

# CARNAVALE RESOURCES LIMITED ASX Release 29 January 2021

## **December 2020 Quarterly Activities Report**

Carnavale Resources Limited ("CAV", "Company" or "Carnavale") reports on activities completed during the December Quarter 2020.

## **Highlights**

Exploration during the December quarter focused on the Kookynie Gold Project and the acquisition of the Ora Banda Gold Project in the well-endowed gold region within 200km of Kalgoorlie, Western Australia.

## **Kookynie Gold Project**

- Completed an aircore drilling program of 139 holes for 6,539m targeting structurally controlled, high-grade gold mineralisation. All samples have been submitted to the laboratory for multi element analysis plus gold fire assay.
- Completed a high-resolution aeromagnetic survey that was used to update the interpretation of the bedrock geology within the Project and to identify multiple structural targets.
- A comprehensive soil sampling program of 1,180 samples was completed over the residual soils domains with aircore drilling focused on targets under cover.
- Acquired additional strategic prospective ground to add to the Kookynie Gold project.

## **Acquisition of the Ora Banda South Gold Project**

- Prospective and under explored landholding in the well-endowed Ora Banda region where over 6Moz of gold has been produced from nearby mines including the Ora Banda, Siberia, Bullant and Mt Pleasant mines.
- Geological and structural setting analogous to Goldfields 2Moz Invincible Gold Mine associated with the Black Flag Group sediments and the Kurrawang Conglomerates and intersecting Carnage Shear Zone.
- Encouraging soil anomalies and bedrock gold mineralisation highlighted in limited past exploration.

## Nickel sulphide exploration activities at Grey Dam and Mt Alexander Projects

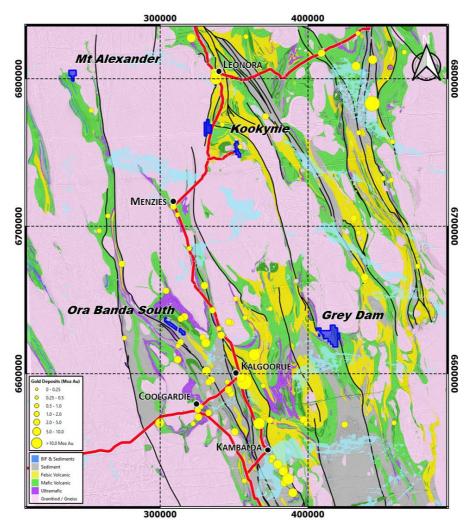
- Multi-element analysis from drilling is encouraging for the development of nickel sulphides within mafic/ultramafic package. Additional UFF soil sampling planned.
- New Gold target encouraging gold intersections from the drilling include:
  - o 8m. @ 0.32g/t Au from 38m and
  - o 12m @ 0.55g/t Au from 52m in DD002A
- A moving loop EM survey was completed at Mt Alexander following up on nickel targets defined in soil sampling.

## **Chairman Ron Gajewski commented:**

"Carnavale continues to develop and explore our tenement packages at a fast pace. We are delighted to have completed the first drilling program at the Kookynie Gold Project and look forward to the imminent results. In addition, we are keen to explore the prospective Ora Banda South Gold project with analogies to Goldfields' substantial Invincible Project."

## **Kookynie Gold Project**

The phase one aircore drilling program consisted of 139 holes and was designed to test the potential of structural features, identified in the recent detailed aeromagnetic survey, to host high-grade gold at the Kookynie Gold Project. The aircore drilling program was designed to test structural targets under alluvial cover. The aircore program confirmed that the depth of alluvial cover ranged from 5m to 40m.



**Figure 1. Location of Carnavale's Projects**Simplified geology and significant Gold deposits

## Aircore drill target generation criteria.

The Kookynie Gold Project has had limited exploration, especially under areas of transported cover, and represents a priority target for high-grade gold mineralisation similar to the deposits being successfully developed by ASX listed NME and MCT such as Cosmopolitan, Champion, Leipold and McTavish (Figure 3). The central area to the Project is covered by a layer of transported cover and fluvial sediments. This layer of cover made it unattractive to early explorers and unsuitable for traditional surface sampling techniques.

As a result, the planning and design of the exploration programs being conducted at the Kookynie Gold Project have been domained by the geology and terrain, with initial soil sampling being completed on areas of residual soil material and aircore drilling designed to test structural targets, identified by the detailed aeromagnetic survey, where soil sampling would be ineffective due to surface cover.

These work programs were run concurrently at the Project. Gold anomalies identified by the initial aircore program and the soil sampling program will be followed up in a second phase of aircore or RC drilling dependent upon results.



Figure2, Bostech Drill rig at the Kookynie Gold Project

The mineralisation in the Kookynie district appears to be controlled by structures interpreted to be east dipping that strike broadly north—south. These structures host high-grade gold in sulphidic quartz veining that were exploited by historic mines adjacent to the Project. There appears to be a consistent south-east plunge to the gold mineralisation identified at Leipold and Cosmopolitan within the host structures (Figure 3 and 5). This preferred orientation was considered when planning Carnavale's aircore program.

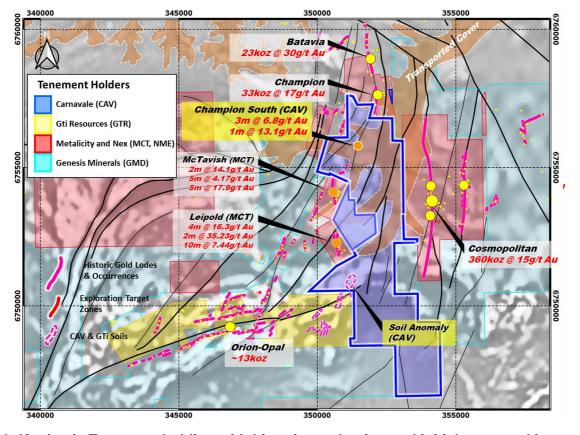


Figure 3, Kookynie Tenement holding with historic production and initial structural interpretation.

A data compilation and detailed review of the historic exploration data was undertaken for the Kookynie Gold Project and tenements adjacent to the Project area, by Carnavale geologists. The drilling and surface data supplied by Western Resources Pty Ltd. was reviewed and checked against the WAMEX data and uploaded into the database along with historic data surrounding the Project area. The exploration that has recently been undertaken by NME/MCT, and in the public domain, was also uploaded into the database.

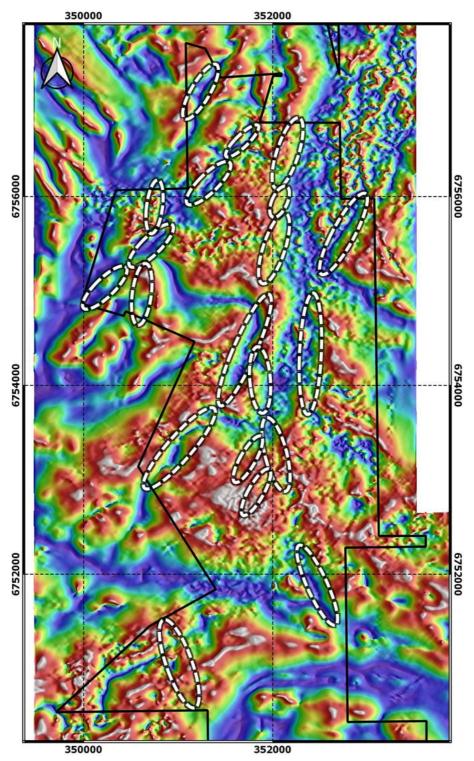


Figure 4, Structural gold targets overlain on high res. Aeromagnetic imagery (TMI RTP TILT)

This information helped to identify the structures within the aeromagnetic imagery that were demonstrated to host gold. These structures have been extrapolated into the Project area under cover. As a result, the Company was able to create an updated bedrock geology map and identify mineralized trends (Figure 5).

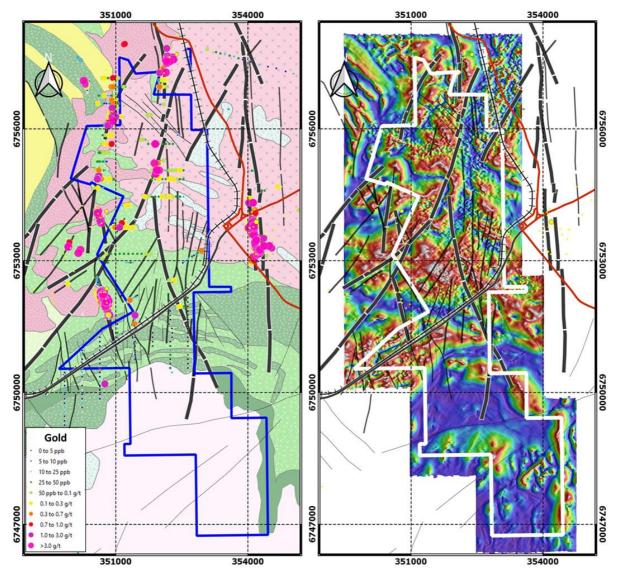


Figure 5, Updated bedrock geology map with mineralised trends from historic data and interpreted structures

Figure 6, Detailed aeromagnetic imagery with interpreted structure and infrastructure.

#### Detailed aeromagnetic survey completed

Multiple structural targets were identified by interpretation of the recent aeromagnetic survey that have the potential to host high-grade gold mineralisation. The Company is very pleased with the high quality of the data produced by the survey (Figure 4).

The Company engaged Magspec Ltd. to conduct a detailed aeromagnetic survey that was flown at a height of 35m and 20m line spacing, orientated north south. The aim of the survey was to identify the structural features that could potentially host high-grade gold, concealed by the transported cover. The survey was flown at a height that would minimize the impact of the mag-haematite in the transported material and orientated to avoid the Kookynie township.

Precision Geophysics processed the aeromagnetic survey data and generated a series of images to enhance the underlying geological features. Carnavale geologists reviewed the imagery in conjunction with the known geology, historic data compilation, satellite data and mineralised systems identified by the drilling database to create structural drilling targets with a strong probability to host high-grade gold mineralisation (Figure 4).

A soil sampling program has been completed over the areas of residual soils (Figure 7). Approximately 1,100 samples were taken across five zones. The samples were taken from 20cm below the surface and

sieved to -180 micron in the field. The program targetted interpreted structural gold zones in the residual soil profile along strike from the Leipold, McTavish, and Champion deposits.

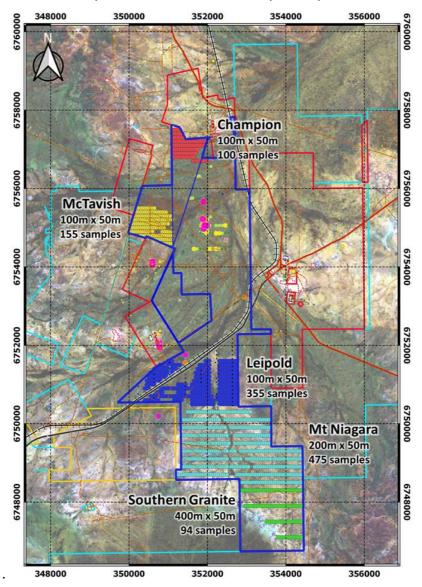


Figure 7, Soil sampling program at Kookynie Gold Project over Sentinel satellite imagery

## Permits in place

During the December quarter, the Company completed an ethnographic heritage survey of the tenement package, in conjunction with the traditional landowners, to ensure that any potential areas of cultural significance are not disturbed. The survey has found no areas that will impact on the Company's current exploration plans.

As part of Carnavale Resources strategic exploration plan at Kookynie, the Company acquired 100% of tenement application E40/394, which represents 4,500ha of exploration ground, within the prospective Melita formation from prospector Bruce Legendre, who acquired the tenement through the DMIRS ballot process. Competing applicants in the ballot were Metalicity Limited with tenement application E40/395 which has subsequently been withdrawn. (Refer Metalicity Limited ASX release significant and strategic tenement application for the Kookynie Gold Project and update on assays and drone survey dated 22 June 2020)

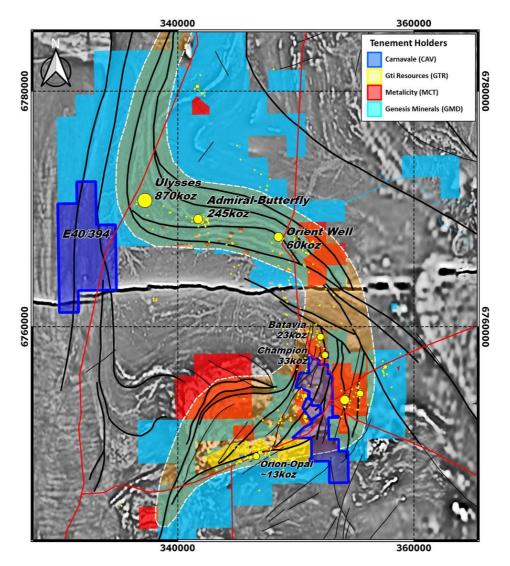


Figure 8 Location of new tenement acquisition E40/394

E40/394 is located 5km west of the historic Ulysses Mining Camp that is being successfully developed by Genesis Minerals Ltd and 40km south-southwest of Leonora in the Eastern goldfields of Western Australia (Figure 8).

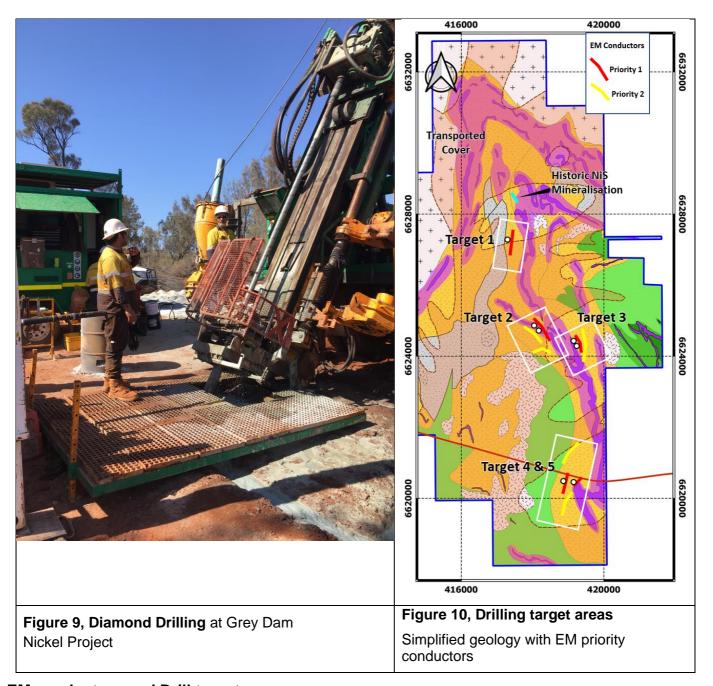
E40/394 is situated within the host sequence to the Ulysses-Orient-Well mining Camp that has produced over 1.5Moz of gold (Figure 8). The tenement has been explored by two phases of recent exploration, one in the 1990's and the most recent in 2012. This exploration included an extensive soil geochemistry program completed within the tenement and over 10,000m of drilling. Open file data is available from WAMEX reports A062530 and A094841. Carnavale is in the process of reviewing this data to establish a modern exploration plan, targeting Ulysses style gold mineralisation.

#### **Grey Dam Nickel Sulphide Project**

The phase 1 RC and diamond drilling campaign comprised seven holes for a total of 1,701m. Three of these holes were drilled with diamond core tails allowing deeper targets to be tested (See ASX release Grey Dam drilling commenced 10 September 2020). The drilling was targeting Kambalda style nickel sulphides.

Following a data review that outlined coincident nickel copper and platinum anomalies located over prospective mafic ultramafic geology package a moving loop EM survey was completed that highlighted 5 bedrock targets that warranted drill testing.

The samples from the recent drilling have been analyzed for a spectrum of multi elements, including nickel, gold, and platinum as required.



## **EM conductors and Drill targets**

The Company identified 5 priority targets that were drill tested (Figure 10). A summary of the drilling at each target is provided below. Target 1 and 3 have identified the EM conductor and require no further work.

The drilling at target 2, 4 and 5 intersected the mafic and ultramafic package but did not close off the opportunity for nickel sulphide mineralisation. These holes were surveyed by a downhole electromagnetic survey (DHEM) to test for the potential for the presence of off hole conductors adjacent to the drillhole.

## Target 2

Drillhole DDH002A lifted due to ground conditions and is interpreted to have just drilled over the top of the modelled conductor. The targeted ultramafic unit was not intersected by the hole and may be fault truncated. A strong gold anomaly has been intersected in this hole.

Drillhole DDH002B intersected two units of ultramafic. The drillhole intersected the upper margin of the modelled EM plate, but the lower unit of ultramafic may have fault truncated off by a subparallel fault. Both holes did not explain the AEM conductors. Both targets were surveyed by DHEM to test for offhole

conductors with no significant conductors found adjacent to the drillhole. However, there was a building EM response beyond the end of the hole that indicated the potential for a conductor within 60m from the end of the hole. This target remains open.

## Target 4

The drillhole intersected the ultramafic unit but did not fully drill through it to test the basal contact of the ultramafic unit or explain the conductor. High water volumes required early termination of the drill hole. This hole was surveyed with DHEM and no significant conductors were discovered. This target remains open.

## **Target 5**

The drill hole did not intersect the ultramafic unit and had to be stopped early due to high water volumes. Based on the geological information, the hole is interpreted to have not been drilled deep enough. A DHEM survey was completed in this hole and the surface EM conductor was not identified in this hole. This target remains open.

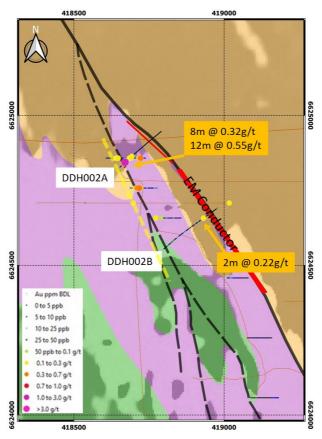


Figure 11, New gold Anomaly with local geology and EM conductor

Mafic unit green Ultramafic unit purple and sediments brown

This initial drilling program, targeting nickel sulphide mineralisation at Grey Dam, has confirmed and enhanced the understanding of the geology at the target area. The geochemistry and multi-element assay results remain positive for the development of nickel sulphide mineralisation within the Grey Dam mafic/ultramafic package.

## **New Gold Anomaly**

Carnavale intersected shallow gold mineralisation from 38m downhole in DDH002A at the fresh rock interface. Gold intercepts including 8m @ 0.32g/t, 12m @ 0.55g/t in DDH002A and 2m @ 0.22g/t in DDH002B.

This mineralisation aligns with historic anomalous gold results in wide spaced aircore drilling, from previous explorers. The mineralized trend is aligned with a structure interpreted from the aeromagnetic imagery

(Figure 11). The Grey Dam area is prospective for shallow gold mineralisation, with potentially open pittable gold resources delineated in the neighbouring tenements held by ASX listed Kalnorth Gold Mines Ltd.

Carnavale intends to review the existing drill data, geochemical data and aeromagnetic imagery for potential further testing of this new gold anomaly.

## **Ora Banda South Gold Project**

During the December quarter Carnavale signed an exclusive and binding 24-month Option Agreement with Western Resources Pty Ltd, a West Australian private company, to acquire 80% of the Ora Banda South Project ("OBSP", "Project"), which covers an area of approximately 25km², located 65km northwest of Kalgoorlie in the Yilgarn Craton, Western Australia (Figure 1) and 8km south of the Ora Banda Mining Centre.

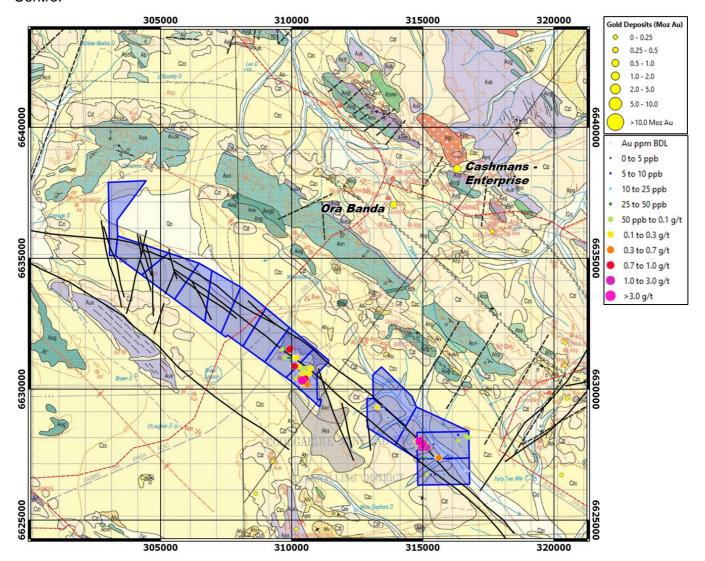


Figure 12 - Ora Banda South Project showing structural interpretation of the Carnage Shear Zone and associated minor shears.

(Tenure in blue over geology with recent significant gold results and historic gold deposits.)

The Ora Banda region is well endowed with gold, with numerous mines to be found in the local area. The Project area is surrounded by the significant historic mines of Ora Banda, Siberia, Bullant, Mt Pleasant, Cashmans and Lady Bountiful, that have produced in excess of 6Moz, all within 15km of the project. The southern portion of the tenement package is host to 4km and 1.2km long auger gold anomalies that occur along the Carnage Shear Zone and the remaining strike remains to be tested.

The geology of the Project area is dominated by the 15 km northwest trending package of the Black Flag Group sediments and the Kurrawang Conglomerates that are intersected by the anastomosing Carnage Shear zone and associated northerly crosscutting structures. (Figure 12). The tenement package remains largely unexplored despite being surrounded by numerous significant gold mines.

Carnavale is excited to be exploring for structural targets defined by the Carnage Shear Zone and associated structures that intersect the late basin Kurrajong sediments, that include the Black Flag Group and Kurrawang conglomerates. This setting is analogous to the geology of the +2Moz Invincible deposits, discovered by Goldfields Ltd in 2012. The late basin sediments of the Kurrajong sediments were always considered a poor gold exploration target up until Goldfields Ltd discovered the Invincible deposits near Kambalda.

The Invincible deposits are hosted by mudstones of the Black Flag Group within the northwest trending Speedway Shear Zone. Mineralisation at Invincible comprises bedding-parallel, shear-hosted, laminated to brecciated quartz veins accompanied by intense albite alteration, pyrite, and free gold.

Carnavale's prospective tenement package, at Ora Banda South, extends for over 15km along the Carnage Shear Zone hosted within the late basin Kurrajong sediments. Much of the tenement package is concealed by shallow recent transported cover, which has hindered previous explorers (Figure 12).

Further details of the Ora Banda South Project acquisition can be found in the Company's ASX release "Carnavale Bolsters Gold Portfolio with New Acquisition - Ora Banda South dated 5 October 2020.

## Mt Alexander Nickel Copper Platinum Project

During the quarter, the Company completed 5 lines of moving loop EM traverses over the soil anomalies identified in the earlier UFF soil sampling program. This was followed up by 4 days of field mapping and rock chip sampling. The mapping program discovered gossanous material in the southwest of the Mt Alexander tenement area associated with quartz veining and structures identified in the aeromagnetic survey.

## March Quarter Activities and Exploration programs

Exploration activities are continuing at the Company's Projects with programs planned for the period:

- Systematic UFF soil sampling in NW of the Grey Dam Nickel Sulphide Project
- Assay results from Kookynie Aircore.
- Follow up sampling of drill composites at Kookynie Gold project
- Follow up aircore and/ or RC drilling at the Kookynie Gold Project, subject to results.
- Data compilation and field reconnaissance at the Ora Banda Gold Project
- Heritage survey at Ora Banda Gold Project
- Soil sampling at Ora Banda Gold Project
- Aircore Drilling at Ora Banda Gold Project

## **New Opportunities**

The Company continues to assess new opportunities for high demand metals, such as gold, tin, copper, nickel and cobalt, to supply the increasing demand for technology metals consumed in the rapidly growing batteries, electric motors and electronics industry.

## **Corporate**

In October 2020, the Company paid an option fee of \$75,000 and issued 10 million ordinary shares to Western Resources Pty Ltd for the right to acquire 80% of the Ora Banda South Gold Project.

In October 2020, the Company agreed to acquire 100% of tenement E40/394 from Bruce Legendre at the Kookynie Gold Project for a total consideration of \$5,000 plus 1% gross royalty on revenue.

The Company had a cash position of \$2.69M as of 31 December 2020.

#### **ASX Additional Information**

- 1. ASX Listing Rule 5.3.1: Exploration and Evaluation Expenditure (excluding staff costs) during the Quarter was \$634,000. Full details of exploration activity during the Quarter are set out in this report.
- 2. ASX Listing Rule 5.3.2: There were no substantive mining production and development activities during the Quarter.
- 3. ASX Listing Rule 5.3.5: A total of \$36,570 was paid to related parties during the quarter comprising consulting fees and Non-Executive Director fees. During the quarter, \$31,807 was paid to Corporate Consultants Pty Ltd, a company in which Chairman Mr Gajewski is a director and has a beneficial interest, for accounting, secretarial, corporate service fees and provision of office space.

This announcement was approved for release by the Board of Carnavale Resources Limited.

#### For further information contact:

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## Carnavale Competent Person Statement

The information in this report that relates to the exploration results is an accurate representation of the available data and studies for the project. This information has been assessed and reviewed by Mr. Humphrey Hale, a Competent Person who is a member of The Australasian Institute of Geoscientists. Mr. Hale is a Consultant to Carnavale. Mr. Hale 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 Resource and Ore Reserves". Mr. Hale consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

## Information relating to Previous Disclosure

Information relating to Exploration Results and Mineral Resources associated with previous disclosures relating to the Grey Dam Project, Ora Banda South Project, Kookynie Gold Project, and the Mt Alexander Project in this announcement has been extracted from the following ASX announcements:

- Kookynie Gold Project Drilling update dated 17 December 2020
- Kookynie Gold Project Aircore Drilling commenced dated 1 December 2020
- Kookynie Gold Project Exploration Update dated 9 November 2020
- Grey Dam Exploration Update dated 6 November 2020
- Strategic Acquisition and Intensive Exploration to commence at Kookynie High-Grade Gold Project dated
   22 October 2020
- Carnavale Bolsters Gold Portfolio with New Acquisition Ora Banda South dated 5 October 2020

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. 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.

Statements regarding Carnavale Resources' plans with respect to its mineral properties are forward-looking statements. There can be no assurance that Carnavale Resources' plans for development of its mineral properties will proceed as currently expected. There can also be no assurance that Carnavale Resources' will be able to confirm the presence of additional mineral deposits, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of Carnavale Resources' mineral properties.

## **Appendix**

Carnavale Resources Limited (ASX: CAV) provides the following addendum in relation to additional information required by Listing Rule 5.3.3.

## Schedule of Mining Tenements, Beneficial Interests and agreements

Held as at the end of the Quarter

Project/Location	Country	Tenement	Percentage held/earning
Grey Dam Project, Western	Australia	M28/378	100%
Australia		E28/1477	100%
		E28/2587	Earning up to 80%
		E28/2567	Earning up to 80%
		E28/2682	Earning up to 80%
		E28/2760	Earning up to 80%
		E28/2506	Earning up to 80%
Mt Alexander Project, Western Australia	Australia	E29/960	Earning up to 80%
		E29/961	Earning up to 80%
		P29/2356	Earning up to 80%
Kookynie Gold Project, Western Australia	Nustralia	E40/1480	100%
		E40/355	Earning up to 80%
		P40/1380	Earning Up to 80%
		P40/1381	Earning up to 80%
		E40/394	100%
Ora Banda South	Australia	P16/3081	Earning up to 80%
		P16/3082	Earning up to 80%
		P16/3077	Earning up to 80%
			Earning up to 80%
		P16/3000	Earning up to 80%
		P16/3001	Earning up to 80%
		P24/5274	Earning up to 80% Earning up to 80%
		P24/5275	Earning up to 80%
		P24/5276	Earning up to 80%
		P24/5277	Earning up to 80%
		P24/5278	Earning up to 80%
		P24/5279	Earning up to 80%
		P24/5280	Earning up to 80%
		P24/5281	Earning up to 80%
		P24/5282	Earning up to 80%

<sup>\*</sup> Carnavale has the right to earn up to this level on expending the funds and payments stated in the relevant agreements.

## **Schedule of Mining Tenements, Beneficial Interests and agreements**

Acquired during the Quarter

Project/Location	Country	Tenement	Percentage held/earning
Kookynie Gold Project, Western Australia	Australia	E40/394	100%
Ora Banda South	Australia	P16/3081 P16/3082 P16/3077 P16/3000 P16/3001 P24/5274 P24/5275 P24/5276 P24/5277 P24/5277 P24/5278 P24/5279 P24/5280 P24/5281 P24/5281	Earning up to 80%

## Schedule of Mining Tenements, Beneficial Interests and agreements

Disposed of during the Quarter

Project/Location	Country	Tenement	Percentage held/earning
N/A			