



Cluff Resources Pacific NL

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The Manager (Companies)
Australian Stock Exchange
Sydney

Dear Sir,

RESULTS OF BULK SAMPLING AT BINGARA DIAMOND PROSPECT

The Company recently completed its percussion drilling program at Doctors Creek and investigated the target claystone to a depth of up to 66 metres, with the following results and interpretations:

- The sampled material from two of four drill sites has been fully processed, utilising the Company's trommel and jig plant, and analysis of heavy mineral components has been also been undertaken and completed. No diamonds have been revealed from the sampling of the first two holes, either at a macro or micro size level, and the Company has elected to suspend processing for the time being to conduct a re-assessment of the future strategies for exploration.
- An independent assessment from our technical consultant Dr Julian Hollis (shown below) indicates that the heavy mineral indicator component recovered from the concentrate from the percussion samples displays a similar assemblage to known diamondiferous material from the Monte Christo prospect. Dr Hollis has concluded that this supports an hypothesis being developed to form the basis of the future exploration program, that part of the upper alluvial layers of the tenement are locally sourced.
- The Company is pleased to report that it is already developing this new hypothesis, which has led to the completion of a small bulk sample of near-surface materials from pit EH40 at Eaglehawk. The sampling of 8 tonnes of diamond-prospective gravels during rehabilitation works resulted in the recovery of 10 diamonds weighing 1.184 carats, which gives an inferred grade of 14.79 carats per 100 tonnes.
- Following this result, the Company is highly motivated to continue exploration activities to delineate the extent of the diamondiferous inferred resource. A full review of all scientifically recorded data held on the Bingara prospect is underway, in addition to the preparation a highly detailed three-dimensional digital terrain model following an airborne survey of the entire tenement area (accuracy of less than 500 mm). The topographic and geographic modelling, which has not been undertaken before using modern technology, will be prepared with a view to mapping the entire extent of near-surface diamondiferous material (and known historic occurrences with economic grades), thus defining the near-surface inferred resource. We have confidence that a primary source may yet be found within the tenement area.
- The Company is also proceeding to process the material from the percussion program thought to have been derived from a shear zone (low angle thrust fault). This zone, generally from 10 to 12 metres thick and encountered from 15 to 25 metres depth in site CBN11, was also identified in site CBN15, and occurs where older carboniferous rocks have been thrust by earth movements over the younger gravels. This explains the previously enigmatic shafts at Bingara which were sunk into carboniferous rocks and were known to recover diamonds. Based on these observations, and on their contained indicator minerals, it follows that the shear zones have been identified as prospective areas for diamond occurrence from the percussion program, and should be further investigated. The shear zone is found from 6–16 metres and 16-25 metres depth at CBN15, and these samples will be processed shortly.

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Dr Julian Hollis provided the following analysis following the completion of his interpretation of the sampling results and his own heavy mineral processing (reproduced with his permission):

HEAVY MINERALS FROM CARBONIFEROUS BEDROCK PERCUSSION DRILLING SAMPLES

Previous sampling from Mesozoic gravels (250 million years to 67 million years old) that produced diamonds from the Monte Christo Prospect yielded a diverse suite of heavy minerals, then thought to have had distant origins from east of the Peel Thrust Fault.

Sub- 2mm concentrates were examined from 6 metre intervals for holes CBN11 and CBN13 (results shown in Table 1 below) Heavy mineral suites were predominated by secondary sulphides, mostly pyrite and serpentinite suite minerals. Magnetite, ilmenite and zircon proved to be ubiquitous with variable spinel, mostly rare tourmaline, garnet, corundum and gold. The grains all showed significant abrasion, suggesting origins from a Western proto-Australian craton into an island-arc style basin.

These were variously admixed with andesetic-basaltic volcanics from regional eruptions at the time of deposition. Thus most, if not all sub-2mm heavy mineral grains are of local, recycled origin.

No diamonds were found, either in the drillhole internal samples or from grease off the diamond recovery table. Results largely confirm that there are unlikely to be any 'classic' indicator minerals associated with Bingara diamonds. Deep drilling by previous parties likewise failed to produce any diamonds from the carboniferous bedrock (359 million years to 299 million years old). For these reasons and our current results, there is at present no justification for further drilling. Rather a dedicated and definitive heavy mineral sampling program of the Mesozoic gravels should be undertaken. This should also produce diamonds.

There is a defacto association between diamonds, topaz and tourmaline (Table 2 below), although these are clearly not related to each other. They share their similar specific gravities and sphericity characteristics. As such, topaz and tourmaline appear to be valuable leads to locating diamonds.

TABLE 1: SAMPLE TYPE: FINES FROM RC PERCUSSION DRILLHOLES DR JULIAN HOLLIS IDENTIFICATIONS

MINERAL	SAMPLE CBN 11 metres below surface										GREASE SAMPLE
	6 to 12	12 to 18	18 to 24	24 to 30	30 to 36	36 to 42	42 to 48	48 to 54	54 to 60	60 to 66	
	PYRITE, PYRRHOTITE, Other Sulphides										
GOLD Flakes											
MONAZITE?											
CORUNDUM P=Pink B=Blue											
SERPENTINE Group CHLORITIC Alteration											
ORTHOPYROXENE											
AMPHIBOLE - Black											
OLIVINE (Nd sep)											
CASSITERITE (Tin)											
RUTILE Red-											
ZIRCON											
TOURMALINE											
SPINEL - BLACK (Nd sep)											
GARNET (Nd sep) P=Pink O=Orange					P	P					
ILMENITE (Nd sep)											
MAGNETITE (Fe sep)											
NOTES			1				2	2			

MINERAL	SAMPLE CBN 13 metres below surface										GREASE SAMPLE
	6 to 12	12 to 18	18 to 24	24 to 30	30 to 36	36 to 42	42 to 48	48 to 54	54 to 60	60 to 66	
	PYRITE, PYRRHOTITE, Other Sulphides										
GOLD Flakes											
MONAZITE?											
CORUNDUM P=Pink B=Blue						P	P		B		
SERPENTINE Group CHLORITIC Alteration											
ORTHOPYROXENE											
AMPHIBOLE - Black											
OLIVINE (Nd sep)											
CASSITERITE (Tin)											
RUTILE Red-											
ZIRCON											
TOURMALINE											
SPINEL - BLACK (Nd sep)											
GARNET (Nd sep) P=Pink O=Orange									P		
ILMENITE (Nd sep)											
MAGNETITE (Fe sep)											
NOTES						3		4		No ultrafines	

KEY TO COLOURS:

ABUNDANT:	
COMMON:	
SPARSE:	
RARE:	
VERY RARE:	
PRESENT, UNSPECIFIED:	
(sample size too small to be definitive)	

- Note 1: Oxidised pebbles (Chert etc.) & rounded tourmalines suggest involvement of Jurassic along low-angle shear
- Note 2: Gold in rounded flakes. Rust on surfaces. Possibly down-hole contamination?
- Note 3: Clear, pink corundum. Abraded.
- Note 4: Large, rounded tourmalines and spinels suggest low -angle shear involving Jurassic.

Nd sep = Separated with Neodymium supermagnet
Fe sep = Separated with iron magnet

TABLE 2:

DR JULIAN HOLLIS IDENTIFICATIONS

SAMPLE TYPE: SUB-2mm FINES FROM DIAMONDIFEROUS MATERIAL, MONTE CRISTO PIT

MINERAL	SAMPLE MC 10			
	1 - 2 mm	0.5 - 1 mm	0.21 - 0.5 mm	< 0.21 mm
SULPHIDES				
GOLD				
DIAMOND (Note 3)				
CORUNDUM				
TOPAZ				
ANDALUSITE				
CASSITERITE (Tin)				
BROOKITE				
ANATASE				
RUTILE	5%	5%	15%	7%
ZIRCON	10%	20%	15%	7%
TOURMALINE	5%	5%		
SPINEL - BLACK (Nd sep)	5%	5%		
GARNET (Nd sep)				
ILMENITE (Nd sep)	70%	65%	65%	80%
MAGNETITE (Fe sep)				

(Note 1)

(Note 2)

Nd sep = Separated with Neodymium supermagnet
 Fe sep = Separated with iron magnet

	: ABUNDANT (percentage estimate)
	: COMMON
	: SPARSE
	: RARE
	: VERY RARE
	: PRESENT, UNSPECIFIED (sample size too small to be definitive)

Note 1: This sample appears to have been incinerated: Sulphides have been oxidised.

Note 2: Difficult to micropan out quartz with 5 cm dish.

Note 3: Note complete absence of microdiamonds

Moissanite - Not noted

The diamond indicator mineral results reported are based on information provided by Dr Julian Hollis. Dr. Hollis is an independent consultant geologist with over thirty years experience in the field of minerals exploration. His geological qualifications comprise BSc(hons) and PhD from Kings College, University of London. He is a member of the Geological Society of Australia, the Royal Society of Victoria and an honorary Research Associate at the Melbourne Museum and the Australian Museum, Sydney. He has published extensively in the fields of mineralogy and petrology and has run University courses in geology.

EAGLEHAWK SAMPLING RATIONALE AND METHODOLOGY

Using our newly refreshed hypothesis on likely diamondiferous materials, during the environmental restoration of previous exploration pits at Eaglehawk (locations shown below), we retrieved a number of small samples in layers not previously sampled (lower layers were targeted, for a negative result). The EagleHawk prospect presents typical river deposit structures, which are relatively easy to identify, as per the photographs below. Four samples were extracted from 2 pits, EH40 and EH42, which have now been fully restored.



It should be noted that the apparent random nature of these structures can be followed, and very likely predicted. Through our extensive sampling in the past, we have determined that the diamonds are more likely to be present within the pebble bands once their indicator mineral associates are found in the detrital rock assemblage.

At site EH42, two layers above the previous sample regime showed an abundant pebble make-up, separated by a layer of coarse sand (shown below). The previous negative results however, warranted the 3 layers to be tested to deem that the site had been conclusively tested.

Approximately 8 tonnes of material was extracted from each of the layers, and fed through the company's processing plant at Copeton. There was a negative result from all three samples. The conclusions from this aided in the indicator mineral assemblage being recognised further.



EH 42 sampled layers



Pebble band material at EH 40

Previous sampling at site EH40 disregarded a large pebble band (shown above). However, this sample did contain fine trace minerals from our newly defined assemblage, and an approximate 8 tonne sample was extracted to test the validity of these “markers” as an indicator of prospectivity.



10 diamonds were recovered from the direct sampling of this pebble band (shown at left), with a total weight of 1.184 carats, giving an inferred grade of 14.79 carats per 100 tonnes for this sample.

We have recorded the RL of the layer and its representative paleo flow direction, indicated from the imbrication on the stones, and plans are being designed and negotiated to further develop the Company’s understanding on the placement of this layer, expanding it throughout the inferred deposit in this prospect.

The company is confident that the application of a scientific approach to all exploration at Bingara in the future will show positive results.

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Yours faithfully,

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