valuable information about the geological setting of the greater project area to assist in identifying further targets."

Essential Metals Limited (ASX: ESS) (the "Company") is pleased to announce that gold-focused drilling will commence today at the Juglah Dome Project, 60km ESE of Kalgoorlie, with an expanded programme (*see ASX release dated 29 October 2020 for the original scope of RC drill programme*).

The programme will test four high-priority prospects – Gards, Golden Shovel, Moonbaker and Dwyer. The locations of these prospects are shown in **Figure 1.**

Following the Company's recently-completed oversubscribed $2 million share placement, the drilling programme has been expanded to include three additional holes in the Golden Shovel area to test for parallel mineralised porphyries, and two holes to test bedrock mineralisation at the Dwyer prospect. Further holes will be added during the programme as and when required.

The RC drill programme is expected to take approximately three weeks to complete with samples to be submitted prior to the Christmas period. Assay results are expected towards the end of January 2021, based on assay turnarounds taking between 4 and 6 weeks due to the current volume of samples at the laboratories, and lower availability over the Christmas-New Year period.

Please navigate to page 4 of this document to read more about the Dwyer prospect.

This ASX release has been approved by the Board of Directors

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About Essential Metals Limited

Following successful completion of the Sinclair Caesium Mine and a recently completed $2M share placement to institutional and sophisticated investors, Essential Metals is now a well-funded and active explorer focused on key global demand-driven commodities, looking for its next opportunity to create shareholder wealth through exploration and project development. The Company operates a portfolio of strategically located gold, lithium, caesium, nickel and cobalt projects in mining regions in Western Australia, plus a high-quality lithium asset in Canada.

Lithium - Caesium:

- The ***Pioneer Dome LCT Project*** is highly prospective for lithium-caesium-tantalum (LCT) mineral systems:
  - The ***Dome North Lithium Project*** is located in the northern area where multiple spodumene bearing pegmatites were discovered in 2019. It now has a Mineral Resource of 11.2 million tonnes @ 1.21% Li_2O.
  - The ***Sinclair Caesium Deposit*** that was successfully developed and mined by the Company and extensions to the deposit are currently being explored.
- The Company holds a 51% Project interest in the ***Mavis Lake Lithium Project***, Canada where Company drilling has intersected spodumene.

Gold:

- The ***Juglah Dome Project*** is located ~60km ESE of Kalgoorlie and is considered to be highly prospective for gold with recent work also raising its prospectivity for VHMS style polymetallic deposits.

- The ***Blair - Golden Ridge*** Project is located ~25km ESE of Kalgoorlie, WA and is prospective for gold. Activities are focussed on reappraising known prospects as well as identifying new areas within the large land tenure.

Gold Farmin/Joint Ventures: Essential Metals has three free-carried interests with well credentialed JV partners:

- ***Acra JV Project*** near Kalgoorlie: Northern Star Resources Limited (ASX:NST) has earned a 75% Project Interest and continues to fully fund exploration programmes until approval of a Mining Proposal by DMIRS with Essential Metals retaining a 25% interest.
- ***Kangan Project*** in the West Pilbara: A farmin & JV agreement with Novo Resources Corp (TSXV.NVO) and Sumitomo Corporation will fully fund gold exploration programmes until a decision to mine is made, with Essential Metals retaining a 30% interest.
- ***Balagundi Project***: A farmin & JV agreement where Black Cat Syndicate Limited (ASX:BC8) is earning a 75% interest in the Project located at Bulong, near Kalgoorlie. Black Cat will then fully fund gold exploration programmes until a decision to mine is made, with Essential Metals retaining a 25% interest.

Nickel: The ***Blair-Golden Ridge Project*** includes the suspended Blair Nickel Sulphide Mine and the advanced Leo Dam prospect as well as several other compelling prospects.

Forward Looking Statement

This announcement may contain forward-looking statements which involve a number of risks and uncertainties. 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. No obligation is assumed to update forward looking statements if these beliefs, opinions, and estimates should change or to reflect other future developments.

Competent Person Statement

Mr Andrew Dunn (MAIG), Exploration Manager who is employed full-time by Essential Metals Limited, compiled the technical aspects of this Report. Mr Dunn is eligible to receive equity based securities in Essential Metals Limited under the Company's employee incentive schemes. Mr Dunn is a member of the Australian Institute of Geoscientists and has sufficient experience that is relevant to this style of mineralization and type of deposit under consideration and to the activity that is being reported on 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 Dunn consents to the inclusion in the report of the matters in the form and context in which it appears.

JUGLAH DOME PROJECT (ESS: 100%)

The Juglah Dome Project is located ~60km east-southeast of Kalgoorlie and is highly prospective for gold mineralisation. Exploration by previous owners identified multiple gold targets using soil geochemistry and drilling. The Project lies in a similar geological setting to that which hosts the Majestic and Imperial Deposits, located 10km to the north-west, and the Daisy Complex to the west, which forms part of Silver Lake Resources Limited's Mt Monger Operations.

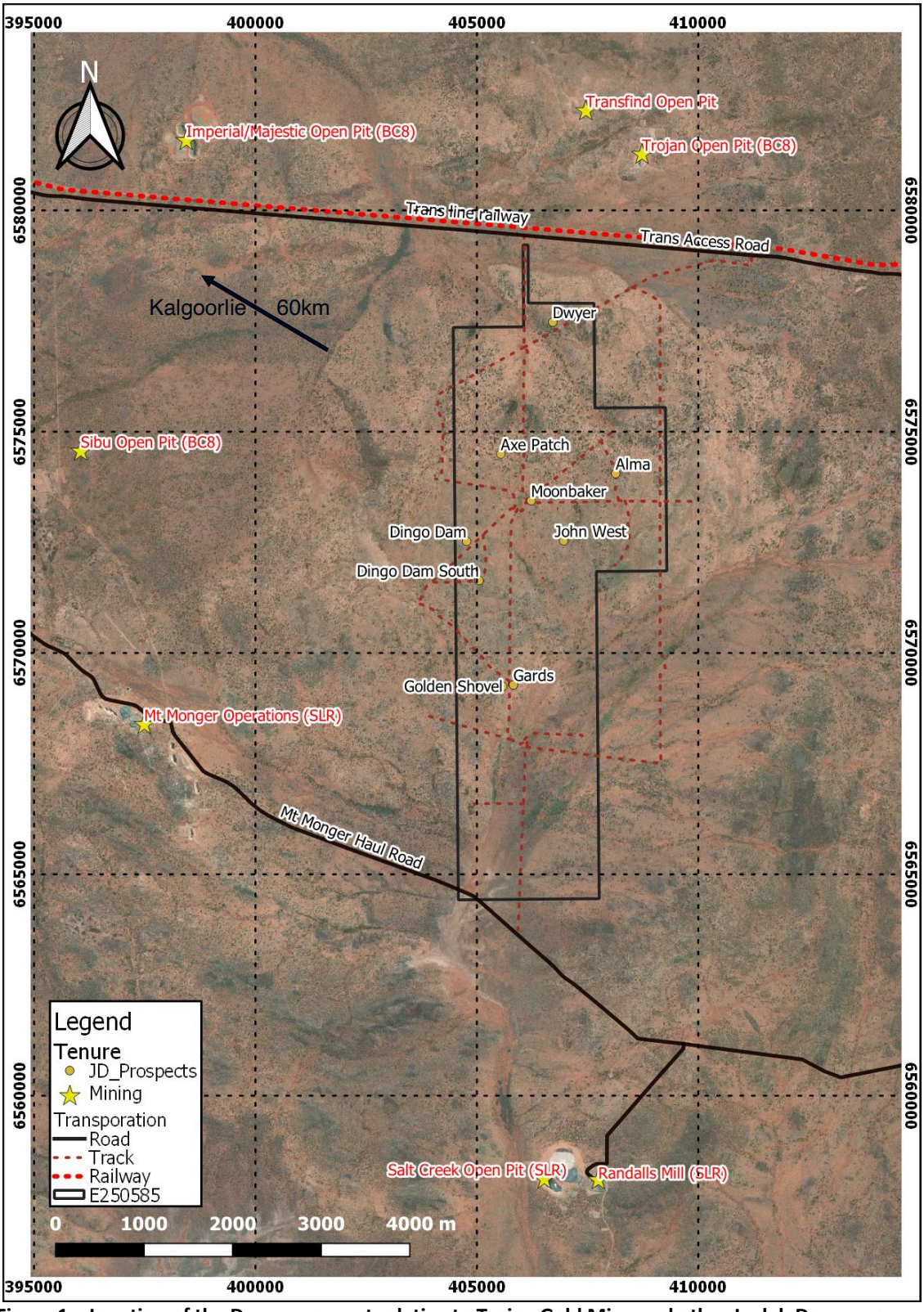

Figure 1 – Location of the Dwyer prospect relative to Trojan Gold Mine and other Juglah Dome prospects.

Dwyer is located in the northern portion of the Juglah Dome tenement and is just 3km south-southwest of the Trojan Gold Mine (refer to **Figure 1** on the previous page). Multiple parallel features have been identified in the recently reprocessed magnetic images that transect the area towards the Trojan Gold Mine, refer to

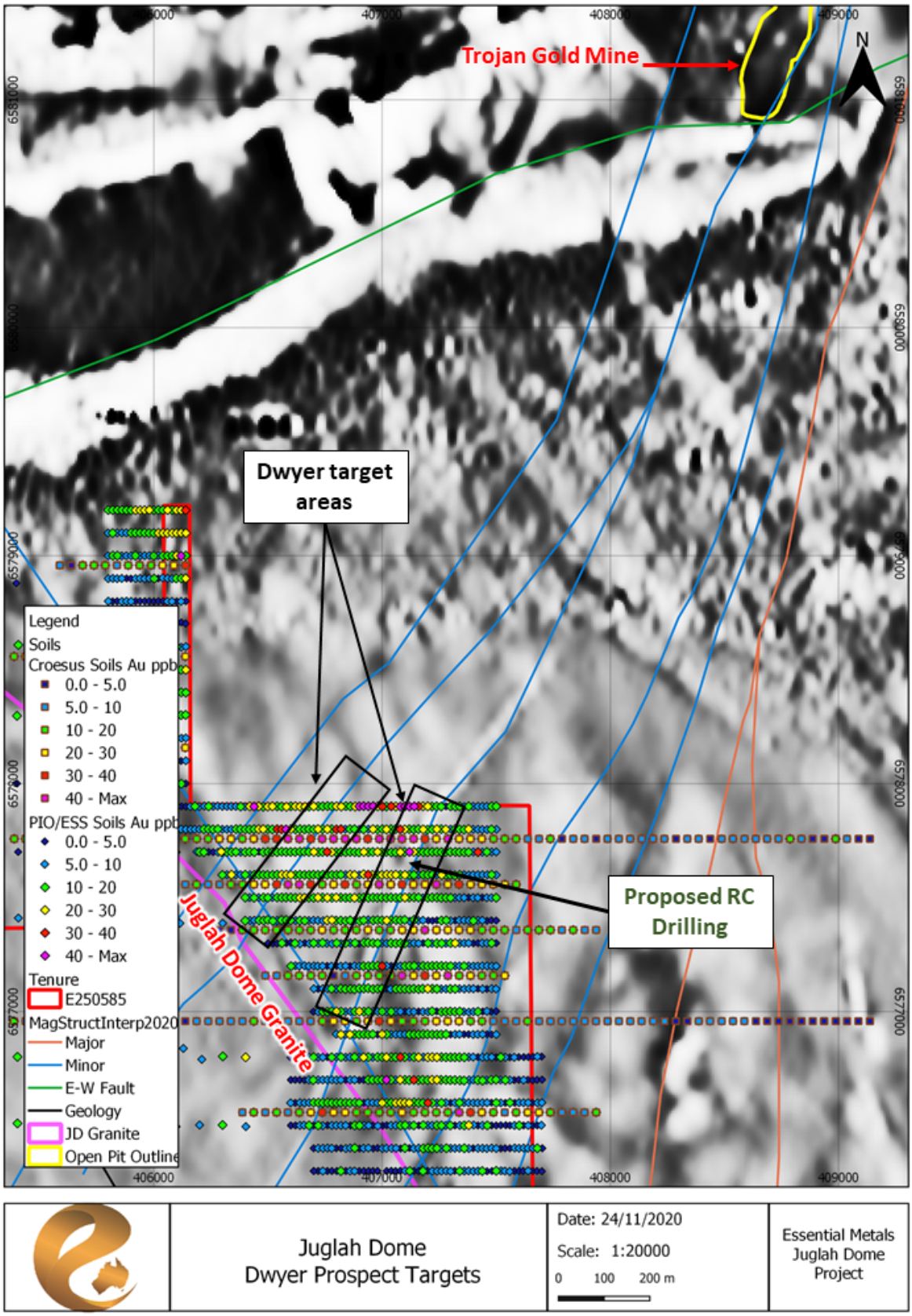

Figure 2 below.

Figure 2 – Soil anomalism associated with the Dwyer prospect (coloured symbols – see legend for details) and the structural interpretation (coloured lines) from the recently reprocessed magnetic 1VD RTP image (grey scale background).

The area containing the Dwyer prospect was originally explored by Mt Martin Mines, which conducted soil sampling over the area and generated a >20ppb Au-in-soil anomaly with a peak value of 138ppb Au. Follow up on this anomaly included a RAB drill traverse that returned 4m @ 0.51g/t Au from 38m (DB44), 13m @ 0.66g/t Au from 30m including 2m @ 2.22g/t Au (DB49) and 2m @ 0.12g/t Au from 30m (DB50).

RC drilling was carried out to intersect bedrock mineralisation parallel to the interpreted dip of stratigraphy, locating broad zones of mineralisation in the saprolite layer (shown in olive green in **Figure 3**: below). Results from the RC drilling included:

- 19m @ 0.33g/t Au from 29m (DRC1)
- 5m @ 0.21g/t Au from 30m (DRC2) and
- 8m @ 0.28g/t Au from 39m (DRC2)

Please refer to **Figure 3**: below and to **Appendix 1** - Significant Au intersections from the greater Dwyer area

Table 1 in Appendix 1 for the full list of intersections for the greater Dwyer area.

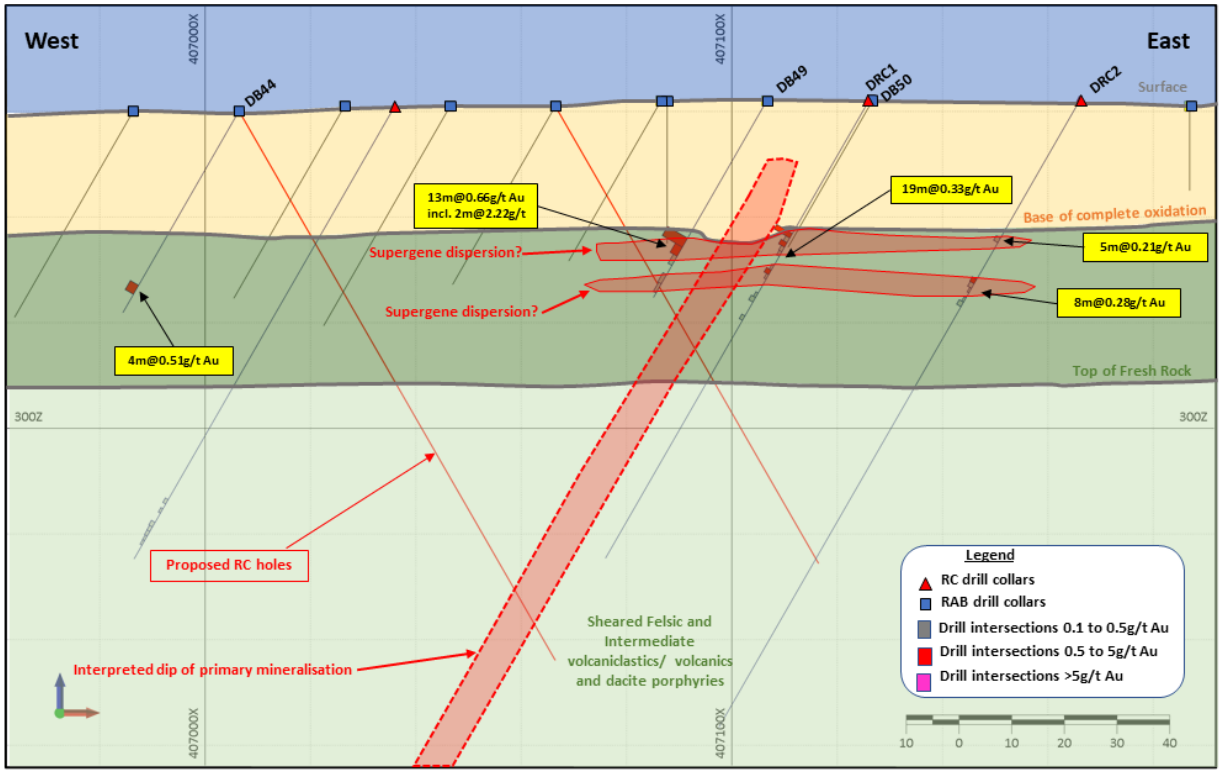

Figure 3: Cross-section of the previous drilling at Dwyer with planned drilling (red traces).

At a later date, Croesus Mining NL carried out Bulk Leachable Gold (BLEG) sampling that highlighted a broad moderate to high amplitude Au-in-soil anomalism (1,200m x 1,000m area of >20ppb Au with a maximum value of 71ppb Au) coincident with Mt Martin Mines drilling results. Croesus tested this anomaly with 100m RAB spaced holes either side of the Mt Martin Mine holes with an additional short traverse approximately 930m to the south. This drilling failed to locate significant mineralisation away from what was the previously intersected.

In 2012, 100m x 20m soil sampling was carried out over the area and confirmed the previous Au-in-soil anomalism, however, due to the nature and spacing of the samples the Au-in-soil anomalism is less coherent than previous surveys.

The proposed drilling involves two RC holes to test for potential west dipping mineralisation associated with the previous gold intersections within the saprolite, in an area of limited outcrop exposure. This proposed orientation for mineralisation is consistent with that observed at Trojan deposit and other prospects/ targets within the Juglah Dome project.

Appendix 1 - Significant Au intersections from the greater Dwyer area

Table 1

Hole_ID	Hole Type	GDA_East	GDA_North	RL	Depth	Azimuth	Dip	Incl.	From (m)	To (m)	Interval (m)	Au Grade (g/t)
DB43	RAB	6577681	406986	350	45	270	-60				NSA	NSA
DB44	RAB	6577682	407006	350	44	270	-60		38	42	4	0.51
DB45	RAB	6577682	407026	350	42	270	-60				NSA	NSA
DB46	RAB	6577682	407047	350	48	270	-60				NSA	NSA
DB47	RAB	6577682	407066	350	39	270	-60				NSA	NSA
DB48	RAB	6577682	407087	350	35	270	-60				NSA	NSA
DB49	RAB	6577682	407107	350	43	270	-60		30	43	13	0.66
								Incl.	30	32	2	2.22
DB50	RAB	6577682	407127	350	32	270	-60		30	32	2	0.12
DRC1	RC	6577682	407126	350	100	270	-60		29	48	19	0.33
								Incl.	29	30	1	1.73
DRC2	RC	6577683	407166	350	137	270	-60		30	35	5	0.21
DRC2	RC	6577683	407166	350	137	270	-60		39	47	8	0.28
DRC3	RC	6577684	407036	350	99	270	-60		40	41	1	0.12
DRC3	RC	6577684	407036	350	99	270	-60		43	44	1	0.12
DRC3	RC	6577684	407036	350	99	270	-60		85	97	12	0.24
TTRB001	RAB	6570757	407237	380	53	0	-90				NSA	NSA
TTRB002	RAB	6570757	407337	380	62	0	-90				NSA	NSA
TTRB003	RAB	6570757	407438	380	61	0	-90				NSA	NSA
TTRB004	RAB	6570757	407537	380	62	0	-90				NSA	NSA
TTRB005	RAB	6570757	407637	380	54	0	-90				NSA	NSA
TTRB012	RAB	6572557	407237	380	39	0	-90				NSA	NSA
TTRB013	RAB	6572557	407138	380	29	0	-90				NSA	NSA
TTRB014	RAB	6572557	407037	380	35	0	-90		31	34	3	0.47
TTRB015	RAB	6572557	406938	380	19	0	-90				NSA	NSA
TTRB016	RAB	6572557	406838	380	23	0	-90				NSA	NSA
TTRB017	RAB	6572557	406737	380	26	0	-90		25	26	1	0.13
TTRB018	RAB	6572557	406638	380	37	0	-90				NSA	NSA
TTRB019	RAB	6572557	406538	380	24	0	-90				NSA	NSA
TTRB020	RAB	6572557	406437	380	23	0	-90				NSA	NSA
TTRB021	RAB	6572557	406338	380	24	0	-90				NSA	NSA
TTRB022	RAB	6572557	406238	380	20	0	-90				NSA	NSA
TTRB023	RAB	6572557	406137	380	24	0	-90				NSA	NSA
TTRB024	RAB	6572557	405937	380	8	0	-90				NSA	NSA
TTRB025	RAB	6573357	406488	380	21	0	-90				NSA	NSA
TTRB026	RAB	6573357	406687	380	14	0	-90				NSA	NSA
TTRB027	RAB	6573357	406888	380	24	0	-90				NSA	NSA
TTRB028	RAB	6573357	407088	380	19	0	-90				NSA	NSA

Hole_ID	Hole Type	GDA_East	GDA_North	RL	Depth	Azimuth	Dip	Incl.	From (m)	To (m)	Interval (m)	Au Grade (g/t)
TTRB029	RAB	6573357	407287	380	29	0	-90				NSA	NSA
TTRB030	RAB	6573357	407487	380	38	0	-90		25	30	5	0.11
TTRB030	RAB	6573357	407487	380	38	0	-90		33	38	5	0.20
TTRB031	RAB	6573357	407688	380	24	0	-90				NSA	NSA
TTRB032	RAB	6574157	405738	380	31	0	-90				NSA	NSA
TTRB033	RAB	6574157	405638	380	36	0	-90				NSA	NSA
TTRB034	RAB	6574157	405537	380	35	0	-90				NSA	NSA
TTRB035	RAB	6574157	405438	380	23	0	-90				NSA	NSA
TTRB036	RAB	6574157	405837	380	41	0	-90		35	39	4	0.36
TTRB037	RAB	6574157	405938	380	37	0	-90				NSA	NSA
TTRB038	RAB	6574162	406051	380	29	0	-90				NSA	NSA
TTRB039	RAB	6574157	406143	380	33	0	-90				NSA	NSA
TTRB040	RAB	6574157	406238	380	34	0	-90				NSA	NSA
TTRB041	RAB	6574157	406337	380	36	0	-90		35	36	1	0.10
TTRB042	RAB	6574157	406437	380	30	0	-90				NSA	NSA
TTRB043	RAB	6574157	406538	380	41	0	-90				NSA	NSA
TTRB044	RAB	6574157	406637	380	27	0	-90				NSA	NSA
TTRB045	RAB	6574157	406738	380	18	0	-90				NSA	NSA
TTRB046	RAB	6574157	406838	380	8	0	-90				NSA	NSA
TTRB047	RAB	6574157	406937	380	36	0	-90				NSA	NSA
TTRB048	RAB	6574157	407038	380	36	0	-90				NSA	NSA
TTRB049	RAB	6574157	407138	380	38	0	-90				NSA	NSA
TTRB050	RAB	6573843	406828	380	46	0	-90				NSA	NSA
TTRB051	RAB	6573837	406768	380	44	0	-90				NSA	NSA
TTRB052	RAB	6575357	405738	380	36	0	-90				NSA	NSA
TTRB053	RAB	6575357	405837	380	45	0	-90				NSA	NSA
TTRB054	RAB	6575357	405938	380	41	0	-90				NSA	NSA
TTRB055	RAB	6575357	406038	380	47	0	-90				NSA	NSA
TTRB056	RAB	6575357	406137	380	53	0	-90				NSA	NSA
TTRB057	RAB	6576757	406587	380	35	0	-90				NSA	NSA
TTRB058	RAB	6576757	406687	380	44	0	-90				NSA	NSA
TTRB059	RAB	6576757	406788	380	40	0	-90				NSA	NSA
TTRB060	RAB	6577687	407588	380	17	0	-90				NSA	NSA
TTRB061	RAB	6577687	407487	380	24	0	-90				NSA	NSA
TTRB062	RAB	6577687	407388	380	33	0	-90				NSA	NSA
TTRB063	RAB	6577687	407287	380	10	0	-90				NSA	NSA
TTRB064	RAB	6577687	407187	380	16	0	-90				NSA	NSA
TTRB065	RAB	6577687	407088	380	27	0	-90				NSA	NSA
TTRB077	RAB	6577687	406777	380	28	0	-90				UNK	UNK
TTRB078	RAB	6577687	406927	380	32	0	-90				UNK	UNK
TTRB079	RAB	6577687	406678	380	29	0	-90				UNK	UNK
TTRB080	RAB	6577687	406577	380	32	0	-90				UNK	UNK
TTRB081	RAB	6577687	406477	380	35	0	-90				UNK	UNK
TTRB082	RAB	6577687	406378	380	37	0	-90				UNK	UNK
TTRB083	RAB	6577687	406277	380	47	0	-90				UNK	UNK

Hole_ID	Hole Type	GDA_East	GDA_North	RL	Depth	Azimuth	Dip	Incl.	From (m)	To (m)	Interval (m)	Au Grade (g/t)
TTRB084	RAB	6577687	406178	380	51	0	-90				UNK	UNK
TTRB085	RAB	6577687	406077	380	41	0	-90				UNK	UNK
TTRB095	RAB	6573357	406588	380	14	0	-90				UNK	UNK
TTRB096	RAB	6573357	406788	380	10	0	-90				UNK	UNK
TTRB097	RAB	6573357	406987	380	27	0	-90				UNK	UNK
TTRB098	RAB	6573357	407187	380	25	0	-90				UNK	UNK
TTRB099	RAB	6573357	407388	380	27	0	-90				UNK	UNK
TTRB100	RAB	6573357	407587	380	28	0	-90				UNK	UNK
TTRB101	RAB	6573357	407787	380	26	0	-90				UNK	UNK
TTRB102	RAB	6573357	407887	380	29	0	-90				UNK	UNK
TTRB103	RAB	6573757	407237	400	17	0	-90				NSA	NSA
TTRB104	RAB	6573762	407337	400	15	0	-90				NSA	NSA
TTRB105	RAB	6573757	407438	400	11	0	-90				NSA	NSA
TTRB106	RAB	6573757	407537	400	11	0	-90				NSA	NSA
TTRB107	RAB	6573757	407637	400	16	0	-90				NSA	NSA
TTRB108	RAB	6572957	407638	400	43	0	-90				NSA	NSA
TTRB109	RAB	6572957	407537	400	32	0	-90				NSA	NSA
TTRB110	RAB	6572957	407437	400	44	0	-90		30	40	10	0.12
TTRB111	RAB	6572957	407338	400	23	0	-90				NSA	NSA
TTRB112	RAB	6572957	407237	400	27	0	-90		20	27	7	0.24
TTRB113	RAB	6572957	407137	400	23	0	-90		22	23	1	0.10
TTRB114	RAB	6572957	407038	400	33	0	-90				NSA	NSA
TTRB115	RAB	6572957	406937	400	29	0	-90				NSA	NSA
TTRB116	RAB	6572957	406838	400	18	0	-90				NSA	NSA
TTRB117	RAB	6572957	406738	400	18	0	-90				NSA	NSA
TTRB118	RAB	6572162	406788	400	29	0	-90				NSA	NSA
TTRB119	RAB	6572157	406887	400	39	0	-90				NSA	NSA
TTRB120	RAB	6572157	406987	400	29	0	-90				NSA	NSA
TTRB121	RAB	6572157	407088	400	28	0	-90				NSA	NSA
TTRB122	RAB	6572157	407187	400	31	0	-90		30	31	1	0.12
TTRB123	RAB	6572157	407287	400	23	0	-90				NSA	NSA
TTRB127	RAB	6573757	406287	400	28	0	-90				NSA	NSA
TTRB128	RAB	6573757	406188	400	35	0	-90				NSA	NSA
TTRB129	RAB	6573757	406087	400	41	0	-90				NSA	NSA
TTRB130	RAB	6573757	405987	400	25	0	-90				NSA	NSA
TTRB131	RAB	6573757	405888	400	14	0	-90				NSA	NSA
TTRB132	RAB	6573757	405787	400	36	0	-90				NSA	NSA
TTRB133	RAB	6573757	405688	400	33	0	-90				NSA	NSA
TTRB134	RAB	6574557	405988	400	35	0	-90				NSA	NSA
TTRB135	RAB	6574557	405887	400	37	0	-90				NSA	NSA
TTRB136	RAB	6574557	405788	400	37	0	-90				NSA	NSA
TTRB137	RAB	6574557	405688	400	34	0	-90				NSA	NSA
TTRB138	RAB	6574557	405587	400	41	0	-90				NSA	NSA

UNK= Unknown – assays were not included in the lodged Annual Technical Reports. NSA = No Significant assays. Incl. = Including – higher grade intervals in the calculated intersection. Intersections are calculated with 0.1g/t Au lower cut-off and a maximum of 2 consecutive metres of internal dilution. Higher

grade intersections are calculated with 1g/t Au lower cut-off and a maximum of 2 consecutive metres of internal dilution. No external dilution was included in the calculation of the intersections.

Appendix 2 – JORC CODE, 2012 Edition – Table 1 Report

Section 1 - Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg cut Faces, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down-hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • 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.	• Most of the drilling comprised RC and RAB drilling completed by previous operators as well as the Company in multiple campaigns. • RC and RAB drilling were completed to industry standards at the time. • For Mt Martin Mines' RAB drilling: sampling mostly comprised 6m composite spear samples taken from 2m drill spoils. Results in excess of 0.1g/t Au were resampled by spearing individual 2m drill spoil intervals and then resubmitted for fire assay. • For Mt Martin Mines' RC drilling: sampling mostly comprised 5m composite spear samples. Results in excess of 0.1g/t Au were resampled by spearing individual 1m intervals and then resubmitted for fire assay. • Croesus RAB drilling: samples were 5m composites except for the last sample was 1m. Where hole depths did not meet this regime 2 to 4m composite samples were taken just prior to end of hole. Composite samples were collected by a representative scoop through each one-meter drill spoil pile. • The analytical samples were dried, crushed and split to obtain a sample less than 3.5k/g, and then pulverised prior to a 50g charge being collected and analysed. Composite analytical samples which returned an assay result >100ppb Au were resampled at 1m intervals. • Croesus' soil sampling was undertaken by collecting the -5mm fraction to obtain a nominal 2-3kg sample. This was submitted for Bulk Leachable Gold (BLEG) analysis which was assayed for Gold to a detection limit of 0.1ppb by ICP. A mixed acid digest and ICP was used to obtain assays for As, Cu, Pb, Z and Ni. The time duration used for BLEG leach and the exact ICP determination method used were not recorded. • Pioneer's soil sampling was undertaken by digging 15 to 25 cm deep hole and collecting the -250-micron fraction to obtain a nominal 300g sample. This was analysed with a Portable X-Ray Fluorescence (pXRF) machine then submitted for gold analysis. A 0.5 gram charge was digested in Aqua Regia and Inductively Coupled Plasma Mass Spectrometry (ICP-MS) was used for determination of Au.
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg	• Historic drilling includes RC and RAB techniques. Details on hole diameter and sampling methods are not known.

Criteria	JORC Code explanation	Commentary
	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).	
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	• Measures taken to maximise sample recovery on historic drilling are unknown. • There is no indication of a relationship between sample recovery and grade**.**
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Whether logging is qualitative or quantitative in nature. Core (or costean, Face, etc) photography. • The total length and percentage of the relevant intersections logged.	• Geological logging from historic drilling is being compiled and it is likely that the holes were logged in full.
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. • For all sample types, the nature, quality, and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled.	• For historic RC and RAB drilling, the sampling technique is unknown other than 1m samples were taken through mineralised zones with some composite samples 2-6m. Generally, 2-6m composite samples outside of mineralised zones are common. • Sample preparation was by reputable contract laboratories and is assumed to be satisfactory. • Quality control procedures for historic drilling are unknown. • Due to the industry standard drilling and sampling methods employed in historic drilling, it is assumed that RC sample size is appropriate for samples being analysed. • Sample sizes are considered appropriate.
Quality of assay data and laboratory tests	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. • For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	• All samples were submitted to commercial independent laboratories in Western Australia. • It is expected that assay procedures for historic drilling were typically aqua regia digest followed by MS/OES for RAB samples and some RC, fire assay for RC samples. • Quality control procedures adopted for historic drilling are unknown. • No Quality Control data was given for the previous companies' soil samples in the Annual

Criteria	JORC Code explanation	Commentary
	• Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Technical Reports that the information was information was compiled from. • Soil samples were assayed by ACME Analytical Laboratories in Vancouver, Canada. A 0.5-gram aliquot was digested by Aqua Regia followed by ICP-MS determination for a suite of 31 elements including gold.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	• No independent validation of data has been carried out and no twinning of historic holes has yet been carried out. • Data from historic drilling will have been captured using either handwritten logging sheets or electronic capture; • The Company has a digital SQL drilling database where information is stored. • The Company has made no adjustment to any assay data.
Location of data points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. • Specification of the grid system used. • Quality and adequacy of topographic control.	• Historic holes were located either by GPS or total station methods. • Holes were located on MGA-94. • Evidence of the drill holes can be seen on high resolution aerial images such as Google Earth and collars have been cross checked to verify locations. • The RC have down hole surveys, but the method was not documented. RAB drilling was not down hole surveyed. •
Data spacing and distribution	• Data spacing for reporting of Exploration Results. • Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied.	• RC drilling is mostly was 40 to 90mspacing along the single traverse. • RAB drilling is mostly was 20 spacing along the single traverse. Outside this spacing was widen to approximately 100m x 900m. • The data is not currently sufficient to establish geology and grade continuity for a Mineral Resource Estimate. • Sample compositing has not been applied prior to reporting intersections.
Orientation of data in relation to geological structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• The orientation of the intersected mineralisation is not well understood due to the early stage of exploration. At this stage it would be hard to determine if there is orientation-based bias. • There are a number of vertical first pass RAB holes which may not be drilled in an optimal direction.
Sample security	• The measures taken to ensure sample security.	• Measures taken to ensure sample security of historic samples are unknown.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No audits or reviews of the sampling techniques and data have been carried out.

Section 2 - Reporting of Exploration Results

(Criteria listed in the preceding section also applies to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites • 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.	• The Juglah Dome drilling reported herein is entirely within the Juglah Dome Project on E25/585. • The tenement is located approximately 60km ESE of Kalgoorlie WA. • Western Copper Pty Ltd, a wholly owned subsidiary of Essential Metals Ltd (the Company), is the registered holder of the tenement and holds a 100% unencumbered interest in all minerals within the tenement. • The tenement is on the Mt Monger Pastoral Lease; • At the time of this Statement, Exploration Licence E25/585 is in Good Standing. • To the best of the Company's knowledge, other than industry standard permits to operate there are no impediments to the Company's operations within the tenement.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• The majority of work on the project has been completed by previous operators; • Previous work by Mt Martin Mines (WMC) began in the 1990's exploring for Au, Cu, Zn; • Further exploration was carried out by Afmeco Ltd, Croesus, Curtin Mining NL, Titan Resources NL through the 90's for Au; • Immediately prior to Pioneer Resources Ltd (now Essential Metals Ltd) gold exploration continued from 2000 - 2010 by Placer Dome Asia Pacific Ltd, Newcrest mining Ltd, Solomon (Australia) Pty Ltd, Rubicon Resources Ltd and Integra Mining Ltd.
Geology	• Deposit type, geological setting, and style of mineralisation.	• The Juglah Dome Project is situated within the Juglah Dome, which is the southern end of the periclinal Bulong Anticline. The project area is comprised of a layered sequence of felsic to intermediate volcanic rocks, volcaniclastic rocks, and chert overlain by mafic to ultramafic rocks. The layered sequence has been folded and has been intruded by granite (the Juglah Monzogranite) which forms the core of the dome. There are currently no gold deposits on the Juglah Dome Project, gold occurrences and prospects are typical Archean orogenic lode-gold targets of the Eastern Goldfields Terrane. • Gold mineralisation is related to NW trending, shear zones +/- NNE-NE cross faults and is hosted by felsic volcanic rocks and felsic porphyry dykes • Base-metal mineralisation is associated with Felsic to Intermediate volcanic rocks and interpreted as being of VHMS style.

Criteria	JORC Code explanation	Commentary
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, including 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 plus 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.	• Refer to Table 1 in Appendix 1 of this announcement.
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. • 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.	• Highlighted intersections noted in the body of the announcement are from 1m samples using 0.1g/t Au minimum cut-off and 1g/t Au for the including intervals. • All gold intersections within the areas of interest are in Table 1 in Appendix 1 and calculated using a minimum 0.1g/t Au cut off and maximum 4m internal waste and no external dilution. • There are no metal equivalent values reported.
Relationship between mineralisation widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	• Downhole lengths are reported, true widths are unknown.
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	• Refer to figures and tables in this report.
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should	• Comprehensive reporting of a selection of historic Au downhole intersections from all the aforementioned holes. Additionally, holes completed by Croesus testing their Au-in-soil anomaly was included.

Criteria	JORC Code explanation	Commentary
	be practiced to avoid misleading reporting of Exploration Results.	
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	• All meaningful and material exploration data has been reported.
Further work	• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• Planned further work includes compilation of all historic data, geological mapping and surface sampling, re-assaying of soils for Au in areas without gold assays. • RC drilling is planned for the Dwyer target to test for west dipping mineralisation. • Twin holes from historic drilling to validate intersections and drill test in areas identified from further mapping and/or surface geochemical anomalies. • Soil orientation survey is planned to be carried out at Juglah Dome to give an indication of effectiveness and relative amplitude of the main techniques that were carried out previously.