CASSINI
RESOURCES LIMITED

ASX Release (CZI)
23 April 2020

ACTIVITIES REPORT FOR THE QUARTER ENDED 31 MARCH 2020

QUARTER HIGHLIGHTS:

Corporate

- **Nebo-Babel PFS a significant milestone for the Company**
- **COVID-19 pandemic response**
- **Available Cash at end of Quarter $6.96M**

West Musgrave Project (CZI 30%)

- **High quality Pre-Feasibility Study places Nebo-Babel deposits in lowest quartile of forecast global nickel producers**
- **Robust economics on 26 year mine life, open pit, low carbon footprint operation[1]**
- **Maiden Ore Reserve supports first 22 years of operation[2]**
- **Project funding options to be progressed**
- **Opportunities to add additional value through further exploration and development activities across the 9,500km^2 West Musgrave Province**

Yarawindah Brook Project (CZI 80%)

- **Significant Ni-Cu results from maiden drilling program**
- **Multiple Ni-Cu prospects identified**
- **Land position increased to 400km^2**
- **Ongoing exploration in an emerging nickel province**

Mount Squires Gold Project (CZI 100%)

- **Environmental and heritage permits received for drilling on emerging gold trend**

Cassini Resources Limited (ASX:CZI) ("Cassini" or the "Company") is pleased to report achievements at its development and exploration projects during the March 2020 Quarter.

Corporate

Nebo-Babel PFS a Significant Corporate Milestone

Cassini Managing Director, Mr Richard Bevan said "We are delighted with the Pre-Feasibility Study outcomes for the Nebo-Babel deposits. This is a very significant milestone for the West Musgrave Project ("WMP, the Project") and all its stakeholders. The PFS clearly demonstrates the strategic value of this project by confirming excellent economics on a long life, low operating cost nickel and copper mine at Nebo-Babel.

1.These production targets must be read in conjunction with the production targets cautionary statement on page 23
2. See OZ Minerals announcement titled "West Musgrave Project Nebo-Babel Deposits Ore Reserve Statement and Explanatory Notes as at 11th Feb 2020", released on 12 February 2020 and available at: www.ozminerals.com/operations/resources-reserves/

"The OZ Minerals Technical Team, aided by CZI's own geologists, has delivered a very high quality PFS with spending in excess of $50m to date. Substantial progress has been made on the metallurgical and resource definition work packages which has significantly de-risked the project. Over 170,000m of drilling has facilitated several phases of metallurgical pilot testing and the release of the Maiden Ore Reserve which supports the first 22 years of mining, a remarkable achievement at this stage of study.

"The PFS considers a modern mine development driven by innovation in mining, processing and power generation. This innovation has led to significant improvements in operating costs which now places the project in the lowest quartile of forecast global nickel producers. With a mine life of over 26 years, the project will be well placed to capitalise on the high points of the nickel commodity price cycle and be resilient during periods of lower prices as well.

"World demand for high-quality battery and electrification metals is expected to ramp-up over the coming years. We note the dearth of advanced, quality, scalable nickel sulphide projects worldwide, which can satisfy this emerging market.

"Another exciting aspect is that the study is based only on the Nebo-Babel deposits and does not include deposits or exploration prospects within the broader Joint Venture project area. There are clearly defined opportunities to add additional value over time with continued exploration and development activities. We have recently expanded the project footprint to over 9,500km^2 in what is currently an under-explored province with enormous potential.

"I'd like to commend our Joint Venture partner OZ Minerals and their Project team for delivering an exceptional study. We have enjoyed an excellent working relationship with OZ Minerals and look forward to progressing together through the next study phase and on to production.

"Lastly, I'd like to thank our technical team for their valuable contribution to the PFS and of course, our loyal shareholders for their support during this journey. We look forward to their continued support as the Company takes the next steps to realise the full value of the West Musgrave Project.".

COVID-19 Pandemic Response

The Company has rapidly implemented a business continuity strategy that is aligned with current health and travel protocols in response to the COVID-19 pandemic. The March Quarter saw an escalation of travel restrictions through Western Australia with varying impacts at the Company's projects.

The West Musgrave Joint Venture proactively suspended field operations prior to the Federal Government declaring a biosecurity zone covering the Ngaanyatjarra Lands with restrictions to essential services only. Whilst the potential impact to on ground work programs is unclear, critical path activities such as environmental and heritage approvals are continuing.

The Mount Squires Project has also been affected by travel restrictions within the Ngaanyatjarra Lands, however there has been no material impact to the intended work schedule as yet. The Company is monitoring the situation and plans to mobilise field crews when travel restrictions are lifted.

Regional travel restrictions in Western Australia have not affected operations at the Yarawindah Brook Project which are expected to continue through the June Quarter.

The Company is confident it can continue to add value to its projects during this crisis, whilst maintaining apropriate health and safety protocols required by State and Federal Governments.

Maiden drilling January 2020 at the Yarawindah Project.

West Musgrave Project (CZI 30%, OZL 70%)

Joint Venture partners Cassini and OZ Minerals are working together on the West Musgrave nickel-copper project in Western Australia. The partners reached a significant milestone during the Quarter by delivering the results of the Nebo-Babel Pre-Feasibility Study.

Pre-Feasibility Study Results

The Pre-Feasibilty Study (PFS) has demonstrated a long life ~26-year open pit nickel and copper sulphide mine. It is the first development opportunity within the broader West Musgrave province which includes a number of additional highly prospective opportunities including the nearby Succoth copper deposit. A Maiden Probable Ore Reserve of 220Mt at 0.36% Cu and 0.33% Ni was also declared, representing ~22 years of the ~26-year life of mine (LOM) demonstrated in the PFS (with the balance of the mine life underpinned by a combination of Indicated and Inferred Mineral Resource).

Table 1: Key Metrics for Cassini's 30% relevant interest in the WMP

Key Financial and Production Metrics	Unit	Cassini Interest[1]
Average Ni Production Yr 1 - 5	ktpa	~ 8.1
Average Ni Production Yr 6 - Life of Mine	ktpa	~ 6.6
Average Cu Production Yr 1 - 5	ktpa	~ 9.9
Average Cu Production Yr 6 – Life of Mine	ktpa	~ 8.1
Pre-production capital	A$m	~ 298
Average annual net cash flow (post tax)	A$mpa	~ 57

[1] Cassini's interest in the WMP is calculated in the above table by taking 30% of the WMP Financial and Production Metrics as set out in the PFS Announcement of 12 February 2020.

Table 2: Production Metrics[1]

Mining	Resource	280Mt Ind and 63Mt Inf at 0.33% Ni and 0.36% Cu
	Ore Reserve	220Mt (100% Probable) at 0.33% Ni and 0.36% Cu
	Mining Rate	~ 31Mtpa (pre-strip & stockpiling), ~34Mtpa (Yr1-5), ~43Mtpa (Yr6-LOM)
	Strip Ratio	~3.3 LOM average
	Life of Mine	~26 Years
	Operations	Contractor Mining Yr1-5, Owner Operate Yr6-LOM
Processing	Flowsheet	Crushing, Vertical Roller Mill Flotation producing separate nickel and copper concentrates
	Nickel Grade	~0.42% (Yr1-5), ~0.31% (Yr6-LOM)
	Copper Grade	~0.45% (Yr1-5) ~0.34% (Yr6-LOM)
	Recoveries	~69% Ni and ~78% Cu LOM
	Concentrate Grades	~10-11% Ni in Ni Con, ~25-26% Cu in Cu Con
	Nickel Production	~27,000tpa (Yr1-5) ~22,000tpa (Yr6-LOM)
	Copper Production	~33,000tpa (Yr1-5) ~27,000tpa (Yr6-LOM)
	Tailings Storage Facility	Two cells with water recycled back to process Upstream raises with downstream buttressing with mine waste rock
Infrastructure	Roads	Upgrade of existing ~30km road from site to Jameson
	Village and Airstrip	400-person operations village and airstrip located at site
	Water	7GLpa. Northern borefield ~15km from site
	Power	50MW Power Purchase Agreement, Hybrid Renewables (Wind, Solar, Battery + Diesel or Gas)
	Logistics	Containerised road transport to Leonora, Rail to Esperance for bulk shipping to customers
	Customers	Nickel and copper smelters in Australia, Asia and Europe Potential to expand customer base to include battery manufacturers of nickel-cobalt mixed hydroxide product
Financials	Post Tax NPV	~A$800M
	Post Tax IRR	~20%
	Project payback from decision to mine	~6 years

[1] The Pre-Feasibility Study was prepared at a ±25% level of accuracy; these production targets must be read in conjunction with the production targets cautionary statement on page 4 of ASX release dated 12 February 2020 and on page 23 of this announcement. All project values on a 100% project basis and in real terms as at 1 January 2020

Cost Estimate

The estimate was compiled by OZ Minerals using inputs from a range of engineering consultants, in particular Australian Mining Consultants (AMC) for mining costs and GR Engineering Services (GRES) for process plant and elements of the infrastructure costs. As this is a PFS estimate it has an accuracy of circa +/- 25%. The cost estimate has a base date of October 2019. Engineering has been completed on packages to an advanced PFS level of definition including sufficient drawings to allow material take off for bulk materials. All major equipment and bulk materials have been quoted directly for this project, while minor equipment costing, and labour rates have been sourced from the GRES database of recently executed projects. Contingencies have been determined through risk assessment, with an allowance of ~12% including ~A$60 million for inherent risks (uncertainties due to estimate immaturity) built into each package and a project contingency of A$50 million determined for contingent risks that may eventuate during construction.

Table 3: Capital Cost

Capital Cost Estimate*	A$M
Mining	~90
Process Plant	~400
Infrastructure	~150
Project Execution	~165
Owners Costs	~80
Contingency	~110
Total	~995

* Excludes FS costs

Table 4: LOM Average Operating Cost

Operating Cost Estimate	A$/t Ore
Mining	~12.70
Process Plant	~13.90
G&A	~0.80
Concentrate Logistics	~6.90
Total	~34.30

Post-production growth capital of $72 million is assumed in Year 6 to purchase the mining contractor's mining fleet and transition to owner operate, realizing a lower mining cost. Life of mine sustaining capital of $370 million has been determined, covering tailings storage facility lifts, process plant and mining fleet.

The capital cost excludes inflation and sunk costs up to 31 December 2019. Given the current assumption that power is purchased over the fence under a Power Purchase Agreement arrangement, the capital cost excludes any capital associated with power generation (current estimate is circa A$275 million), but does include capital for power distribution on site.

The financial analysis includes an estimate of $99 million for closure costs and a $7 million per year corporate charge.

Financial Analysis

Table 5: Key Financial Metrics

Metric		
Nickel Price	US$/lb	7.60
Copper Price	US$/lb	2.91
Exchange Rate	A$: $US	0.67
Discount Rate		8.5%
Net Present Value	A$M	~800*
Internal Rate of Return		~20%*

* Assumes a third party power purchase agreement and therefore no upfront capital associated with the power supply.

Becoming Australia's flagship nickel sulphide producer

Cassini commissioned Wood Mackenzie to provide independent bench marking of the project against all forecast global nickel producers. Wood Mackenzie confirmed that the forecast C1 operating costs of the project would place it in the lowest quartile of global nickel production (Figure 1). This demonstrates that Nebo-Babel will be a high margin producer driven by low mining costs, substantial by-product credits and innovative, low power, processing solutions.

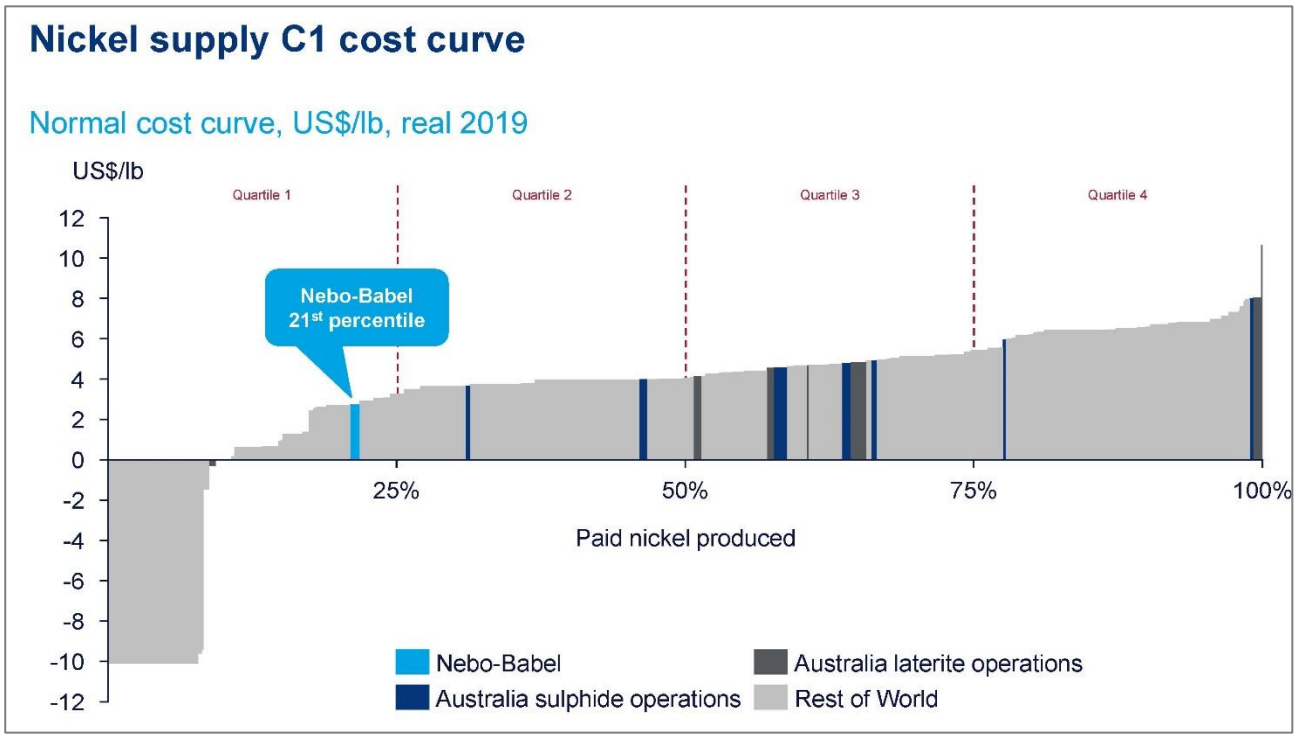

Figure 1. Global nickel supply C1 cost curve – 2026. Notes: Cost curve from Wood Mackenzie data, Nebo-Babel costs provided by Cassini Resources Limited. Year 2026 is the third year of production with annual metal output approximating the first ten years of production.

Project Funding

Cassini is not required to contribute to the West Musgrave Project costs until a Bankable Feasibility Study is delivered by partner OZ Minerals. Once the final investment decision is made, Cassini is required to contribute its share of the pre-production capital in line with its equity position in the JV (i.e. 30% or ~A$300m).

It is the view of the Company that the strong project economics, key strategic characteristics (26 year mine life, lowest quartile for operating costs), a strong JV partner and positive outlook for battery metals will provide a number of funding options for the Company.

Cassini has been approached and is engaged in discussions with a number of potential funders, at a level commensurate with the current stage of the WMP. These include debt financing, traditional bank resource project financing, offtake funding and streaming mechanisms. These discussions are continuing.

Investors should note that there is no certainty that Cassini, either individually or jointly with its JV partner, will be able to raise the funding required, or that funding may only be available on terms that may be dilutive to, or otherwise affect, the value of each company's existing shares. It is also possible that the partners, either individually or jointly, could pursue other value realisation strategies.

Further details of PFS outcomes can be found in ASX releases dated 12 February 2020.

Yarawindah Brook Ni-Cu-Co-PGE Project (CZI 80%)

The Company completed its maiden drilling program at Yarawindah Brook during the March Quarter. The program comprised a total of 9 diamond holes for 1,148m, targeting multiple electromagnetic conductors identified following an airborne and ground electromagnetic survey in 2018.

The Project is located on agricultural land 20km south of the township of New Norcia, 100km northeast of Perth, Western Australia.

The Project is prospective for nickel, copper, cobalt and platinum group elements (namely palladium and platinum). The potential of the region has been demonstrated by Chalice Gold Mines recent high-grade discovery at the Julimar Prospect, approximately 40km south of Yarawindah, within the same mafic/ultramafic intrusive complex (Figure 2).

New Results Add to Growing Regional Nickel Sulphide Province

The Company has further progressed geological and structural interpretation over the broader Project area, which has identified additional targets and Ni-Cu sulphide prospects over an area of 3km x 4km within the central part of the Project. In addition, a number of new tenements have been added to the Project taking the total land holding to almost 400km^2. These new tenements extend over the prospective mafic-ultramafic geology and key mineralisation controlling structures. The Company now has a significant ground position in an emerging nickel sulphide province.

The New Norcia region is deeply weathered, with little fresh rock outcrop and extensively covered by cultivated farm land, which has impeded previous exploration. Despite the presence of known Ni-Cu occurrences, discovered in the 1970s, most historical exploration has focused on surficial bauxite deposits. As a result there is a paucity of deeper, bedrock drilling and the geology is poorly understood. Cassini has now demonstrated that there is a significant opportunity in the region to apply modern exploration concepts and techniques to identify near-surface, Ni-Cu-PGE sulphide mineralisation.

The potential of the region has been further demonstrated by Chalice Gold Mines recent high-grade sulphide discovery at the Julimar Prospect, approximately 40km south of Yarawindah. Cassini interpret the host rocks for Julimar to be part of the same mafic/ultramafic intrusive complex that also hosts Ni-Cu occurrences in the Yarawindah area. This prospective complex is considered to have the potential characteristics of a major Ni-Cu-PGE province and is referred to by the company as the “New Norcia Province”.

Such prospective mafic/ultramafic intrusive complexes are commonly associated with major regional gravity highs, which represent deeper-level accumulations of mafic material in the crust. This is the case for the New Norcia Province. Importantly, Cassini’s Yarawindah Project overlies the central part of the gravity anomaly near the intersection of two terrane-bounding structures.

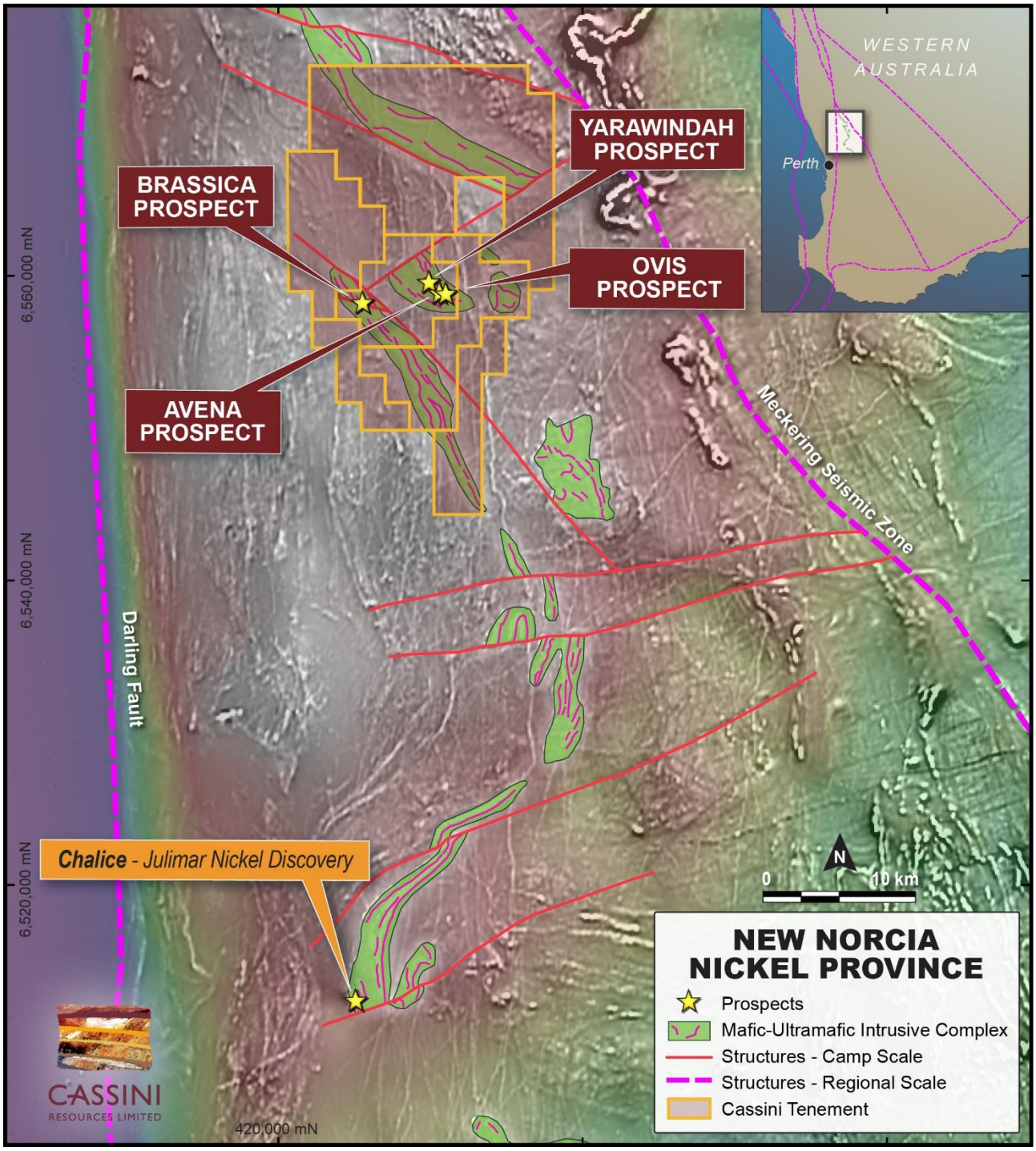

Figure 2. Regional map of the New Norcia Nickel Province with known Ni-Cu-PGE prospects, interpreted mafic/ultramafic intrusions and key structures. Background is magnetics (greyscale) draped over gravity (hot colours representing highs) to demonstrate the potential source of mafic/ultramafic intrusions.

Three New Ni-Cu-PGE Prospects

The latest drilling campaign tested new electromagnetic (EM) conductors at the Brassica Prospect, and extensions of the sulphide mineralisation defined at the Avena and Ovis Prospects.

The Avena and Ovis Prospects are located at the southern end of the Yarawindah Intrusion which has been the focus of historical exploration within the Project (Figure 3).

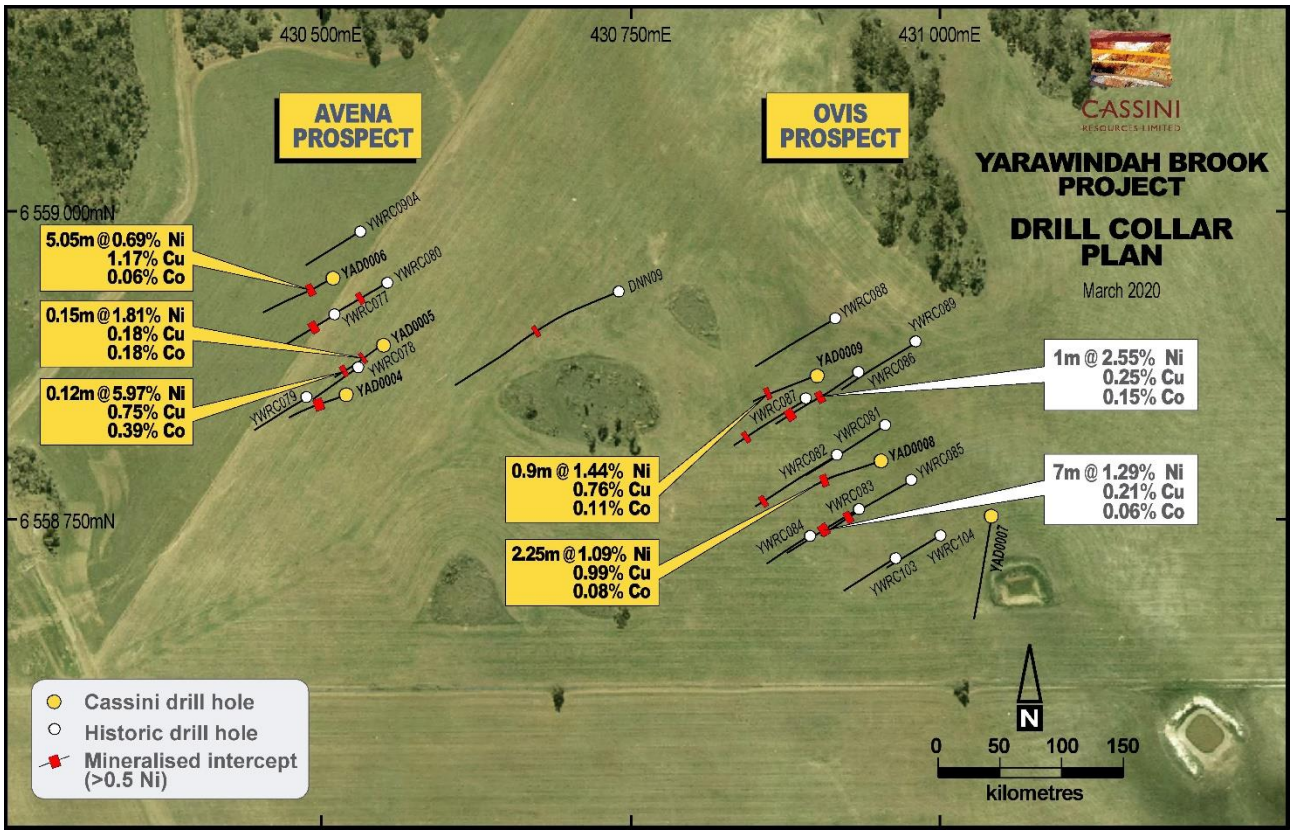

Figure 3. Location plan of drilling with significant intercepts at the Ovis Prospect and neighbouring Avena Prospect.

At Avena, drill holes have predominantly intersected broad zones of shallow, disseminated Ni and Cu sulphides, and locally contain high-grade, massive nickel sulphides. The Company is particularly encouraged by a massive sulphide intercept of **0.12m @ 5.97% Ni, 0.75% Cu, 0.39% Co & 2.66g/t PGE** from 84.3m in YAD0005. Nickel tenor of this intercept is representative of the historical massive sulphide intersections at Yarawindah, which are the Company's primary targets. Although thin, this interval is interpreted to represent a structurally remobilised massive sulphide from a proximal source. Further encouragement was returned from YAD0006, which intersected **5.05m @ 0.69% Ni, 1.17% Cu & 0.06% Co** from 57.95m. These intercepts range from 50m to 72m vertically below surface, well within open-pit mining depths.

At Ovis, all three drill holes targeted electromagnetic conductors and intersected nickel-copper sulphide mineralisation at shallow depths. Best results include **2.25m @ 1.09% Ni, 0.99% Cu, 0.08% Co & 0.24g/t PGE** from 84.8m in YAD0008 and **0.9m @ 1.44% Ni, 0.76% Cu, 0.11% Co & 0.19g/t PGE** from 86.5m in YAD0009. Mineralisation is hosted in metagabbro and metapyroxenite intrusive sequences, consistent with the exploration model targeting mafic-hosted, orthomagmatic massive sulphides.

See Table 6 for full assay results.

The mineralised portion of the host sequence at Avena and Ovis is over 50m thick and anomalous in Ni-Cu throughout, which is important as massive Ni sulphide accumulations are generally associated with large volumes of sulphide-bearing magma. These metagabbro sequences are over 100m in thickness and are generally anomalous in Ni and Cu throughout. For example, the metagabbro intrusion in YAD0006 returned a zone of 77m @ 0.17% Ni & 0.24 Cu, which demonstrates the potential overall scale of the mineralised system.

Mineralisation remains open along strike and down plunge to the north at both Avena and Ovis. Follow-up targeting work will integrate results from the geological interpretation and modelling, soil geochemistry and down-hole and surface EM surveys data.

At the Brassica Prospect, YAD0003 intersected a 70m zone of metagabbro with thick zones of disseminated and locally semi-massive zones of barren iron sulphides (pyrrhotite) and trace Cu sulphides (chalcopyrite) thus reflecting low tenor Ni and Cu sulphide mineralisation. Nonetheless, the metagabbro sequence is very similar to those along strike at Brassica that returned promising intercepts of 1.1m @ 0.50% Ni, 0.10% Cu & 0.08% Co from 92.9m in YAD0002 and 0.7m @ 0.09% Ni, 1.46% Cu & 0.02% Co from 71.4m in YAD0001.

The results to date support the Company's exploration model that the Yarawindah Project has potential to host multiple Ni-Cu magmatic sulphide deposits.

Table 6. Significant Yarawindah drilling results.

							INTERSECTIONS					
HOLE ID	East	North	RL	Dip	Azi	EOH (m)	From (m)	Width (m)	Ni %	Cu %	Co %	PGE g/t
YAD0001	425450	6558210	307	-60	215	131.7	71.4	2.3	0.05	0.59	0.01	0.02
						Incl	73.0	0.7	0.09	1.46	0.02	0.02
YAD0002	425520	6558210	305	-60	195	135.8	92.9	5.95	0.21	0.15	0.03	0.06
						Incl	95.7	1.1	0.50	0.10	0.08	0.09
YAD0003	425670	6558180	300	-60	215	150.4	103.15	3.85	0.32	0.23	0.05	0.04
YAD0004	430520	6558850	311	-60	249	97	43.5	16.5	0.36	0.38	0.03	0.09
YAD0005	430550	6558890	309	-60	245	99.9	36.6	0.15	1.81	0.18	0.18	0.76
							83	4	0.36	0.39	0.03	0.18
						Incl	84.3	0.12	5.97	0.75	0.39	2.66
YAD0006	430510	6558945	308	-68	249	155.1	45	5	0.14	0.27	0.01	0.11
							56	19	0.29	0.52	0.03	0.08
						Incl	57.95	5.05	0.69	1.17	0.06	0.03
							93.3	2.2	0.39	0.55	0.03	0.02
YAD0007	431040	6558750	310	-60	185	159.6	63	10	0.28	0.15	0.02	0.10
							148	2	0.33	0.29	0.02	0.10
YAD0008	430950	6558795	309	-60	248	109.4	60	2	0.30	0.25	0.03	0.07
							74	14	0.49	0.40	0.04	0.15
						Incl	**84.8**	**2.25**	**1.09**	**0.99**	**0.08**	**0.24**
YAD0009	430900	6558865	306	-60	249	108.7	59.3	2.9	0.10	0.54	0.01	0.21
							80.5	10.1	0.50	0.38	0.04	0.10
						Incl	**86.5**	**0.9**	**1.44**	**0.76**	**0.11**	**0.19**
							98.9	**0.3**	**1.44**	**0.11**	**0.11**	**0.40**

Nb. Widths shown are downhole width. There is insufficient drilling to determine true widths of the host intrusions or the higher-grade massive sulphides.

Prospective Zone Underexplored

A review of historical drilling has highlighted the lack of effective exploration for Ni-Cu sulphide mineralisation. Of the circa 840 holes drilled in the project area, only 8% were drilled beyond a depth of 50m (effectively top of fresh rock) and assayed for Ni and Cu (Figure 4). The remainder of the drill holes targeted near surface palladium and platinum oxide mineralisation. As an example, drill hole YBR089 intersected 11m @ 1.78g/t Pd & 0.56g/t Pt from 10m, ending in anomalous mineralisation at 46m with no assays for Ni or Cu. The Company is using this PGE data as a geochemical vector to map the extent of potential orthomagmatic Ni-Cu-PGE sulphide mineralisation.

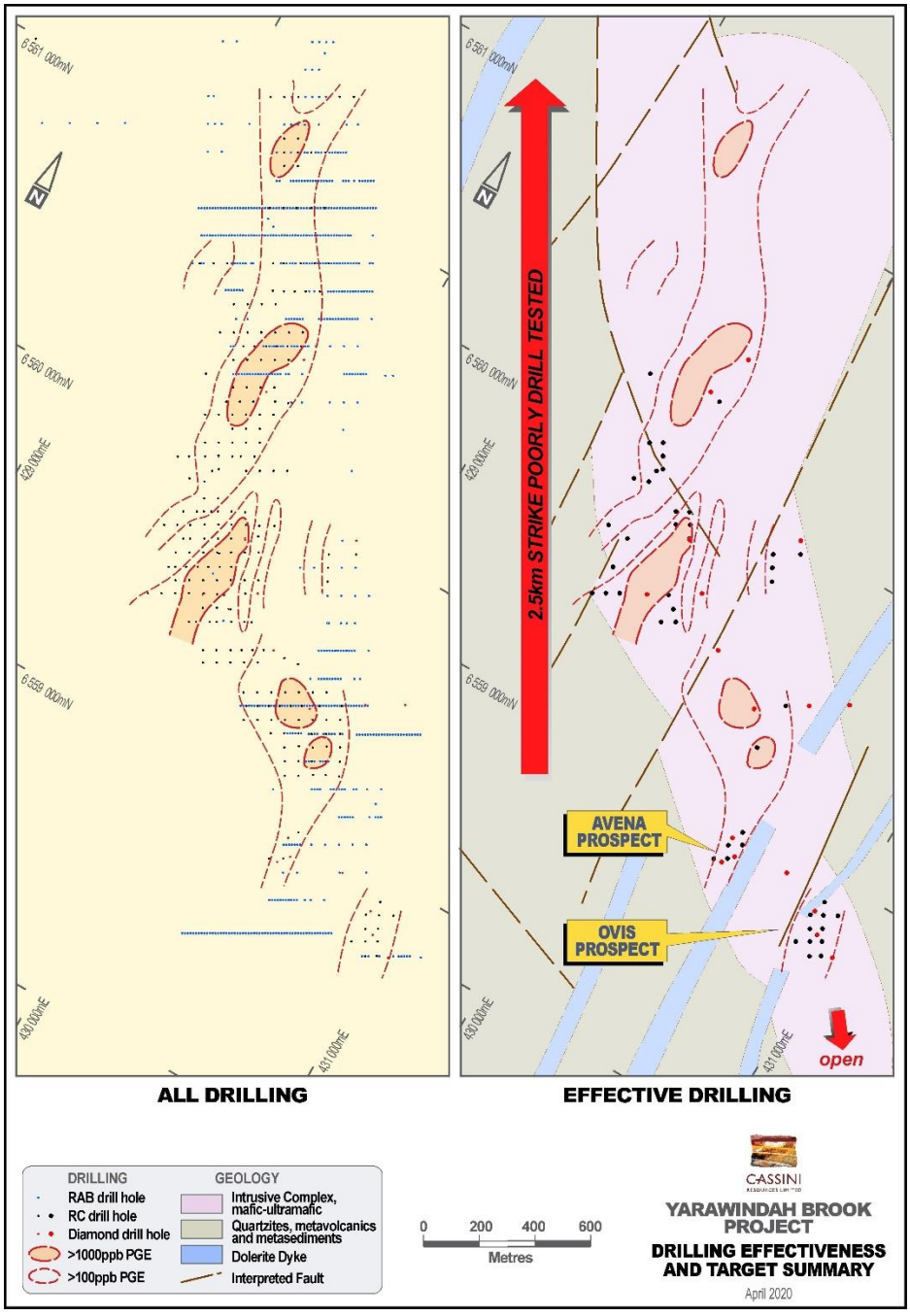

Figure 4. Drill collar plan comparing locations of all drilling in the central Yarawindah area against "effective" drilling, ie beyond 50m and with Ni-Cu assays. PGE (palladium + platinum) contours are shown to demonstrate the potential extent of Ni-Cu sulphide mineralisation that is yet to be effectively tested.

The historical database provides an enormous value and an opportunity to efficiently identify and test the most prospective areas within the Project, which have not been subjected to modern and/or effective exploration for Ni-Cu sulphide mineralisation below a top 50m search space. Historical data has also proven extremely valuable in the refinements of our geological and targeting models.

Step-Out Exploration to Identify New Targets

While testing the immediate "drill-ready" targets during this program, the Company has also started a systematic, grass-roots exploration campaign, stepping out from the Brassica, Avena & Ovis Prospects.

A soil geochemistry program comprising 1,041 samples has been completed and submitted for analysis in Perth. Reconnaissance mapping has found that surface disturbance in cultivated paddocks is limited to the top 20cm of soil, which can be easily overcome utilising a hand auger to sample the residual regolith profile. Large areas of the project remain as native bushland. The Company expects the entire project area to be amenable to modern soil geochemistry techniques. Soil sample results and interpretation are expected to be completed by the end of May.

A surface fixed loop EM survey is also underway over an area covering approximately 2km x 1.2km across the central Yarawindah Project area, including areas of shallow historical drilling with anomalous Ni, Cu and PGE results that have never been followed-up. The program is expected to be completed by the end of April.

Exploration at Yarawindah has been unaffected by recent travel restrictions in Western Australia and the Company expects to be able to advance its exploration programs over the coming months, whilst adhering to all of the required health protocols.

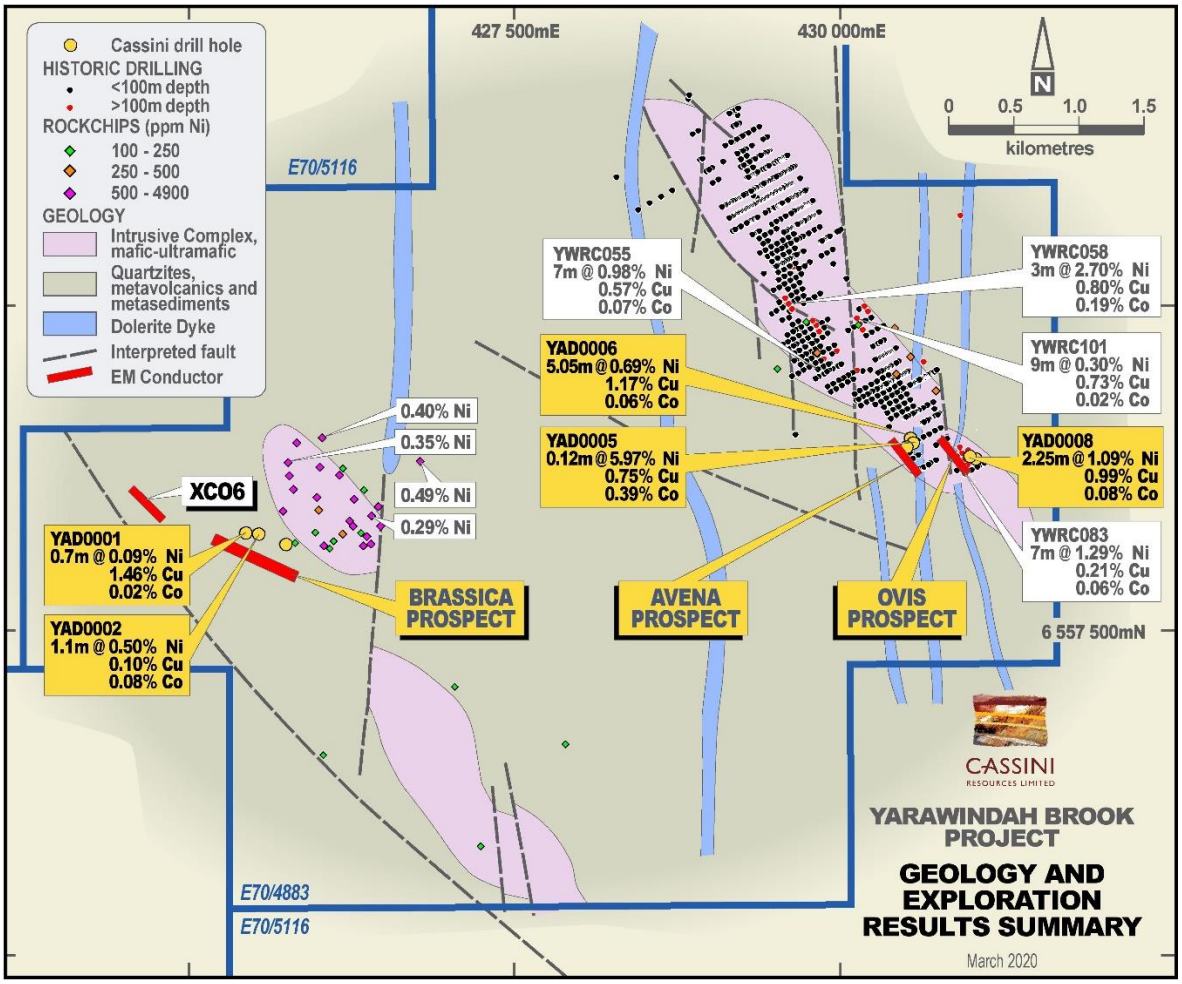

Figure 5. Yarawindah exploration target summary.

Figure 6. Soil Sampling at Yarawindah.

Yarawindah Brook Project Background

The Yarawindah Brook Project is located 100km northeast of Perth, on agricultural land near the township of New Norcia. The Company has a 80% beneficial interest in the Project which is prospective for nickel, copper, cobalt and platinum group elements (PGE's, namely palladium and platinum). Kalgoorlie-based prospector, Mr Scott Wilson, retains a 20% interest in the Project.

The Project has had limited nickel, copper and cobalt exploration, despite a favourable regional setting, prospective geology and near-surface occurrences of nickel and copper mineralisation. Previous drilling in 2007 returned several significant intercepts of sulphide mineralisation such as 7m @ 1.30% Ni, 0.22% Cu, 0.06% Co and 432ppb Pd from 74m (YWRC0083). No follow-up drilling was conducted.

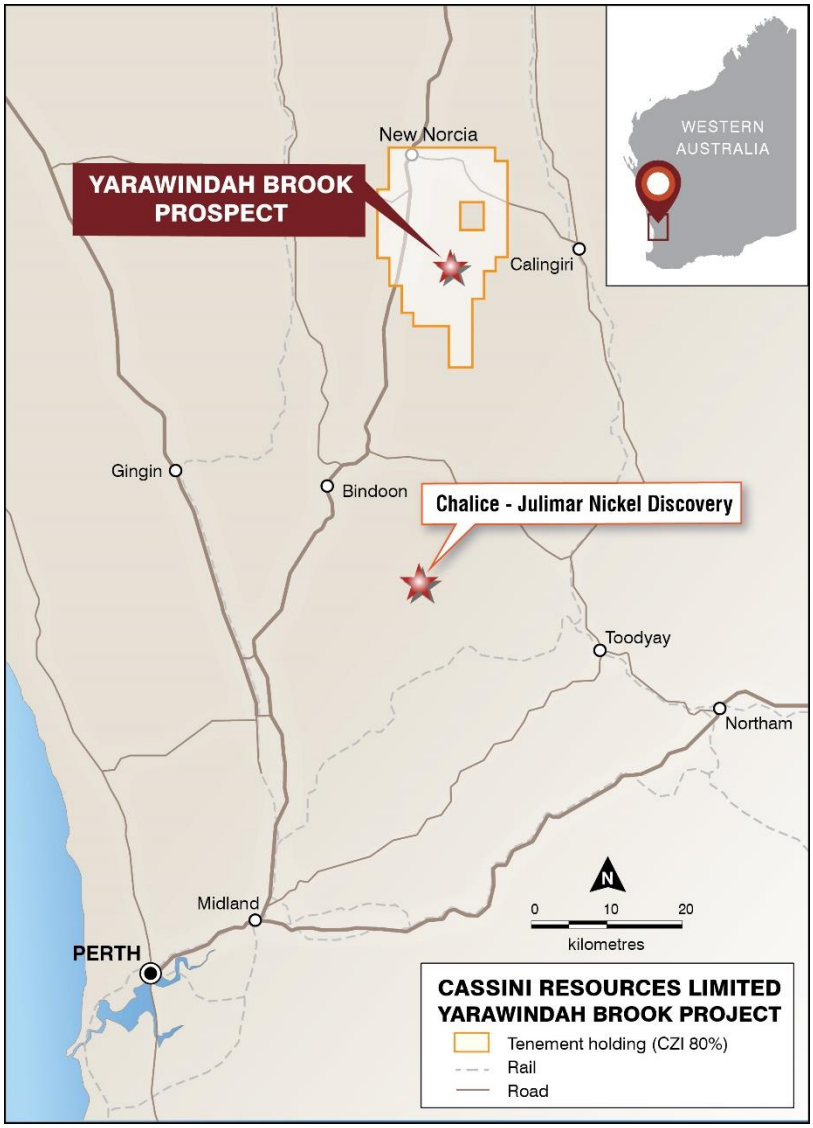

Figure 7. Yarawindah Location Plan.

The Yarawindah Brook project area was targeted by the company because it represents a mafic-ultramafic intrusive complex, located at a major regional-scale structural intersection of the Darling Fault and the Meckering siesmic zone. Such tectonic intersections are a first-order control on the formation of major Ni-Cu-PGE sulphide deposits. Several phases of previous exploration have confirmed the presence of Ni-Cu-PGE magmatic sulphides, associated with mafic and ultramafic intrusive rocks.

The Company completed an airborne electromagnetic survey (AEM) over the project in early 2018 identifying numerous conductors worthy of further investigation (see ASX Announcement 2 May 2018). A surface fixed loop electromagnetic (FLEM) survey was also completed over several of the higher priority AEM anomalies in order to confirm and better constrain the conductors prior to drilling.

The FLEM reinforced the XC05 (Brassica) and XC06 anomalies as priority targets as well as the AN01 (Ovis) and AN02 (Avena) conductors at the southern end of the main Yarawindah Prospect. The Company considers these results very encouraging for new target areas at a very early stage of exploration. The results to date have already demonstrated the Project's potential to host multiple magmatic nickel and copper deposits, given the Brassica and Avena Prospects are some 4km apart, with limited exploration between.

Mount Squires Gold Project (100% CZI)

The Mount Squires Gold Project (Mount Squires) lies adjacent to the West Musgrave Project Joint Venture and is 100% owned by Cassini. Mount Squires is a natural fit with activities at the West Musgrave Project. Our technical team has extensive geological knowledge, operational capability and established heritage relationships which provides a significant competitive advantage.

There was no field activity at the Project during the March Quarter following the holiday period and later response to the COVID-19 pandemic. All environmental and heritage clearances have been received for a reconnaissance style drill program to commence, once access to the Ngaanyatjarra Lands is re-opened.

Mount Squires Project Background

Gold prospectivity was first identified at Mount Squires by Western Mining Corporation (WMC) during geochemical surveying in the late 1990's. WMC's primary target was nickel and copper sulphide mineralisation, which returned poor results, however several gold anomalies were identified but were never followed-up and the tenements were later surrendered.

Later exploration by Beadell Resources Ltd in the mid 2000's identified a number of gold prospects with further soil geochemistry, rock chip sampling and mapping. Drilling of these anomalies mineralisation at the Handpump Prospect with significant intercepts of 43m @ 1.18g/t from 14m including 9m @ 3.25g/t from 34m (re-cut using a 0.5g/t lower cut-off). Mineralisation is described as being hosted in rhyolite breccias and having epithermal style characteristics.

After Beadell's initial discovery, there was limited exploration due to a change in the corporate strategy and the project was later surrendered.

Anglo American PLC has also explored the region, primarily for nickel and copper sulphide mineralisation, but their soil geochemical programs included a large multi-element analytical suite which provides critical data for targeting gold mineralisation. Anglo American surrendered their tenements following a decision to reduce global exploration expenditure.

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RC Drilling of Handpump Prospect

Cassini completed its first drilling program at the Handpump Prospect in 2019, comprising 10 holes for 1, 134m. Best results from the program were from holes previously released including **20m @ 1.27g/t** Au, including **7m @ 2.54g/t** Au from 23m in MSC0003, **27m @ 1.00g/t** Au from 31m, including **3m @ 2.59g/t** Au from 38m in MSC0004, and 19m @ 0.68g/t Au including 6m @ 1.26g/t Au from 38m in MSC0005 (Table 7). The results have confirmed the potential for economic mineralisation at surface and extending to shallow depths.

Mineralisation is hosted within a hydrothermal breccia at the stratiform contact of a rhyolite and overlying (predominantly barren) volcaniclastic unit. Mineralised lodes, defined by a 0.1g/t Au halo, strike E-W to ESE-WNW and are near vertical to steeply south dipping (Figure 8). Mineralisation is potentially controlled by the intersection of NW-SE and SW-NE trending structures.

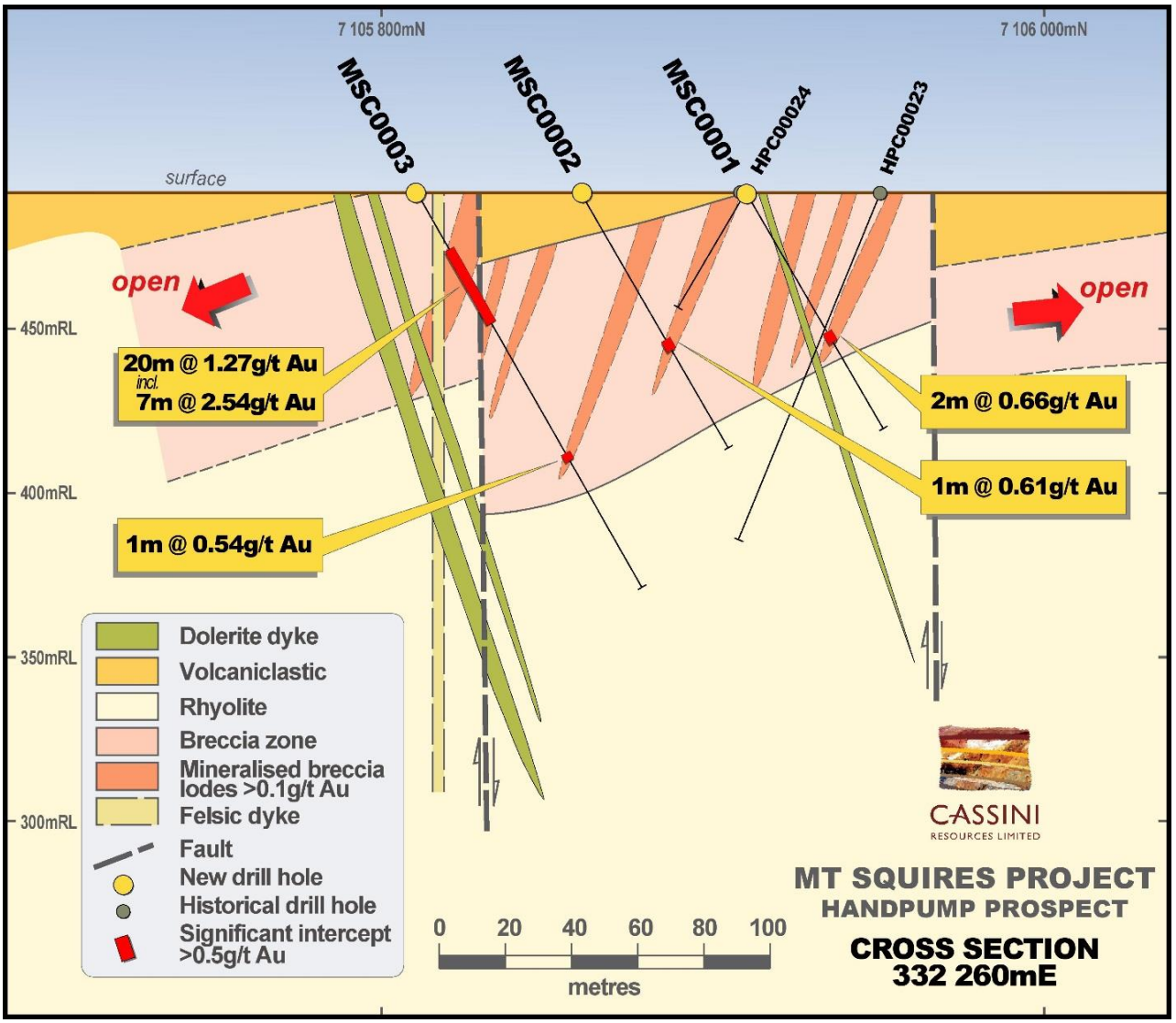

Figure 8. Cross section 332260E showing orientation of mineralised lodes and highlighting significant intersections >0.5g/t Au.

The hydrothermal breccia and mineralised veins are also largely obscured by the overlying volcaniclastic, however it is exposed at surface in some localities which has been confirmed by concurrent surface rock chip sampling by Cassini, with maximum values of up to 0.59g/t Au. Historical rock chip sampling has also recorded values up to 1.73g/t Au at the prospect (Figure 9). The hydrothermal breccia host plunges beneath the volcaniclastic unit to the west (and potentially north west) and thickening sand cover. Extrapolation of recent and historical drill results and surface rock chips samples indicates a potential mineralised strike of at least 600m which remains open down plunge.

The Handpump program has recognised that a large portion of previous drilling has been ineffective due to either the drilling angle being sub-parallel to mineralisation or it not penetrating the prospective Rhyolite unit beneath the volcaniclastic (usually the case with shallow aircore drilling).

The Company has completed a hyperspectral analysis of drillchips to assist with recognising potential alteration patterns associated with mineralisation. Results are yet to be interpreted.

An orientation geochemical survey was also completed over Handpump, including a trial of Ultra Fine Fraction sampling, to determine the most effective sampling technique in the Mount Squires environment. These results will inform decisions about geochemical sampling over the broader project area.

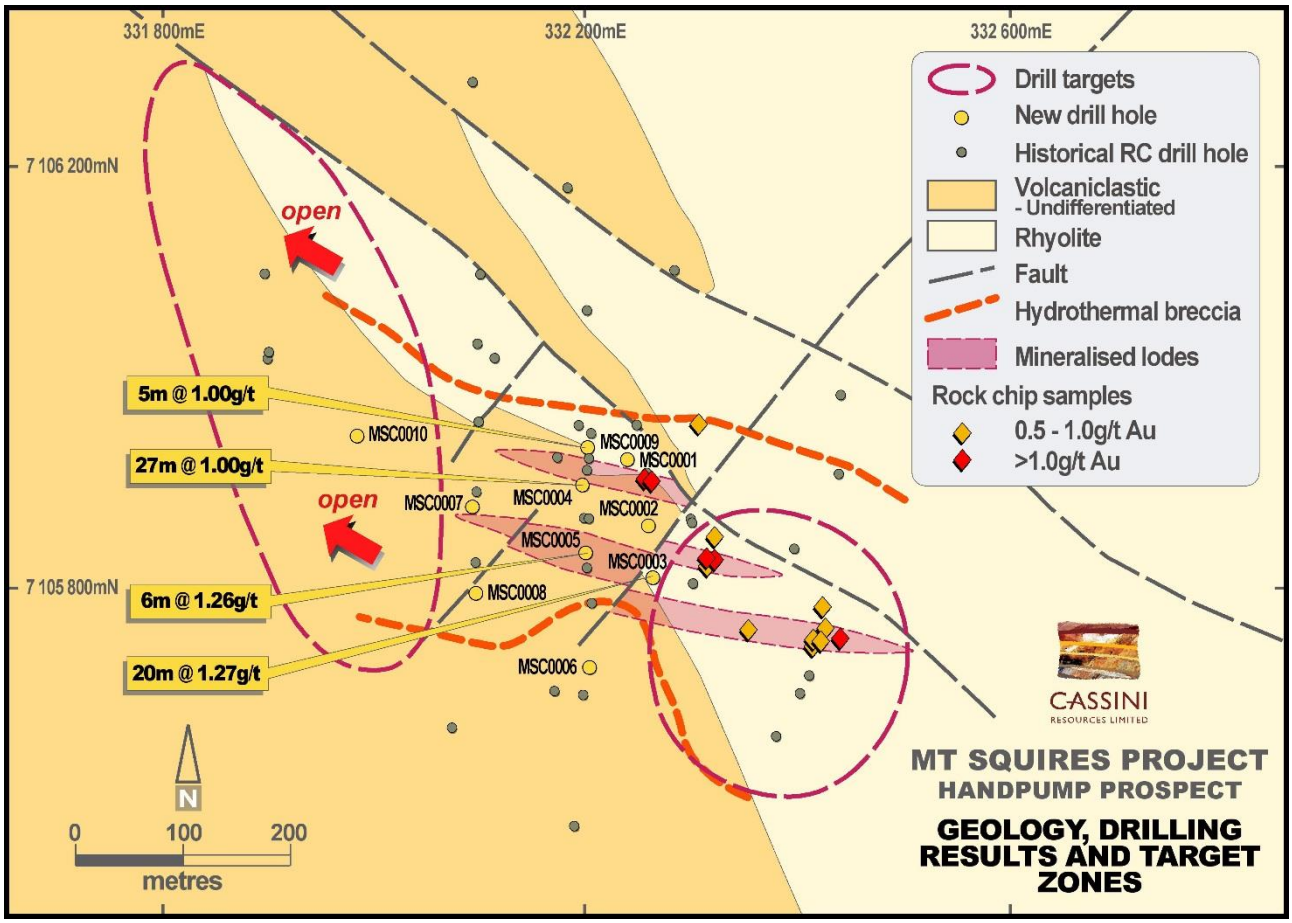

Figure 9. Drill hole plan showing geology, drilling and significant results >1.0g/t.

Gold Trend Emerging

The initial discovery of gold at Handpump occurred because mineralised bedrock is exposed at surface, a relatively rare occurrence in a landscape dominated by desert sands. The transported cover has likely inhibited exploration in other parts of the project and this is why the Company is re-processing the legacy geochemistry results to remove the biases of the regolith (in simple terms, bedrock vs transported sampling mediums). In some instances the previous geochemical sampling has probably been completely ineffective.

Key learning outcomes of the program can thus be summarised:

- The initial Handpump discovery was enabled by locally favourable regolith (outcropping mineralisation) and does not necessarily represent the best mineralisation in the project.
- Exploration post-discovery has been hampered by drilling that has failed to test the most prospective rocks at an appropriate orientation.

The recently completed high-resolution aeromagnetic survey has assisted the geological interpretation of Handpump as well as the surrounding region. The Company has now refined target areas along the prospective trend. Only 3 RC holes have been drilled outside the immediate Handpump Prospect area to test for additional mineralised bodies and therefore the prospective trend is largely unexplored (Figure 10).

All permits required to test these targets with a reconnaissance-style drill program have been received.

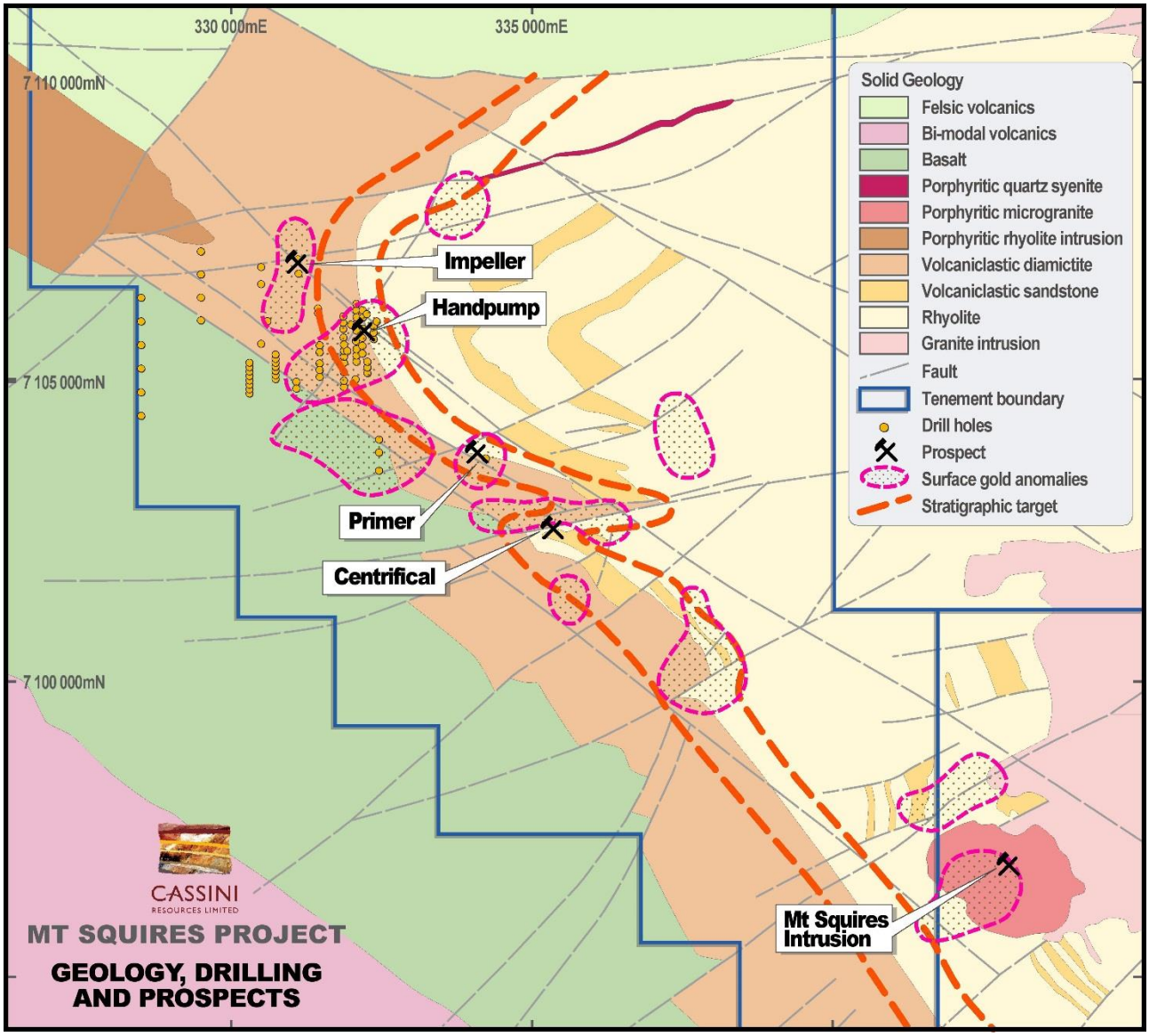

Figure 10. The Prospective gold trend showing the stratigraphic target horizon, surface geochemical anomalies and lack of drilling in these areas.

Nickel and Copper Potential to be Evaluated

Whilst the Mount Squires is primarily prospective for gold, recent surveying and mapping by Cassini has recognised the potential extension of the magmatic nickel-copper mineralised trend from the West Musgrave Project (WMP) into the eastern half of Mount Squires (Figure 11). This is supported by:

- The emergence of the One Tree Hill Prospect within the WMP, but only 200m outside the Mount Squires tenement boundary (See ASX release of 18 June 2019).
- New aeromagnetic data confirms the continuity of broad geological domains and structures into the Mount Squires Project.
- Field mapping identifying gabbro intrusions along strike of the mineralised trend which had been previously mapped as granites and gneisses.

This area has been lightly explored for magmatic nickel-copper sulphides by previous explorers, primarily by broad-spaced soil geochemistry and large fixed loop electromagnetic surveys (FLEM). The Company

has reviewed these surveys and identified a number of areas that would benefit from new electromagnetic surveys, given the significant advancement in technology over the past 10-20 years. The re-processed geochemistry data will also support the targeting of these surveys.

A geophysical crew was unable to complete moving loop electromagnetic surveying before the Christmas break. This work will be finished at the start of the field season, likely in the second quarter of 2020.

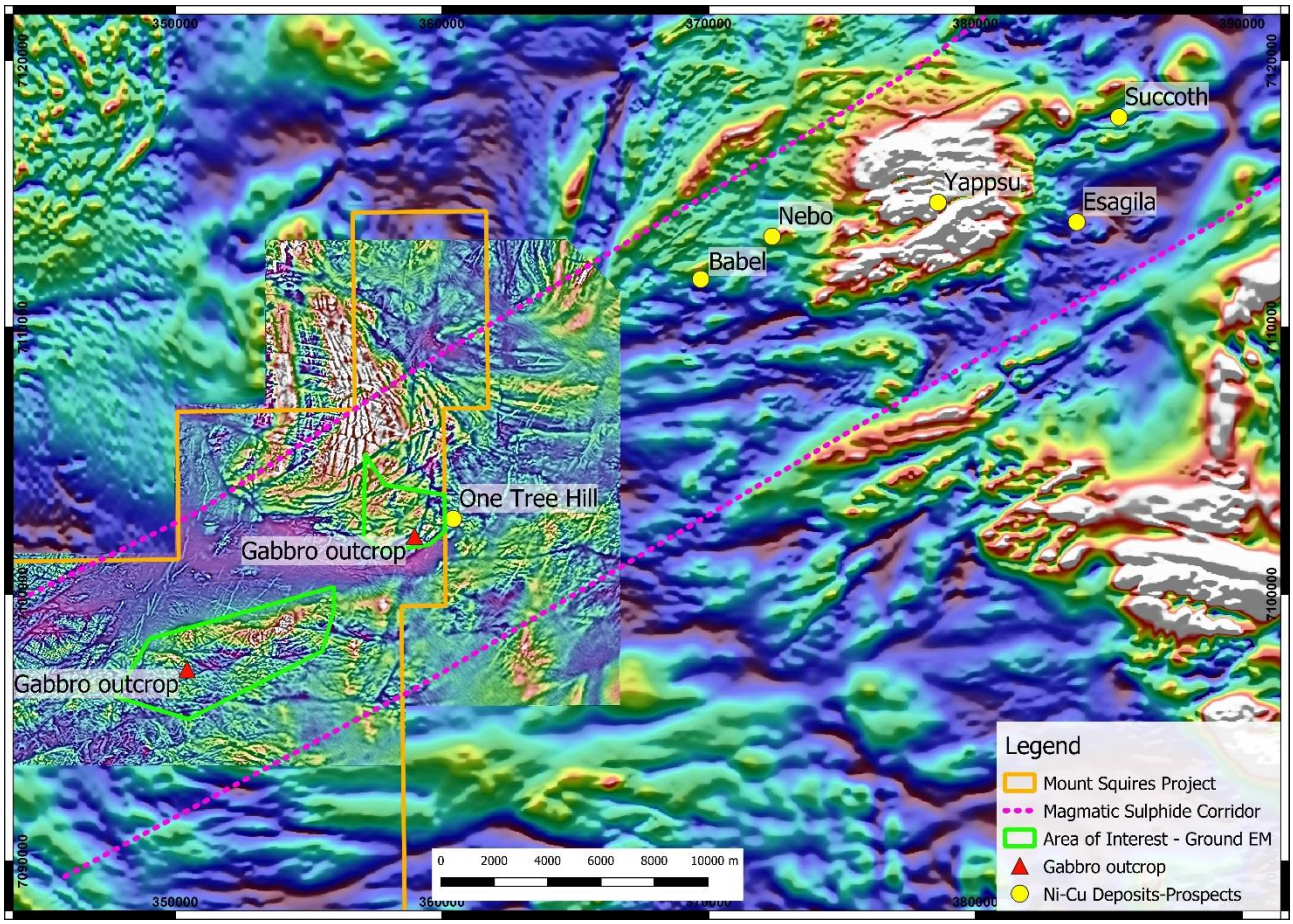

Figure 11. Potential extension of magmatic nickel-copper mineralisation trend into the eastern half of Mount Squires (1VD aeromagnetics as background).

Mount Squires Project Background

Gold prospectivity was first identified at Mount Squires by Western Mining Corporation (WMC) during geochemical surveying in the late 1990's. WMC's primary target was nickel and copper sulphide mineralisation, which returned poor results, however several gold anomalies were identified but were never followed-up and the tenements were later surrendered.

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Cassini considers that the geological setting may have some affinity with intracontinental "hot-spot" epithermal gold mineralisation, rather than the more common island arc setting found elsewhere along the Pacific Rim. Examples of this style are deposits in the northern Nevada region, including the Sleeper Deposit, with high, or "bonanza", gold grades from shallow crustal emplacement.

Table 7. Significant Drill Intersections (>0.5g/t Au) at the Handpump Prospect.

							Intersection		
Hole ID	East	North	RL	Dip	Azi	EOH (m)	From (m)	Width (m)	Au g/t
MSC0001	332240	7105919	498	-60	0	84	57	2	0.66
MSC0002	332260	7105860	496	-60	0	90	51	1	0.61
MSC0003	332265	7105811	490	-60	0	138	**23**	**20**	**1.27**
						Incl	**23**	**7**	**2.54**
						And	40	3	1.67
							96	1	0.54
MSC0004	332197	7105899	494	-60	0	**78**	**31**	**27**	**1.00**
						Incl	**33**	**1**	**3.22**
						And	**38**	**3**	**2.59**
							68	1	0.73
							71	1	0.69
MSC0005	332202	7105833	491	-70	0	120	38	19	0.68
						Incl	38	6	1.26
MSC0006	332206	7105726	495	-70	0	132			NSI
MSC0007	332095	7105876	490	-60	0	150	83	1	0.53
MSC0008	332098	7105796	487	-60	0	150			NSI
MSC0009	332202	7105930	491	-60	189	72	13	2	0.57
							21	2	0.75
							35	1	0.88
							41	12	0.69
						Incl	41	5	1.00
MSC0010	331985	7105944	485	-60	20	120			NSI

NSI = No Significant Intersection.

TENEMENT SUMMARY

1. MINING TENEMENTS HELD				
Tenement Reference	**Location**	**Nature of interest**	**Interest at beginning of quarter**	**Interest at end of quarter**
West Musgrave Project				
E69/3163	WA	Granted	30%	30%
E69/3169	WA	Granted	30%	30%
E69/3164	WA	Granted	30%	30%
E69/3165	WA	Granted	30%	30%
E69/3168	WA	Granted	30%	30%
E69/1505	WA	Granted	30%	30%
E69/1530	WA	Granted	30%	30%
E69/2201	WA	Granted	30%	30%
E69/2313	WA	Granted	30%	30%
M69/72	WA	Granted	30%	30%
M69/73	WA	Granted	30%	30%
M69/74	WA	Granted	30%	30%
M69/75	WA	Granted	30%	30%
E69/3412	WA	Granted	30%	30%
E69/3535	WA	Granted	30%	30%
E69/3536	WA	Granted	30%	30%
L69/0044	WA	Granted	30%	30%
L69/0045	WA	Granted	30%	30%
L69/0042	WA	Granted	30%	30%
E69/3156	WA	Granted	30%	30%
E69/3157	WA	Granted	30%	30%
Mt Squires Project				
E69/3424	WA	Granted	100%	100%
E69/3425	WA	Granted	100%	100%
Yarawindah Brook Project				
E70/4883	WA	Granted	80%	80%
E70/5116	WA	Granted	80%	80%
E70/5166	WA	Granted	80%	80%
2. MINING TENEMENTS ACQUIRED/DISPOSED				
Tenement Reference	**Location**	**Nature of interest**	**Interest at beginning of quarter**	**Interest at end of quarter**
Acquired				
n/a				
Disposed				
n/a				

In accordance with section 6 of the Appendix 5B, the Company advises that $214,000 in payments to related parties of the entity and their associates during the quarter. This includes executive and non-executive Director fees, geological consulting services to a company associated with Dr Hronsky and company secretarial & financial management consulting services to a company associated with Mr Warren.

Authorised for release by, and for further information please contact:

Richard Bevan
Managing Director
CASSINI RESOURCES LIMITED
Telephone: +61 8 6164 8900
E-mail: admin@cassiniresources.com.au

About Cassini

Cassini Resources Limited (ASX: CZI) is a base and precious metals developer and explorer based in Perth. In April 2014, Cassini acquired its flagship West Musgrave Project (WMP), located in Western Australia. The project is a new mining camp with three existing nickel and copper sulphide deposits and a number of other significant regional exploration targets already identified. The WMP is the largest undeveloped nickel - copper project in Australia.

In August 2016, Cassini entered into a three-stage $36M Farm-in/Joint Venture Agreement with prominent Australian mining company OZ Minerals Ltd (ASX: OZL). The Joint Venture provides a clear pathway to a decision to mine and potential cash flow for Cassini.

Cassini is also progressing its Mt Squires Gold Project, and the Yarawindah Nickel - Copper - Cobalt Project (CZI 80%), both located in Western Australia.

Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled or reviewed by Mr Greg Miles, who is an employee of the company. Mr Miles is a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Miles consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

The information in this report that relates to the Nebo-Babel Mineral Resource estimate is based on information compiled by Mark Burdett, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy (224519). Mark Burdett is a full-time employee of OZ Minerals. Mark Burdett 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 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC 2012). Mark Burdett consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Company is not aware of any new information or data, other than that disclosed in this report, that materially affects the information included in this report and that all material assumptions and parameters underpinning Mineral Resource Estimates as reported in the market announcement dated 12 April 2019 (Nebo & Babel Deposits) and 7 December 2015 (Succoth Deposit) continue to apply and have not materially changed.

Additional information regarding exploration results can be found in ASX releases of 14 January 2020, 12 February 2020, 26 March 2020 & 16 April 2020.

West Musgrave Production Targets Cautionary Statement

Production Targets for the West Musgrave project are based on:

Probable Ore Reserves: 84%
Indicated Mineral Resources: 5%
Inferred Mineral Resources: 11%

The modifying factors used in the estimation of the Ore Reserve were also applied to the Indicated Resources and Inferred Resources. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the Production Target itself will be realised.

The material assumptions used in the estimation of the Production Target and associated forecast financial information are set out in West Musgrave Project Nebo-Babel Mineral Resource and Ore Reserve Statements and Explanatory Notes as at 11th February 2020 Table 1. The Ore Reserve and Mineral Resource estimates underpinning the Production Target were prepared by a Competent Person in accordance with the JORC Code 2012.

West Musgrave Ore Reserve and Mineral Resource

The information on the West Musgrave Mineral Resources and Ore Reserves estimates in this document are extracted from the documents titled “West Musgrave Project Nebo-Babel Deposits Ore Reserve Statement and Explanatory Notes as at 11th Feb 2020” and “West Musgrave Project Nebo-Babel Deposits Mineral Resource Statement and Explanatory Notes as at 11th Feb 2020”, released on 12 February 2020 and available at: www.ozminerals.com/operations/resources-reserves/. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcement.

Appendix 5B

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

Name of entity

Cassini Resources Limited

ABN	Quarter ended ("current quarter")
50 149 789 337	**31 March 2020**

Consolidated statement of cash flows		**Current quarter $A'000**	**Year to date (9 months) $A'000**
1.	**Cash flows from operating activities**		
1.1	Receipts from customers		
1.2	Payments for		
	(a) exploration & evaluation (if expensed)[1]	-	-
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(265)	(810)
	(e) administration and corporate costs	(289)	(1,024)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	25	105
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (joint venture receipts & net GST)[1]	26	709
1.9	**Net cash from / (used in) operating activities**	**(503)**	**(1,020)**

2.	**Cash flows from investing activities**		
2.1	Payments to acquire:		
	(a) entities	-	-
	(b) tenements	-	(250)
	(c) property, plant and equipment	-	-
	(d) exploration & evaluation (if capitalised)	(357)	(973)
	(e) investments	-	-
	(f) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter $A'000	Year to date (9 months) $A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (JV Receipts)	-	250
2.6	**Net cash from / (used in) investing activities**	**(357)**	**(973)**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	821
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	**Net cash from / (used in) financing activities**	**-**	**821**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	7,819	8,131
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(503)	(1,020)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(357)	(973)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	821

Consolidated statement of cash flows		Current quarter $A'000	Year to date (9 months) $A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	**Cash and cash equivalents at end of period**	**6,959**	**6,959**

Note 1: Exploration expenditure and funding shown at 1.2(a), 1.8 and 2(d) is net of expenditure on West Musgrave JV, which is funded by OZ Minerals.

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter $A'000	Previous quarter $A'000
5.1	Bank balances	1,230	2,036
5.2	Call deposits	5,611	5,587
5.3	Bank overdrafts	-	-
5.4	Other (JV funds held)	118	196
5.5	**Cash and cash equivalents at end of quarter (should equal item 4.6 above)**	**6,959**	**7,819**

6.	Payments to related parties of the entity and their associates	Current quarter $A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	200
6.2	Aggregate amount of payments to related parties and their associates included in item 2	14

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments

7.	**Financing facilities** *Note: the term "facility' includes all forms of financing arrangements available to the entity.* *Add notes as necessary for an understanding of the sources of finance available to the entity.*	**Total facility amount at quarter end $A'000**	**Amount drawn at quarter end $A'000**
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	9,576	9,576
7.4	**Total financing facilities**	**9,576**	**9,576**

7.5	**Unused financing facilities available at quarter end**	-
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.	

7.6 - OZ Minerals is to sole fund the Nebo-Babel Studies at the West Musgrave Project (WMP) until a Definitive Feasibility Study and decision to mine is delivered. In respect of any amount funded by OZ Minerals in excess of $36M, CZI will be loan-carried for its 30% contribution, with principal and capitalised interest to be repaid 5 years after the commencement of production at the WMP. As at 31 March 2020, the amount in excess of $36M was $31,141,209, therefore CZI's 30% contribution that is loan carried is $9,342,363. Interest is calculated at LIBOR + 3% per annum accruing daily, calculated on the basis of a 360 day year, capitalising on the last date of each three (3) month period. As at 31 March 2020, cumulative interest was $233,242.

8.	**Estimated cash available for future operating activities**	**$A'000**
8.1	Net cash from / (used in) operating activities (Item 1.9)	(503)
8.2	Capitalised exploration & evaluation (Item 2.1(d))	(357)
8.3	Total relevant outgoings (Item 8.1 + Item 8.2)	(860)
8.4	Cash and cash equivalents at quarter end (Item 4.6)	6,959
8.5	Unused finance facilities available at quarter end (Item 7.5)	-
8.6	Total available funding (Item 8.4 + Item 8.5)	6,959
8.7	**Estimated quarters of funding available (Item 8.6 divided by Item 8.3)**	**8.02**

8.8 If Item 8.7 is less than 2 quarters, please provide answers to the following questions:

1. Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: n/a

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

Answer: n/a

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

Answer: n/a

Compliance statement

1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.

2 This statement gives a true and fair view of the matters disclosed.

23 April 2020

Date: .....

By the Board

Authorised by: .....
(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.

2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.

3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.

4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [*name of board committee – eg Audit and Risk Committee*]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".

5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.