

25 January 2023 ASX: GAL

**Corporate Directory** 

**Directors** 

Chairman & MD
Brad Underwood

Non-Executive Director Noel O'Brien

Non-Executive Director Mathew Whyte

Non-Executive Director Cecilia Camarri

## **Projects**

Norseman Project
Palladium-Nickel-CopperRhodium-Platinum-Gold

Fraser Range Project Nickel-Copper-Cobalt



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# QUARTERLY ACTIVITIES REPORT

## Norseman - 100% GAL

- Primary focus during December Quarter was ongoing extensive RC and diamond drilling campaigns at the Callisto palladium-platinum-goldrhodium-copper-nickel discovery
- Over 15,000m of RC drilling and 5,000m of diamond drilling completed at Callisto by end of the December Quarter
- Diamond drill assays show highest grades of nickel and copper from disseminated sulphides to date with 1.58% nickel, 0.93% copper, and 3.32 g/t 3E over one metre
- Rhodium assays increasing at depth within high grade palladiumplatinum seams
- Wide zones of disseminated nickel sulphide discovered in a new geological setting north of Callisto in first regional exploration program since Callisto discovery
- Massive sulphide assays from Callisto reveal a new style of magmatic nickel-copper-cobalt with potential for high-grade zones within the growing mineralised system

# Subsequent events

- Assays pending for 15 RC and diamond drill holes with results expected early in the new year
- Drilling resumed in mid-January with the diamond rig targeting high grade palladium-nickel-copper zones to the east of current mineralisation
- Metallurgical program has commenced with flotation tests focussed on metal recoveries from NRCD337

## Fraser Range - 67% GAL / 33% Creasy Group JV

- EM surveying of recently acquired tenement along strike of sulphide mineralisation at the Lantern South prospect is continuing
- Infill EM surveying of prospective zones on E28/2064 is planned to refine targets prior to drill testing

## Corporate

 Well-funded to continue exploration programs with approximately \$20.1 million in cash as at 31<sup>st</sup> December 2022

Galileo Mining Ltd (ASX: GAL, "Galileo" or the "Company") is pleased to provide a summary of activities for the quarter ending 31<sup>st</sup> December 2022 from its Norseman palladium-platinum-gold-copper-nickel-rhodium project and Fraser Range nickel project in Western Australia.



# Commenting on the recent activities, Galileo Managing Director Brad Underwood said:

It was yet another exceptionally busy quarter for Galileo in which our ongoing RC and diamond drilling campaigns at Callisto continued to deliver consistently high-grade results with assays received during the period showing palladium, nickel, and copper grades are steadily increasing over wide intervals of mineralisation.

Importantly, regional exploration drilling 400m to the north of Callisto identified wide zones of disseminated nickel sulphide in a new geological setting, confirming the prospectivity of the ground we are exploring at Norseman.

Throughout the period, assays have returned the highest individual copper and gold grades drilled to date which indicates we have yet to understand the full potential of this very large geological system. Our current geological interpretation suggests the Callisto rock unit originated further to the east and that the ultimate source of mineralisation may yet be discovered at this location.

Our focus early in the new year is to kick off diamond core drilling to test this concept with step out drilling using the diamond rig to target high grade palladium-nickel-copper zones east of current mineralisation.

In addition to the drilling at Callisto, we are undertaking the first program of metallurgical work using drill core from NRCD337. This initial sighter work will focus on flotation testing to determine recoveries of the key metals –palladium, nickel, copper, platinum, rhodium, and gold. Results from this work are expected within the first quarter of 2023.

With a very strong cash position, Galileo is well placed to continue its systematic exploration campaign including drilling and metallurgical work programs into 2023 and I look forward to sharing results of this work as they become available.

# Norseman (100% GAL)

During the quarter, Galileo continued ongoing RC and diamond drilling programs at the Callisto palladium-platinum-rhodium-gold-copper-nickel target. Two rigs (one RC and one diamond drill) continued to drill at Callisto with assays received from these drill programs throughout the quarter.

Figure 1 — RC drilling on site at Galileo's 100% owned Callisto discovery near Norseman.





In December<sup>1</sup>, Galileo announced highest grades of nickel and copper from disseminated sulphides to date at Callisto with 1.58% nickel, 0.93% copper, and 3.32 g/t 3E over one metre in NRCD305 with peak nickel, copper, and palladium grades interpreted to be increasing at depth and to the east.

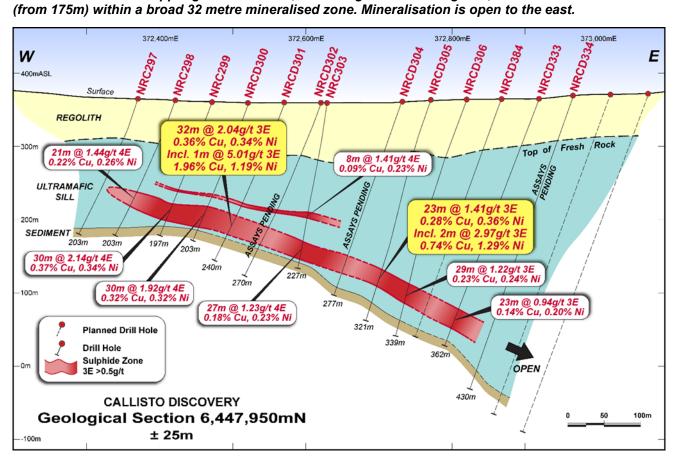
The Company has defined a mineralised footprint over 500 metres from the parent host rock while the possible source of the mineralisation may be discovered further to the east. Galileo has since begun testing this concept with a program of diamond drilling.

Figure 2 shows the section on line 6,447,950 north, where assays have been returned from drill holes NRCD301, NRCD305 and NRCD306. Mineralisation is interpreted as a broad continuous zone of disseminated sulphides which remains open at depth to the east on this section. Logging and interpretation of drill core indicates that Callisto is a separate mineralised sill that has intruded the pre-existing parent sill. The parent sill has a strong magnetic signature which trends north-northeast with the parent sill outcropping over the five-kilometre prospective horizon to the north.

Rhodium assays up to 0.13 g/t over one metre interval were announced to the market on the 23 November 2022 with multiple RC drill intersections containing positive rhodium results. Rhodium assaying of key intersections is ongoing with a lag between reported Pd-Pt-Au-Ni-Cu assays and reported rhodium assays due to a different analytical technique which is used to quantify rhodium content of drill samples.

Drilling at Callisto is focussed on determining the size and grade of the sulphide zone, and understanding the relationship with the much larger host sill, while looking for a possible source of the discovery.

Figure 2 — Callisto geological interpretation section 6,447,950N showing broad zones of continuous mineralisation. Peak copper grades of 1.96%, with 2.62g/t Pd and 1.82 g/t Au, were recorded in NRCD301 (from 175m) within a broad 32 metre mineralised zone. Mineralisation is open to the east.



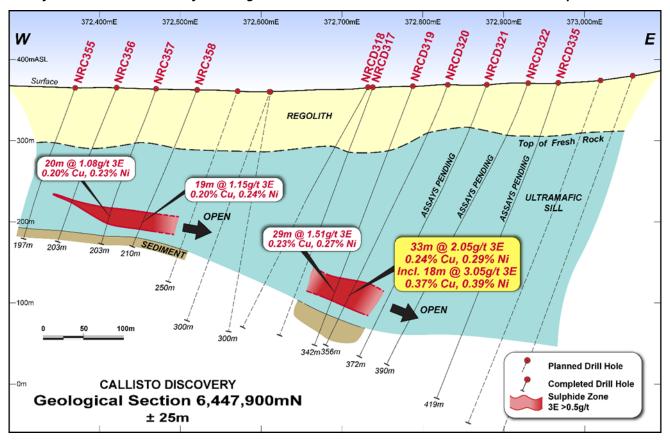
<sup>&</sup>lt;sup>1</sup> Refer to ASX announcement dated 12 December 2022.



Post period-end (ASX announcement dated 4 January 2023), Galileo reported palladium grades up to 7.06g/t over one metre (NRCD320) within a 33-metre high-grade intersection from section line on 6,447,900N as shown in Figure 3. The intersection included:

- 33 metres @ 2.05 g/t 3E (1.71 g/t Pd, 0.24 g/t Pt, 0.10 g/t Au), 0.24% Cu & 0.29% Ni from 271m (NRCD320) including
  - 18 metres @ 3.05 g/t 3E (2.59 g/t Pd, 0.33 g/t Pt, 0.13 g/t Au), 0.37% Cu & 0.39% Ni from 283m with 1 metre @ 7.65 g/t 3E (7.06 g/t Pd, 0.37 g/t Pt, 0.22 g/t Au), 0.40% Cu & 0.44% Ni from 295m

Figure 3 — Callisto geological interpretation section 6,447,900N with new drill results from NRCD319 and NRCD320. Assays pending for other drill holes on this section as marked. Drill holes planned for the eastern side of the section as well as infill drilling between NRC358 and NRCD319. Mineralisation is open to the east.



#### **Next Steps**

An extensive program of drilling is continuing to define the extent of the Callisto discovery. Drilling resumed in mid-January with the diamond rig targeting high grade palladium-nickel-copper zones to the east of current mineralisation.

Drilling at Callisto is now focussed on determining the size and grade of the sulphide zone, and understanding the relationship with the much larger host sill, while looking for a possible source of the discovery to the east.

Further assays are pending for more than 15 RC and diamond drill holes.

In addition to the drilling at Callisto, Galileo is undertaking the first program of metallurgical work using drill core from NRCD337. This initial sighter work will focus on flotation testing to determine recoveries of the key metals –palladium, nickel, copper, platinum, rhodium, and gold.

Results from this work are expected within the first quarter of 2023.



Figure 4 - Aerial view of RC drilling on site at Galileo's 100% owned Callisto discovery near Norseman



In October, Galileo announced<sup>2</sup> the first massive sulphide intersection at Callisto, returning significant nickel-copper-cobalt assays highlighting a new zone of mineralisation above and separate to the lower palladium rich zones.

The significant massive sulphide drill intersection included:

2.2 metres @ 0.50% nickel, 1.92% copper, 0.12% cobalt, 0.10g/t palladium from 189.8m (NRCD293) including 1.2 metres @ 0.77% nickel, 2.48% copper, 0.18% cobalt, 0.14 g/t palladium from 190.6m

Figure 5 - Detail of massive sulphide mineralisation at 190.6m downhole in NRCD293 in top photo with larger interval in lower photo.



<sup>&</sup>lt;sup>2</sup> Refer to ASX announcement dated 13 October 2022

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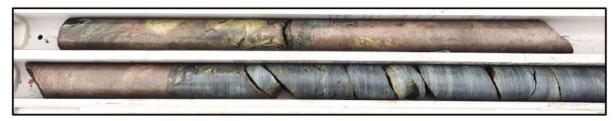
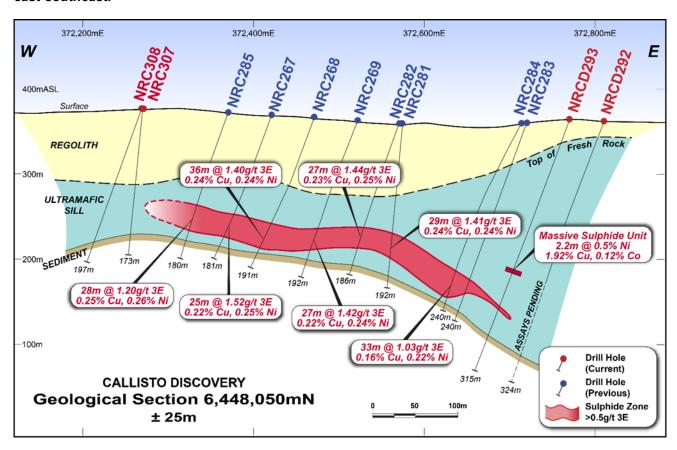


Figure 6 shows the section containing the massive sulphide unit in relation to the lower palladium zone. Assays from the diamond core drill tail of NRCD293 contained a zone of massive sulphide from 189.8 metres down hole that is separate and distinct from the lower palladium rich zone (intersected at 240 metres down hole, 2 metres @ 1.67 g/t 3E, 0.09% copper, 0.26% nickel).

The presence of cobalt in the massive sulphide unit, with high grades up to 0.18%, is new for Callisto where cobalt grades in the palladium rich sulphide zone are most often around 0.01%. The massive sulphide texture, the high grades of cobalt recorded, and the physical separation between the two zones of metal enrichment, all point towards the discovery of a new style of mineralisation at Callisto.

Down hole EM surveying is planned to look for a potential source of the massive sulphide as the massive sulphide unit will provide a much stronger conductive response than the deeper, palladium rich, disseminated sulphides.

Figure 6 — Callisto geological interpretation section 6,448,050. Massive sulphide unit intersected in NRCD293 at 189.8 metres down hole with the disseminated palladium rich zone intersected at 240 metres down hole. Current interpretation of the palladium rich zone is that it plunges off section to the east-southeast.





In October<sup>3</sup>, scout RC drilling undertaken on an existing track 400 metres north of Callisto discovery drill hole NRC266 intersected disseminated nickel sulphide mineralisation with total sulphide content estimated at 5% over the logged interval in NRC346. An adjacent drill hole 100m to the east (NRC347) also intersected disseminated sulphides with a lower overall abundance of logged sulphides.

Two further drill holes were then completed with an 85-degree dip to establish the geometry and extent of mineralisation on the drill line (NRC353 and NRC354). Portable XRF analyses confirmed the presence of nickel sulphides which were logged in drill chips.

Assays returned from the first of these four scout RC drill holes highlighted an extensive 50 metre drill intersection from NRC346 containing a higher-grade nickel interval.

Table 1 shows the assays for the disseminated sulphide zone intercepted in NRC346 with Figure 8 displaying the cross section. A maximum nickel grade of 0.74% was recorded between 123 and 124 metres downhole.

Table 1: Significant intersections for drill hole NRC346. Sulphide mineralisation is strongest in gabbroic section of layered intrusive rock unit. Results reported at 5% < MgO < 10% for broad intersection of interest, and at a 0.4% nickel cut off (2m minimum width, no dilution). Interval between 123 and 124m is listed to show the maximum nickel grade within the reported interval. Palladium and platinum grades were all less than 20ppb.

Hole ID	From (m)	To (m)	Interval (m)	Nickel (%)	Copper (%)	Cobalt (%)	MgO (%)	S (%)
NRC346	95	145	50	0.32	0.02	0.02	6.9	2.4
including	111	113	2	0.50	0.01	0.02	6.9	2.5
	123	125	2	0.59	0.01	0.01	5.1	0.9
	123	124	1	0.74	0.01	0.01	5.2	1.0
	136	138	2	0.56	0.01	0.02	7.7	2.2
	142	145	3	0.46	0.03	0.03	8.2	2.6

A large ovoid magnetic anomaly 100 metres north of NRC346 (Figure 7) is interpreted to be caused by a mafic/ultramafic intrusion which disrupts the typically linear magnetic pattern of the sills and flows in the district.

NRC346 was part of a regional scout drilling campaign on existing tracks. The area to the north of NRC346 is now a priority target for follow up drilling and the upcoming drill holes will focus on defining the sulphide zone and its potential relationship with the interpreted intrusion.

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<sup>&</sup>lt;sup>3</sup> Refer to ASX announcement dated 10<sup>th</sup> October 2022



Figure 7 — Plan map of new nickel sulphide target with interpreted circular intrusion (black dotted line) over TMI1VD magnetic image. Callisto is within the red dotted outline and is associated with a separate, linear magnetic unit which represents an ultramafic sill.

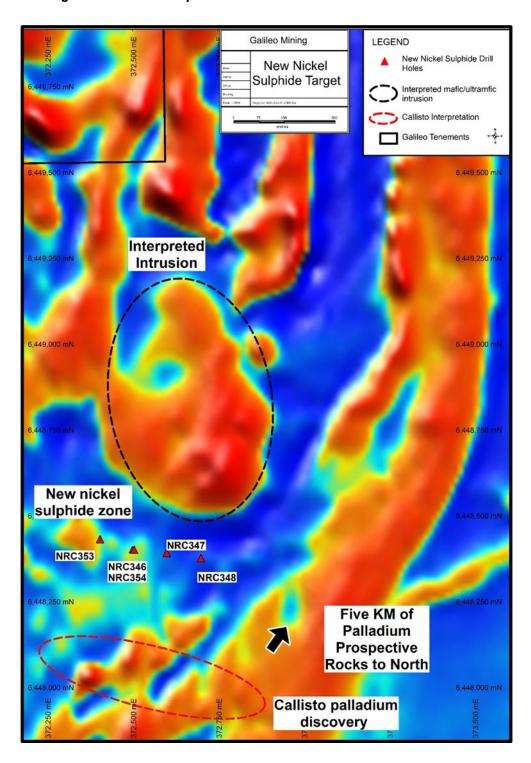
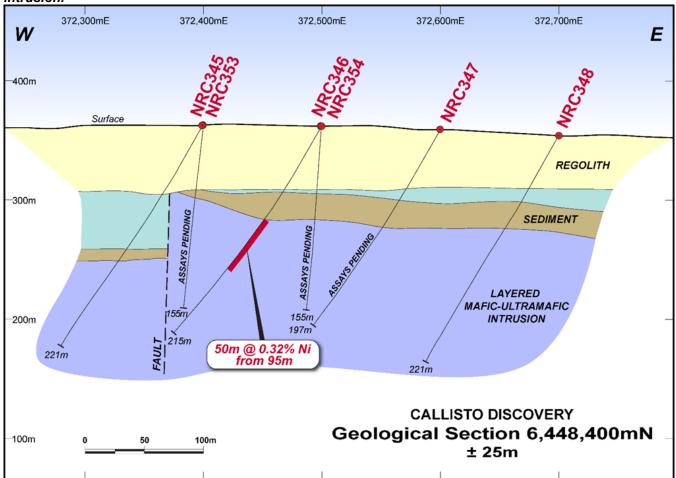




Figure 8 — Interpreted geological cross-section on line 6,448,400N of the new disseminated nickel sulphide intersection. Drill holes NRC347, NRC353 and NRC354 also contain disseminated sulphides – see ASX announcement dated 10th October 2022. Follow up drilling will focus on defining the nickel sulphide zone to the north where it is considered to have a relationship with the large interpreted intrusion.



Disseminated nickel sulphides have been discovered north of Callisto (see Figure 9 and 10, and ASX announcement dated 10 October 2022); massive sulphide discovered above Callisto in NRCD293; and mineralisation continues to extend to the northwest (see Figure 9 and 10 and ASX announcement dated 12 October 2022).

All of these newly discovered zones of mineralisation demonstrate the opportunity for growth, through a combination of drilling out the known metal rich sulphide zones, and the potential for new discoveries in the five kilometres of prospective ground to the north.



Figure 9 — Plan map of Callisto drilling with RC and diamond drill target zones. Red dashed lines show the interpreted mineralised zone at 0.5 g/t 3E cut-off projected to surface – open in both directions. 500 metre zone of mineralisation has been defined from assays received to date. Assays are pending for drilling to the east of the current mineralised zone. Source of mineralisation may exist to the east with target zone as shown.

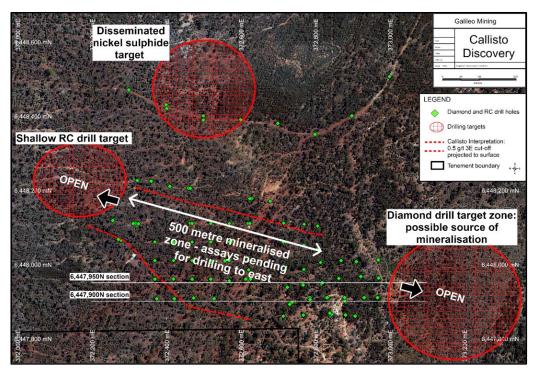
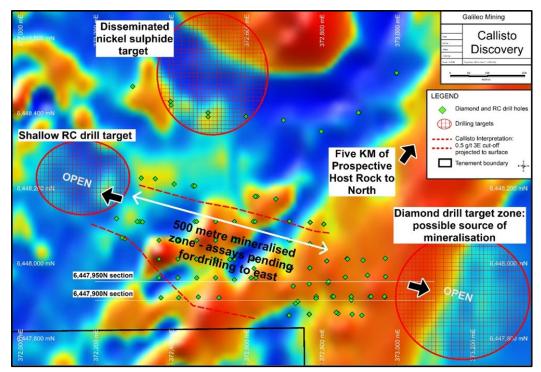


Figure 10 — Plan map of Callisto drilling with RC and diamond drill target zones. Background magnetic image is TMI-1VD.





# Fraser Range (67% GAL / 33% Creasy Group JV)

While the priority for Galileo during the quarter was exploration at Norseman, the Company continued to progress exploration work at its Fraser Range project.

EM surveying is ongoing at Galileo's northern Fraser Range project area with the aim of defining new undercover nickel targets for drill testing. Previous drilling at the Lantern South and Lantern East prospects has established the area as highly prospective for sulphides. The conductive anomaly at the Easterly prospect is northeast along strike and ready for drill testing.

Conductive responses from first pass EM surveying require infill surveying to refine and prioritise targets prior to drill testing. The current parameters of well-developed EM models at untested prospects are shown in Table 2. The location of the prospects is shown in Figure 11 with the target intrusions on the new tenement along strike to the south.

Figure 11 – Location of untested EM targets at the Easterly and Green Moon prospects and the interpreted intrusive targets on new tenement to the south (TMI magnetic background imagery)

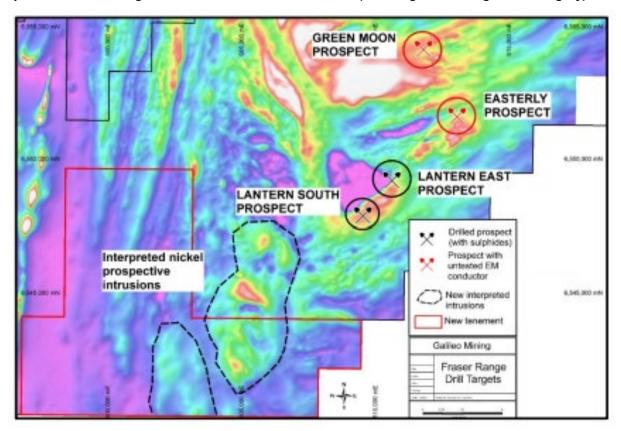


Table 2: Modelled parameters of Green Moon and Easterly conductors

Prospect	Conductance	Length	Height	Depth to Top
Green Moon (*)	4,000S	300m	400m	545m
Easterly (**)	1,140S	750m	134m	165m



## Corporate

Galileo is well funded to continue exploration with approximately \$20.1 million in cash as of 31<sup>st</sup> December 2022. This puts the Company in a secure position to undertake all its planned exploration programs.

Please refer to the accompanying Appendix 5B report for the period ended 31 December 2022 for further information.

## **Investment in Dynamic Minerals Ltd**

In December 2022 the Company made an investment of \$200,000 (being 1,000,000 ordinary shares at \$0.20 per share) in the IPO of Dynamic Minerals Ltd (ASX:DYM). Dynamic Minerals listed on ASX on 16 January and will be exploring tenements adjacent to Galileo's Norseman tenements including their Widgiemooltha project which is highly prospective for battery minerals.

# **Capital Structure**

The Company's capital structure as at the date of this Report is as follows:

ASX Code	Security	Number	
Quoted			
GAL Fully Paid Ordinary Shares		197,624,927	
Unquoted			
GALAN	Options Ex \$0.52/ Exp 15/9/2023	2,283,333	
GALAD	Options Ex \$2.40/ Exp 14/7/2024	974,615	
GALAP	Performance Rights Exp 22/09/2025	2,500,000	

#### **ASX Additional Information**

- 1. ASX Listing Rule 5.3.1: Exploration and Evaluation expenditure during the December 2022 Quarter was \$3.21 million. Full details of exploration activity during the December 2022 Quarter are set out in this Report.
- 2. ASX Listing Rule 5.3.2: There was no substantive mining production and development activities during the Quarter.
- 3. ASX Listing Rule 5.3.3: Please refer to Appendix 1 for Galileo's Tenement Schedule at 31 December 2022.
- 4. Rule 5.3.5: Payments to related parties of the Company and their associates during the Quarter (as detailed in Section 6 of the Company's Appendix 5B Quarterly Cash Flow Report) totalling \$196,000 was paid to Directors and Associates for salaries, superannuation, and director and consulting fees. Please see the Remuneration Report in the 2022 Annual Financial Report for further details on Directors' remuneration.



# **Competent Person Statement**

The information in this report that relates to Exploration Results is based on, and fairly represents, information and supporting documentation prepared by Mr Brad Underwood, a Member of the Australasian Institute of Mining and Metallurgy, and a full time employee of Galileo Mining Ltd. Mr Underwood has sufficient experience that is relevant to the styles of mineralisation and types 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 Code). Mr Underwood consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

With regard to the Company's ASX Announcements referenced in the above Announcement, the Company is not aware of any new information or data that materially affects the information included in the Announcements.

Authorised for release by the Galileo Board of Directors.

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### **About Galileo Mining:**

Galileo Mining Ltd (ASX: GAL) is focussed on the exploration and development of palladium, nickel, copper, and cobalt resources in Western Australia. GAL's tenements near Norseman are highly prospective for palladium-copper-nickel sulphide deposits as shown by the Callisto discovery. GAL also has Joint Ventures with the Creasy Group over tenements in the Fraser Range which are prospective for nickel-copper sulphide deposits similar to the operating Nova mine. GAL's Norseman Project contains a near surface laterite deposit with over 26,000 tonnes of contained cobalt, and 122,000 tonnes of contained nickel, in JORC compliant resources (see JORC Table below).

JORC Mineral Resource Estimates for the Norseman Cobalt Project ("Estimates") (refer to ASX "Prospectus" announcement dated May 25<sup>th</sup> 2018 and ASX announcement dated 11<sup>th</sup> December 2018, accessible at <a href="http://www.galileomining.com.au/investors/asx-announcements/">http://www.galileomining.com.au/investors/asx-announcements/</a>). Galileo confirms that all material assumptions and technical parameters underpinning the Estimates continue to apply and have not materially changed).

Cut-off	Class	Tonnes Mt	Со		Ni		
Cobalt %			%	Tonnes	%	Tonnes	
MT THIRSTY SILL							
0.06 %	Indicated	10.5	0.12	12,100	0.58	60,800	
	Inferred	2.0	0.11	2,200	0.51	10,200	
	Total	12.5	0.11	14,300	0.57	71,100	
MISSION SILL							
0.06 %	Inferred	7.7	0.11	8,200	0.45	35,000	
GOBLIN							
0.06 %	Inferred	4.9	0.08	4,100	0.36	16,400	
TOTAL JORC COMPLIANT RESOURCES							
0.06 %	Total	25.1	0.11	26,600	0.49	122,500	



Appendix 1: Galileo Mining Tenement Schedule as at 31st December 2022

Project	Tenement reference & Location	Interest at beginning of Quarter	Interest at end of Quarter	Nature of Interest As at end of Quarter
NORSEMAN PROJECT	All tenements are in			
	Western Australia			
	E63/1041	100%	100%	Active
	E63/1764	100%	100%	Active
	P63/2053	100%	100%	Active
	P63/2105	100%	100%	Active
	P63/2106	100%	100%	Active
	P63/2107	100%	100%	Active
	P63/2108	100%	100%	Active
	P63/2109	100%	100%	Active
	P63/2110	100%	100%	Active
	P63/2111	100%	100%	Active
	P63/2112	100%	100%	Active
	P63/2113	100%	100%	Active
	P63/2114	100%	100%	Active
	P63/2115	100%	100%	Active
	P63/2116	100%	100%	Active
	P63/2117	100%	100%	Active
	P63/2118	100%	100%	Active
	P63/2123	100%	100%	Active
	P63/2136	100%	100%	Active
	P63/2137	100%	100%	Active
	P63/2259	100%	100%	Active
	M63/671	100%	100%	Active
	L63/83	100%	100%	Active
	L63/85	100%	100%	Active
	L63/86	100%	100%	Active
	L63/87	100%	100%	Active
	L63/88	100%	100%	Active
FRASER RANGE	All tenements are in			
PROJECT	Western Australia			
	E28/2064	67%	67% NSZ <sup>(1)</sup>	Active
	E28/2912	100%	100%	Active
	E28/2949	100%	100%	Active
	E28/2797	100%	100%	Active
	E63/1539	67%	67% FSZ <sup>(2)</sup>	Active
	E63/1623	67%	67% FSZ <sup>(2)</sup>	Active
	E63/1624	67%	67% FSZ <sup>(2)</sup>	Active

<sup>(1) 67%</sup> owned by NSZ Resources Pty Ltd a wholly owned subsidiary of Galileo Mining, 33% Great Southern Nickel Pty Ltd (a Creasy Group Company).

<sup>(2) 67%</sup> owned by FSZ Resources Pty Ltd a wholly owned subsidiary of Galileo Mining, 33% Dunstan Holdings Pty Ltd (a Creasy Group Company).