

# Exploration Update: Strong Copper-Gold Assay Results in Rock Chip Samples from Yeoval and Copper Hill East Projects

- Reconnaissance field trips to Spring Creek, on the Copper Hill East Project, and a new prospect at Dilga Creek, on the Yeoval Project, returned excellent copper and gold assays from surface grab samples:
  - Spring Creek Prospect: up to 2.80g/t Gold and 0.47% Copper from quartz vein float
  - Dilga Creek Prospect: up to 1.74% Copper from historic workings in granodiorite
- Mapping and assays from surface rock chip samples taken from Vaughan's Ridge, located on the Yeoval Project, support an emerging Iron-Copper Skarn style target
- Godolphin's exploration team is currently reviewing all results, prior to the commencement of broader exploration programs to progress targets

Godolphin Resources Limited (**ASX: GRL**) ("**Godolphin**" or the "**Company**") is pleased to provide an update on fieldwork completed on Projects within the copper and gold portfolio and has received surface rock chip and grab sample assays covering the Vaughan's Ridge, Dilga Creek and Spring Creek Prospects. Results for selected elements are included in Appendix 2.

Vaughan's Ridge and Dilga Creek are located within EL8538, the Yeoval Project, while Spring Creek is located on EL8556, within the Copper Hill East Project. Both projects are located within the Lachlan Fold Belt in the Central West NSW (Figure 1).

### **Management commentary**

**Managing Director Ms Jeneta Owens said:** "The fieldwork undertaken across Vaughan's Ridge, Dilga Creek and Spring Creek prospects are highly encouraging and enhance the prospectivity of both the Yeoval and Copper Hill East Projects.

"Pleasingly, surface samples from the south of Vaughan's Ridge suggest the potential for a large Iron-Copper-Skarn target and justify further exploration to the north of this large 8km strike length alteration zone. Dilga Creek is an area of new interest for the Company and the initial results also warrant follow up. Additionally, the reconnaissance work at Spring Creek highlights the value and potential of the Company's Copper Hill East project, which contains the same highly prospective Ordovician volcanic rocks, which host both the giant Cadia Cu-Au porphyry mine and the large Boda/Kaiser Cu-Au porphyry project.

"The Company is continuing to review the results, which includes the synthesis of all historic data associated with the Prospects, to develop an active exploration program focusing on priority targets. We look forward to providing additional updates on the commencement of additional exploration initiatives as they develop."

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Figure 1: Vaughan's Ridge, Dilga Creek and Spring Creek Prospects relative to Godolphin's broader Cu-Au focussed Exploration Licences proximal to Orange, NSW



#### **Copper Hill East Project (Copper-Gold)**

#### Spring Creek

The Spring Creek Prospect is in the north-east of the Company's 100%-owned Copper Hill East Project and overlaps with a dominant north-northwest striking magnetic feature termed the Narangal Thrust (Figure 2). This thrust marks a major structural divide between the Ordovician Molong Volcanic Domain to the west and the younger Hill End Trough sediments to the east with tuffaceous volcanics wedged between.

Eight grab samples were taken west of the interpreted thrust from a ploughed field with limited outcrop. While the majority of the field is under thin cover, small stockpiles of transported rock are available and consist of rounded basaltic clasts, conglomerates and importantly quartz vein material with disseminated pyrite and chalcopyrite in some samples along with goethite and limonite alteration. Best assays results received include:

- Sample GYRX039: 2.80g/t Au and 0.07% Cu (Possible outcrop from a small prospector's pit with quartz veins, rare epidote and disseminated pyrite)
- Sample GYRX040: 0.027g/t Au and 0.47% Cu (Quartz vein float with trace pyrite and chalcopyrite)

Follow up field reconnaissance in late February 2024 by the GRL exploration team, mapped quartz veins intruding andesitic volcanic rocks along a nearby station track. These quartz veins strike north-south and dip to the east in the same orientation as the Narangal Thrust.

Future work will include collating historic exploration data with a view to test this structural orientation across the area with shallow auger or soil sampling and/or aircore drill methods (refer *Area of Interest* in Figure 2 below).

Key features of the Spring Creek Prospect include:

- Quartz vein float and sub-crop often with disseminated pyrite and chalcopyrite is associated with strongly anomalous gold up to 2.80g/t and copper up to 0.47%
- Target area lies under a thin veneer of cover with outcropping andesitic volcanics and conglomerate near-by
- Quartz veining in outcrop is parallel to the Narangal Thrust: confirmation of source rock and orientation

#### Yeoval Project (Copper-Gold)

#### Vaughan's Ridge -

The Vaughan's Ridge Prospect is in the west of EL8538 and covers an 8km long target corridor as defined by a magnetic package of rocks interpreted to represent the Cuga Burga Volcanics (Figure 3). These volcanics overlay intrusives of the Yeoval suite, within which iron-copper skarn mineralisation has previously been identified by the Company (refer ASX: GRL announcement: 19 December 2023).

Most recently, Godolphin undertook surface sampling covering the southern zone of the Prospect, which has returned elevated copper in granodiorites and silica-iron-oxide-pyrite-magnetite altered rocks. Notable results include:

- **GYRX025: 0.36% Copper** (granodiorite float associated with gossanous zone to the north of sample)
- **GYRX022: 0.17% Copper** (silica-pyrite altered rock taken from historic trench)
- **GYRC034: 0.11% Copper** (sub-cropping silica-pyrite altered rock)



Figure 2: Spring Creek Prospect showing sample locations with elevated copper and gold. *The Area of Interest* forms the immediate focus west of the Narangal Thrust.

These results are consistent with an emerging iron-copper skarn system and support continued exploration to the north where the silica-pyrite alteration is thought to increase in thickness.



**ASX ANNOUNCEMENT** 

Key features of the Prospect, from both historic and new data, include:

- Large 8km long target corridor directly mapped by magnetic data
- Surface assays confirm the presence of copper and gold in the system
- Abundant disseminated pyrite in iron-oxide altered volcanic rocks
- Granodiorite/diorite intruded into volcanics with gossanous silica-iron oxide-pyrite, magnetite and iron copper skarn style mineralisation identified
- Anomalous soil geochemistry consistent with skarn style alteration system, including elevated copper, gold, molybdenum, selenium, tellurium, and bismuth
- Historic drilling noted iron copper skarn minerals including magnetite, hematite, pyrite, chalcopyrite, epidote, actinolite and garnet, common skarn alteration assemblages



Figure 3: Surface rock chip sample results from Vaughan's Ridge Prospect confirm copper mineralisation at surface. Background image: TMI : RTP Magnetics



#### Dilga Creek

The Dilga Creek Prospect is in the far south of the Yeoval Project and hosts a historic artisanal mine worked at the turn of the twentieth century. A five stamp battery once operated the mine which consisted of several shallow shafts and a shallow pit, mined to nominal depth of 3-5m (Figure 4A).

The historical workings appear to align in a north – south orientation over an 80m trend and are positioned at a major structural intersection, as mapped by de-magnetisation in the regional magnetic data. Godolphin prioritised this area for field reconnaissance based on encouraging historic drill results that have not been followed up since the late 1990s. Notable historic drill results include:

- DK1: 6m @ 2.05g/t Au from 21m (BHP in 1980s)
- DCRC2: 13m @ 0.72g/t Au, 0.88% Pb, 1.30% Zn from 13m (Malachite Resources in the late 1990s)

Godolphin's recent reconnaissance fieldwork demonstrated that the main area of workings and drilling coincide with strong quartz-sericite altered Yeoval granite with some samples having disseminated pyrite with malachite and azurite (copper minerals), while the northern most working consists of intense malachite and azurite in a granodiorite which returned in grab sample **GYRX033: 0.125g/t Au, 1.74% Cu and 0.83% Pb** (Figure 4B).

Given these encouraging results and the historic drill results, ongoing work will focus on compiling all historic data, detailed geological mapping across the Prospect and field visits to other similar structural intersections, in the area which might be analogous to the Dilga Creek Prospect.

Key features of the Prospect include:

- Historic gold-copper-lead-zinc prospect with several shafts and shallow pits into the porphyritic textured Yeoval Granite
- Historic drilling intersected strongly elevated gold and base-metals at shallow depths with no follow up since the late 1990s
- Mineralisation is centred at a major structural intersection and other similar structural sites have been identified in the local area which may also host similar mineralisation styles.

#### **Next Steps**

Work is ongoing to collate and interpret all historic surface sample, drill data and geophysical data covering the Vaughan's Ridge, and Dilga Creek Prospects on the Yeoval Project and Spring Creek on the Copper Hill East Project. This will then be reviewed by the Company's exploration team to define a broader exploration program across the copper and gold Prospects.

Prospect scale mapping of the north of the of the Vaughan's Ridge target zone and cross cutting structural features at Dilga Creek is in planning, while shallow auger or soil samples will test for gold-copper bearing quartz veins at Spring Creek following an orientation program with the aim of identifying the depth required to collect the samples and will determine the most appropriate sampling method.



Figure 4: A) view looking west at the main area of Dilga Creek Prospect workings. These workings were targeted with historic drilling and returned intercepts up to 6m @ 2.05g/t Au in the 1980s by BHP B) northern most prospecting pit consists of intense malachite (green colouration at surface) and azurite in a granodiorite which returned in grab sample GYRX033: 0.125g/t Au, 1.74% Cu and 0.83% Pb.

#### <ENDS>

This market announcement has been authorised for release to the market by the Board of Godolphin Resources Limited.

For further information regarding Godolphin, please visit <u>https://godolphinresources.com.au/</u> or contact:

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## **About Godolphin Resources**

Godolphin Resources (ASX: GRL) is an ASX listed resources company, with 100% controlled Australian-based projects in the Lachlan Fold Belt ("LFB") NSW, a world-class gold-copper province. A strategic focus on critical minerals and green metals through ongoing exploration and development in central west NSW. Currently the Company's tenements cover over 3,500km<sup>2</sup> of highly prospective ground focussed on the Lachlan Fold Belt, a highly regarded providence for the discovery of Rare Earth Elements, Copper, Gold and Base Metal deposits. Additional prospectivity attributes of GRL tenure include the McPhillamys gold hosting Godolphin Fault and the Boda gold-copper hosting Molong Volcanic Belt.

Godolphin is exploring for clay hosted REE's in both NSW and QLD, structurally hosted & epithermal gold, base-metal deposits and large, gold-copper Cadia style porphyry deposits in the Lachlan Fold Belt. It is pleasing to be continuing a focus of exploration efforts to define new targets for unlocking the potential of its East Lachlan tenement holdings and increasing the mineral resources of its advanced Lewis Ponds Gold & Base Metals Project and Yeoval Copper Gold Project. Reinvigoration of exploration efforts across the tenement package is the key to discovery and represents a transformational stage for the Company and its shareholders.

COMPLIANCE STATEMENT The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Ms Jeneta Owens, a Competent Person who is a Member of the Australian Institute of Geoscientists. Ms Owens is the Managing Director, full-time employee, Shareholder and Optionholder of Godolphin Resources Limited. Ms Owens 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. Ms Owens to the inclusion in the report of the matters based on her information in the form and context in which it appears.

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



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

Section 1 Sampling Techniques and Data (Criteria in this section applies to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling	Nature and quality of sampling (eq cut channels, random	Surface grab samples were taken of selected zones of outcrop, float or
techniques	chips or specific specialised industry standard	mullock from historic workings and were collected based on geological
	measurement tools appropriate to the minerals under	determination
	investigation such as down hole gamma sondes or	<ul> <li>All samples were between 0.5-4kg and were individually labelled and</li> </ul>
	handheld XRF instruments, etc). These examples should	geologically documented.
	not be taken as limiting the broad meaning of sampling.	
	Include reference to measures taken to ensure	
	sample representivity and the appropriate calibration of any	
	measurement tools or systems used.	
	Aspects of the determination of mineralisation that are	
	Material to the Public Report	
Drilling	• Drill type (or core, reverse circulation, open	<ul> <li>No drilling methods were used to collect the complex</li> </ul>
techniques	Dilli type (eg core, reverse circulation, open-	• No drilling methods were used to collect the samples.
leciniques	and details	
Drill sample	Method of re	<ul> <li>No drilling method were used to collect the samples.</li> </ul>
recovery	cording and assessing core and chip sample	
	recoveries and results assessed.	
Logging	Whether core and chip samples have been	<ul> <li>No drilling methods were used to collect the samples.</li> </ul>
	geologically and geotechnically logged to a level of detail to	Geology of grab samples was recorded. Geological records have primarily
	support appropriate Mineral Resource estimation, mining	been quantitative
	studies and metallurgical studies.	
Sub	For all completions the patient sublity and	No della secondo do usos unad to collect the convolue
Sub-	For all sample types, the hature, quality and     appropriateness of the sample proparation technique	• No drilling methods were used to collect the samples.
tochniquos	appropriateriess of the sample preparation technique.	
and samplo		
nreparation		
preparation		
Quality of	The nature, quality and appropriateness of the assaying and	Rock chip sample analysis was undertaken by ALS Laboratories in Orange,
assay data	laboratory procedures used and whether the technique is	NSW, Australia. Samples were sorted, weighed, dried, crushed and
and	considered partial or total.	pulverized to 85% passing 75 microns.
laboratory	Nature of quality control procedures adopted	<ul> <li>Au was analysed using File Assay with ICF-AES Fillish (Au-ICF21). All other elements analysed using four acid digest ICP-MS (ME-MS61)</li> </ul>
tests	(eg standards, blanks, duplicates, external laboratory	Laboratory QAQC was undertaken
	checks) and whether acceptable levels of accuracy (ie lack	
	of bias) and precision have been established.	
Verification	The verification of significant intersections by	No drilling methods were used to collect the samples.
of sampling	either independent or alternative company personnel.	<ul> <li>Data was collected and documented by GRL's geologists in the field.</li> </ul>
and	Documentation of primary data, data entry	
assaying	procedures, data verification, data storage (physical and	
	electronic) protocols.	
1	Discuss any adjustment to assay data.	
Location of	Accuracy and quality of surveys used to locate	Rock chip locations were surveyed using a handheid Garmin GPS
data points	unin noies (collar and down-noie surveys), trenches, mine	Grid used was MGA Zone 55, datum GDA94
	workings and other locations used in Mineral Resource	
Data	Data appains for reporting of Evelopeties	Distance between reak abin comple sites year, data ensaine distant by
Dala spacing and	Data spacing for reporting of Exploration     Populto	<ul> <li>Distance between rock only sample sites vary, data spacing dictated by availability of outcrop</li> </ul>
distribution	Mother the date specing and distribution is	
alstribution	writeliner use usits spacing and usurbution is     sufficient to establish the degree of geological and grade	<ul> <li>Data spacing is not sufficient to determine geological and grade continuity.</li> <li>Sampling was of a recomparisoned pattern. No comparing of accurate accu</li></ul>
	continuity appropriate for the Minoral Pessures and Ora	sampling was or a recommissance nature. No compositing or samples or results was applied
	Reserve estimation procedurals) and classifications	
	annlind	
	Whather sample compositing has been	
1	appilou.	



Criteria	JORC Code explanation	Commentary					
Orientation of data in relation to geological structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	No drilling methods were used to collect the samples.					
Sample security	The measures taken to ensure sample security.	Samples collected in the field were transported by geological staff to the company's Orange exploration shed where they are processed and sent to the ALS laboratory Orange.					
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>No audits or reviews were deemed necessary as this work is purely qualitative assaying for first-pass exploration purposes.</li> </ul>					

## Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary				
Mineral tenement and	Type, reference name/number, location and ownership including agreements or material issues with third action such as isits uptures partnerships according	Yeoval Project Area The Yeoval Project is located surrounding the township of Yeoval in NSW, and has an				
status	third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and onvironmental softings	elevation between 200 m and 500 m above sea-level.				
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a	Resources group through the granted exploration licence EL8358				
	license to operate in the area.	The results are located on private treehold land over which GRL holds the exploration rights.				
		<ul> <li>There is no Joint venture or any other arrangements pertaining to this project, and no native title claims over the area.</li> </ul>				
		The security deposit paid by GRL for EL8538 is \$10,000.				
		Copper Hill East Project				
		<ul> <li>The Copper Hill East project is located approximately 15km NE of the township of Molong in NSW</li> </ul>				
		The exploration rights to the project are owned 100% by the Godolphin Resources group through the granted exploration licence EL 8556				
		The land is owned by private land holders				
		<ul> <li>There is no Joint venture or any other arrangements pertaining to this project, and also no native title claims over the area.</li> </ul>				
		The security deposit paid by GRL for EL8556 is \$10,000.				
Exploration done by other	Acknowledgment and appraisal of exploration by other parties.	Historic exploration has been conducted across The Yeoval and Copper Hill East Projects and includes drilling, soil sampling, surface grab/ soil sampling and geological mapping.				
parues		Godolphin has referred to historic exploration results within the report specifically relating				
		<ul> <li>BHP in the 1980s drilled several holes and returned in drillhole DK1: 6m @ 2.05g/t Au from 21m. This is a quoted intercept from their historic annual report. Laboratory and analytical methods are not specified.</li> <li>Malachite Resources drilled DCRC2: 13m @ 0.72g/t Au. 0.88% Pb, 1.30% Zn from 13m. This is a quoted intercept from their historic annual report. Assays were analysed by ALS Laboratories using a Fire Assay Gold (PM209) and Intercept from their historic annual report.</li> </ul>				
		ICFAES (ICSOT) technique.				
Geology	• Deposit type, geological setting and style of	Vaughan's Ridge and Dilga Creek				
	mineralization.	<ul> <li>The Vaughan's Ridge Prospect is in the west of the EL 8538 tenement and covers an 8km long target corridor as mapped by a magnetic package of rocks termed the Cuga Burga Volcanics. These volcanics overlay intrusives of the Yeoval suite, within which iron-copper-skarn mineralisation has previously been identified. This style of mineralisation forms the immediate focus of exploration.</li> </ul>				



Criteria	JORC Code explanation	Commentary
Drill hole	A summary of all information material to the	<ul> <li>The Dilga Creek Prospect is in the far south of the Yeoval Project and represents a historic artisanal mine worked at the turn of the 20th century. A five stamp battery once operated the mine and consisted of several shallow shafts and a shallow pit, mined to nominal depth of 3-5m. The workings appear to align in a north – south orientation over a 80m trend and are positioned at a major structural intersection, as mapped by de-magnetisation in the regional magnetic data. The main area of workings and drilling coincide with strong quartz-sericite altered Yeoval granite +/- disseminated pyrite with visible malachite and azurite. The exact deposit style is unknown at this point in time.</li> <li>Spring Creek</li> <li>The Spring Creek Prospect is in the north-eastern sector of the Copper Hill East Project and overlaps with a dominant north-northwest striking magnetic fabric termed the Narangal Thrust. This thrust marks a major structural divide between the Molong Volcanic Domain to the west and the Hill End Domain sediments to the east with tuffaceous volcanics wedged between. Gold and copper mineralisation is generally found in quartz veins and potentially represents epithermal style mineralisation.</li> </ul>
Information	understanding of the exploration results including a tabulation of the following information for all Material drill holes:	
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate 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.</li> </ul>	<ul> <li>No drilling was undertaken. No grade aggregation, weighting, or cut-off methods were used for this announcement.</li> </ul>
Relationship between mineralization widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	<ul> <li>No drilling was undertaken. No geometry or width is reported with rock samples.</li> </ul>
Diagrams	<ul> <li>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 plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>No drilling was undertaken.</li> <li>Sample locations are included in the figures within the body of this announcement.</li> </ul>
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Results.	All Godolphin generated results have been reported.
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	All meaningful and material exploration data has been reported.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step- out drilling).	<ul> <li>This is covered in the section titled Next Steps and within the body of the report.</li> </ul>



Appendix 2: Table of rock chip and grab sample assay results discussed in this ASX release. Note: This is not a complete list of elements. A complete list can be requested and supplied pending GRL Board approval.

			Sample							
SampleID	NAT_North	NAT_East	Method	Cu_ppm	Au_ppm	Ag_ppm	As_ppm	Mo_ppm	Pb_ppm	Zn_ppm
			ROCK							
GYRX022	6370086	642730	CHIP	1720	-0.002	0.33	6.5	0.73	4.1	23
			ROCK							
GYRX025	6370839	643024	CHIP	3560	0.006	2.19	1.7	0.58	6.4	41
			ROCK							
GYRX033	6362757	647082	CHIP	17350	0.125	209	5.2	886	8260	114
GYRX034	6370082	642741	GRAB	1115	0.002	1.14	15.6	4.33	42.9	18
GYRX039	6358409	686056	GRAB	740	2.8	0.3	33.2	1.61	4.9	9
GYRX040	6358226	686177	GRAB	4690	0.027	0.13	25.5	0.94	2	10