



## Artificial Intelligence makes New Magmatic PGE-Ni-Cu Discovery

Gramont Discovery, Fontenoy Project (LGM 100%), Lachlan Fold Belt, NSW

### Strategic Partner Earth AI drills discovery hole

- Discovery drillhole, diamond cored EFO7D, returned magmatic-related platinum group elements (PGEs) and Ni-Cu-Fe sulphides including and broad zone of mineralisation:
  - 34m at 0.5g/t 3E PGE\***  
including a higher grade zone of:
  - 10m at 1.2g/t 3E PGE, 0.2% Ni and 891ppm Cu** from 388m down-hole.
- The PGE component includes 10m at 0.89g/t palladium, 0.19g/t platinum, and 0.1g/t gold.
- Mineralisation is associated with disseminated sulphides pentlandite, chalcopyrite and pyrrhotite.

### Unlocked potential for magmatic-related PGE-Ni-Cu at Fontenoy

- This is **the first known discovery** of this mineralisation style in the Lachlan Fold Belt, NSW.
- Magmatic-related PGE-Ni-Cu sulphide deposits can be very large and valuable deposit styles such as Nova-Bollinger<sup>i</sup> and Julimar<sup>ii</sup>.

### PGE's and Nickel listed as Critical and Strategic Minerals

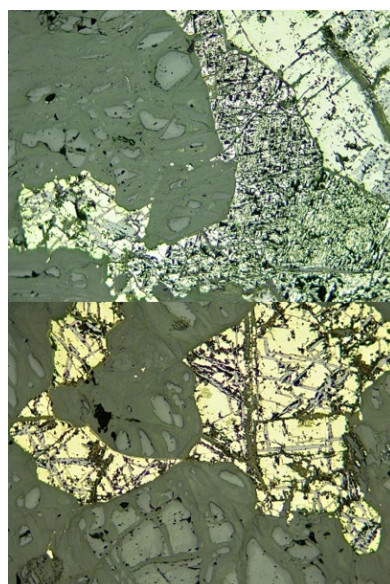
- Platinum-group elements and nickel are recognised by the Australian Government as essential to our modern technologies, economies and national security<sup>iii</sup>.
- Their value, rarity and strategic importance underpins the significance of this new discovery.

### Artificial Intelligence Led Discovery

- Earth AI has been implementing its artificial intelligence deposit targeting system at Fontenoy and has generated a range of drill targets across the tenement, with this being the first drill test<sup>iv,1</sup>.

### Next Steps

- Further drilling is planned at the Gramont Discovery and across the broader Fontenoy Project.



**Figure 1.** Drill hole EFO7D (10m at 1.2g/t 3E PGE from 388m) showing disseminated interstitial Ni-Cu-Fe sulphides (yellow) in diamond drill core at 397.8m (left) and photomicrograph (field of view 1mm across) of the mineralisation (composed of bronze pentlandite, yellow chalcopyrite and brown pyrrhotite).

<sup>1</sup> See 'Endnotes' on Page 17 for references. \*No cut-off grade applied

Legacy Minerals Holdings Limited (ASX: LGM, “LGM”, “the Company” or “Legacy Minerals”) is pleased to announce the receipt of diamond drilling assays by its exploration alliance partner, Earth AI at the Company’s 100% owned Fontenoy Project, NSW.

**Management comment** Legacy Minerals CEO & Managing Director, Christopher Byrne said:

*“To kick-off 2024 with a new Magmatic PGE-Ni-Cu discovery, Gramont, at our 100% owned Fontenoy Project is a fantastic result.*

*“The key driver of this discovery is the implementation of artificial intelligence through our alliance partner Earth AI. In their search for magmatic-related nickel-copper sulphides and PGE’s, this is genuine frontier exploration in an area previously known for its scandium-nickel-cobalt laterite deposits.*

*“What is also impressive is that this is the first confirmed discovery of magmatic-related nickel-copper sulphide mineralisation in the 700km long ultramafic belt that hosts the Fontenoy Project.*

*“Magmatic nickel-copper styles of mineralisation are targeted globally due to their potential to contain a suite of elements of significant value. The inclusion of platinum group elements and nickel in the Australian and global critical minerals list further underpins the significance of this discovery for shareholders.*

*“While the Earth AI team is at an early stage in the discovery, the grades, width and extensive prospective strike length mean this discovery is wide open for further exciting news to come.”*



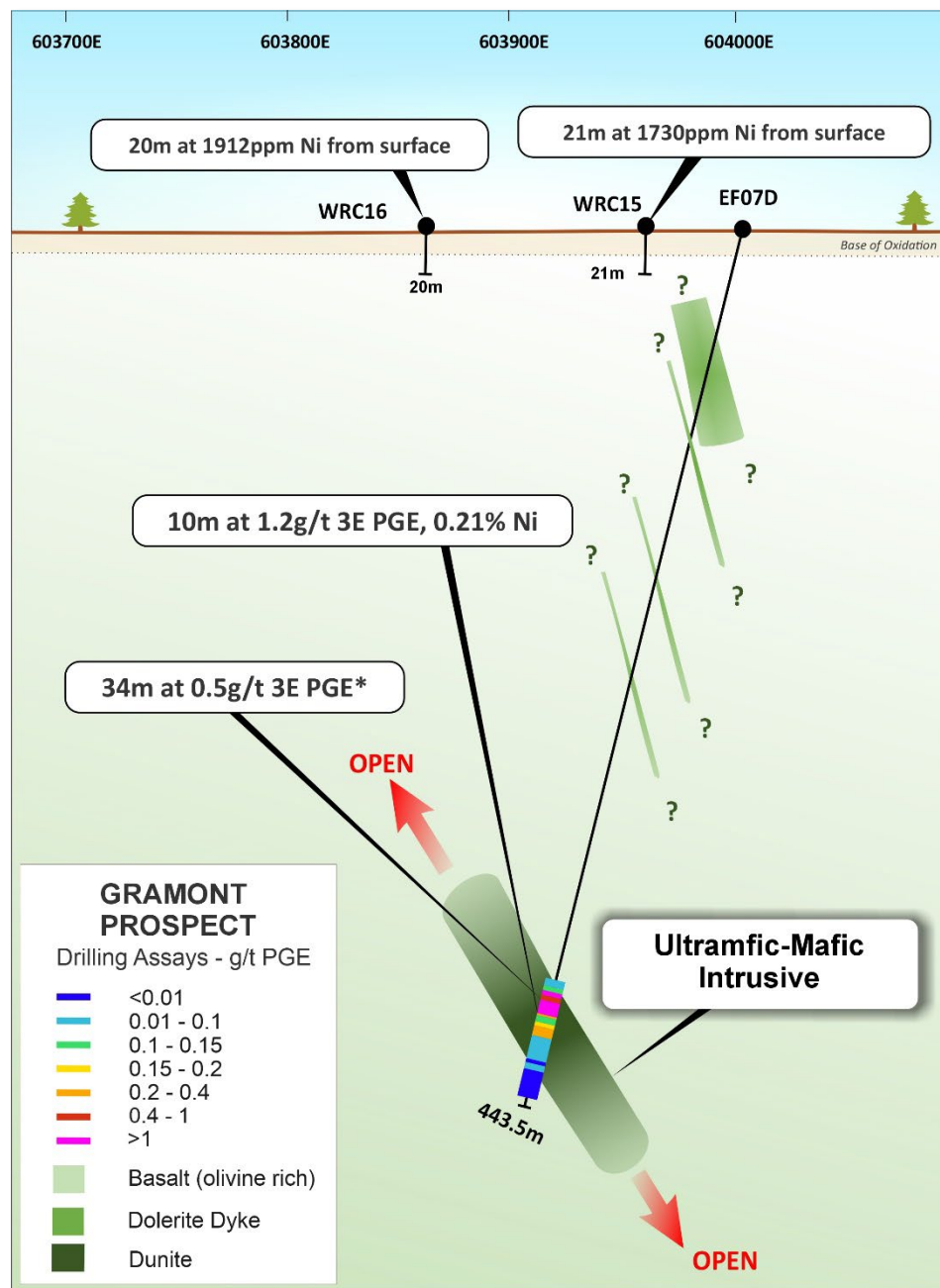
**Figure 2:** Drilling at Discovery Hole EF07D, December 2024

### Diamond Drilling

Earth AI completed three diamond-cored holes for a total 1,633.7 metres. These were drilled at the Fontenoy Project testing the interpretation of a mafic intrusive complex with the potential to host magmatic related Ni-Cu sulphide and PGE related mineralisation. While NSW is known to host major laterite deposits hosting Ni-Co and Sc, magmatic-related nickel-copper-PGE sulphide systems in this region have never before been recognised. These styles of deposit are rare and greatly prized for their potentially higher grades, potential suite of valuable metals and lower extraction costs.

The Fontenoy Project has historically been drilled with companies targeting the potential for shallow nickel-laterite deposits. Historical workers had not tested for the potential for PGE's or magmatic-related nickel-copper sulphide mineralisation.

Earth AI had been implementing its artificial intelligence deposit targeting system at Fontenoy and have generated a range of drill targets across the tenement. Through ground truthing, the potential for magmatic-related nickel-copper-PGE mineralisation was identified. Earth AI's drilling was focused on testing this hypothesis at the Project. The identification and confirmation in drilling of this style of mineralisation is the first known in the district and it is believed that this is a discovery of a new style of mineralisation in the Lachlan Fold Belt of NSW.



**Figure 3.** Drill hole cross section (6,187,700mN) of the discovery hole EF07D<sup>2</sup> showing historical holes (\*No cut-off grade applied).

<sup>2</sup> Drill holes were not surveyed and the exact trajectory of the hole trace may have deviated from collared dip and azimuth. Refer to the JORC Table in Appendix 3 for further details.

In first pass testing of targets, Earth AI do not survey drill holes nor do they orientate drill core. This is in keeping with their low cost and fast paced drilling business model. Upon a decision to follow up targets or to test hypotheses further a decision may be made to use these tools. As such drill hole traces may potentially have a large degree of error when representing the hole traces in Figures 3 and Figures 4 as they do not account for changing dip or azimuth throughout the drill trace. Furthermore, sampling is conducted in a limited fashion. Two metre sampling was completed on areas where visual disseminated sulphides were logged. A total of 283.8 metres were sent for analysis and as such, approximately 17% of the total drill hole metres have been assayed.

The initial samples from EFO7D have been re-submitted to the laboratory for nickel sulphide collection fire assay (to test for rhodium, osmium, ruthenium, iridium, palladium, platinum and gold). Further prospectivity may be considered in the area if the samples are found to contain rhodium or other PGE metals. Assessment as to whether further sections of the drill holes should be sent for assay is underway.

Petrographic analysis of the mineralised interval has confirmed that mineralisation is a magmatic-related Ni-Cu sulphide style with pentlandite, chalcopyrite and pyrrhotite present as interstitial minerals within a coarse grained dunite intrusion or sill (Figure 1). Original interstitial sulphides might have been deposited as FeNiCuS monosulphide solid solution, but subsequently exsolved, forming variable proportions of chalcopyrite, pyrrhotite and pentlandite with a little associated magnetite.

EFO1D tested an outcropping dunite unit that was coincident with anomalous nickel with potential to host magmatic sulphide mineralisation. It also tested the contact of ultramafics and granites for Avebury-style mineralisation. The dunite unit was found to be un-mineralised in Ni-Cu bearing sulphides. A slightly enriched interval of 4.6m at 0.14g/t 3E PGE was intercepted from 495.4m. Penetratively deformed granite was intercepted from 515m to end of hole at 590.2m.

EFO3D tested the hypothesis of the existence a mafic sill, with magmatic sulphides accumulating at the bottom of the sill. No sill was intercepted, and the drill hole terminated in a mafic ultramafic complex at 600m.

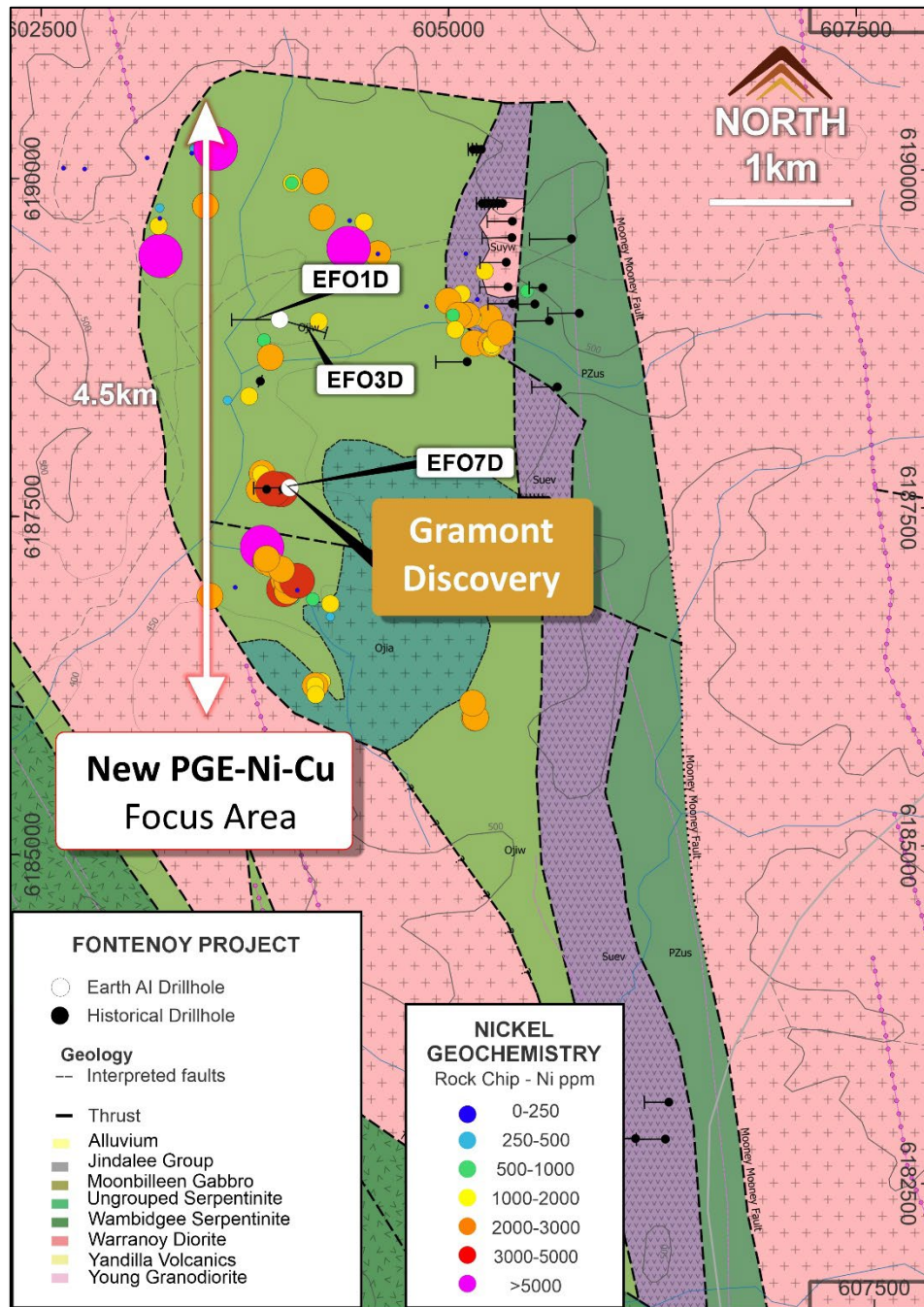
EFO7D tested interpreted dolerite dykes or sills for sulphide bearing mineralisation. Rock chip sampling at surface returned assays of up to 1,875ppm Cu, 4,480ppm Ni and 32ppb Pd and soil samples up to 23ppb Au, 80ppm Cu and 4,840ppm Ni. Drilling intersected PGE-bearing Ni-Cu-Fe sulphide mineralisation in dunite from a depth of 386m.

**Table 1.** Highlight drilling assay intervals from the Fontenoy Project.

Hole ID	Interval									
	From (m)	To (m)	Width (m)	Ni (ppm)	Cu (ppm)	Co (ppm)	Pd (g/t)	Pt (g/t)	Au (g/t)	3E PGE (g/t)
EFO1D	495.4	500	4.6	1217	31	101	0.11	0.03	0.001	0.14
EFO3D	464	512	48	1793	4	127	0.04	0.03	0.001	0.06
EFO7D	386	418	34*	1838	365	127	0.34	0.09	0.04	0.46
Incl.	386	406	20	1876	488	126	0.5	0.12	0.05	0.67
Incl.	388	398	10	2118	891	132	0.89	0.19	0.1	1.18
And.	410	418	8	1825	115	129	0.16	0.07	0.001	0.23

(\*no cut-off grade applied)





**Figure 4.** Plan view of diamond drilling completed by Earth-AI and historic drilling.

### Next Steps

The strong Ni-Cu-PGE surface anomalism encountered south of the discovery intercept is now a priority area for follow up. The confirmation of PGE association with disseminated sulphides is particularly encouraging as there is now the opportunity to follow up with electrical geophysics for future drill targeting.

Furthermore, surface geochemical surveys targeting PGE-related mineralisation may further define drill targets for testing. Diamond drill planning is underway to follow up these results.

These sulphides may be hosted in mafic and accumulate ultramafic intrusive bodies, both dykes and sills. Gravity may also allow for further definition of these prospective host rocks for magmatic nickel-copper-PGE mineralisation.

## Nickel and PGE's in New South Wales

There are numerous nickel occurrences located in three main NSW ultramafic belts<sup>vi</sup>. These occurrences are predominantly in the form of residual nickel-cobalt laterites, less commonly hydrothermally-enriched nickel sulphide deposits, and rare magmatic nickel sulphide deposits in layered mafic and ultramafic bodies.



**Figure 5:** Significant projects and nickel occurrences within the major ultra-mafic and mafic belts of NSW<sup>vi, vii, viii</sup>

## About Fontenoy

The Fontenoy Project contains a number of prospective units within the Project area which include the Yandilla Volcanics, Warrenoy Diorite and ultramafic rocks of the Wambidgee Serpentinite for copper-nickel and cobalt. Stratabound manganese mineralisation occurs in the Cambro-Ordovician Jindalee Group, while the Wambidgee Serpentinite contains a number of chromite deposits, and this differentiated ultramafic sequence is prospective for both chromite and platinum group element (PGE) mineralisation. Disseminated and veined copper-gold mineralisation hosted within the Yandilla Volcanics has a strike length of approximately 8km. Mineralisation here is interpreted to represent McPhillamys-style volcanogenic hosted massive sulphide (VHMS) mineralisation, however the potential for intrusion related copper-gold mineralisation is being investigated.

A total of 16 diamond core holes for 4,014 metres and an additional 28 Reverse Circulation percussion (RC) drill holes for 1,667m were historically completed<sup>ix</sup>. Drilling has confirmed that soil anomalism is associated with broad gold-copper mineralisation intersected along the entire 8km strike and provides encouragement for a number of drill ready target zones.

Historical drill intercepts at the Project include<sup>ix</sup>:

1-2-10D:	<b>79m at 0.27% Cu</b>	from 1.5m
WRC9:	<b>22m at 0.67g/t Au and 0.34% Cu</b>	from 20m
WRC21:	<b>24m at 0.17g/t Au and 0.24% Cu</b>	from surface
WRC3:	<b>26m at 0.44g/t Au and 0.11% Cu</b>	from surface
1-2-15D:	<b>14m at 0.72g/t Au and 0.37% Cu</b>	from 108m

## Earth AI Exploration Alliance

Legacy Minerals signed an Exploration Alliance Agreement (Agreement) with Earth AI covering its Fontenoy (EL8995) tenement (**Strategic Alliance**)<sup>x</sup>. The Strategic Alliance allows for a co-funding model, whereby Earth AI will contribute up to \$4.5M AUD of total exploration costs across the tenement over a two-year period, with an option to extend for a further year. Subject to a qualifying drilling intersection (as defined within the Agreement) being subsequently identified, Earth AI Pty Ltd is entitled to a net smelter return royalty (Royalty) up to 3% in connection with an area surrounding the discovery (Area of Interest). Legacy Minerals will retain 100% ownership over the tenement covered under the Agreement.

Legacy Minerals is under no obligation to explore, develop or mine the tenement during the period of the Strategic Alliance. However, whereafter the second anniversary of the Royalty Trigger Date, if no mineral resource has been defined and the combined annual exploration development and mining expenditure in the Area of Interest falls below \$250,000 USD, Earth AI will have the option to assume operational control and buy the Royalty Tenement that overlaps with the single Area of Interest under the Minerals Royalty Deed, for a cash purchase price equal to \$1,000,000 USD plus a 2% net smelter royalty granted to the Legacy Minerals.

## Earth AI Exploration Strategy

Earth AI is a vertically integrated metals exploration company based in San Francisco, USA. It's NSW based operations are located at Young, 15km from Legacy Minerals' Fontenoy tenement. Earth AI plans to implement its artificial intelligence deposit targeting system to generate drill targets across the tenement. Once identified, Earth AI will follow up with on ground geophysical and geochemical work before drill testing.

Approved by the Board of Legacy Minerals Holdings Limited.

### For more information:

Investors:

**Chris Byrne**

CEO & Managing Director

[chris.byrne@legacyminerals.com.au](mailto:chris.byrne@legacyminerals.com.au)

**+61 (0) 499 527 547**

Media:

**Nicholas Read / Kate Bell**

Read Corporate

[info@readcorporate.com.au](mailto:info@readcorporate.com.au)

**+ 61 (0) 419 929 046**

### DISCLAIMER AND PREVIOUSLY REPORTED INFORMATION

Information in this announcement is extracted from reports lodged as market announcements referred to above and available on the Company's website <https://legacyminerals.com.au/>. The Company confirms that it is not aware of any new information that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

This announcement contains certain forward-looking statements. Forward looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside of the control of Legacy Minerals Holdings Limited (LGM). These risks, uncertainties and assumptions include commodity prices, currency fluctuations, economic and financial market conditions, environmental risks and legislative, fiscal or regulatory developments, political risks, project delay, approvals and cost estimates. Actual values, results or events may be materially different to those contained in this announcement. Given these uncertainties, readers are cautioned not to place reliance on forward-looking statements. Any forward-looking statements in this announcement reflect the views of LGM only at the date of this announcement. Subject to any continuing obligations under applicable laws and ASX Listing Rules, LGM does not undertake any obligation to update or revise any information or any of the forward-looking statements in this announcement to reflect changes in events, conditions or circumstances on which any forward-looking statements is based.

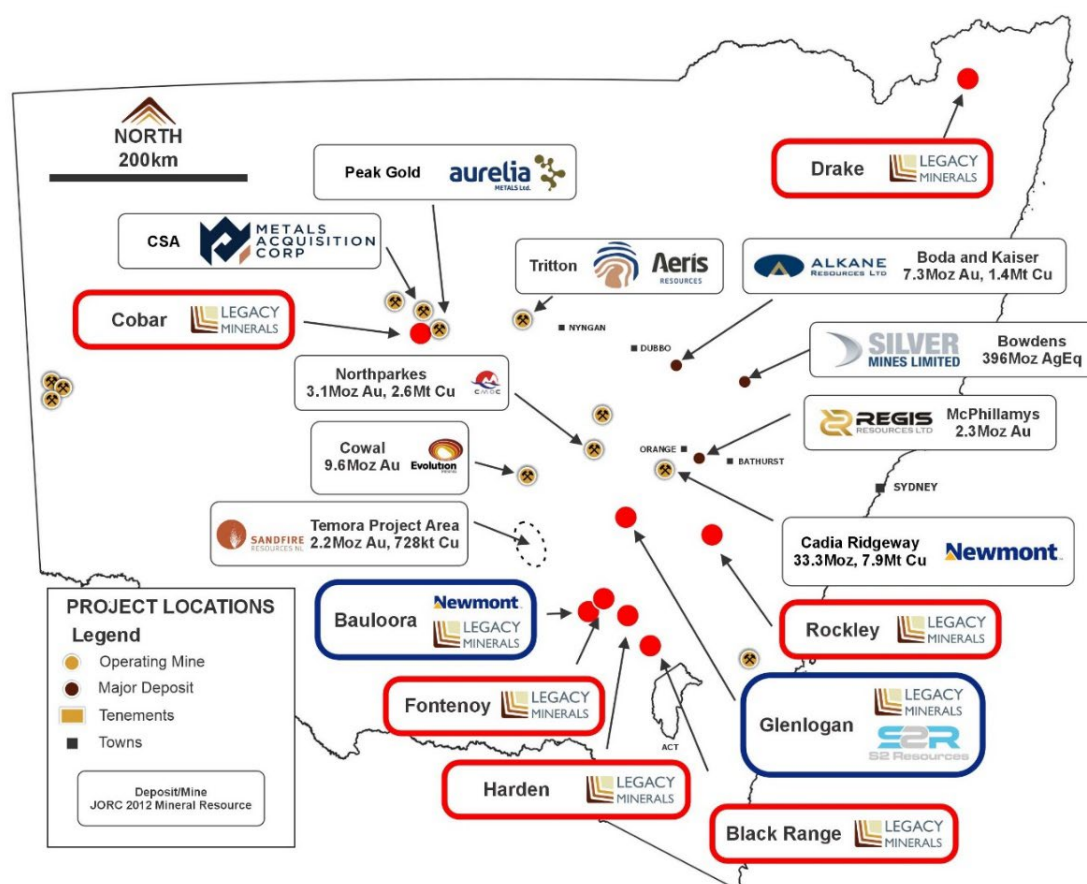
### COMPETENT PERSON'S STATEMENT

The information in this Report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Thomas Wall, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Wall is the Technical Director and a full-time employee of Legacy Minerals Pty Limited, the Company's wholly-owned subsidiary, and a shareholder of the Company. Mr Wall 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. Mr Wall consents to the inclusion of the matters based on his information in the form and context in which it appears in this announcement.



Legacy Minerals is an ASX listed public company that has been involved in the acquisition and exploration of gold, copper, and base-metal projects in the Lachlan Fold Belt since 2017. The Company has eight projects that present significant discovery opportunities for shareholders.

<p><b>Au-Ag Black Range</b> (EL9466, EL9589)</p> <p>Extensive low-sulphidation, epithermal system with limited historical exploration. Epithermal occurrences across 30km of strike.</p>	<p><b>Cu-Au Drake</b> (EL6273, EL9616)</p> <p>Large caldera (~150km<sup>2</sup>) with similar geological characteristics to other major pacific rim low-sulphidation deposits.</p>
<p><b>Cu-Au Rockley</b> (EL8296)</p> <p>Prospective for porphyry Cu-Au and situated in the Macquarie Arc Ordovician host rocks with historic high-grade copper mines that graded up to <b>23% Cu</b>.</p>	<p><b>Au-Cu (Pb-Zn) Cobar</b> (EL9511)</p> <p>Undrilled targets next door to the Peak Gold Mines. Several priority geophysical anomalies and gold in lag up to <b>1.55g/t Au</b>.</p>
<p><b>Au-Ag Bauloora</b> (EL8994, EL9464) <a href="#"><u>Newmont JV</u></a></p> <p>One of NSW's largest low-sulphidation, epithermal systems with a 27km<sup>2</sup> epithermal vein field.</p>	<p><b>Au Harden</b> (EL9257, ELA6694)</p> <p>Large historical high-grade quartz-vein gold mineralisation. Drilling includes <b>3.6m at 21.7g/t Au</b> 116m and <b>2m at 17.17g/t Au</b> from 111m.</p>
<p><b>Cu-Au Glenlogan</b> (EL9614) <a href="#"><u>S2 Resources JV</u></a></p> <p>Large, undrilled magnetic anomaly underneath Silurian cover located 55kms from Cadia Valley.</p>	<p><b>Au-Cu Fontenoy</b> (EL8995) <a href="#"><u>Earth AI Alliance</u></a></p> <p>An 8km long zone of Au and Cu anomalism defined in soil sampling and drilling. Significant drill intercepts include <b>79m at 0.27% Cu</b> from 1.5m.</p>



**Figure 6: Regional setting of Legacy Minerals Projects**<sup>xi, xii, xiii, xiv, xv, xvi</sup>

## Appendix 1 – Drill Collar Information

**Table 2:** Drill hole collar information

Hole ID	Latitude	Longitude	EOH (m)	Dip	Azimuth (True North)
EFO1D	-34.4358	148.1313	590.2	-60	258
EFO3D	-34.4358	148.1313	600	-60	98
EFO7D	-34.447	148.132	443.5	-75	258

## Appendix 2 – Drill Hole Assays

**Table 3.** Significant intervals

Hole ID	Interval									
	From (m)	To (m)	Width (m)	Ni (ppm)	Cu (ppm)	Co (ppm)	Pd (g/t)	Pt (g/t)	Au (g/t)	3E PGE (g/t)
EFO1D	495.4	500	4.6	1217	31	101	0.11	0.03	0.001	0.14
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And.	410	418	8	1825	115	129	0.16	0.07	0.001	0.23

Significant intervals defined using  $\geq 0.1\text{g/t Au}$ , or  $\geq 10\text{g/t Ag}$ , or  $\geq 0.1\text{g/t Pt}$ , or  $\geq 0.1\text{g/t Pd}$ , or  $\geq 0.1\text{g/t Au+Pd+Pt}$ , or  $\geq 0.15\%$  Ni,  $\geq 1\text{m}$  downhole width, and  $\leq 1\text{m}$  internal waste. All intercepts are down hole widths only, true widths are not calculated. Collar location and orientation information coordinates are WGS84, AHD RL. See Appendix 2 and 3 for additional details. \*no cut-off grade applied.

## Appendix 3 – JORC Code, 2012 Edition Table 1

### Section 1 Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
<b>Sampling Techniques</b>	<i>Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i>	<p>Diamond drilling was used to obtain HQ (diameter: 63.5) and NQ sized (diameter: 47.5mm) drill core for geochemical sampling. Interval spacing was 2 m determined by visible sulphide mineralization.</p> <p>Diamond drill core provide a high-quality sample that is logged for lithological attributes.</p> <p>0.6m - 2m sample intervals were collected from the core trays.</p> <p>DD core samples have been half cut with an automatic core saw.</p> <p>Samples were submitted to ALS Geochemistry Pooraka SA for laboratory analysis. Sample preparation used industry standard methods of drying, jaw crushing and pulverizing to -75 microns (85% passing) (ALS code PUL-21 and PUL-22). Samples were analysed by ALS methods PGM-ICP23 and ME-MS61R.</p>

		No other measurement tools have been used in the holes. The hole was not surveyed. The core was unoriented.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	Sampling was undertaken using sampling protocols and QAQC procedures in line with industry best practice. Due to the early-stage nature of exploration, no field duplicates or certified reference standards were submitted. Core photographs were taken wet prior to cutting and wet after cutting.  The drill core was unoriented.
	<i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g., submarine nodules) may warrant disclosure of detailed information.</i>	The drill core was cut by Earth AI staff. Diamond drilling was used to obtain drill core for geochemical sampling. After cutting, half core sampled in 0.6m-2m intervals were sent for analysis. Only intervals down hole that contained visible sulphide mineralization were sent for assay.  Samples were submitted to ALS Geochemistry Pooraka SA for laboratory analysis. Sample preparation used industry standard methods of drying, jaw crushing and pulverizing to -75 microns (85% passing) (ALS code PUL-21 and PUL-22). Samples were analysed by ALS methods PGM-ICP23 and ME-MS61R.  Assay standards, blanks and duplicates were analysed as part of the standard laboratory analytical procedures.
<b>Drilling techniques</b>	<i>Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	Diamond drill techniques were used to obtain HQ sized core (diameter: 63.5mm) on average for the initial 100 m and NQ sized core (diameter: 47.5mm) for the remainder of the hole.
<b>Drill sample recovery</b>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Drill recovery was conducted by measuring core lengths and comparing to rod string lengths during drilling. Core block were used to mark measured rod intervals. Meter marks were measured against core blocks and sampling intervals were taken according to the meter marks.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	Various diamond drilling additives (including muds and foams) have been used to condition the drill holes to maximise recoveries and sample quality. Drill core samples cleaned at the drill site to remove drilling fluids and cuttings to present clean core for logging and sampling.
	<i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	There is no significant loss of material reported in the mineralised parts of the diamond core that is considered to bias samples.
<b>Logging</b>	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i>	All drill holes undertaken by have been logged in full, from a visual basis, recording lithology, texture, alteration and mineralisation.

		<p>Systematic geological logging was undertaken. Data collection where appropriate includes:</p> <ul style="list-style-type: none"> <li>• Nature and extent of lithologies.</li> <li>• Relationship between lithologies.</li> <li>• Texture, alteration and mineralisation</li> <li>• Amount and mode of occurrence of minerals.</li> </ul>
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	<p>Logging is both qualitative and quantitative capturing downhole depth, lithology and features of the sample.</p> <p>The drillhole core are photographed within the tray, wet and tray by tray.</p>
	<i>The total length and percentage of the relevant intersections logged.</i>	All drill holes were logged in full.
<b>Sub-sampling techniques and sample preparation</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	<p>Portions of diamond drilling completed has been cut using conventional automatic core saw in ½ for NQ and HQ core.</p> <p>The diamond core has been consistently sampled ½ for NQ and HQ core with remaining ½ retained/stored in core trays.</p> <p>A sample size of 0.6m to 2m intervals, weighing between 3 and 5 kg were collected.</p> <p>This size is considered appropriate, and representative of the material being sampled given the width and continuity of the intersections.</p>
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	Not applicable as results are for core drilling.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	<p>Drill core is cut in half along the length and the total half core submitted as the sample. This procedure meets industry standards where 50% of the total sample taken from the diamond core is submitted.</p> <p>Samples are dried, crushed and pulverized to produce a homogenous representative sub-sample for analysis.</p> <p>Samples undergo a dry crush of 90% passing 2mm with additional pulverising to a grind quality of 85% passing 75µm (ALS code PUL-21 and PUL-22).</p> <p>Sample preparation is of industry standard.</p>
	<i>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</i>	<p>Core sample intervals are based on a nominal, 0.6m to 2m spacing.</p> <p>All samples are dried and pulverised before analysis. Pulverisers are washed and fineness checks are routine, to ensure grind size as per the QAQC undertaken by the external laboratory.</p>
	<i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i>	<p>To ensure adequate preparation at the pulverisation stage samples are split to weigh less than 3kg.</p> <p>The remaining half-core is stored and allows assay values to be viewed against the</p>



		geology; and, where required, further samples may be submitted for quality assurance. Quarter core resampling may be completed in zones where appropriate.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	The sample size is considered appropriate for the mineralisation style and analytical techniques used.
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	<p>Samples undergo a spectral scan using the TerraSpec® 4 HR spectrometer.</p> <p>Samples are analysed for a Multi-Element Suite (48 element) Analysis by ICP-MS (ME-ICP61) following a four-acid digest.</p> <p>The Pt, Pd, Au analysis was carried out via standard lead fire assay with ICP-AES finish.</p> <p>Fire Assay is an industry-standard for Pt, Pd, Au and it is considered appropriate as a first-pass analysis.</p> <p>Certified Reference Materials/standards, blanks and duplicates are inserted to assess the assaying accuracy of the external laboratory for QAQC protocol. Techniques used for the early-stage nature of the Project are considered total.</p>
	<i>For geophysical tools, spectrometres, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	<p>No geophysical tools were used to determine any reported element concentrations.</p> <p>No pXRF results are reported for drill hole samples.</p>
	<i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	<p>Laboratory internal procedures to ensure grind size of 85% passing -75µm was being attained.</p> <p>Laboratory QAQC for assay analysis involved the use of internal lab standards using standards, blanks, and duplicates.</p>
<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	All samples are analysed by an independent laboratory and verified by Earth AI staff and review by Legacy Minerals personnel.
	<i>The use of twinned holes.</i>	No twinned holes have been completed in this drill program.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Primary results certified by ALS Geochemistry is saved within a company database. Raw data files are saved separately. Reviews of the data which encompasses geological logs, sample details, QA/QC insights and general geological interpretation of data is saved locally and uploaded to a database.
	<i>Discuss any adjustment to assay data.</i>	No adjustments to assay data were undertaken.
<b>Location of data points</b>	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	<p>Drill hole collars are located using an iPhone dual frequency GPS with an accuracy of +/- 5m.</p> <p>No down hole surveys were undertaken.</p>

		Downhole depths are in meters from surface.
	<i>Specification of the grid system used.</i>	The grid system used is GDA94, zone 55
	<i>Quality and adequacy of topographic control.</i>	Elevation is recorded using an iPhone dual frequency GPS with an accuracy of +/- 10m.
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	The spacing and distribution of holes is not relevant to the drilling programs which are at the exploration stage rather than definition drilling. Drill holes were preferentially located at those areas considered most prospective.
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.</i>	Data spacing and distribution is appropriate for this stage of exploration. No Mineral Resource and Ore Reserve estimation procedure(s) and classifications apply to exploration data being reported. Core was cut in ½ sections using a core saw and sampled in 0.6m-2m intervals.
	<i>Whether sample compositing has been applied.</i>	No sample compositing has been applied to diamond drill core.
<b>Orientation of data in relation to geological structure</b>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	Drillholes were oriented between 60 - 75° from horizontal and 98 - 258 true north azimuth.  No orientation tool was used during drilling and as such structural orientation is not completely possible.  The orientation of key structures may be locally variable and any relationship to mineralisation has yet to be identified.  If orientation of drilling relative to key mineralised structures or lithology has introduced sampling bias is unknown.
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	Orientation of the mineralisation and structural trends is interpreted by previous drilling and outcrop.  The orientation of sampling is considered appropriate for the current geological interpretation of the mineral style and the stage of exploration.  No sample bias due to drilling orientation is known.
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	All samples were held in a locked storage facility prior to being transported via courier to an independent assay laboratory. Assay results are reported through access via the laboratory's web portal.  Core and returned sample pulps are stored on site in secured stored for an appropriate length of time. Core was returned to a secure location each night during drilling.  The Company has in place protocols to ensure data security.

<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	Sampling and data methodologies and practices are regularly reviewed internally. To date, no external audits have been completed on the drilling programme.
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## Section 2 Reporting of Exploration Results

(Criteria in this section apply to all succeeding section)

Criteria	JORC Code Explanation	Commentary
<b>Mineral Tenement and Land Status</b>	<p><i>Type, name/reference number, location and ownership including agreements or material issues with third parties including joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></p> <p><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></p>	<p>The Fontenoy Project is comprised of EL8995. The license is owned 100% by Legacy Minerals Pty Ltd (a fully owned subsidiary of Legacy Minerals Holdings Limited) and part of the Company's exploration alliance with Earth AI. There are no royalties or encumbrances over the tenement areas.</p> <p>The land is primarily freehold land. There are no native title interests in the license area.</p>
<b>Exploration Done by Other Parties</b>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<p>Pacminex Pty Ltd – conducted soil and rock chip sampling, electro-magnetic (EM) and induced polarization (IP) surveying which were all concentrated on the Fontenoy Prospect. 16 cored drill holes were completed in 1970.</p> <p>Billiton Australia Ltd (Shell Australia Ltd) – conducted reassaying of historical core, a tenement wide bulk cyanide leach stream sediment survey, and rock chip sampling.</p> <p>Michelago Resources NL – detailed airborne magnetic/radiometric survey, rock chip sampling, soil sampling, and 28 RC drill holes.</p> <p>Alloy Resources - mapping, rock chip sampling and gradient array induced polarisation surveys focused on Mn mineralisation.</p> <p>Bushman Resources Pty Ltd – completed rock chip sampling, mapping, and hyperspectral work of selected historical drill core.</p>
<b>Geology</b>	<i>Deposit type, geological setting and style of mineralisation</i>	<p>The Fontenoy Project contains a number of prospective units within the Project area include the Yandilla Volcanics, Warrenoy Diorite and ultramafic rocks of the Wambidgee Serpentinite for copper-nickel and cobalt. Stratabound manganese mineralisation occurs in the Cambro-Ordovician Jindalee Group while the Wambidgee Serpentinite contains several chromite deposits, and a differentiated ultramafic sequence prospective for both chromite and platinum group element (PGE) mineralisation. The Yandilla volcanics are prospective for porphyry or VHMS mineralisation.</p>
<b>Drill hole Information</b>	<p><i>A summary of all information material to the understanding of the exploration results including tabulation of the following information for all Material drill holes:</i></p> <ul style="list-style-type: none"> <li>• <i>Easting and northing of the drill hole collar</i></li> </ul>	See Table 1 in the body of the article.

	<ul style="list-style-type: none"> <li>• Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>• Dip and azimuth of the hole</li> <li>• Down hole length and interception depth</li> <li>• Hole length</li> </ul> <p>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</p>	Not applicable. Information provided in Table 1.
<b>Data aggregation methods</b>	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	All reported assays have been average weighted according to the sample interval. No top cuts have been applied.
	Where aggregated intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	In reporting exploration results, length weighted averages are used for intercepts. Length weighted averages is (sum product of the interval x corresponding interval grade %) divided by the sum of the interval length.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Unless otherwise stated, significant intervals defined using $\geq 0.1\text{g/t Au}$ , or $\geq 10\text{g/t Ag}$ , or $\geq 0.1\text{g/t Pt}$ , or $\geq 0.1\text{g/t Pd}$ , or $\geq 0.1\text{g/t Au+Pd+Pt}$ , or $\geq 0.15\% \text{ Ni}$ , $\geq 1\text{m}$ downhole width, and $\leq 1\text{m}$ internal waste. All intercepts are down hole widths only, true widths are not calculated.
<b>Relationship between mineralisation widths and intercept lengths</b>	These relationships are particularly important in the reporting of exploration results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect.	Due to the early stage of exploration, no down hole surveys and lack of orientated core, the geometry of the mineralisation is not known at this stage. Only downhole lengths are presented in this report.
<b>Diagrams</b>	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plane view of drill hole collar locations and appropriate sectional views.	Refer to Figures in body of text.  A prospect location map and plan view are shown in the report. Other relevant maps are shown in the Company's Prospectus dated 28 July 2021.
<b>Balanced Reporting</b>	Where comprehensive reporting of all Exploration Results is not practical, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	See body of the report.  Reports on historical exploration can be found in the Company's Prospectus dated 28 July 2021.
<b>Other substantive exploration data</b>	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observation; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater,	All material or meaningful data collected has been reported. The geological results are discussed in the body of the report.



**Further Work**

*geotechnical and rock characteristics; potential deleterious or contaminating substances.*

*The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large – scale step – out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*

See body of report.

See figures in body of report.

Further exploration will be planned based on ongoing assessment of the drill results in the context of geophysical surveys and geological assessment of prospectivity.

## Endnote

<sup>i</sup> IGO Ltd, <https://www.igo.com.au/site/operations/nova>

<sup>ii</sup> Chalice Mining Limited, <https://chalicemining.com/gonneville/>

<sup>iii</sup> Australia's Critical Minerals List and Strategic Materials List, Date published: 20 June 2023, Date updated: 20 February 2024 <https://www.industry.gov.au/publications/australias-critical-minerals-list-and-strategic-materials-list>

<sup>iv</sup> ASX: LGM June 2022 Nickel-Copper Sulphide and PGEs found at Fontenoy

<sup>v</sup> Nickel exploration opportunities in New South Wales, Australia (Industry and Investment, NSW Government)

<sup>vi</sup> Platina Resources Annual Report 30 June 2022 ASX: 28 February 2023, Ionick Metals Established, Option Agreement Executed to Accelerate Nickel-Cobalt Venture, Scandium International Mining Corp. FEASIBILITY STUDY - NYNGAN SCANDIUM PROJECT April 15, 2016

<sup>vii</sup> Alchemy Resources, <https://alchemyresources.com.au/investor-centre/resources/#west-lynn>

<sup>viii</sup> ASX: HLX 28 February 2023 Ionick Metals Established and Option Agreement executed

<sup>ix</sup> Company's Prospectus dated 28 July 2021 lodged 9 September 2021 (ASX: LGM)

<sup>x</sup> LGM ASX 3 May 2022: Strategic Exploration Alliance with AI Explorer

<sup>xi</sup> CMOC Northparkes Mining and Technical Information, <http://www.northparkes.com/wp-content/uploads/2022/05/northparkes-mining-and-technical-information.pdf>

<sup>xii</sup> Alkane Resources Kaiser Resource Estimate of ~4.7M Gold Equivalent 27 February 2023

<sup>xiii</sup> Newcrest Mining Annual Mineral Resources and Ore Reserves Statement 17 February 2022

<sup>xiv</sup> Regis Resources Annual Mineral Resource and Ore Reserve Statement 8 June 2022

<sup>xv</sup> Evolution Mining 2022 Annual Report

<sup>xvi</sup> Sandfire Resources NL 2019 Annual Report

**Table 4: Major Mineral Resources of NSW**

Project & Company	Mineral Resource	Measured Resource	Indicated Resource	Inferred Resource
Boda-Kaiser, NSW (Alkane Resources Ltd)	7.26Moz Au, 1.38Mt Cu	-	-	7.26Moz Au, 1.38Mt Cu
Tomingley, NSW (Alkane Resources Ltd)	1.75Moz Au	0.13M Au	1.019Moz Au	0.59Moz
McPhillamys, NSW (Regis Resources Ltd)	2.29Moz Au	-	2.28Moz Au	0.001Moz Au
Cadia-Ridegway, NSW (2022) (Newcrest Mining Ltd), Newmont Corporation	33.31Moz Au, 7.9Mt Cu	0.31Moz Au, 0.041Mt Cu	33Moz Au, 7.3Mt Cu	0.75Moz, 1.1Mt Cu
Cadia East, NSW (2013)	37.6Moz Au, 7.53Mt Cu		2,500Mt @ 0.42g/t Au, 0.28g/t Cu	360Mt @ 0.34g/t Au, 0.19% Cu
Cowal, NSW (Evolution Mining Limited)	9.618Moz Au	0.367Moz Au	7.33Moz Au	1.92Moz Au
Nth Parkes, NSW (CMOC Mining Pty Ltd)	3.09Moz Au, 2.63Mt Cu	1.64Moz Au, 1.2Mt Cu	1.1Moz Au, 1.1Mt Cu	0.35Moz Au, 0.33Mt Cu