



Positive HPAL Test Results from the Coglia Nickel-Cobalt Project

Highlights:

- Initial High Pressure Acid Leach (HPAL) testing by ALS Laboratories complete
- Testwork confirmed final nickel extraction at 92.6% and cobalt extraction at 73.9%
- Testwork based on blended sample from six drill holes encompassing the current resource
- Blended sample dominantly in the -38 µm size fraction
- Nickel grade is higher in finer fractions, indicating beneficiation may negate the requirement for milling
- Further bench test work is now being planned with ALS to provide detailed data for future mining studies

Summary:

Panther Metals Ltd (ASX: PNT), ('Panther' or 'the Company') is pleased to announce that it has completed an initial first round of HPAL testing at the Coglia Nickel-Cobalt Project ('Coglia'), with test work returning final nickel extraction at 92.6%. Feed for the test work was based on a blended sample obtained from six drill holes from the maiden drilling program, located across the strike of the current resource area and from varying horizons of mineralised material. The majority of the contained material was less than -38µm in size, with the higher-grade nickel residing in ultra-fine fractions. Test work indicated the potential to further upgrade the nickel grade through beneficiation.



Daniel Tuffin, Managing Director and CEO, commented:

"This initial round of HPAL testing from the Coglia Nickel-Cobalt Project has returned fantastic results. With a final recovery of 92.6% nickel, these results confirm that the laterite nickel mineralisation at Coglia falls within the industry-accepted processing recovery range, with ALS Laboratories confirming that '...90-95% recovery is generally what you'd expect from HPAL of laterites'.

Additionally, most of the higher nickel grades are in the finer size fractions, which with further study may prove that beneficiation processes such as scrubbing, cyclones and/or screening could potentially remove the need for milling. The Company is awaiting a further report from ALS and will also engage independent experts for further review. It will update the market on any further findings once complete.

While the Company's focus for the next phase of exploration at Coglia remains on drilling and expanding the current resource, it will continue to carry out further testing and studies in parallel to support a future Pre-Feasibility Study, including further HPAL bench test work programs."

HPAL Test Work:

The Company engaged ALS Global laboratories to carry out an initial round of HPAL testing on the back of completing its first 6,000m RC program at the Coglia Nickel-Cobalt Project, which resulted in a maiden Inferred Mineral Resource Estimate as outlined in **Table 1** below.

Table 1: Coglia Nickel-Cobalt Inferred Mineral Resource at a 0.5% Nickel Grade Cut-Off.

0.5% Ni cut-off	Tonnes	Ni %	Co ppm	Ni tonnes	Co tonnes
Domain North	25,800,000	0.7	360	186,000	9,300
Domain South	44,800,000	0.6	510	290,000	22,900
TOTAL	70,600,000	0.7	460	476,000	32,200

Some errors may occur due to rounding.

Sample intervals for the test work were selected from 6 drill holes spanning the breadth of the central portion of the resource across varying mineralised horizons to create a representative sample that covered the resource.

Summary details are as follows:

Table 2: Drillhole details of metallurgical sampling intervals across 6 holes at Coglia.

Hole ID	Easting	Northing	RL	Drilled Depth	Assay Horizon
CGRC003	498899	6790804	416	139	78-100m

Hole ID	Easting	Northing	RL	Drilled Depth	Assay Horizon
CGRC014	498148	6788704	407	73	38-66m
CGRC024	499352	6790347	412	130	48-64m
CGRC040	498376	6788919	409	72	36-55m
CGRC043	498597	6789003	410	82	49-60m
CGRC054	498899	6790500	416	112	59-79m

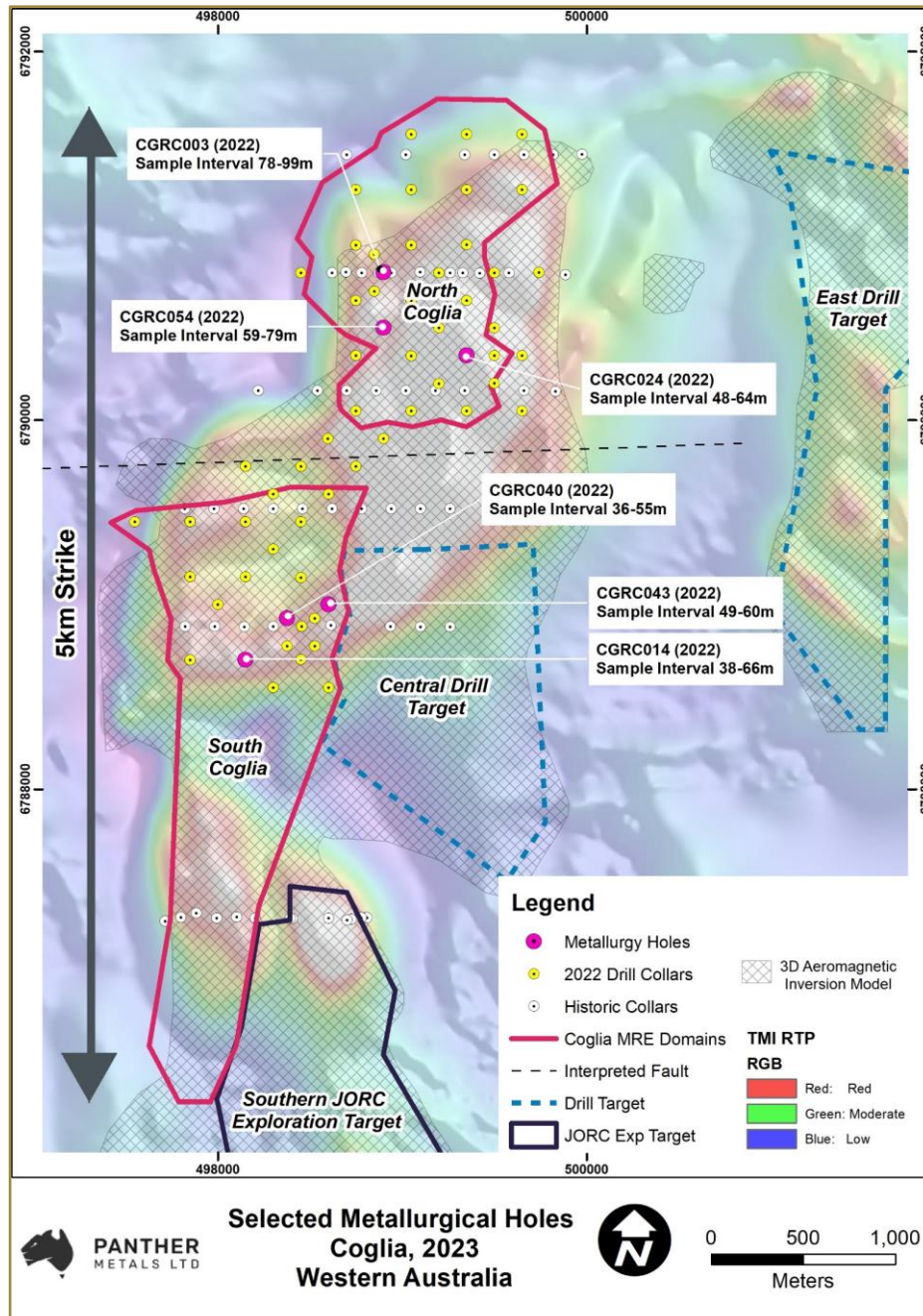


Figure 1: Map of sample locations for HPAL metallurgical test work, showing the horizons from which the blended sample was obtained.



ALS calculated a blend spreadsheet to provide a head assay as outlined below:

Table 3: Head assay results of the Coglia feed composite.

Sample ID	Al	Ca	Co	Cr	Cu	Fe	K	Mg	Mn	Na	Ni	P	Pb	Sc	Si	Ti	Zn
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Head Assay 1	5.03	0.51	0.04	0.84	0.019	23.8	0.24	2.85	0.19	1.72	0.79	0.004	0.005	0.003	13.3	0.11	0.025
Head Assay 2	5.04	0.47	0.04	0.84	0.019	23.9	0.23	2.82	0.19	1.70	0.78	0.003	0.005	0.003	13.3	0.11	0.025
Average	5.04	0.49	0.04	0.84	0.019	23.9	0.24	2.84	0.19	1.71	0.79	0.004	0.005	0.003	13.3	0.11	0.025

Particle size distribution results were as follows:

Table 4: Particle size distribution results of the Coglia feed sample.

Size		Mass	Mass	Passing	Retained
(mm)	(μ m)	(g)	(%)	(%)	(%)
5.00	5000	0.0	0.00	100.0	0.0
3.35	3350	6.5	0.37	99.6	0.4
1.18	1180	178.8	10.29	89.3	10.7
0.71	710	65.0	3.74	85.6	14.4
0.43	425	60.9	3.50	82.1	17.9
0.30	300	43.8	2.52	79.6	20.4
0.21	212	44.4	2.55	77.0	23.0
0.15	150	55.2	3.17	73.9	26.1
0.11	106	52.7	3.03	70.8	29.2
0.08	75	61.9	3.56	67.3	32.7
0.04	38	118.5	6.81	60.5	39.5
-0.04	-38	1051.0	60.45	0.0	100.0
Total		1738	100.0		
Accountability (%)		86.9			
Calculated P80 (μ m)		318			
(mm)		0.3			

The final stage of testing completed milling of the sample to a P80 of 150 μ m and then conducting an HPAL test.

The results indicated that the majority of the sample was already in the -38 μ m size fraction, and this fraction coincided with the highest nickel content. Although only an initial HPAL test, ALS postulated the potential of upgrading the feed through beneficiation processes (ie: scrubbing, cyclones, screening, etc) and that as the grade of the nickel is higher in finer fractions (-212 μ m) it may remove the need for any milling.

The HPAL test was then run targeting a conservative free acid of ~50g/L with a temperature of 250 degrees Celsius, 30% solids and a 2-hour retention time. The HPAL test resulted in a 92.6% recovery for nickel and 73.9% recovery for cobalt. See **Appendix 1** for further details of the HPAL test.



ASX ANNOUNCEMENT

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The Company has requested a report from ALS and will also carry out further detailed review of these results.

For further information on the inferred mineral resource estimate, please refer to the ASX release on 27 June 2022; and for further information on the drilling results at Cogleia, please refer to the ASX releases on 28 February 2022, 23 March 2022 and 12 May 2022.

Competent Persons Statements:

The information in this report that relates to the Mineral Resource estimation for the Cogleia Nickel-Cobalt Project is based on information compiled by Mr Richard Maddocks. Mr Maddocks is a director of Auranmore Consulting Pty Ltd and is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Maddocks 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 Competent Persons as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Maddocks consent to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The information that relates to Exploration Results is based upon information compiled by Mr Paddy Reidy, who is a director of Geomin Services Pty Ltd. Mr Reidy is a Member of the Australian Institute of Mining and Metallurgy. Mr Reidy has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking 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' (the JORC Code 2012). Mr Reidy 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 confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcements.

This announcement has been approved and authorised by the Board of Panther Metals.

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About Panther Metals

Panther Metals is an ASX-listed Nickel-Cobalt and Gold explorer with drill-ready targets across five projects in the mining district of Laverton, Western Australia and two in the Northern Territory.

For more information on Panther Metals and to subscribe to our regular updates, please visit our website [here](#) and follow us on:



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Appendix 1: HPAL Test Parameters

Test Procedure

1. Set up the autoclave batch reactor, which requires the following equipment and preparation;
 - 1gal Titanium 2 autoclave, with injection bomb (1/4" titanium submerged line) and sample bomb (150cc)
 - Nitrogen gas cylinder
 - Gas control system - with confirmation of calibration
 - Required amount of Reagents
 - DI water
 - PPE
 - Sample prep equipment - including Buchner funnel, centrifuge and wash waters

2. Conduct autoclave pressure test, complete check sheet & signoff

3. Add the following to the Autoclave Vessel:

600.0	g (Wet)	P80 106um Coggia Feed	600.0	g (Dry)
1400.0	g	DI Water	30.0	% w/w (target)

4. Seal the autoclave and purge headspace with N2. Start agitation and pressurise to 500 kPa(g) with N2
5. Under a nitrogen blanket, heat up to: 250.0 °C
6. Use a 99.5% Nitrogen Gas Cylinder (size D) connected to the Mass Flow Controllers (MFC) with the outlet connected to the autoclave gas inlet
7. Ensure the vent collection system is clean
8. When the Autoclave is at target temp, adjust pressure to pressure of 4050.0 kPaG
9. Start the mass flow controllers at
Nitrogen 0.00 L/min
Increase the agitation speed to maximum
10. Once at target temperature and pressure. Inject 270g of H2SO4 into the autoclave using N2 and follow with a di water flush of 50ml. Then start the test timer
11. Using the needle valve on the vent - Control Autoclave Total Pressure to 4050.0 kPaG
12. The autoclave bomb samples will be collected at 30,60,90,120 minutes
Care to be taken to ensure that SRV is well washed out, air blown dry and pre-pressurised with N2 prior to each sample.
13. Weigh the cooled, sample bomb (record tare mass), then eject the pulp into a centrifuge container(s) in air atmosphere, record mass. Prep as per the Sample Prep procedure
14. At the end of the test, cool the reactor and vent, disconnect the condenser, weigh final slurry sample (record tare mass) & wash residue and photograph.
15. Collect all spills, condenser discharges, and sample excesses, etc and account in MB. Record all of these on the logsheets for the mass balance.



Sample Preparation

1. Prepare pH and Eh meters, along with buffers and standards, and calibrate. Eh electrode to sit in standard solution between samples. Measurements to be taken at 25C
2. Weigh and record each sample mass.
3. Centrifuge received slurry sample. Collect the primary centrate and polish filter.
4. Weigh the primary filtrate. Blend thoroughly by inversion and divide into sub-samples for analysis.
Submit subsample of each filtrate to the lab for assay.
Perform wet chemistry (pH, ORP, SG on reserve filtrates and then store remainder.
5. Conduct multiple displacement washes with >5x BV Cal Sat water. Combine washates and take a sub-sample for assay, measure SG. Store whole sample.
6. Weigh and dry the residue at 80 °C to constant mass.