ASX Code: ESS

Corporate Profile
Shares on issue: 151 million
Cash: $4.4m (30 Jun 2020)
Debt: Nil

Corporate Directory

Non-Executive Chairman
Craig McGown

Managing Director
Timothy Spencer

Non-Executive Directors
Paul Payne
Warren Hallam

CFO & Company Secretary
Carl Travaglini

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

Nicholas Read
Read Corporate
t: +61 8 9388 1474
e: nicholas@readcorporate.com.au

ABN: 44 103 423 981

t: +61 8 9322 6974
e: info@essmetals.com.au
w: essmetals.com.au

G Floor, 72 Kings Park Rd,
West Perth, WA 6005
Australia
PO Box 1787,
West Perth, WA 6872
Australia

ESSENTIALMETALS
for a sustainable future

28 August 2020

NUMEROUS 'DRILL-READY' DRILLING TARGETS IDENTIFIED AT JUGLAH DOME PROJECT, WA

Target generation work has identified a 600m-long outcrop at the Gards Prospect containing two gold drill intersections that were not followed up by previous owners

HIGHLIGHTS

- The Juglah Dome Project is in a well mineralised area, near Silverlake Resources Limited (ASX: SLR) Daisy Complex's high-grade gold deposits to the east and Imperial and Majestic deposits to the north.
- Recent rock chip sampling and compilation of historic exploration has confirmed that numerous drill targets are present within the Project.
- Strong gold mineralisation is evident from drilling at several prospects including:
  - 12m @ 5.4 g/t Au from 9 metres (Moonbaker prospect)
  - 3m @ 9.31g/t Au from 42 metres (Axe Patch prospect)
  - 9m @ 1.15 g/t Au from 33 metres (Gards prospect)
- Two prospects identified as significant volcanic hosted massive sulphide (VHMS) targets, analogous to the Nimbus Zinc Silver Project, which produced ~3.6Moz of silver with zinc and gold by-product credits between 2003 and 2007.
- The company has appointed an additional fulltime geologist to enable work on the Juglah Dome Project to be fast-tracked and drilling is currently being planned to test the defined prospects.

Essential Metals Managing Director, Tim Spencer, said: *"We are keen to commence a drill program at Juglah Dome. Multiple exciting gold and VHMS targets have been identified, some of which are considered drill-ready. The Gards Prospect is one such target, where previous drilling by Placer Dome in the late 1990s and early 2000s intersected gold mineralisation, however it was not followed up.*

"We also welcome geologist, Luke Timmermans, to the team and look forward to integrating and complementing his expertise with the existing ESS team in unlocking the gold potential within our portfolio."

JUGLAH DOME PROJECT (ESS: 100%)

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

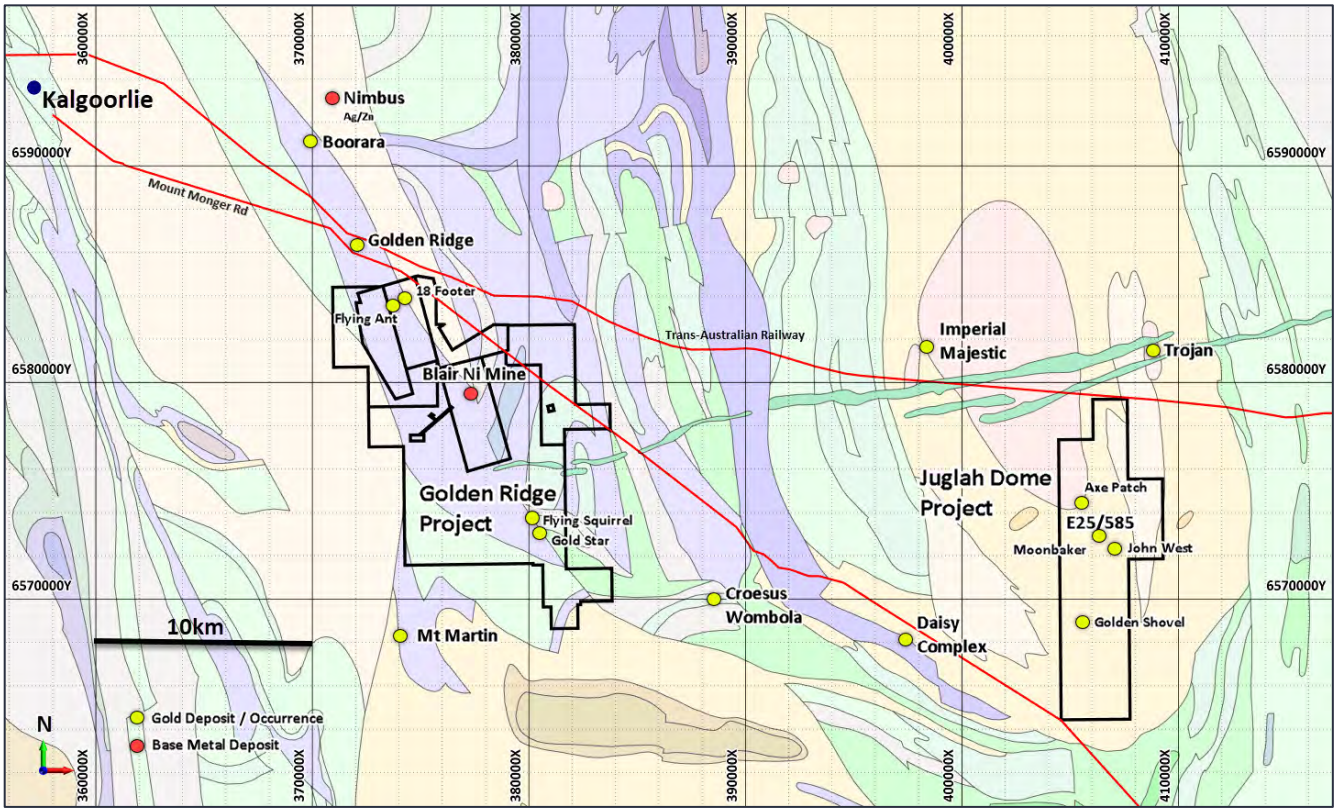

Figure 1: Location Plan of the Juglah Dome Project (E25/585) underlain by regional 1:500000 geology.

The Juglah Dome is an important large-scale crustal feature comprised of an assortment of felsic volcanic rocks intruded by granite. Domes can cause focussing of the crustal fluids that create gold deposits and are typically associated with large gold deposits. The Daisy Complex (Daisy-Milano), less than 10km from the Project, is an important example.

The Project contains at least three 'drill-ready' targets, namely the Moonbaker, John West and Gards prospects, where the presence of gold mineralisation has been demonstrated by drilling completed in the past.

In addition to the gold mineralisation, there is strong new evidence of the presence of felsic volcanic-hosted base-metal (VHMS) mineralisation within the project. The VHMS potential of the Juglah Dome Project is suggested by the following features of the project and VHMS deposits:

- The geology at Juglah Dome has many similarities to the geology of the world-class Nimbus zinc, gold and silver-rich VHMS deposit, which is located within the same region The elemental association evident for the base metal mineralisation at Juglah Dome, namely a lead-zinc association with subordinate copper, along with silver enrichment, is similar to the mineralisation at Nimbus.
- VHMS deposits typically occur in clusters .
- VHMS deposits are typically high-grade, high-value mineral deposits.

JUGLAH DOME PROSPECTS

The locations of the main prospects identified to date within the project are shown in Figure 2 below.

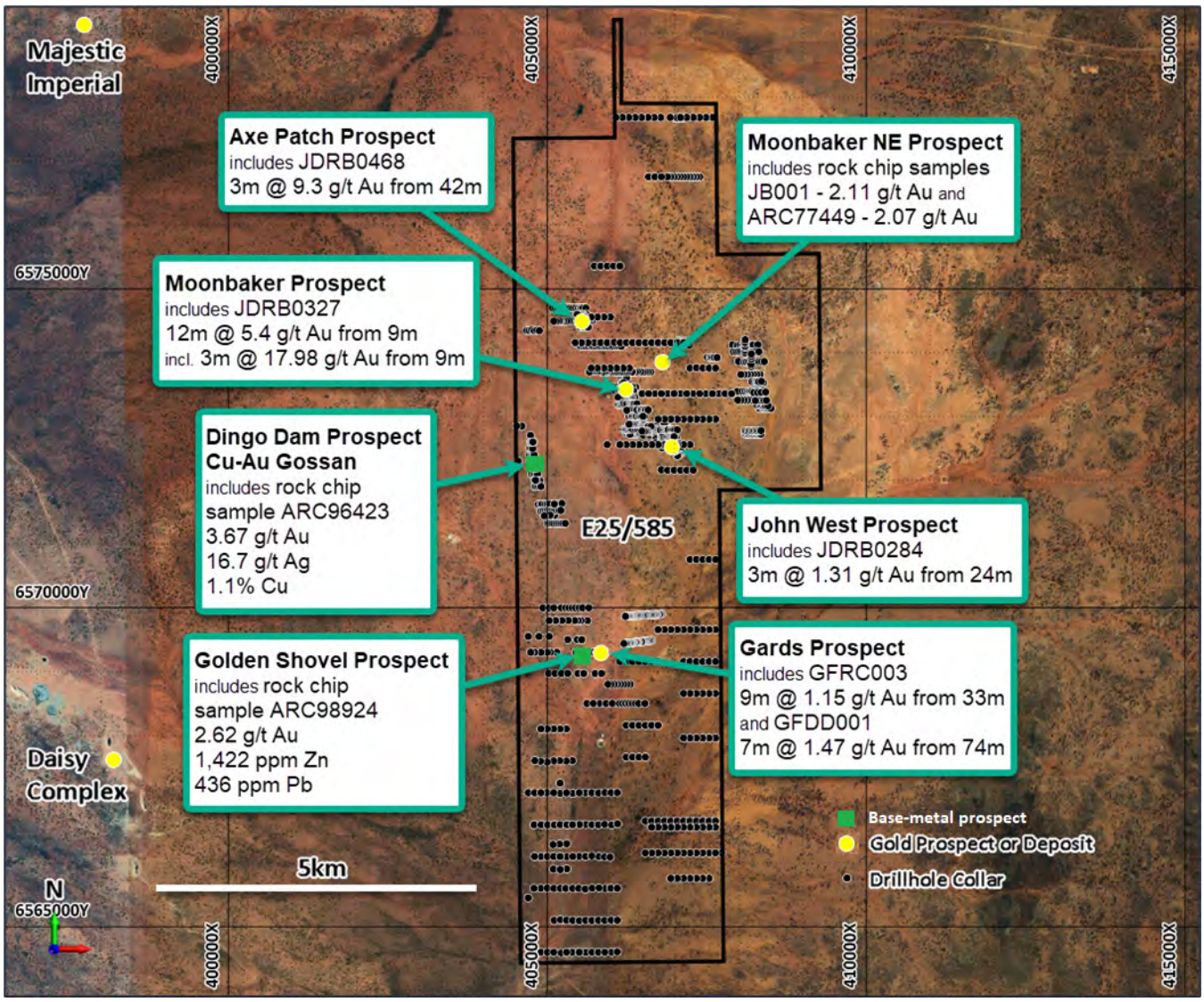

Figure 2: The main known prospects within the Juglah Dome Project

The majority of the drill holes (collar locations displayed in Figure 2) within the project are shallow vertical Rotary Air Blast (RAB) or Aircore holes and very few deeper, angled drill holes have been completed.

For convenience, the prospects are considered as two groups; the Northern prospects and the Southern prospects.

The Northern Prospects

Three main gold prospects (Moonbaker, John West and Axe Patch) and one base metals prospect (Dingo Dam) have been identified by previous explorers as part of what is referred to as the Northern Prospects. The gold prospects - are aligned along a major northwest trending structural feature interpreted from magnetic surveys (Figure 3).

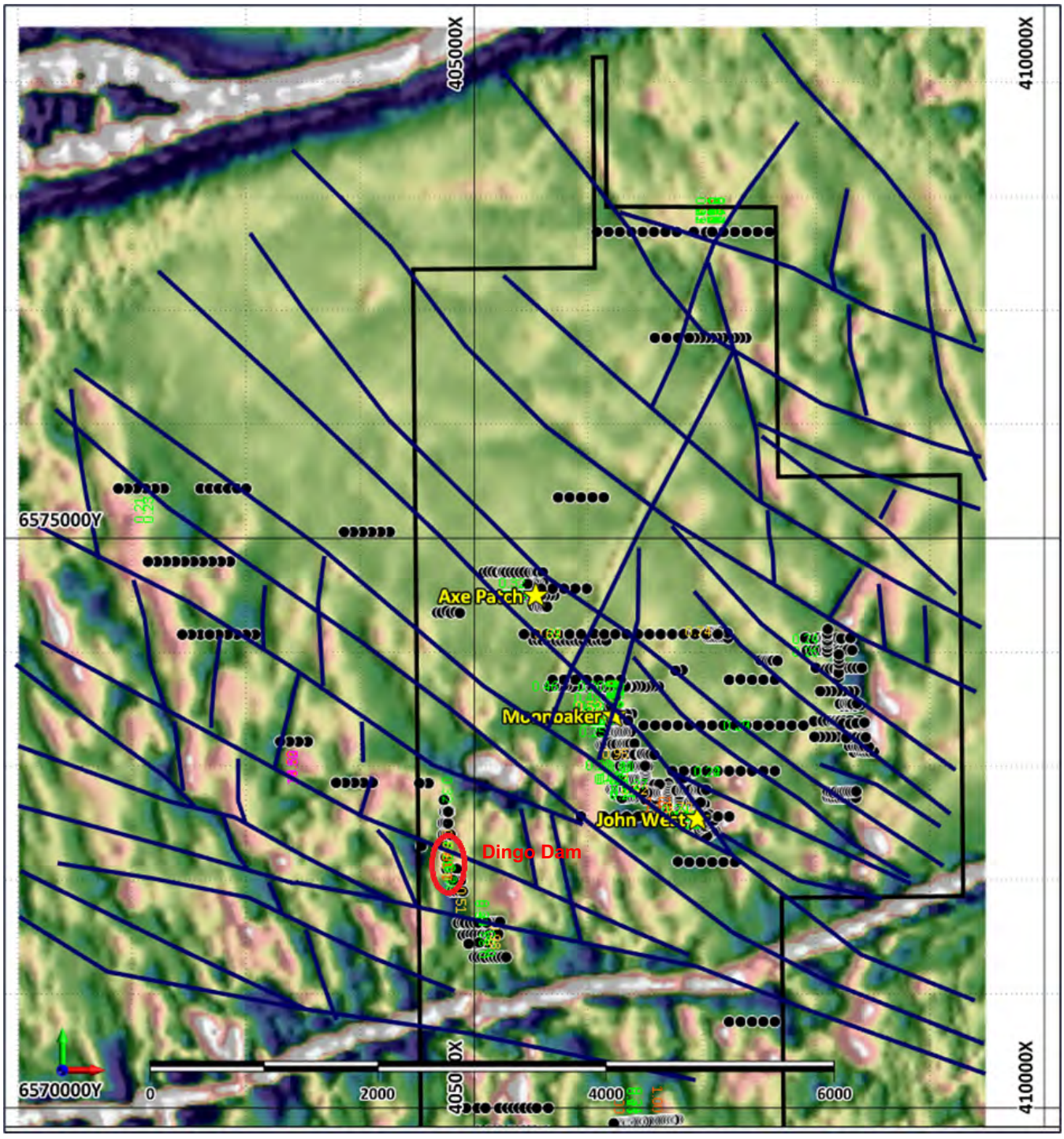

Figure 3: The Northern Prospects labelled with drilling over magnetic interpretation – large scale NW structures are dominant. The red ellipse outlines the Dingo Dam copper-gold gossan. Scale bar in metres.

Moonbaker Prospect; Gold

The Moonbaker Prospect is defined by previous shallow drilling with the best result being 12m @ 5.4 g/t Au from 9 metres including 3m @ 18g/t Au (hole ID JDRB0327). Drilling details are included in Appendix 1.

The initial intersections achieved from RAB drilling were interpreted as east-dipping mineralisation and follow-up Reverse Circulation (RC) drilling was designed to test the interpretation of east-dipping deep mineralisation. The results from the two RC drill holes were inconclusive and it is possible that the primary mineralised structure dips towards the west, in which case the RC drill holes would not have intersected the mineralisation.

John West Prospect; Gold

This Prospect has purportedly yielded several large gold nuggets in the past decade with many small shallow digs over the low rise upon which the main soil anomaly is centred. Some historical drilling tested the prospect and although gold mineralisation was intersected it was erratic and of low tenor, with a best result of 3m @ 1.31g/t Au from 24 metres (hole ID JDRB0284); see Appendix 1.

The low rise is comprised of shallow rubbly soils developed over quartz-veined felsic volcanic rock and the entire low rise may represent the surface expression of a stockwork system developed within the main northwest trending structural corridor.

Axe Patch Prospect; Gold

Historical drilling at the Axe Patch Prospect has been undertaken with the best result being 3m @ 9.31g/t Au from 42 metres (hole ID JDRB0468; Appendix 1). Despite the encouraging result, no follow-up drilling was completed.

Dingo Dam Prospect; Base-metals (VHMS)

The Dingo Dam copper-gold gossan was discovered in 2014. The surface area of this Prospect has almost no outcrop exposure other than the small rubbly sub-crop of gossan surrounded by gossanous lag. Soil sampling has identified distinct base metal soil geochemical anomalies extending along strike from the gossan. Some drilling was completed (Appendix 1) which tested directly underneath the gossan outcrop which returned narrow mineralised intersections (>1% Cu and >2 g/t Au).

South of the gossan there is a distinct zone of lead-zinc soil geochemical anomalism which received first pass drill testing on 80-150m spaced sections. Hole JDRB0684 intersected 1m @ 0.33% Pb, 137g/t Ag, 1g/t Au, 0.12% Cu and 10g/t Mo from 41m, consistent with VHMS mineralisation.

The Southern Prospects

Previous exploration work had identified the Gards gold prospect and the Golden Shovel prospect in the southern area of the Juglah Dome Project. The recent field reconnaissance included comprehensive rock-chip sampling to establish the nature of the mineralisation present and assay results from these samples confirmed the presence of both gold and base-metal mineralisation. The sample locations are attached as Appendix 2, with selected assay results attached as Appendix 3.

Gards Prospect; Gold

The Gards Prospect comprises a large porphyry dyke that outcrops over a strike length of approximately 600m and is likely to continue undercover in both directions. The prospect is considered to be an example of a porphyry-hosted Archaean mesothermal gold deposit.

As part of recent field activity, the porphyry was comprehensively rock chip sampled along the entire length of the outcrop, building upon previous limited sampling. The sample locations are included in Appendix 2, with assay results in Appendix 3. The assay results from the rock chips, both recent and older samples, are consistently anomalous, generally ranging between 0.1 and 1.0 g/t Au but with some higher grade rock chips (~3.7 g/t Au) returned towards the northern end and greater than 0.6g/t Au towards the southern end.

A single fence of drilling was completed in 2002 by a Placer Dome Inc. subsidiary, as shown in Figure 4. Two holes intersected gold mineralisation on a single cross section returning:

- 9m @ 1.15 g/t Au from 33 metres (hole ID GFRC003); and
- 7m @ 1.47 g/t Au from 74 metres (hole ID GFDD001)

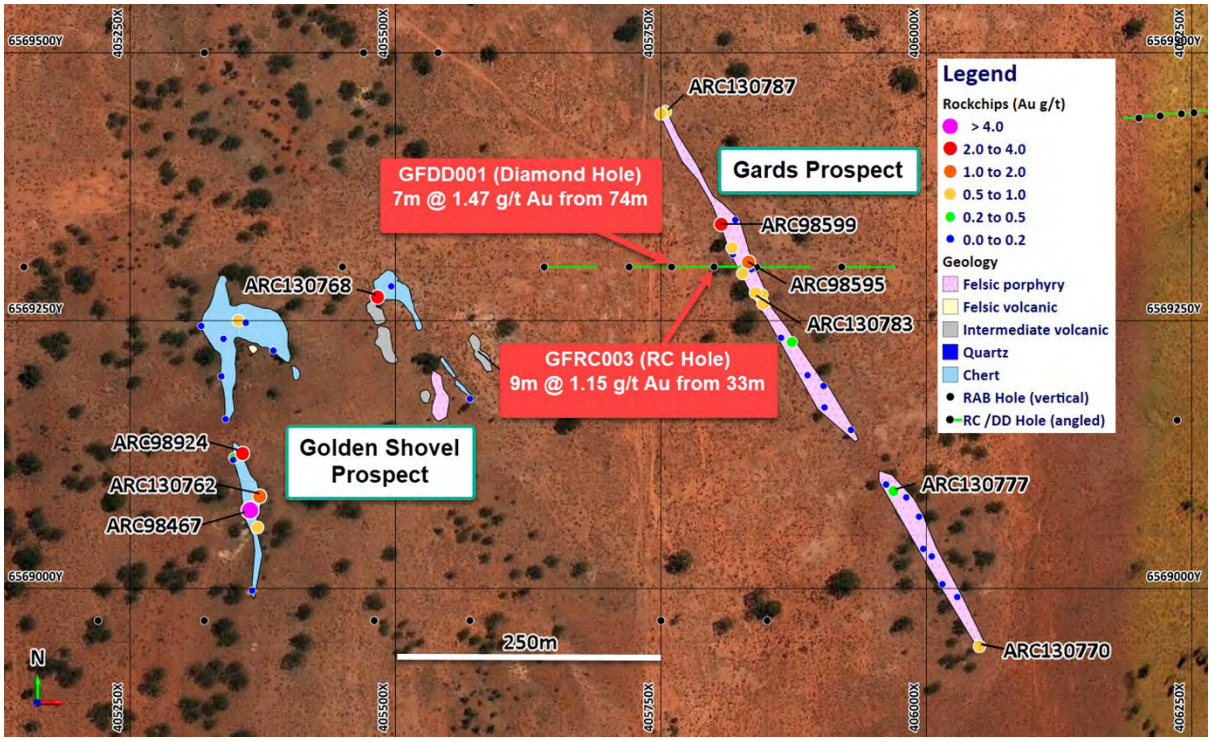

Figure 4: Gards and Golden Shovel Prospects – rock chips and drilling over aerial photo and mapped geology.

The presence of broad, low grade mineralisation within the porphyry along the exposed outcropping strike outlines a high priority drill target with excellent potential to extend gold mineralisation along strike and at depth.

Golden Shovel Prospect; Base metals (VHMS)

The main geological feature at the Golden Shovel Prospect is a prominent low ridge comprised of banded iron-rich (ferruginous) chert (Figure 5). At least one intrusion of felsic porphyry, of a similar nature to that which outcrops at the Gards prospect, is also present. The chert is a distinct layer within a sequence of intermediate volcanic rocks and felsic volcanic rocks and has been folded, with the northern closure of a large synform being well-exposed. The western limb of the chert extends over a strike length of approximately 300m with a disjointed, likely sheared or offset, eastern limb. Small historical pits, around one metre deep and centred on quartz veins within the chert, were mined for gold (quantity and grade unknown).

Figure 5: Outcrop of the banded ferruginous chert at the Golden Shovel Prospect

The chert was comprehensively rock chip sampled during recent field activity, building upon limited sampling that had been completed in the past. Sample locations are included in Appendix 2 and assay results in Appendix 3. The results confirm that the chert contains significant concentrations of gold (up to ~8g/t Au), silver (6.8 g/t Ag), zinc (~0.33% Zn) and lead (~0.13% Pb).

The chert is distinctly banded and iron-rich. The association of the chert with felsic volcanic rocks and the strong base metal geochemistry suggests good potential for the presence of a VHMS system.

NEAR-TERM EXPLORATION OF THE PROSPECTS

Exploration programs to investigate the gold and base metal potential are currently being developed. This will include follow up drilling of the defined gold prospects, which is expected to occur during the December Quarter.

The first step in gaining an improved understanding of the base-metal mineralisation in the project will be a review of soil geochemistry and drilling data, with careful analysis of geochemical anomalism corresponding to VHMS signatures. Detailed mapping will also be conducted to better defined the geology of the prospects.

Fixed loop electromagnetic (FLEM) surveys will be considered as this should be an effective technique for identifying massive sulphide and deeper VHMS mineralisation in this area as there are no other conductors evident within the stratigraphic sequence.

This ASX release has been approved by the Board of Directors

For further information:
Tim Spencer, Managing Director
Essential Metals Limited
T: +61 8 9322 6974
E: tims@essmetals.com.au

Investor Relations
Nicholas Read
Read Corporate
T: +61 8 9388 1474
E: nicholas@readcorporate.com.au

About Essential Metals Limited

Following successful completion of the Sinclair Caesium Mine, 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 lithium, caesium, gold, nickel and cobalt projects in mining regions in Western Australia, plus a high-quality lithium asset in Canada.

Lithium:

- The ***Pioneer Dome LCT Project*** is highly prospective for lithium, evidenced by the discovery of multiple spodumene bearing pegmatites in the Dome North area. It includes the Cade Deposit, on which a maiden JORC Inferred Resource of 8.2 million tonnes @ 1.23% Li_2O was estimated in November 2019.
- 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 100% owned by the Company. Exploration over the past 40 years has identified multiple gold prospects but the effort and focus has been on nickel. The gold potential is being reappraised and existing and newly identified prospects will be actively explored.
- ***Other Projects*** in the Company's portfolio, such as **Juglah Dome**, have historically been considered prospective for gold and a detailed review is being undertaken.

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-Juglah Dome Project*** includes the suspended Blair Nickel Sulphide Mine, located between Kalgoorlie and Kambalda, WA. Near-mine target generation is continuing, with the Company announcing a new disseminated nickel sulphide drilling discovery at the Leo Dam Prospect in 2018, highlighting the prospectivity of the greater project area and this work has now been progressed by recent drilling.

Cobalt: Also found as a wide-spread hydromorphic layer throughout the eastern Juglah Dome Project, cobalt is another commodity with demand expanding in response to its requirement in the manufacture of cobalt-based batteries in certain electric vehicles and electricity stabilisation systems (powerwalls). Other uses for cobalt include in the manufacture of super-alloys, including jet engine turbine blades, and for corrosion resistant metal applications.

Reference to previous market announcements

The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

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

The information in this report that relates to Exploration Results is based on information supplied to and compiled by Mr Peter Spitalny.

Mr Spitalny is an independent consulting geologist and does not hold shares in Essential Metals Limited. Mr Spitalny is a Member of AusIMM and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Editions of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Spitalny consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Appendix 1 - Significant Drilling Intersections from the Juglah Dome Project

A total of 1,016 drill holes have been drilled in those parts of historical tenements covering the ground now contained in E25/585 of which 36 drill holes returned significant gold intersections greater than 0.5g/t Au over 1m or more. These 36 drill holes are listed in the following table:

Table 1: Significant historical drilling intersections using 0.5 g/t Au lower cut-off

Hole_ID	Prospect	Easting (mE) MGA94_Z51	Northing (mN) MDA94_Z51	RL (m)	Azimuth (^{0}) (Magnetic)	Dip (°)	Depth From (m)	Depth To (m)	Interval Width (m)	Au (g/t)	Au g/t Intercept	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
DB44	Dwyer	407006	6577682	350	270	-60	38	40	2	0.91	**2m @ 0.91**				
DB49	Dwyer	407107	6577682	350	270	-60	30	34	4	1.50	**4m @ 1.50**				
DRC1	Dwyer	407126	6577682	350	270	-60	29	32	3	0.94	**3m @ 0.94**				
DRC1							37	38	1	0.52	**1m @ 0.52**				
DRC2	Dwyer	407166	6577683	350	270	-60	39	40	1	0.50	**1m @ 0.50**				
GFDD001	Gards	405760	6569300	350	90	-60	74	81	7	1.47	**7m @ 1.47**				
GFRC003	Gards	405800	6569300	350	90	-60	33	42	9	1.15	**9m @ 1.15**				
JDAC009	Gards	405134	6571628	354	0	-90	15	18	3	0.5	**3m @ 0.50**	6	127	3233	1937
JDRB0194	Moonbaker	406433	6572907	350	0	-90	21	24	3	0.92	**3m @ 0.92**				
JDRB0223	John West	406818	6572679	350	0	-90	16	17	1	1.51	**1m @ 1.51**				
JDRB0267	John West	406800	6572637	350	0	-90	19	20	1	1.19	**1m @ 1.19**	0	206	5	55
JDRB0279	John West	407068	6572501	340	0	-90	30	33	3	0.79	**3m @ 0.79**				
JDRB0281	John West	407016	6572569	350	0	-90	27	30	3	0.67	**3m @ 0.67**				
JDRB0284	John West	406960	6572537	343	0	-90	24	27	3	1.31	**3m @ 1.31**				
JDRB0293	John West	406988	6572645	344	0	-90	15	18	3	0.7	**3m @ 0.70**				
JDRB0327	Moonbaker	406219	6573442	352	0	-90	9	21	12	5.4	**12m @ 5.40**	0	23	3	16
JDRB0328	Moonbaker	406239	6573443	352	0	-90	21	24	3	0.59	**3m @ 0.59**				
JDRB0331	Moonbaker	406198	6573525	355	0	-90	12	13	1	0.59	**1m @ 0.59**	0	69	7	51
JDRB0413	Moonbaker NE	407153	6574182	366	0	-90	33	35	2	0.74	**2m @ 0.74**	0	5	6	25
JDRB0419	John West	406225	6573443	358	0	-90	18	26	8	1.01	**8m @ 1.01**				
JDRB0422	John West	406199	6573528	355	0	-90	18	21	3	0.52	**3m @ 0.52**				
JDRB0468	Axe Patch	405540	6574497	368	0	-90	42	45	3	9.31	**3m @ 9.31**				
JDRB0541	Axe Patch	406429	6573105	353	0	-90	27	30	3	0.95	**3m @ 0.95**				
JDRB0571	Axe Patch	406595	6572791	359	0	-90	18	21	3	0.92	**3m @ 0.92**				
JDRB0663	Dingo Dam	404894	6571628	353	270	-60	25	26	1	0.51	**1m @ 0.51**	0	322	341	693
JDRB0684	Dingo Dam	405210	6571323	339	270	-60	41	42	1	0.98	**1m @ 0.98**	137	1183	3254	1833
JDRC005	Dingo Dam	404747	6572299	349	90	-60	33	36	3	1.03	**3m @ 1.03**	9	4213	31	122
JDRC009	Dingo Dam	404770	6572401	346	90	-60	1	3	2	0.89	**2m @ 0.89**	2	10256	14	102
JDRC012	Dingo Dam	404749	6572503	350	90	-60	27	28	1	0.51	**1m @ 0.51**	1	1054	6	82
JDRC019	Moonbaker	406257	6573448	358	270	-60	24	27	3	1.7	**3m @ 1.70**				
JDRC019							45	48	3	0.92	**3m @ 0.92**				
MDR292	Mulga Dam	406610	6569889	350	270	-60	12	16	4	1.00	**4m @ 1.00**				
MDR311	Mulga Dam	406280	6569869	350	270	-60	16	20	4	1.00	**4m @ 1.00**				
RYRB248	Salt Creek North	405200	6566100	350	0	-90	24	28	4	0.71	**4m @ 0.71**				
TTRB014	John West	407037	6572557	380	0	-90	31	32	1	0.77	**1m @ 0.77**	0	245	0	32
TTRB036	Axe Patch	405837	6574157	380	0	-90	38	39	1	0.69	**1m @ 0.69**	0	22	0	43

Appendix 2 – Location from which Rock-chip samples were collected

Recent (2020) and historical (2014 & 2015) sample locations included in the table below:

Table 2: Rock-chip sample locations

Sample I.D.	Easting (mE)	Northing (mN)	Grid	Year
ARC130760	405365	6568998	WGS-84 zone 51j	2020
ARC130761	405370	6569057	WGS-84 zone 51j	2020
ARC130762	405372	6569086	WGS-84 zone 51j	2020
ARC130763	405347	6569120	WGS-84 zone 51j	2020
ARC130764	405340	6569158	WGS-84 zone 51j	2020
ARC130765	405336	6569198	WGS-84 zone 51j	2020
ARC130766	405359	6569248	WGS-84 zone 51j	2020
ARC130767	405385	6569222	WGS-84 zone 51j	2020
ARC130768	405483	6569272	WGS-84 zone 51j	2020
ARC130769	405570	6569177	WGS-84 zone 51j	2020
ARC130770	406050	6568946	WGS-84 zone 51j	2020
ARC130771	406029	6568992	WGS-84 zone 51j	2020
ARC130772	406015	6569004	WGS-84 zone 51j	2020
ARC130773	406005	6569030	WGS-84 zone 51j	2020
ARC130774	405997	6569037	WGS-84 zone 51j	2020
ARC130775	405993	6569067	WGS-84 zone 51j	2020
ARC130776	405981	6569085	WGS-84 zone 51j	2020
ARC130777	405969	6569091	WGS-84 zone 51j	2020
ARC130778	405962	6569097	WGS-84 zone 51j	2020
ARC130779	405929	6569148	WGS-84 zone 51j	2020
ARC130780	405904	6569169	WGS-84 zone 51j	2020
ARC130781	405888	6569199	WGS-84 zone 51j	2020
ARC130782	405863	6569234	WGS-84 zone 51j	2020
ARC130783	405839	6569276	WGS-84 zone 51j	2020
ARC130784	405827	6569294	WGS-84 zone 51j	2020
ARC130785	405817	6569318	WGS-84 zone 51j	2020
ARC130786	405820	6569344	WGS-84 zone 51j	2020
ARC130787	405754	6569445	WGS-84 zone 51j	2020
ARC130788	405750	6569443	WGS-84 zone 51j	2020
ARC130789	405060	6568116	WGS-84 zone 51j	2020
ARC130790	405098	6568109	WGS-84 zone 51j	2020
ARC130791	405045	6568074	WGS-84 zone 51j	2020
ARC130792	404923	6567982	WGS-84 zone 51j	2020
ARC98924	405356	6569126	MGA94_51	2015
ARC98925	405496	6569282	MGA94_51	2015
ARC98464	405352	6569250	MGA94_51	2014
ARC98465	405338	6569233	MGA94_51	2014
ARC98466	405348	6569122	MGA94_51	2014
ARC98467	405363	6569073	MGA94_51	2014
ARC98468	405317	6569245	MGA94_51	2014
ARC98469	405845	6569274	MGA94_51	2014
ARC98470	405835	6569298	MGA94_51	2014
ARC98471	405803	6569296	MGA94_51	2014
ARC98594	405818	6569312	MGA94_51	2014
ARC98595	405832	6569305	MGA94_51	2014
ARC98596	405846	6569266	MGA94_51	2014
ARC98597	405873	6569230	MGA94_51	2014
ARC98598	405903	6569189	MGA94_51	2014
ARC98599	405807	6569340	MGA94_51	2014

Appendix 3 – Selected assay results from rock-chip samples

Recent (2020) and historical (2014 & 2015) sample locations included in the table below:

Table 3: Rock-chip sample assay results of selected elements

Prospect	DATE	SampleID	Au_ppm	Ag_ppm	Ba_ppm	Bi_ppm	Cu_ppm	Mn_ppm	Mo_ppm	P_ppm	Pb_ppm	Zn_ppm	Fe_pct	S_pct
Golden Shovel	2020	ARC130760	0.012	bld	16	0.1	27	276	32.7	338	104.7	218	15.19	0.08
Golden Shovel	2020	ARC130761	0.512	bld	13	0.22	11	153	28.2	615	768.8	721	16.55	bld
Golden Shovel	2020	ARC130762	1.158	0.8	29	0.14	18	271	5.9	455	381.4	942	16.65	bld
Golden Shovel	2020	ARC130763	0.108	bld	30	0.41	27	354	13	442	494.1	506	16.24	0.1
Golden Shovel	2020	ARC130764	0.082	bld	43	bld	9	745	2.8	42	142.5	613	6.75	bld
Golden Shovel	2020	ARC130765	0.101	bld	48	0.11	24	439	5.9	475	585.3	642	15.52	bld
Golden Shovel	2020	ARC130766	0.017	bld	31	bld	17	176	6	217	79.2	480	11.84	bld
Golden Shovel	2020	ARC130767	0.113	bld	20	0.3	13	242	4.8	112	302.8	194	5.56	bld
Golden Shovel	2020	ARC130768	2.33	bld	38	6.64	19	445	7.3	414	23.1	150	17.78	bld
Golden Shovel	2020	ARC130769	0.092	bld	21	0.24	12	211	4.6	382	4.4	56	14.98	bld
Golden Shovel	2014	ARC98464	0.752	6.8	9	2.5	62	665	8	1675	1309	3329	42.7	0.0571
Golden Shovel	2014	ARC98465	0.033	1	75	2.5	29	543	20	771	188	2943	43.45	0.0404
Golden Shovel	2014	ARC98466	0.263	1	19	2.5	33	419	12	601	1066	1240	36.94	0.0708
Golden Shovel	2014	ARC98467	8.072	1.1	17	2.5	46	210	27	193	1093	278	40.41	0.0696
Golden Shovel	2014	ARC98468	0.023	0.25	693	2.5	57	587	1	583	35	104	4.25	0.0061
Golden Shovel	2015	ARC98924	2.621	0.2	24	3.34	49	946	16.1	188	436	1422	25.62	0.1013
Golden Shovel	2015	ARC98925	0.178	0.05	8	0.28	2	91	2.4	25	2	7	0.97	0.0025
South Chert	2020	ARC130789	0.255	0.6	26	4.75	62	256	8.9	1303	7.9	75	19.13	bld
South Chert	2020	ARC130790	0.037	bld	462	0.26	29	442	39.3	2542	13.6	93	23.95	bld
South Chert	2020	ARC130791	1.192	bld	100	0.14	21	204	2.4	1245	7.1	47	25.6	bld
South Chert	2020	ARC130792	0.016	bld	32	0.12	13	281	1.4	783	2.2	15	17.09	bld
Gards	2020	ARC130770	0.684	bld	185	0.27	26	221	14.8	146	6.1	22	2.97	bld
Gards	2020	ARC130771	0.06	bld	99	0.06	33	168	1	143	5.4	40	3.45	bld
Gards	2020	ARC130772	0.004	bld	318	bld	6	327	0.5	330	1.9	28	4.54	bld
Gards	2020	ARC130773	0.072	bld	452	0.06	22	86	1	151	7.8	21	4.16	bld
Gards	2020	ARC130774	0.178	bld	185	0.35	19	286	2.4	232	11.2	26	3.58	bld
Gards	2020	ARC130775	0.053	bld	91	3.18	27	93	2.3	188	6.4	26	3.62	bld
Gards	2020	ARC130776	0.002	bld	30	bld	3	45	0.9	34	1.1	3	0.64	bld
Gards	2020	ARC130777	0.344	bld	28	1.64	5	56	97	105	12.1	2	0.68	bld
Gards	2020	ARC130778	0.102	bld	198	0.06	22	331	1.2	121	4.1	20	2.92	bld
Gards	2020	ARC130779	0.132	bld	117	0.37	32	388	3.6	159	7.6	39	2.76	bld
Gards	2020	ARC130780	0.104	bld	599	0.31	37	150	0.7	112	4.1	24	3.91	bld
Gards	2020	ARC130781	0.006	bld	618	bld	17	74	1.2	161	4.2	29	3.55	bld
Gards	2020	ARC130782	0.011	bld	5589	bld	16	273	0.9	131	2.4	14	1.12	0.07
Gards	2020	ARC130783	0.613	bld	95	0.18	21	373	1.7	187	4	46	4.04	bld
Gards	2020	ARC130784	0.511	bld	59	0.2	31	222	1.2	97	2.4	25	2.18	bld
Gards	2020	ARC130785	0.875	bld	112	0.21	22	1028	1.6	699	3.5	38	3.19	bld
Gards	2020	ARC130786	0.188	bld	7398	bld	9	168	1.2	131	1.2	17	1.47	0.07
Gards	2020	ARC130787	0.943	bld	119	0.29	20	86	1.1	120	2.1	17	3.75	bld
Gards	2020	ARC130788	0.861	bld	71	0.12	13	74	1.3	62	1.6	9	2.27	bld
Gards	2014	ARC98469	0.795	no assay	no assay	no assay	no assay	no assay	no assay	no assay	no assay	no assay	no assay	no assay
Gards	2014	ARC98470	0.12	no assay	no assay	no assay	no assay	no assay	no assay	no assay	no assay	no assay	no assay	no assay
Gards	2014	ARC98471	0.481	no assay	no assay	no assay	no assay	no assay	no assay	no assay	no assay	no assay	no assay	no assay
Gards	2014	ARC98594	0.143	0.25	118	2.5	13	247	1	196	5	16	3.01	0.0112
Gards	2014	ARC98595	1.229	0.25	97	2.5	27	365	1	88	2.5	12	2	0.0102
Gards	2014	ARC98596	0.999	0.25	240	2.5	24	256	1	364	15	27	3.7	0.0246
Gards	2014	ARC98597	0.361	0.25	650	2.5	27	450	1	363	18	54	3.87	0.0209
Gards	2014	ARC98598	0.172	0.25	216	2.5	19	197	1	176	10	20	2.82	0.023
Gards	2014	ARC98599	3.703	0.25	172	2.5	25	1069	1	889	6	34	2.93	0.0076

Appendix 4 – 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. One diamond hole was also completed. • RC, RAB and diamond drilling was completed to industry standards at the time. • For historic drilling, sampling in mineralised zones mostly comprised 1m samples with some composite samples 2-4m however historic sampling methodology was not documented. • Company RAB drilling used standard industry face sampling blade bit with samples collected as 3m composites or 1m samples by spear sampling. • Company drilling included standards and duplicates inserted at regular intervals to provide assay quality checks. • For Company RAB drilling, whole samples were pulverised to produce a 50g charge for fire assay with AAS (atomic absorption spectrometry) finish. • Sample preparation procedures were not documented for historic drilling. • Historic RAB drilling was assayed using an aqua regia digest followed by AAS for gold and MS/OES for other elements. • Rock-chip sampling was undertaken by breaking-off fragments from outcrops, with nature of the sample and its location recorded. Sample masses were mostly around 3kg.
Drilling techniques	• 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).	• Historic drilling includes RC, RAB, air core and diamond techniques. Details on hole diameter and sampling methods are not known. • Company RAB drilling used standard 90mm blade bit.
Drill sample recovery		

Criteria	JORC Code explanation	Commentary
	• 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.	• For Company RAB drilling, sample quality was recorded for each sample and quality was generally regarded as fit for purpose. • Measures taken to maximise sample recovery on historic drilling are unknown. • Drill core recovery was determined from physical core measurements. • 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. • Company RAB holes were logged for geology in full capturing lithology, mineralogy, alteration, sulphide abundance and type, texture, recovery, colour. Recovery noted if poor. • Company logging is qualitative, and a representative sample is retained in a chip tray for future reference.
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	• For historic RC and RAB drilling, the sampling technique is unknown other than 1m samples were taken through mineralised zones with some composite samples 2-4m. Generally, 2-5m composite samples outside of mineralised zones are common. • The method of historic core sampling and size of the core sampled is unknown other than the downhole width of the sample being 1m. • Sample preparation was by reputable contract laboratories and is assumed to be satisfactory. • In Company RAB holes, samples were collected as 3m composites from 1m intervals. Anomalous intervals were resampled at 1m intervals. • Quality control procedures for historic drilling are unknown. • In Company RAB holes Standard Reference Material and duplicate samples were included at a rate of 1 per 30 samples to monitor sample preparation and representivity;

Criteria	JORC Code explanation	Commentary
	of the material being sampled.	• 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. • 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.	• 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 and DD samples; • Company RAB holes were assayed by fire assay. • Quality control procedures adopted for historic drilling are unknown. • Company drilling included duplicates and standards inserted approximately every 30 samples and have returned results with acceptable levels of accuracy and precision. • Rock-chip samples were assayed by Genalysis Intertek, using method AR25/MS33, i.e. an Aqua Regia digest of a 25g pulverised aliquot followed by ICPMS/OES (Inductively Coupled Plasma Mass Spectrometry or Optical Emission Spectrometry) for determination of a suite of 33 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 and DD holes have down hole surveys, but the method was not documented. RAB drilling was not down hole surveyed.

Criteria	JORC Code explanation	Commentary
		• Company holes were picked up by handheld GPS and all are located on MGA-94 (zone 51).
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.	• Drilling is mostly wide-spaced, closest being 80 x 20m in and around anomalism. • 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 drilling is approximately perpendicular to dip and strike of the known mineralisation and no orientation-based bias has been observed; • 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. • The Company uses standard industry practices when collecting, transporting, and storing samples for analysis. Pulps are retained by the Company off site in a designated storage container.
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 Western Mining Corporation (WMC) began in the 1980's exploring for Au, Cu, Zn; • Further exploration was carried out by Afmeco Ltd, 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

Criteria	JORC Code explanation	Commentary
		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.
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 2 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 0.5g/t Au minimum cut-off unless stated; • All gold intersections within the areas of interest are in Table 1 in Appendix 2 and calculated using a minimum 0.5g/t Au cut off and maximum 3m internal waste and no external dilution; • There are no metal equivalent values reported.

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (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 be practiced to avoid misleading reporting of Exploration Results.	• Comprehensive reporting of a selection of historic Au downhole intersections from 36 holes and drill details has been provided in Table 1 in Appendix 1 of this announcement.
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	• 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. • Twin holes from historic drilling to validate intersections and drill test in areas identified from further mapping

Criteria	JORC Code explanation	Commentary
	main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	and/or surface geochemical anomalies.