

# Wide, High Grade Gold Hits at Hillgrove

#### **Highlights:**

- Red River receives further high-grade intercepts from ten holes at Eleanora-Garibaldi
- Results include broader mineralised zones which build confidence for Hillgrove:
  - 9.5m @ 9.2 g/t Au and 1.6% Sb from 60.5m downhole (ELG174)
  - 19.5m @ 4.3 g/t Au and 0.8% Sb from 70.0 (ELG176)
  - 19.0m @ 3.3 g/t Au and 1.2% Sb from 31.0m (ELG178)
    - Including 1.5m @ 11.0 g/t Au and 1.5% Sb from 48.5m
  - 12.2m @ 6.7 g/t Au and 0.2% Sb from 41.0m (ELG179A)
    - Including 8.8m @ 8.2 g/t Au from 43.5m
  - o 20.3m @ 4.1 g/t Au and 0.9% Sb from 51.0m (ELG179B) and
  - 9.4m @ 7.4 g/t Au and 1.9% Sb from 61.9m
- Red River's production restart at Hillgrove is currently under a strategic review

Red River Resources Limited (ASX: RVR) is pleased to announce results of 10 holes which have returned wide, high-grade gold at its Hillgrove Gold mine in NSW.

Red River has completed its current drilling program at Eleanora-Garibaldi and the deposit remains open; the results achieved increase confidence in the resource. Five additional holes are awaiting assay results.

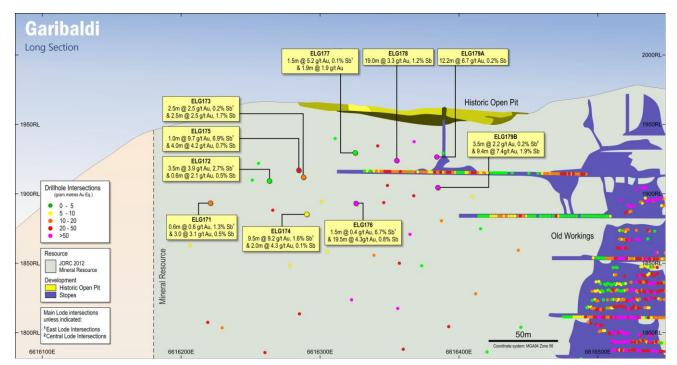
The high-grade intercepts within broader mineralised zones are encouraging and continue to build confidence to transition Hillgrove from a historical narrow vein project into a larger-scale gold operation.

Hillgrove has an existing JORC 2012 Mineral Resource of 7.23Mt @ 4.5 g/t Au & 1.2% Sb (1,037koz contained Au & 90kt contained Sb) and RVR continues build this resource for a larger-scale, longer life mining operation.

#### **Eleanora-Garibaldi Drilling**

RVR has received assays for drill holes ELG171 to ELG179B in its follow-up Eleanora-Garibaldi drill program (Table 1). The drill holes intercepted three lodes of structurally controlled gold-antimony dominated mineralisation. These north-south striking, near vertical lodes from west to east include the Main Lode, a southern continuation of the main Eleanora system, the Central Lode, and the East Lode. The drill holes intercepted gold mineralisation between and surrounding the dominant structures hence reporting of broad grade intervals.





**Figure 1:** Assay results from latest Eleanora-Garibaldi program. Intersection points represent the Eleanora-Garibaldi trend with eastern lode intersections shown in labels.

The Main and Central lodes merge in some holes and high-grade gold and antimony mineralisation include:

- 19.5m @ 4.3 g/t Au and 0.8% Sb from 70.0m downhole (ELG176)
- 19.0m @ 3.3 g/t Au and 1.2% Sb from 31.0m (ELG178)
- 12.2m @ 6.7 g/t Au and 0.2% Sb from 41.0m (ELG179A)
- 20.3m @ 4.1 g/t Au and 0.9% Sb from 51.0m (ELG179B).

Main Lode high-grade gold and antimony mineralisation intercepts include:

- 3.0m @ 3.1 g/t Au and 0.5% Sb from 105.5m (ELG171)
- 2.5m @ 2.5 g/t Au and 1.7% Sb from 83.0m (ELG173)
- 2.0m @ 4.3 g/t Au and 0.1% Sb from 103.0m (ELG174)
- 4.0m @ 4.2 g/t Au and 0.7% Sb from 61.0m (ELG175)
- 9.4m @ 7.4 g/t Au and 1.9% Sb from 69.1m (ELG179B).

Central Lode high-grade gold and antimony mineralisation intercepts include:

3.5m @ 2.2 g/t Au and 0.2% Sb from 51.0m (ELG179B).

East Lode high-grade gold and antimony mineralisation intercepts include:

- 3.5m @ 3.9 g/t Au and 2.7% Sb from 38.5m (ELG172)
- 2.5m @ 2.5 g/t Au and 0.2% Sb from 47.0m (ELG173)
- 9.5m @ 9.2 g/t Au and 1.6% Sb from 60.5m (ELG174)



- 1.0m @ 9.7 g/t Au and 6.9% Sb from 60.5m (ELG175)
- 1.5m @ 0.4 g/t Au and 6.7% Sb from 43.5m (ELG176)
- 1.5m @ 5.3 g/t Au and 0.1% Sb from 24.0m (ELG177).

The southern Garibaldi area has undergone significant brittle deformation both pre-mineralisation and post mineralisation compared to the northern Eleanora area. This has had two fundamental impacts on the geology and mineralisation:

- Pre-mineralisation faulting has created pathways for significant lamprophyre dyke swarms, with holes drilled in this program containing anywhere from one to 11 lamprophyre intrusions.
- Faulting has also created additional pathways for the mineralised hydrothermal fluids to flow through. This has affected the mineralisation by creating the additional and generally weaker parallel trends of mineralisation east of the main lode trend. There also exists weak mineralisation between the lodes creating wide zones (>20m) of halo gold mineralisation.

Historically, Garibaldi had a small open pit, which is approximately 155m long, 40m wide and 10m deep to take advantage of the multiple gold lodes and bulk low-grade material.

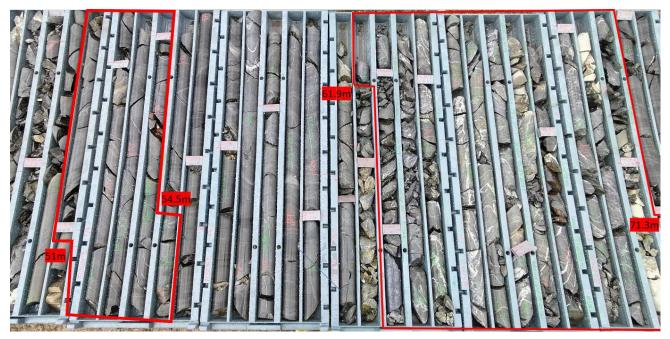


Figure 2: Stibnite Veining in ELG179B Mineralised Zone (20.3m @ 4.1 g/t Au and 0.9% Sb from 51.0m)



Table 1: Drill hole assay summary Eleanora-Garibaldi

Hole ID	From (m)	To (m)	Downhole	Au (g/t)	Sb (%)	Lode
			Interval (m)			
ELG171	41.0	41.6	0.6	0.6	1.3	East
And	105.5	108.5	3.0	3.1	0.5	Main
including	106.4	107.3	0.9	7.3	1.0	
ELG172	38.5	42.0	3.5	3.9	2.7	East
And	87.1	87.7	0.6	2.1	0.5	Main
ELG173	47.0	49.5	2.5	2.5	0.2	East
And	83.0	85.5	2.5	2.5	1.7	Main
ELG174	60.5	70.0	9.5	9.2	1.6	East
And	103.0	105.0	2.0	4.3	0.1	Main
ELG175	30.0	31.0	1.0	9.7	6.9	East
And	61.0	65.0	4.0	4.2	0.7	Main
ELG176	43.5	45.0	1.5	0.4	6.7	East
And	70.0	89.5	19.5	4.3	0.8	Central & Main
ELG177	24.0	25.5	1.5	5.2	0.1	East
And	49.2	51.1	1.9	1.9	-	Main
ELG178	31.0	50.0	19.0	3.3	1.2	Central & Main
including	48.5	50.0	1.5	11.0	1.5	
ELG179A	41.0	53.2*	12.2	6.7	0.2	Central & Main
including	43.5	52.3	8.8	8.2	-	
ELG179B	51.0	71.3	20.3	4.1	0.9	
including	51.0	54.5	3.5	2.2	0.2	Central
And	61.9	71.3	9.4	7.4	1.9	Main

<sup>\*</sup> Terminates in historic drive void.

Note: All intervals of core loss (CL) have been assigned zero grade.



### **About Red River Resources (ASX: RVR)**

RVR is building a multi-asset operating business focused on base and precious metals with the objective of delivering prosperity through lean and clever resource development. RVR's foundation asset is the Thalanga Base Metal Operation in Northern Queensland, which was acquired in 2014 and where RVR commenced copper, lead and zinc concentrate production in September 2017. RVR has commenced production at the high-grade Hillgrove Gold Operation in New South Wales which was acquired in 2019. The Hillgrove Operation is a key part of RVR's strategy to build a multi-asset operating business focused on base and precious metals.

On behalf of the Board,

**Mel Palancian** 

**Managing Director** 

**Red River Resources Limited** 

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## **Competent Persons Statement**

#### **Exploration Results**

The information in this report that relates to Exploration Results is based on information compiled by Mr Peter Carolan who is a member of The Australasian Institute of Mining and Metallurgy, and a full time employee of Red River Resources Ltd., and who has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves' (JORC Code). Mr Larter consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

#### **Gold Equivalent Calculation**

The display of drill intersections contains gold equivalent (Au Eq.) values.

The use of a gold equivalent cut-off is appropriate for the multi-element mineralisation at Hillgrove, where value is obtained from antimony and/or gold.

The Au equivalent allows for a basic level of assessment of deposits and mineralisation styles within the Hillgrove group of deposits. The Au Eq. value was calculated using a gold price of US\$1,234/oz and an antimony price of US\$ 5,650 / tonne where:

Au Eq. (g/t) = (Au g/t) + (1.424 \* Sb %)

### **Appendix 1: Drill Hole Details**

Table 2 Eleanora drill hole information summary, Hillgrove Gold Project. GDA94 MGA56

Hole ID	Depth (m)	Dip (°)	Azi (°)	Eastings (m)	Northings (m)	RL (m)	Lease ID	Hole Status
ELG171	137.50	-48.9	218.8	394885	6616465	963	ML391	Complete
ELG172	111.00	-46.8	258.8	394885	6616465	972	ML391	Complete
ELG173	126.00	-44.3	280.4	394884	6616466	972	ML391	Completed
ELG174	129.30	-57.2	281	394884	6616466	972	ML391	Completed
ELG175	104.80	-54	205.6	394842	6616506	968	ML391	Completed
ELG176	129.40	-69.7	277	394843	6616510	968	ML391	Completed
ELG177	108.10	-51	277.4	394843	6616510	968	ML391	Completed
ELG178	88.70	-56.8	219.3	394816	6616563	962	ML391	Completed
ELG179	13.60	-56.5	299.1	394816	6616563	963	ML391	Completed
ELG179A	54.20	-57.3	287.5	394816	6616563	963	ML391	Completed
ELG179B	105.30	-62.6	289.2	394816	6616563	963	ML391	Completed



## JORC Code, 2012 Edition – Table 1

## **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling	Nature and quality of sampling (e.g. cut	Diamond drilling (DD) techniques were used to
techniques	channels, random chips, or specific	obtain samples.
	specialised industry standard measurement	Diamond core was placed in core trays for logging
	tools appropriate to the minerals under	and sampling. Half core samples were nominated by
	investigation, such as down hole gamma	the geologist from diamond core based on visual
	sondes, or handheld XRF instruments, etc).	inspection of mineralisation. Intervals ranged from
	These examples should not be taken as	0.25 to 1.4m based on geological boundaries
	limiting the broad meaning of sampling.	Diamond samples were sawn in half using an onsite
	Include reference to measures taken to	core saw.
	ensure sample retrospectivity and the	The drill core samples were sent to ALS Laboratories
	appropriate calibration of any measurement	in Zillmere QLD.
	tools or systems used.	Samples were crushed to sub 6mm, split and
	Aspects of the determination of	pulverised to sub 75μm in order to produce a
	mineralisation that are Material to the	representative sub-sample for analysis.
	Public Report.	Analysis of the diamond drill samples consisted of a
	In cases where 'industry standard' work has	four-acid digest and Inductively Coupled Plasma
	been done this would be relatively simple	Optical Emission Spectrometry (ICP-OES) for the
	(e.g. 'reverse circulation drilling was used to	following elements: Ag, As, Cu, Pb, S, Sb, W & Zn was
	obtain 1 m samples from which 3 kg was	undertaken. The samples were also assayed for Au
	pulverised to produce a 30 g charge for fire	using a 50g Fire Assay technique. If over detection on
	assay'). In other cases, more explanation	the ICP reached than the samples were assayed using
	may be required, such as where there is	XRF. Standards and blanks were inserted at a rate of
	coarse gold that has inherent sampling	5%.
	problems. Unusual commodities or	The RC drilling was conducted by Straits Resources in
	mineralisation types (e.g. submarine	2004-2005. These samples were assayed by ALS
	nodules) may warrant disclosure of detailed	Laboratories in Brisbane.
	information.	Disassa dadilia s (DD) sa d December Circulation (DC)
Drilling	Drill type (e.g. core, reverse circulation,	Diamond drilling (DD) and Reverse Circulation (RC)
techniques	open-hole hammer, rotary air blast, auger,	drilling techniques were used to obtain samples. The diamond drill core was NQ2 in size.
	Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of	diamond dim core was NQ2 in size.
	diamond tails, face-sampling bit or other	
	type, whether core is oriented and if so, by	
	what method, etc).	
		Sample recovery is measured and recorded by
Drill sample	chip sample recoveries and results assessed.	company trained geology technicians.
recovery	Measures taken to maximise sample	Minimal sample loss has occurred.
	recovery and ensure representative nature	Willima Sample 1033 has occurred.
	of the samples.	
	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.	
	Whether core and chip samples have been	Holes are logged to a level of detail that would
	I which the did dilp samples have been	
Logging	<u> </u>	support mineral resource estimation
Logging	geologically and geotechnically logged to a	support mineral resource estimation.  Ouglitative logging includes lithology, alteration and
Logging	geologically and geotechnically logged to a level of detail to support appropriate	Qualitative logging includes lithology, alteration and
Logging	geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining	Qualitative logging includes lithology, alteration and textures.
Logging	geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	Qualitative logging includes lithology, alteration and textures.  Quantitative logging includes sulphide and gangue
Logging	geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining	Qualitative logging includes lithology, alteration and textures.



Criteria	JORC Code explanation	Commentary
Circeita	The total length and percentage of the	Commencery
	relevant intersections logged.	
Code annually	If core, whether cut or sawn and whether	Core was sawn, and half core sent for assay.
Sub-sampling techniques	quarter, half or all core taken.	Sample preparation is industry standard, occurring at
and sample	If non-core, whether riffled, tube sampled,	an independent commercial laboratory which has its
preparation	rotary split, etc and whether sampled wet	own internal Quality Assurance and Quality Control
preparation	or dry.	procedures.
	For all sample types, the nature, quality and	Samples were crushed to sub 6mm, split and
	appropriateness of the sample preparation	pulverised to sub 75μm in order to produce a
	technique.	representative sub-sample for analysis.
	Quality control procedures adopted for all	Laboratory certified standards were used in each
	sub-sampling stages to maximise	sample batch.
	representivity of samples.	The sample sizes are considered to be appropriate to
	Measures taken to ensure that the sampling	correctly represent the mineralisation style.
	is representative of the in-situ material	
	collected, including for instance results for	
	field duplicate/second-half sampling.	
	Whether sample sizes are appropriate to	
	the grain size of the material being sampled.	The account of a majorist are assisted
Quality of	The nature, quality and appropriateness of	The assay methods employed are considered
assay data	the assaying and laboratory procedures used and whether the technique is	appropriate for near total digestion.  Laboratory certified standards were used in each
and	considered partial or total.	sample batch.
laboratory	For geophysical tools, spectrometers,	Certified standards returned results within an
tests	handheld XRF instruments, etc, the	acceptable range.
	parameters used in determining the analysis	One field duplicate are submitted for each diamond
	including instrument make and model,	core hole.
	reading times, calibrations factors applied	
	and their derivation, etc.	
	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.	
Verification	The verification of significant intersections	Laboratory results have been reviewed by Company
of sampling	by either independent or alternative	geologists and laboratory technicians.  No twinned holes were drilled for this data set.
and assaying	company personnel. The use of twinned holes.	No twillied floles were drilled for this data set.
	Documentation of primary data, data entry	
	procedures, data verification, data storage	
	(physical and electronic) protocols.	
	Discuss any adjustment to assay data.	
Location of	Accuracy and quality of surveys used to	Collars were surveyed with RTKGPS (+-0.1m).
data points	locate drill holes (collar and down-hole	Down hole surveys conducted with digital magnetic
	surveys), trenches, mine workings and other	multi-shot camera at 20-40m intervals. A portion of
	locations used in Mineral Resource	drill holes were surveyed by multi-shot survey.
	estimation.	Coordinate system used is GDA94 MGA Zone 56.
	Specification of the grid system used.	
	Quality and adequacy of topographic	
	control.	
Data spacing	Data spacing for reporting of Exploration	The current drill spacing is approximately 30-60m.
and	Results.	No sample compositing has been applied.
distribution	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	
	Tor the Milleral Nesource and Ore Neserve	



Criteria	JORC Code explanation	Commentary
	estimation procedure(s) and classifications applied. Whether sample compositing has been applied.	
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. 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.	Drill holes are orientated perpendicular to the perceived strike of the host lithologies where possible.  The orientation of the multiple lenses varies resulting in some holes resulting in less than perpendicular intersections.  Drill holes are drilled at a dip based on logistics and dip of anomaly to be tested.  The orientation of the drilling is designed to not bias sampling.  Orientation of the NQ2 core was undertaken to define structural orientation.
Sample security	The measures taken to ensure sample security.	Samples have been overseen by company staff during transport from site to the SGS or ASL laboratories in West Wyalong or Brisbane respectively.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews have been carried out at this point.



(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.  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.	The drilling was conducted on the following mining leases; ML391 and ML649. These leases are held by Hillgrove Mines Pty Ltd. (a wholly owned subsidiary of Red River Resources).
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The historic RC drilling was conducted by Straits Resources in 2004-2005.
Geology	Deposit type, geological setting and style of mineralisation.	The exploration model is orogenic gold/antimony.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes, including, easting and northing, elevation or RL, dip and azimuth, down hole length, interception depth and hole length.  If the exclusion of this information is justified the Competent Person should clearly explain why this is the case.	See Appendix 1 – Drill Hole Details Assay Details – Eleanora Drilling Material Assay Results
Data aggregation methods	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.  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.  The assumptions used for any reporting of metal equivalent values should be clearly stated.	Interval length weighted assay results are reported. No cutting of high grades has been done.
Relationship between mineralisation widths and intercept lengths	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 (e.g.	The mineralisation is interpreted to be dipping at approximately 90 degrees, drill holes have been designed to intercept the mineralisation as close to perpendicular as possible.  Down hole intercepts are reported. True widths are likely to be approximately 30 to 80% of the down hole widths.



Criteria	JORC Code explanation	Commentary
	'down hole length, true width not known').	
Diagrams	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 plans and sections.	Refer to plans and sections within report.
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 Exploration Results.	The accompanying document is considered to represent a balanced report.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported.	All meaningful and material data is reported.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further Drilling targeting the lateral extensions of the Eleanora lode is ongoing.

END