

ACTIVITIES REPORT FOR THE QUARTER ENDED 31 DECEMBER 2019

QUARTER HIGHLIGHTS:

Corporate

- Board of Directors personnel changes
- \$820,000 raised through exercise of Employee and Director options

West Musgrave Project (CZI 30%)

- Pre-Feasibility Study nears completion, market release expected Q1 2020
- Further exploration opportunities at Succoth and One Tree Hill
- Expansion of Joint Venture regional tenement holdings

Yarawindah Brook Project (CZI 80%)

- Maiden drill program commenced
- Promising early results from new “Brassica Prospect”

Mount Squires Gold Project (CZI 100%)

- Further analysis of RC drilling results and planning for 2020 exploration

Cassini Resources Limited (ASX:CZI) (“Cassini” or the “Company”) is pleased to report achievements at its development and exploration projects during the December 2019 Quarter.

Corporate

Board Changes

The Company appointed Ms. Sze Man (Simone) Suen to the Board of the Company as a Non-executive Director, effective from 12 December 2019.

Simone is a highly credentialed company director with a Bachelor of Business and over 20 years’ experience predominantly in the resources industry in Australia and internationally. Simone held the position of Executive Director of Alliance Mineral Assets Limited between 2010 and 2018, which included a successful listing on the Singapore Exchange (SGX) in 2014. She procured, mobilised and organised staff and resources for the development, commissioning and operations of the Bald Hill Tantalum/Lithium Project in Western Australia.

Simone brings to the Company a wealth of experience in financing, business development and marketing of early stage mining projects, particularly in Asian markets.

In order to manage the size of the Board, Mr Greg Miles has resigned from his position as an Executive Director, effective 12 December 2019, and has been appointed as Chief Operating Officer. Mr Miles’ day to day role will not change, as he continues to oversee Cassini’s technical and operations team, including working closely with Joint Venture partner OZ Minerals Ltd on the West Musgrave Project (WMP).

The Company believes these changes broaden the skills and capabilities of the board ahead of what

promises to be a defining year for Cassini.

Exercise of Options

During the period Directors and key management personnel of the Company exercised 12,250,000 unlisted options. This option exercise provided \$820,750 of funding to the Company.

The option exercise includes a \$234,000 cash investment from Managing Director Mr Richard Bevan, \$221,000 from Chief Operating Officer Greg Miles, \$134,000 from Non-executive Chairman Mr Mike Young, and \$67,000 each from Non-Executive Directors Dr Jon Hronsky and Mr Phil Warren.

The Company remains well funded with A\$7.8m in cash and cash reserves at the end of the Quarter.

In accordance with section 6 of the Appendix 5B, the Company advises that \$227,000 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.

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

Pre-Feasibility Study Continuing

During the September Quarter, the Pre-Feasibility Study (PFS) was extended due to an expanded scope of work to evaluate a number of additional value-add opportunities that had been recognised in recent months. The PFS has continued through the December quarter and remains on track for delivery in Q1 2020.

Exploration

Results from drilling at the One Tree Hill Prospect and Succoth deposit have now been received.

One Tree Hill Prospect

Since the last exploration update in June, activities at One Tree Hill comprised a high-resolution aeromagnetic survey and two reverse circulation drill holes testing extensions to mineralisation east of CZD0099, together with geological and geophysical modelling.

The aeromagnetic survey was flown at 30m height and 40m line spacing, providing very high quality data. The new magnetic data has been critical in the latest structural and geological interpretation of the prospect, particularly given that the Giles Mineralised Intrusions and Giles Metagabbros appear to be clearly defined in the magnetic images. Furthermore, the latest geological and structural interpretation on long-section (Figure 1) correlates very closely with the interpretation of the magnetic data. This interpretation suggests that the mineralised intrusions at One Tree Hill are terminated against the Titan Fault to the southwest and are offset by the ENE trending Osborne Fault (Figure 2). Importantly, this indicates potential extensions of the Giles Mineralised Intrusions to the north of the existing drilling and to the south of the Osborne Fault, both of which remain untested.



Two RC drill holes have been completed for a total of 1,002m, stepping 200m east along strike from CZD0099 which returned several mineralised intercepts including **9m @ 2.56% Cu, 0.37% Ni, 0.06% Co & 1.32g/t PGE** from 344m within a broader disseminated zone of 40m @ 1.16% Cu from 343m.

The best result is 18m @ 0.35% Cu, 0.05% Ni & 0.38g/t PGE from only 52m down hole in CZC0696, much closer to surface than previous intercepts, but correlating with “Zone A” in hole CZD0099 (See ASX announcement 18 June 2019). A full list of results are provided in Table 1.

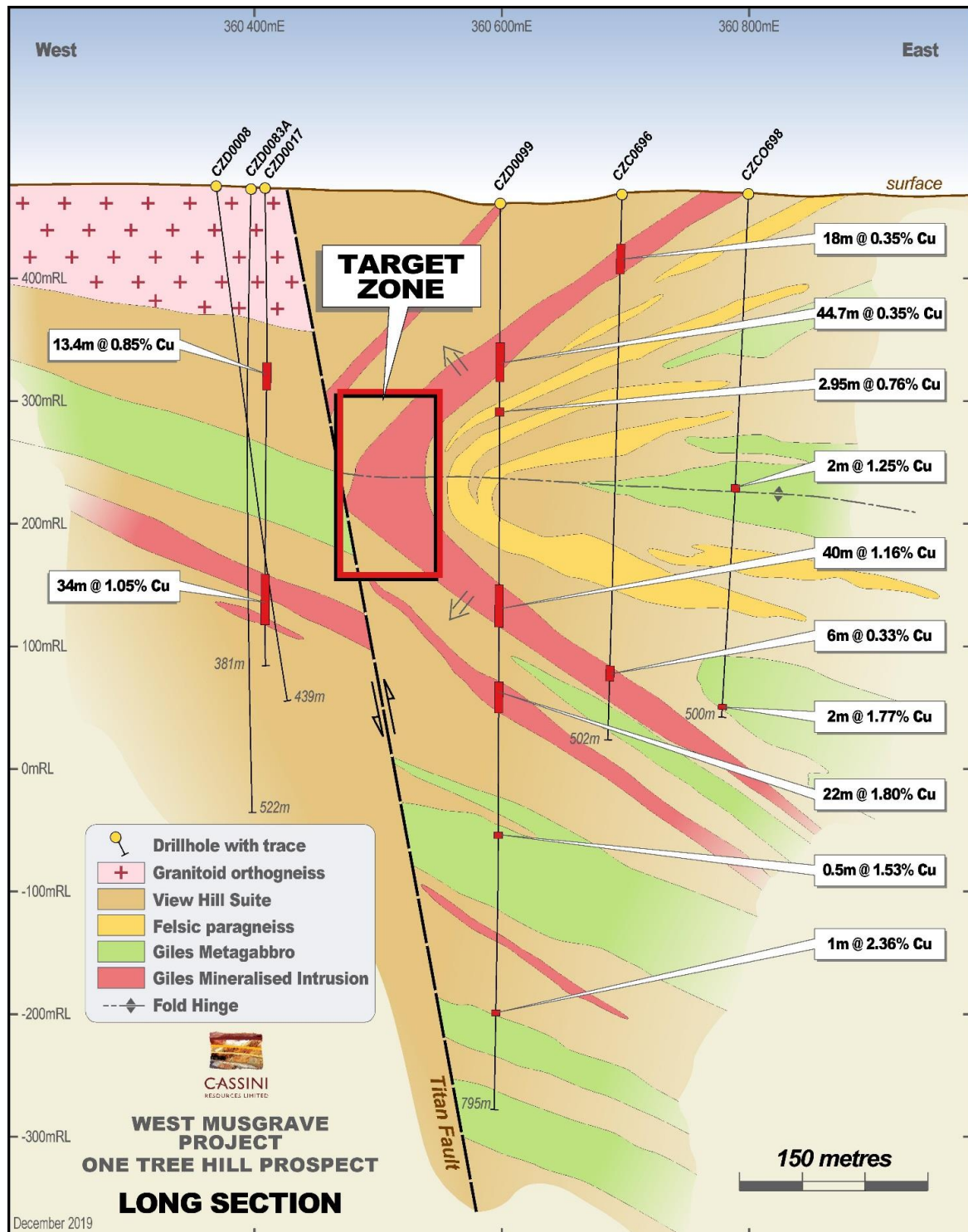


Figure 1. Long section of the One Tree Hill Prospect, showing significant intercepts and fold hinge target zone. Note the section is tilted into the plane of CZD0099.

The latest geological and geochemical interpretation suggests the mineralised intrusions and country rock are folded along an east-west trending fold plane. The interpreted position of the fold hinge is approximately 100m to the west of CZD0099 and associated with a magnetic anomaly that is plausibly due to a higher abundance of magnetite and pyrrhotite within the mineralised units (Figure 2). Fold hinge zones are recognised as preferential positions within which massive sulphides may have accumulated and/or been preserved in metamorphosed and structurally complex mineralised systems. An interpreted fold hinge, west of CZD0099 therefore represents a priority target for further drill testing in 2020.

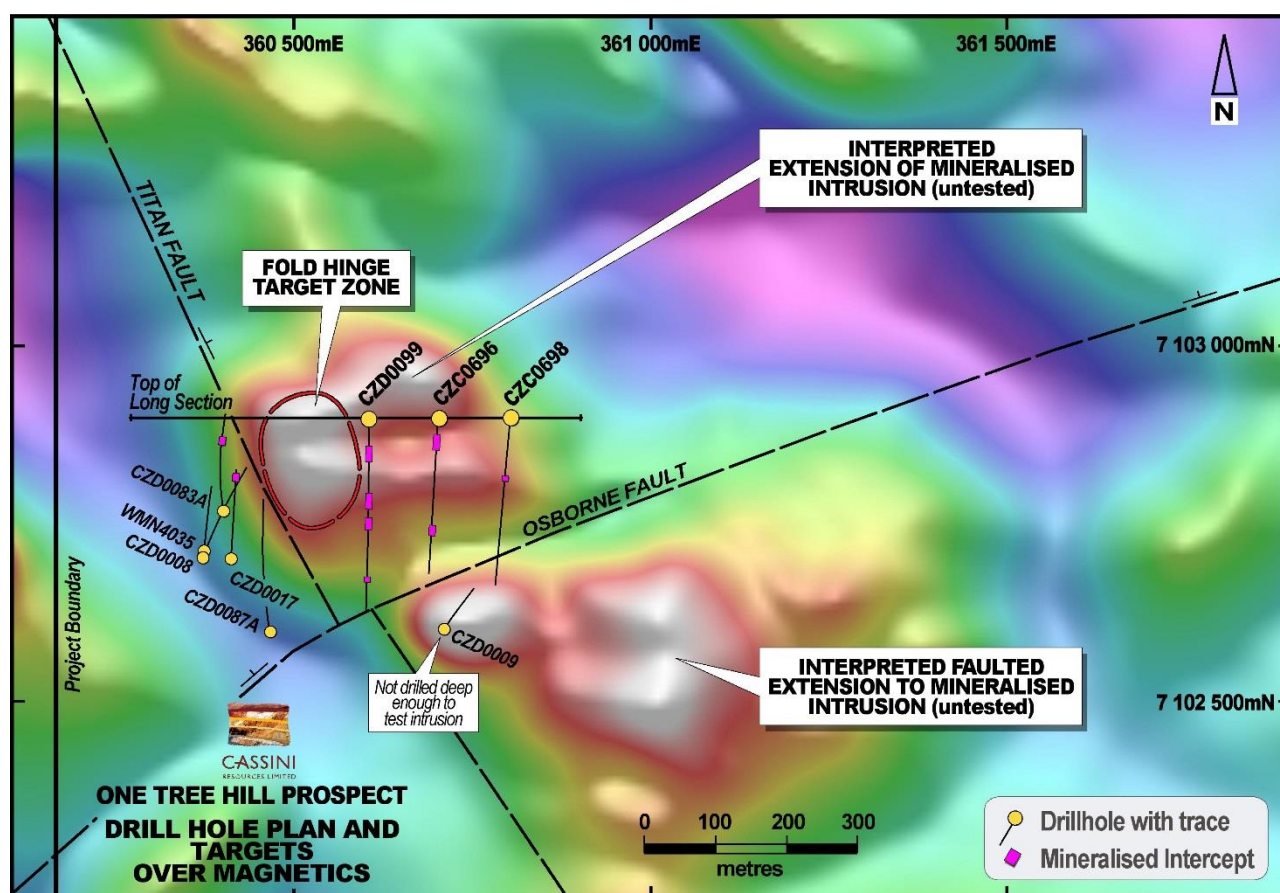


Figure 2. Plan view of One Tree Hill drill hole collars over Reduced to Pole magnetics.

Table 1. One Tree Hill Prospect Significant Drill Intercepts¹.

HOLE ID	East	North	RL	Dip	Azi	EOH (m)	INTERSECTIONS					
							From (m)	Width (m)	Cu %	Ni %	Co %	PGE g/t
CZC0696	360698	7102898	468	-60	180	502	52	18.0	0.35	0.05	0.01	0.38
							460	6.0	0.33	0.03	0.01	0.31
CZC0698	360800	7102898	468	-60	180	500	118	2	0.85	0.01	0.01	<0.01
							272	2	1.25	0.01	0.01	<0.01
							494	2	1.77	0.01	0.01	<0.01

Notes: 1. Widths are downhole width. There is insufficient drilling to determine true widths of the host intrusions or the higher-grade massive sulphides.

Succoth Deposit

Cassini reported a new geological interpretation of the Succoth Deposit in February 2019 following completion of detailed infill drilling on a single geological section in the central part of the deposit. The new interpretation has significant positive implications for potential resource increases and mining economics, although additional drilling was required to validate this new interpretation beyond a single section line. The Company has now completed a further four diamond drill holes for 1,793m on two infill sections located 200m and 400m west of the first detailed infill section (Figure 3). The three sections (Figures 4-6) now cover 400m strike extent of the deposit with drill hole spacing on the section line at 50m to 100m, whereas the drill hole spacing on section across rest of the deposit is >200m. A full list of results can be found in Table 2.

Results from the latest drilling support the folded geometry model at Succoth. This geometry, if extrapolated across the currently defined strike extent of the deposit, has implications for the scale of the resource, resource extensions, potential mining strip ratio and further economic considerations. Mineralisation remains open laterally, as well as at depth, and between broad-spaced drill holes outside of the three main drill sections.

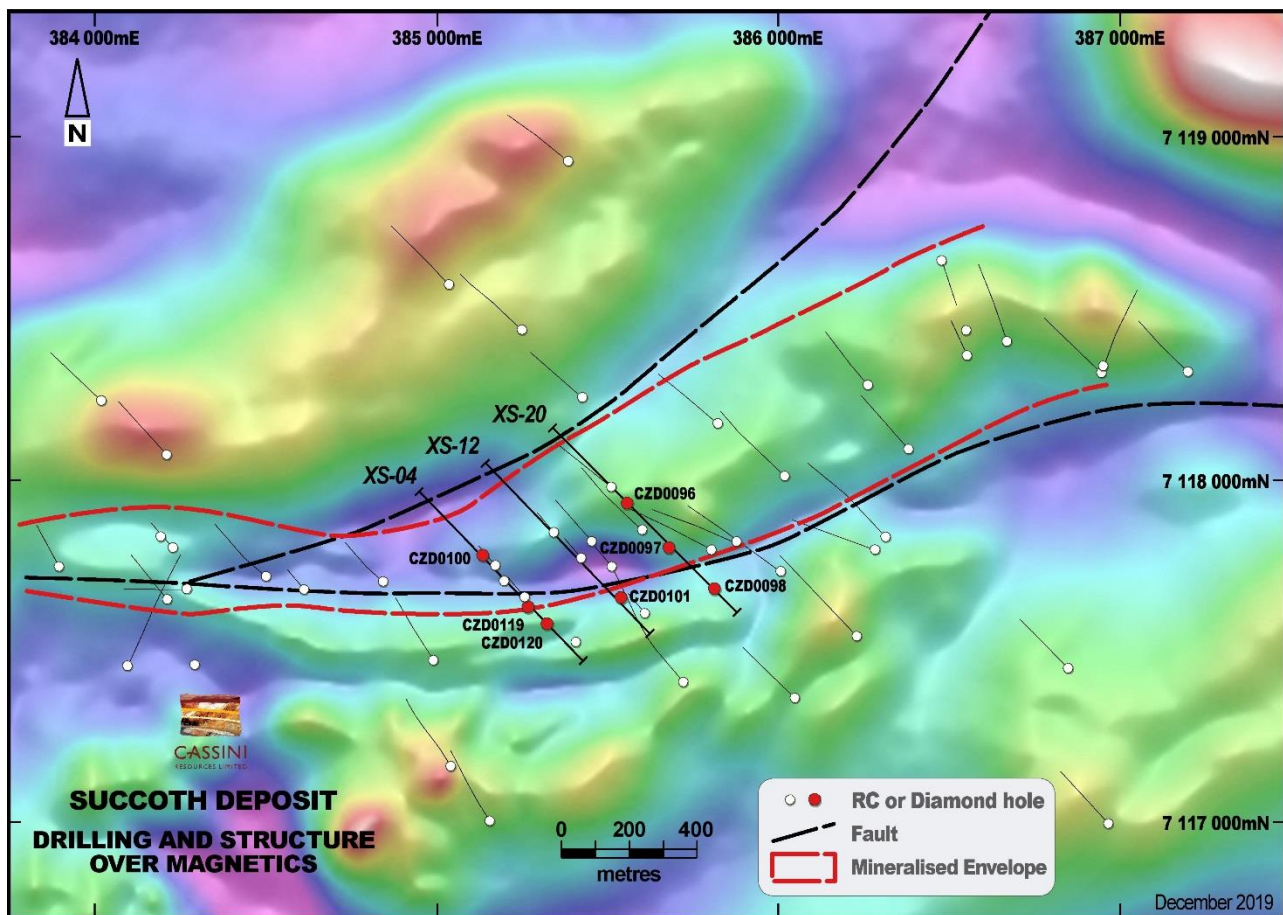


Figure 3. Succoth Drill hole location plan showing relationship between recent drilling, mineralisation and structure

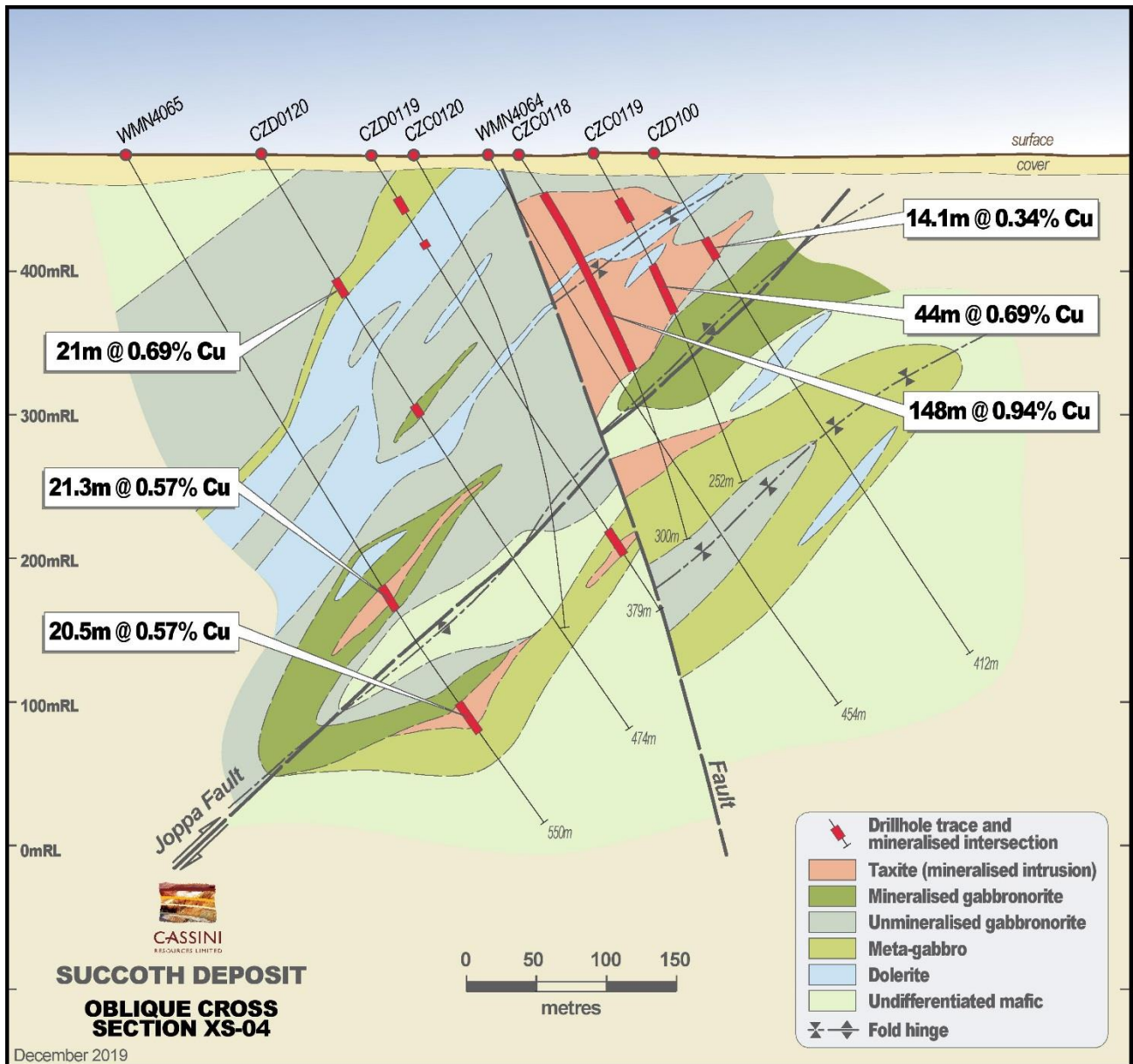


Figure 4. Succoth cross section (XS-04).

An aeromagnetic survey was also flown over a relatively small block covering Succoth Deposit to assist with geological interpretation and targeting. The new magnetic data has helped to delineate existing mineralisation within a fault-bounded package of relatively magnetic lithologies. The east-west trending fault at the southern extent of Succoth has been intersected in sections XS-04 and XS-12. Although, mineralisation on those sections is truncated by the fault, it is not necessarily closed-off as some drill holes have intersected mineralisation across the fault to the south. Mineralisation at Succoth remains open along a broad northeast-southwest trending corridor and potentially laterally. Broad drill hole spacing, in particular to the north-east, means that further infill and extensional drilling could delineate zones of disseminated mineralisation broadly similar to those on section XS-20.

The Joint Venture partners are continuing to evaluate the resource potential of Succoth and the impact it may have on Nebo-Babel development options. This work is likely to be an Option Study that will form part of the Feasibility Study at Nebo-Babel.

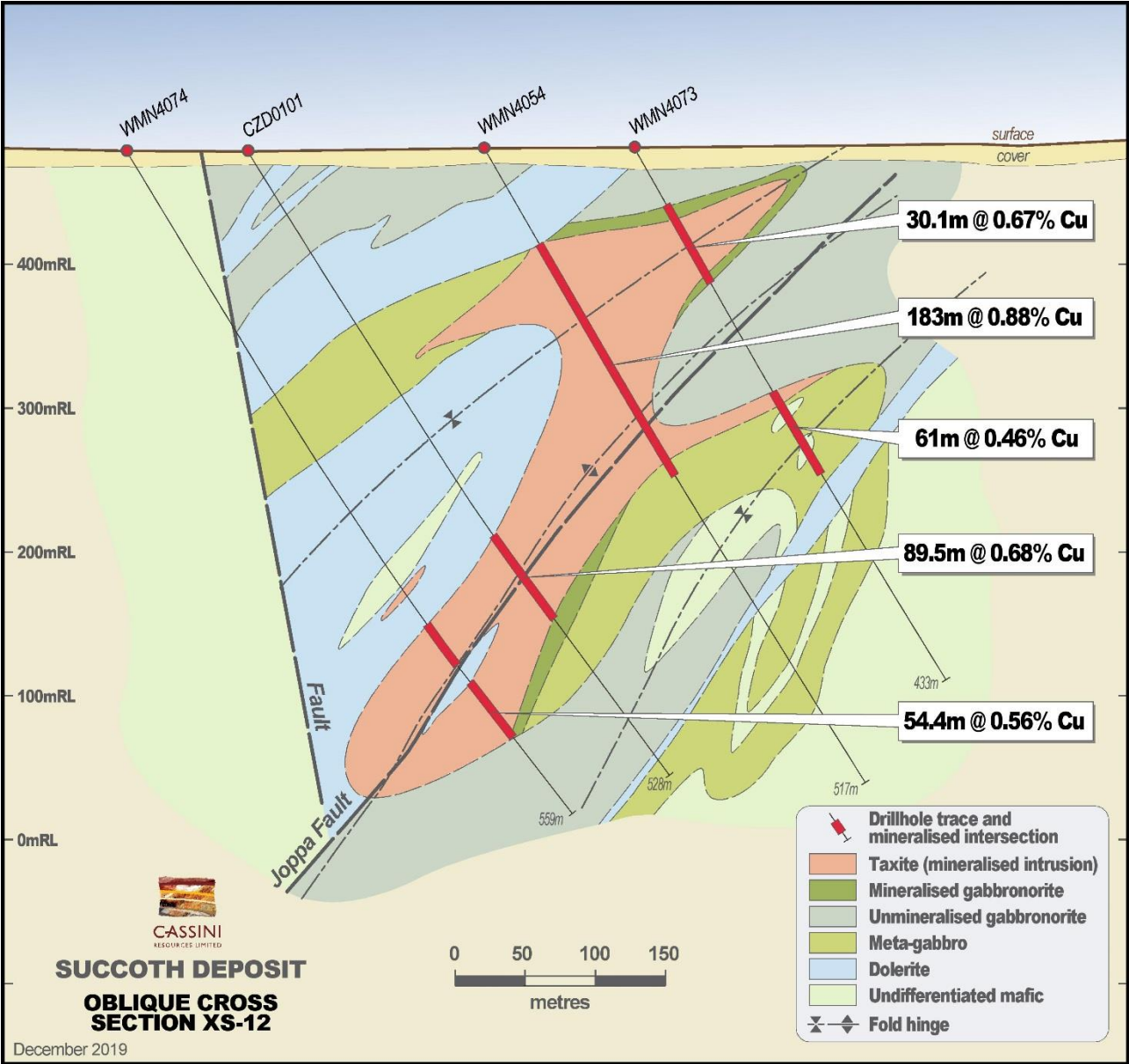


Figure 5. Succoth cross section (XS-12).

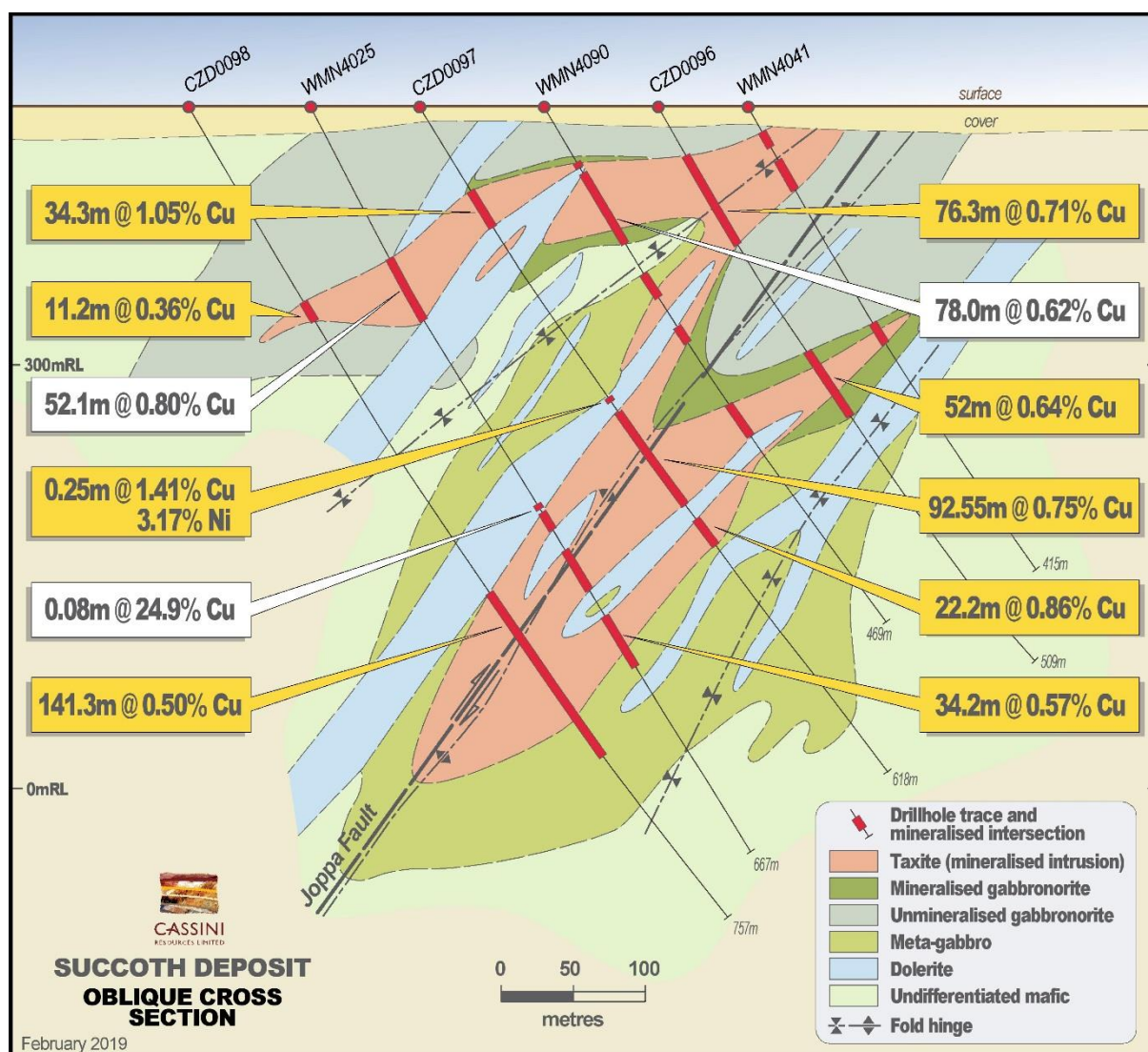


Figure 6. Succoth cross section (XS-20).

Table 2. Succoth Deposit Significant Drill Intercepts¹.

HOLE ID	East	North	RL	Dip	Azi	EOH (m)	From (m)	INTERSECTIONS			
								Width (m)	Cu %	Ni %	PGE g/t
CZD0100	385139	7117777	483	-60	315	411.8	151.15	14.1	0.34	0.03	0.09
							383.1	3.0	0.35	0.05	0.11
CZD0101	385543	7117657	481	-60	315	528.3	299.0	8.8	0.22	0.02	0.03
							319.0	89.5	0.68	0.07	0.16
CZD0119	385270	7117626	480	-60	315	379	40.0	2.0	0.46	0.03	0.09
							62.5	1.5	1.01	0.15	0.07
							72.0	9.4	0.51	0.07	0.10
							309.0	21.0	0.36	0.03	0.08
CZD0120	385328	7117576	481	-60	315	474.4	103.0	21.0	0.69	0.08	0.08
							202.15	9.5	0.43	0.05	0.11

Notes: 1. Widths are downhole width.

Expansion of Tenement Holdings

The Joint Venture partners have significantly expanded the WMP footprint during the December quarter through a number of new tenement applications and a deal to acquire rights to neighbouring tenements owned by Traka Resources Limited (Figure 7).

The new tenement applications are held by Cassini subsidiary Crossbow Resources Pty Ltd, but have been accepted into the Joint Venture agreement and therefore funding structure by OZ Minerals. They are considered prospective for magmatic nickel and copper sulphide mineralisation similar to the Nebo-Babel deposits currently under evaluation, as well as Sediment-hosted (Zambian-style) copper sulphide mineralisation.

The Traka Resources tenement package includes two granted exploration licences located adjacent to the Succoth Deposit and are strategically important for future exploration and development. An additional three exploration licence applications are considered prospective for magmatic nickel and copper sulphide mineralisation similar to the Nebo-Babel and Succoth deposits.

The new applications and acquisition takes the WMP portfolio to over 9,500 km².

Agreement Terms

- Cassini subsidiary Wirraway Metals and Mining Pty Ltd (“Wirraway”) will acquire access and exclusive rights to minerals on Exploration Licences 69/3156 & 69/3157 and Exploration Licence Applications 69/2749, 69/3490 & 69/3569.
- Transfer of the Tenements is subject to the receipt of all regulatory approvals.
- Consideration for the sale is \$250,000.
- Traka will retain a 2% Net Smelter Royalty over the tenement areas.

OZ Minerals will reimburse all Wirraway expenses and acquisition costs.

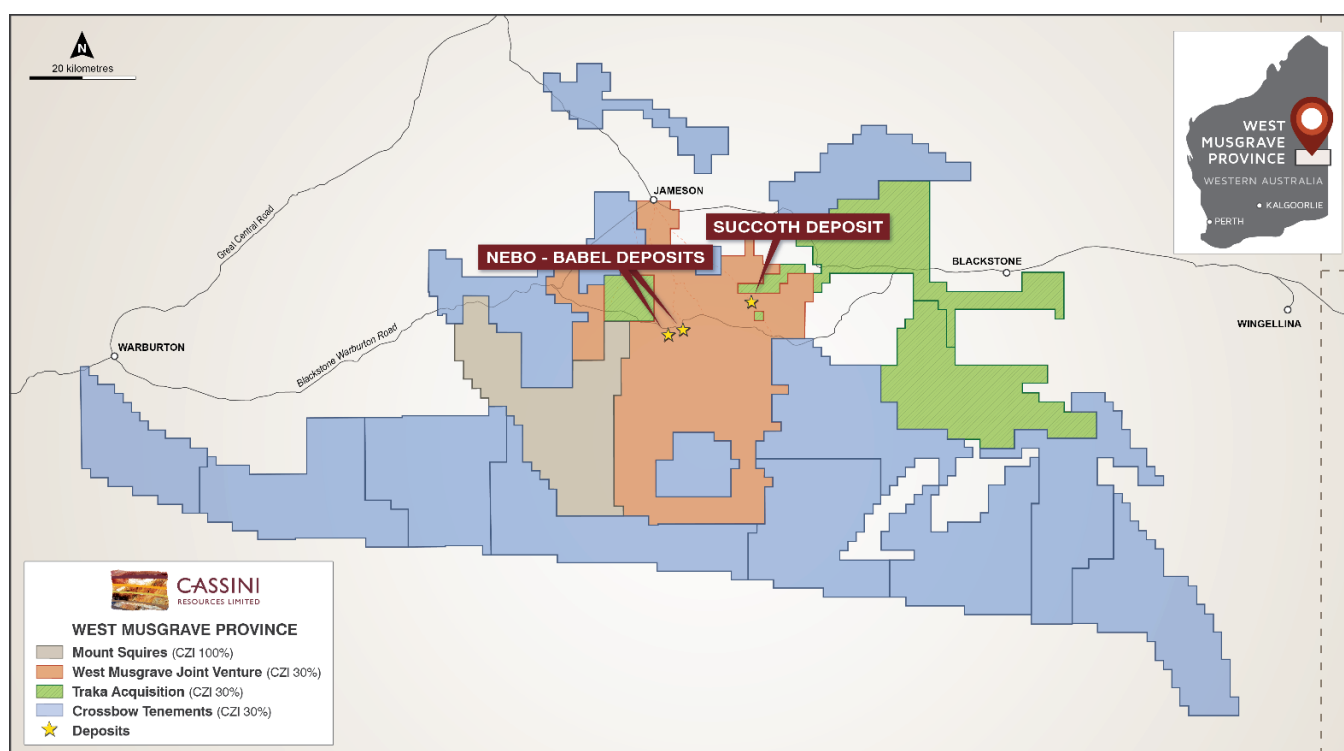


Figure 7. West Musgrave Province land holdings.

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

The Company commenced its maiden drilling program at Yarawindah Brook during the December Quarter. The program, consisting of approximately 1,000m of diamond drilling, is targeting multiple electromagnetic conductors identified following an airborne and ground electromagnetic survey in 2018.

Brassica Prospect

The Company has had immediate success with the first two drill holes intersecting over 50m thick sequences of metagabbros containing trace to minor pentlandite and chalcopyrite (Figure 8). Drilling has targeted the XC05 Conductor, now re-named the “Brassica Prospect”, located approximately 4km to the southwest of the main Yarawindah Prospect. The XC05 Conductor has been modelled as three distinct electromagnetic conductors extending over a strike length of 300m, with modelled plate conductance of up to 2,400 siemens (S), consistent with sulphide accumulations.

Assay results include 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 (Figure 9). The metagabbros are strongly anomalous in Ni and Cu (approx. 500ppm) throughout. Full assay details are provided in Table 3 below.

Regional Context

The Yarrawindah 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 structural 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 Brassica Prospect is a new discovery by Cassini that has never been previously drilled. It is located 4km southwest of the main Yarawindah Prospect. Historical drilling was only conducted at the main Yarawindah Prospect and was primarily targeting shallow, supergene platinum and palladium mineralisation. The current exploration program is targeting massive/matrix sulphide bodies and accumulations associated with the mafic-ultramafic intrusions.

The first two drill holes have both intersected over 50m thick sequences of metagabbros which have intruded into and are intercalated with strongly foliated, deformed and locally pyrrhotite- and pyrite-bearing mafic and felsic country rock gneisses. The metagabbros contain pyrrhotite and pyrite disseminations throughout and trace pentlandite and chalcopyrite. Locally, predominantly pyrrhotite-rich massive sulphides and chalcopyrite-rich veinlets are also present within the metagabbros and country rocks.

Although the mineralisation identified so far is not economic, the company considers these results very encouraging for a completely new target area which is 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



Figure 8. Left: Chalcopyrite and pyrrhotite mineralisation in YAD0001.
Right: Massive pyrrhotite mineralisation with minor pentlandite in drill hole YAD0002.

Next Steps

Drilling has now re-commenced at Yarawindah following the Christmas-New Year break, with the third hole at Brassica underway. Following completion of this hole the rig will move to the main Yarawindah Prospect (Figure 10) to drill the AN01 & AN02 conductors which are believed to be extensions to previously identified mineralisation such as 7m @ 1.30% Ni and 0.22% Cu in YWRC0083. Subject to visual results, a further six holes are planned. All holes will be surveyed by Downhole Electromagnetics (DHEM) to assist further targeting.

The sequence of drilling has been timed to accommodate crop harvest at each of the targets. The Company would like to acknowledge the owners of “Fauna Park” and “Arlunya” for their assistance with the current drilling program.

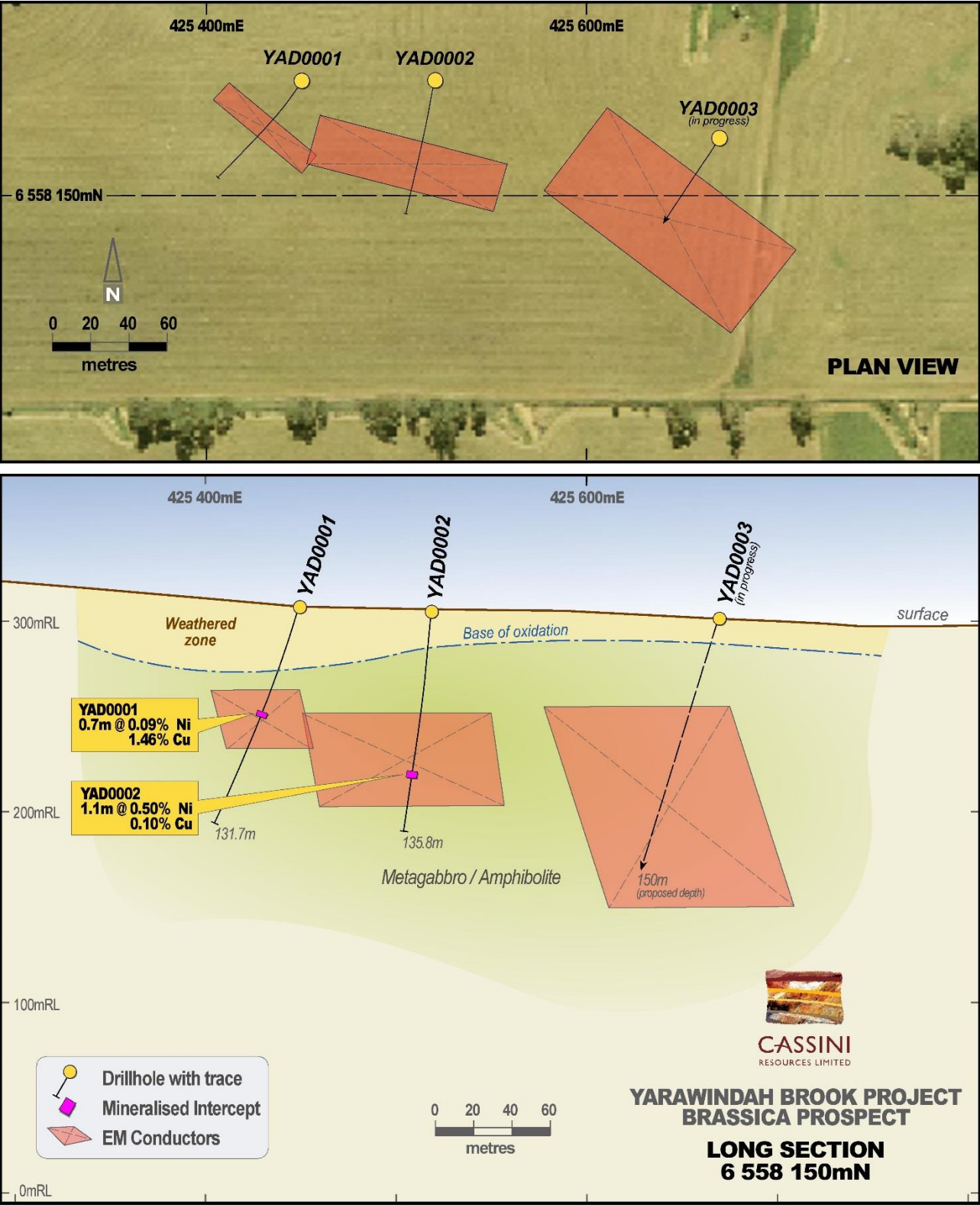


Figure 9. Long section and location plan of drilling at the Brassica Prospect.

Table 3. Brassica Prospect Drill Intercepts.

HOLE ID	East	North	RL	Dip	Azi	EOH (m)	From (m)	Width ² (m)	INTERSECTIONS			
									Ni %	Cu %	Co %	PGE g/t
YAD0001	425450	6558210	307	-60	217	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	197	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

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

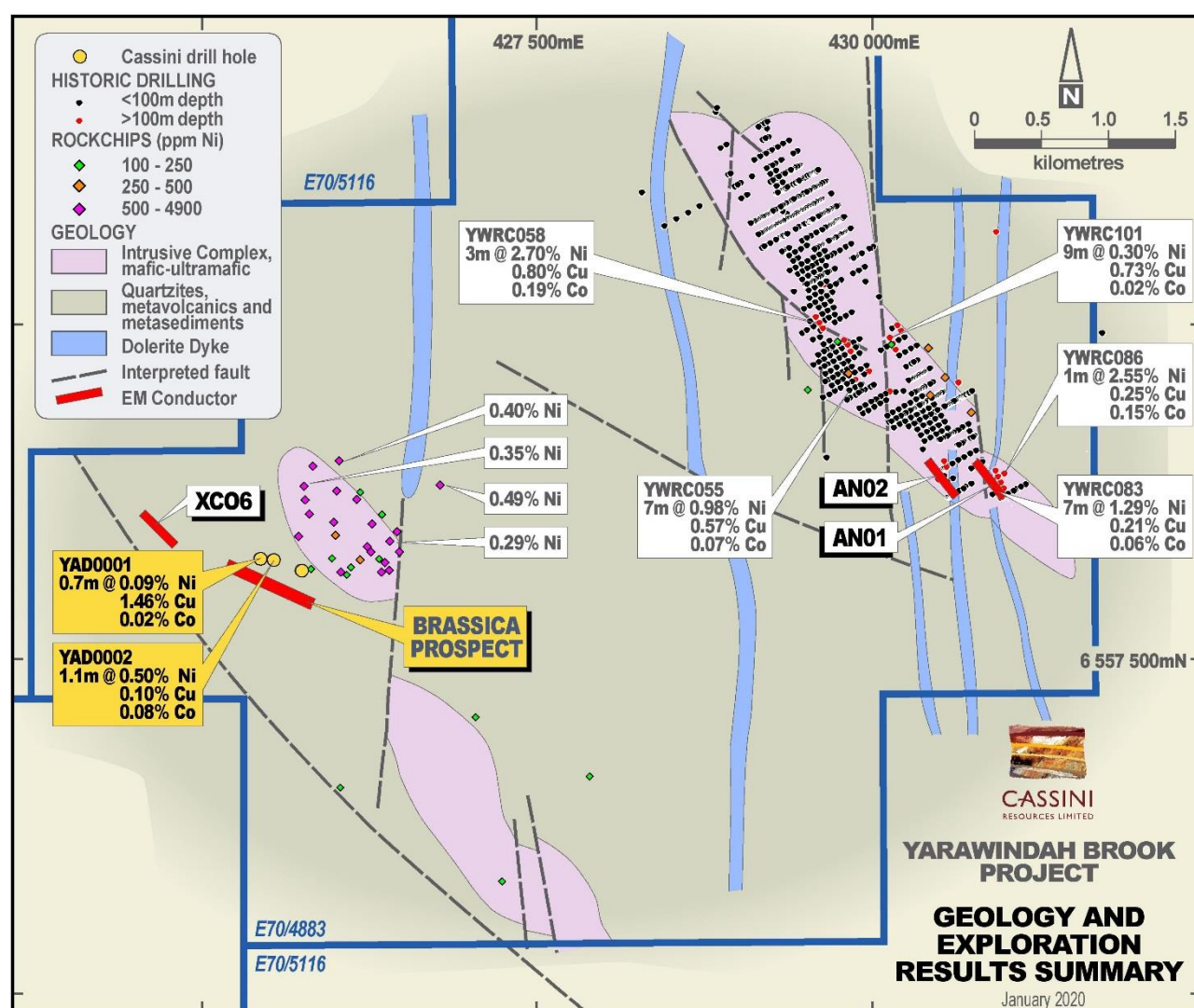


Figure 10. Yarawindah exploration target summary.

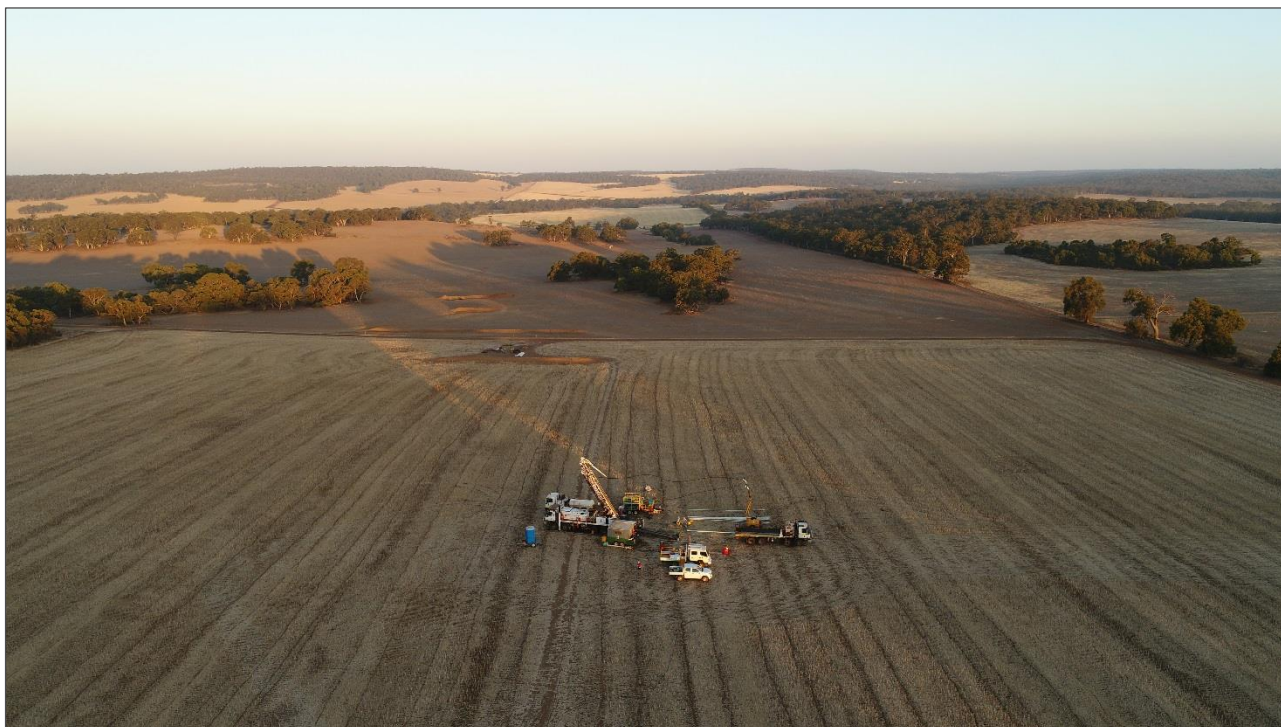


Figure 11. Drilling operations at the Brassica Prospect.

Yarawindah Brook Project Background

The project is located 130km northeast of Perth, on agricultural lease hold, and near the township of New Norcia. 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. The Company views platinum and palladium enrichment in the regolith as “path-finders” for potential massive nickel - copper - cobalt sulphides which have been proven to exist through historic exploration. Confirming this, previous drilling in 2007, prior to Cassini, 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.

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 and XC06 anomalies as priority targets. Only the XC05 conductor will be tested in this program due to access difficulties at XC06.

This is the first-ever drill testing in this area of the project, which is a distinctly different part of the belt which hosts the AN01 & AN02 conductors. Cassini has re-modelled surface and downhole electromagnetic (DHEM) data at AN01 & AN02 and identified multiple off-hole conductors which may represent extensions to recognised mineralisation in YWRC083. Target depths are a maximum of 120m below surface.

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.

RC Drilling of Handpump Prospect

All results from the RC drilling program at the Handpump Prospect, comprising 10 holes for 1, 134m, were received in October. 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. 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) volcanoclastic 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 12). Mineralisation is potentially controlled by the intersection of NW-SE and SW-NE trending structures.

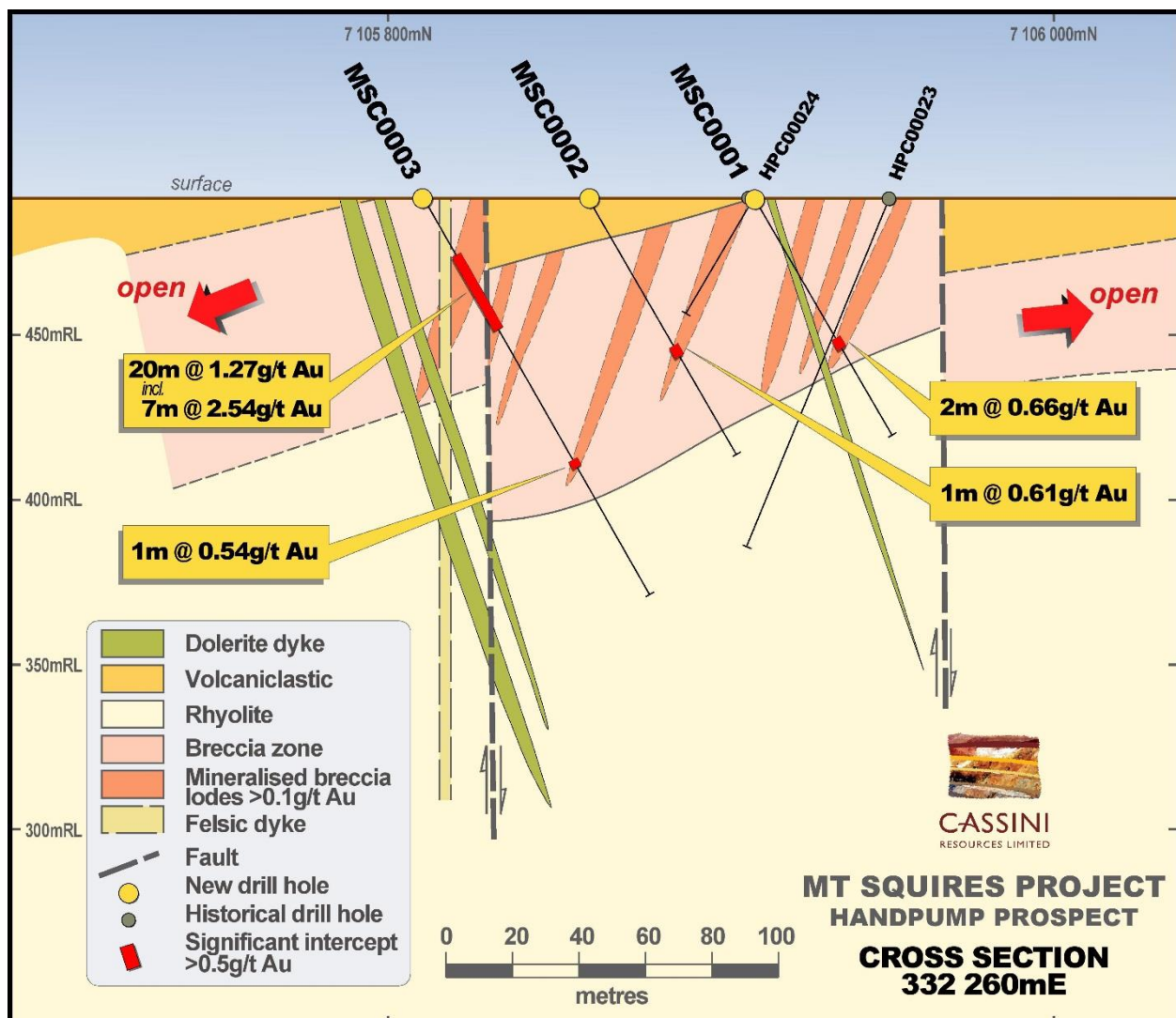


Figure 12. Cross section 332260E showing orientation of mineralised lodes and highlighting significant intersections >0.5g/t Au.

The hydrothermal breccia and mineralised veins are also largely obscured by the overlying volcanoclastic, 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 (Table 4 & Figure 13). The hydrothermal breccia host plunges beneath the volcanoclastic 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 led to the recognition 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 volcanoclastic (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.

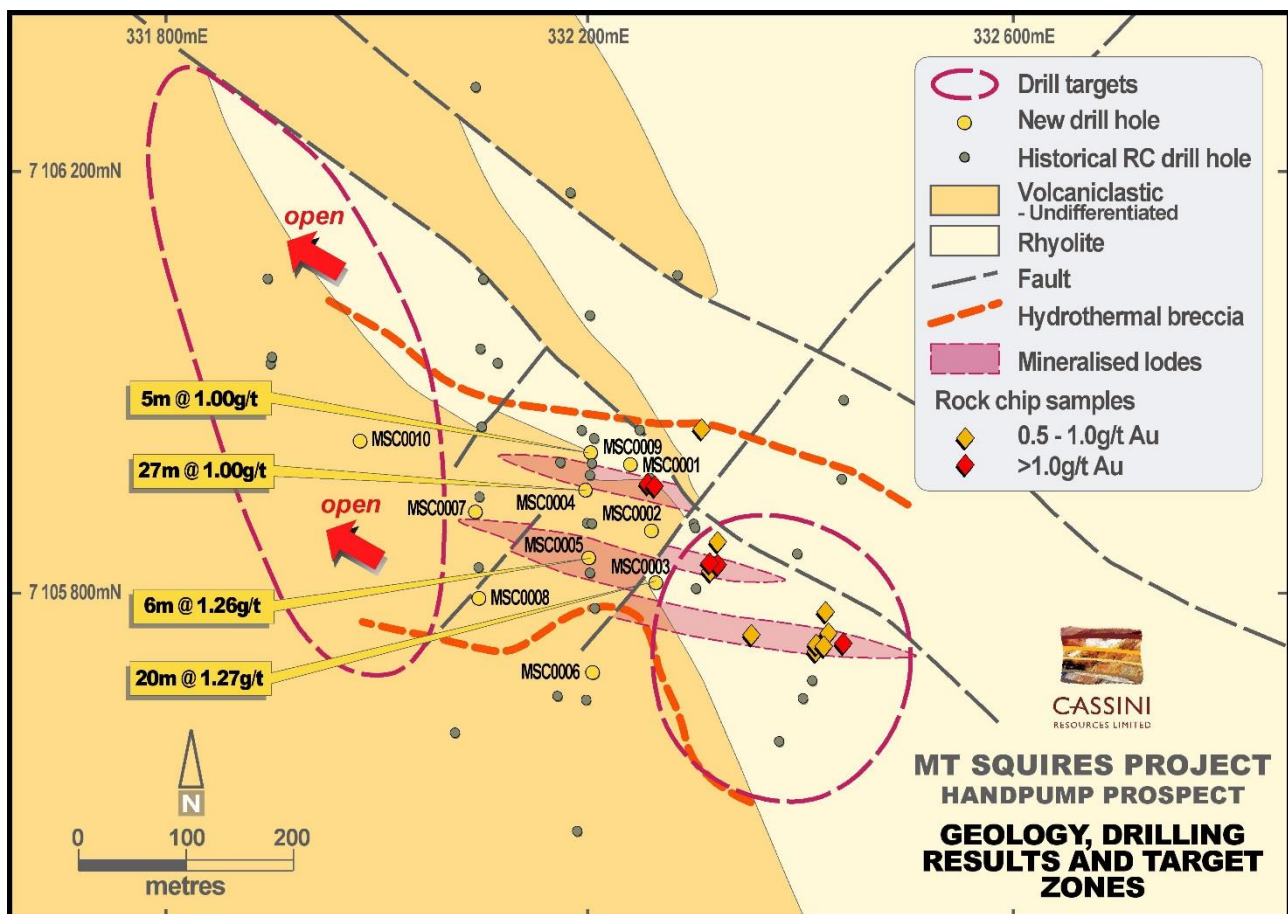


Figure 13. Drill hole plan showing geology, drilling and significant results >1.0g/t.

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 learnings of the program can thus be summarised:

- The initial Handpump discovery was enabled by locally favourable regolith (outcropping mineralisation) and the regolith outline does not necessarily reflect the best mineralisation model in bedrock for 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 14).

Permitting to clear these targets with a reconnaissance-style drill program is underway.

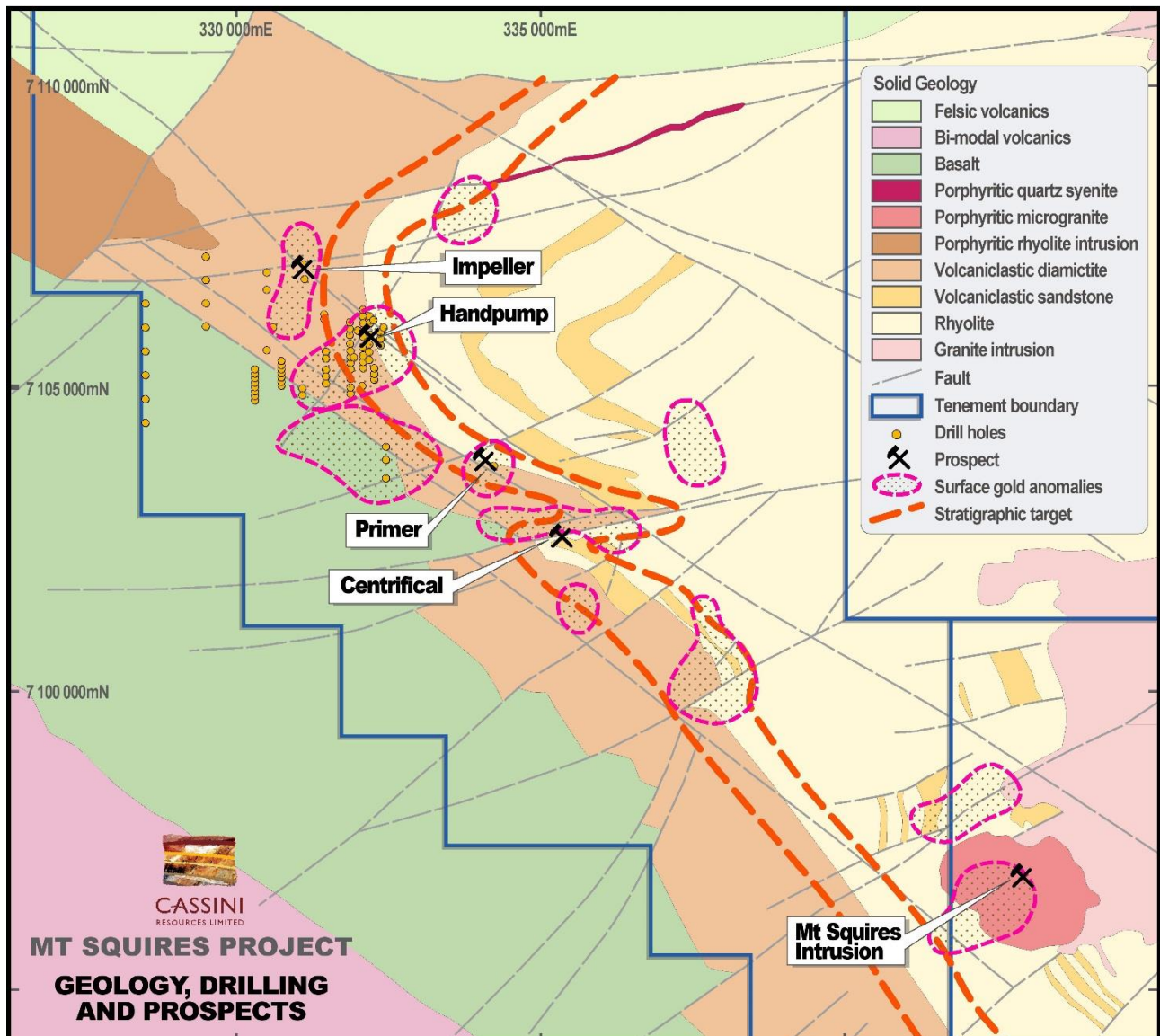


Figure 14. The Prospective gold trend showing the stratigraphic target horizon, surface geochemical anomalies and lack of drilling in these areas.

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 15). 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.

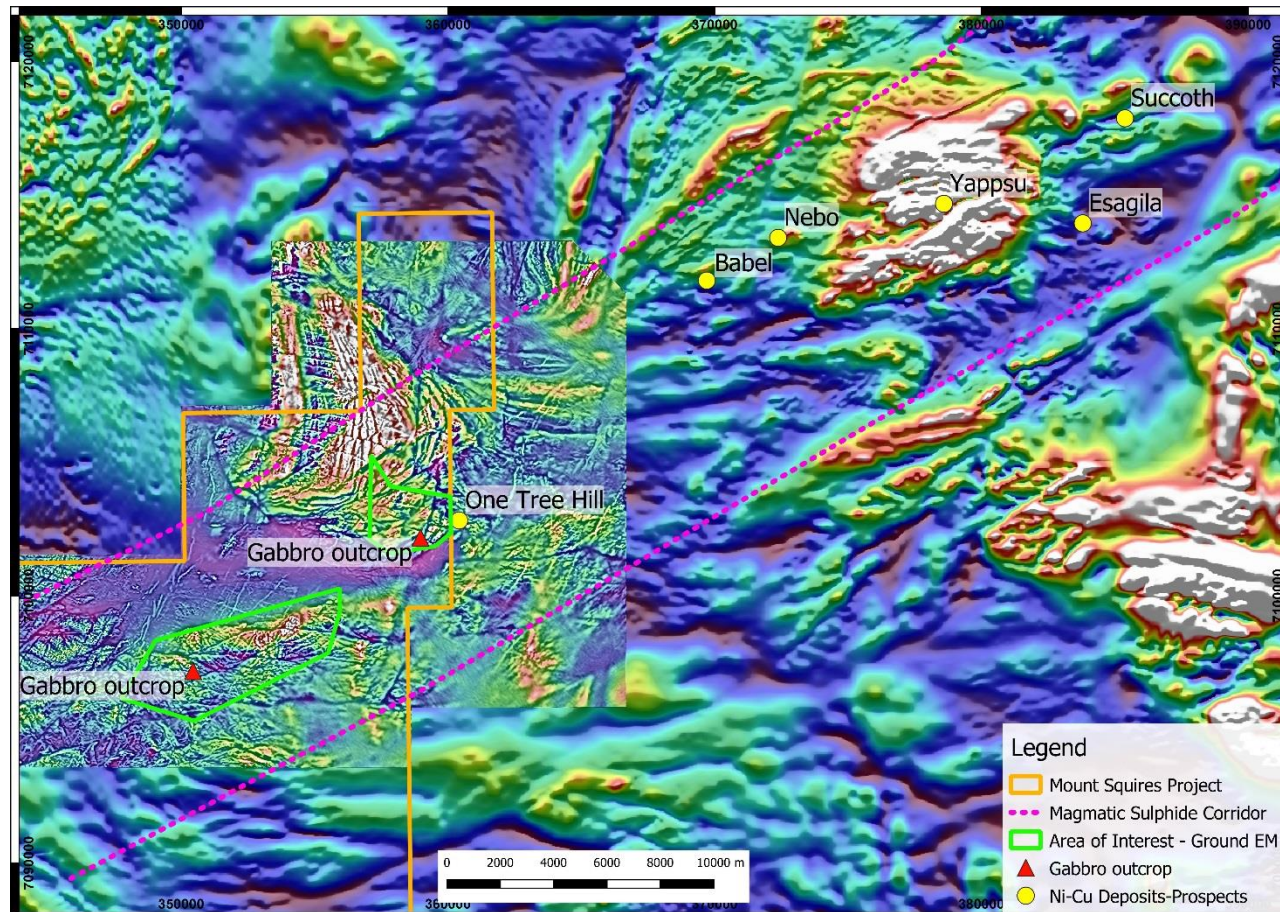


Figure 15. Potential extension of magmatic nickel-copper mineralisation trend into the eastern half of Mount Squires (1VD aeromagnetics as background).

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.

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.

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

Hole ID	East	North	RL	Dip	Azi	EOH (m)	Intersection		
							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.

For further information please contact

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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 100% owned 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 18 June 2019 and 16 July 2019, 24 September 2019, 2 October 2019, 17 October 2019, 19 December 2019 and 14 January 2020.

APPENDIX 1 – 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%
E69/3157	WA	Granted	-	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				
E69/3156	WA	Granted	Nil	30%
E69/3157	WA	Granted	Nil	30%
Disposed				
L69/0025	WA	Surrendered	30%	Nil

Appendix 5B

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

Name of entity

Cassini Resources Limited

ABN

50 149 789 337

Quarter ended ("current quarter")

31 December 2019

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 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	(328)	(545)
	(e) administration and corporate costs	(322)	(735)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	23	80
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	506	683
1.9	Net cash from / (used in) operating activities	(121)	(57)

2.	Cash flows from investing activities		
2.1	Payments to acquire:		
	(a) entities	-	-
	(b) tenements	(250)	(250)
	(c) property, plant and equipment	-	-
	(d) exploration & evaluation (if capitalised)	(234)	(1 F6)
	(e) investments	-	-
	(f) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 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	250
2.6	Net cash from / (used in) investing activities	(234)	(616)

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	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	821

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	7,353	8,131
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(121)	(517)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(234)	(616)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	821	821

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	7,819	7,819

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	2,036	1,125
5.2	Call deposits	5,587	6,087
5.3	Bank overdrafts	-	-
5.4	Other (JV funds held)	196	141
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	7,819	7,353

6. Payments to related parties of the entity and their associates

- 6.1 Aggregate amount of payments to related parties and their associates included in item 1
- 6.2 Aggregate amount of payments to related parties and their associates included in item 2

Current quarter \$A'000
217
10

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

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

7. Financing facilities	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
<i>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.</i>		
7.1 Loan facilities	-	-
7.2 Credit standby arrangements	-	-
7.3 Other (please specify)	7,265	7,265
7.4 Total financing facilities	7,265	7,265

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 December 2019, the amount in excess of \$36M was \$23,734,180, therefore CZI's 30% contribution that is loan carried is \$7,120,254. 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 December 2019, cumulative interest was \$145,414.

8. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (Item 1.9)	(121)
8.2 Capitalised exploration & evaluation (Item 2.1(d))	(234)
8.3 Total relevant outgoings (Item 8.1 + Item 8.2)	(355)
8.4 Cash and cash equivalents at quarter end (Item 4.6)	7,819
8.5 Unused finance facilities available at quarter end (Item 7.5)	-
8.6 Total available funding (Item 8.4 + Item 8.5)	7,819
8.7 Estimated quarters of funding available (Item 8.6 divided by Item 8.3)	22

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

- 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

- 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

- 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.

24 January 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.