

### **Fast Facts**

Cap Structure **Issued Shares** Market Cap Cash + Investments Sept 09 362Mil A\$21.7Mil \$5.4Mil

Chairman

Non-Exec Dir.

Executive Dir.

Non-Exec Dir.

# PHILLIPS RIVER SCOPING STUDY CONFIRMS LONG LIFE VIABLE **GOLD COPPER OPERATION**

## Highlights

- Annual production 800,000t •
- 7.5 year mine life contemplated on current resource inventory
- Gross cash generation Life of Mine ("LOM") \$823 million •
- Gross operating cost LOM \$540 million •
- Net cash generated over LOM \$283 million •
- Capital Cost \$125 million •
- Net cash after capital cost \$158 million pre tax •
- IRR- 40% (70% debt/30% equity, pretax, capex fully amortised). •
- Revenue mix predominantly driven by gold (54%), copper • (27%), silver (9%), zinc (6%) and lead (4%)
- C1 Gold cash cost \$440/oz AUD

Tectonic (ASX:TTR) is pleased to announce the successful completion of the independent Scoping Study on its 100% owned Phillips River Project demonstrating a viable Gold/Copper project is possible, generating \$823 million in revenue and \$283 million in net cash over life of mine.

Managing Director Steve Norregaard said "Our faith and persistence has been rewarded with these preliminary findings demonstrating a long life project is possible with a substantial return to stakeholders."

Resource infill drilling is well advanced at Kundip as we transition to full feasibility. Numerous opportunities and drilling targets which have the potential for additional value generation have been identified. Further discoveries, such as the Gem Restored which remain underexplored, are not currently considered in this evaluation and will only add to the overall project robustness.

This is a major milestone for the company as it seeks to realise the full economic potential of the diversified resource base. Significantly, Tectonic can extract revenue from five commodities with gold and copper equating to 81% of mine revenue.

# **Directors** Hamish Bohannan

Steve Norregaard Managing Dir. Joe Totaro Andrew Czerw Tony Martin

#### **Company Highlights**

- Substantial resource inventory
- New recent gold discoveries
- Aggressive exploration Proven Management
- Fully Funded through to DFS



#### **PRP Resource Base**

Resource tonne	es ~	10.5Mt
Gold ounces	~	750,000
Silver Ounces	~	9.8Mil
Copper metal	~	85,000t
Lead metal	~	123,000
Zinc metal	~	74,000t

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Tectonic is well placed with over \$5 million in cash and is currently undertaking further exploration where significant opportunities exist to expand the current resource base of 750,000 ounces of gold and 85,000 tonnes of copper metal. The following key factors identified during the scoping study which could possibly enhance returns are:

- Extensional drilling on known resources at Kundip expanding the size of the resource and life of the proposed mines.
- Exploration in the Kundip region, including the Gem Restored prospect, aimed at expanding the mineable resource base.
- Exploring opportunities for a reduction in operating costs resulting in a potential lowering of economic cut off grades, thus increasing mineable resources. A key area to be examined is power costs. This study assumes high cost diesel power generation whilst preliminary studies on an alternative hybrid wind-diesel system suggest reductions in operating cost are achievable and present an overall cost benefit to the project.
- Optimising metallurgical parameters and products on Trilogy base metal material. The study assumes each tonne of material liberates a saleable concentrate. This ignores the potential to blend metal concentrates and/or maximise metal recovery whilst maintaining saleable concentrate grades.
- Greenfields exploration yielding further gold, copper and/or base metal discoveries.

The detailed feasibility study phase is now well underway with resource in fill drilling at Kundip progressing well allowing resource re-estimation to commence prior to years end.

# The Project

Located on the south coast of Western Australia the Phillips River Project is between Hopetoun and Ravensthorpe, some 180km's due west of the sea port of Esperance.

The local economy is primarily geared to serving the agricultural industry. However, with the recent closure of BHP's Ravensthorpe Nickel Mine, it provides an opportunity for the company with an abundance of housing remaining vacant and with many service providers remaining in the area.





Figure 1- Regional Plan View- Phillips River Project

# Resources

GOLD AND C	OPPER GLOBAL	RESOURCE	E TABLE: KUN	NDIP PROJE	CT AND OTH	IERS
CATEGORY	Mt	Au	Ag	Cu	Pb	Zn
		(g/t)	(g/t)	(%)	(%)	(%)
MEASURED	0.12	4.6	2.7	0.2		
INDICATED	2.65	4.4	3.1	0.5		
INFERRED	1.46	4.3	3.5	0.5		
SUB TOTAL	4.23	4.3	3.2	0.5		
BAS	SE METAL GLOB	AL RESOUF	RCE TABLE: 1	RILOGY PR	OJECT	
MEASURED	0.31	2.4	41	0.3	0.1	0.0
INDICATED	5.75	0.7	48	1.1	2.1	1.3
INFERRED	0.18	0.6	12	0.8	0.2	0.2
SUB TOTAL	6.24	0.8	47	1.0	2.0	1.2
TOTAL GLOBAL RESOURCE TABLE						
MEASURED	0.43	3.0	30.8	0.3	0.1	0.0
INDICATED	8.40	1.9	33.8	0.9	1.5	0.9
INFERRED	1.64	3.9	4.4	0.5	0.0	0.0
SUB TOTAL	10.47	2.2	29.1	0.8	1.2	0.7
		CONTAIN	ED METAL			
	Mt	M Oz	M Oz	t (000)	t (000)	t (000)
GRAND TOTAL	10.47	0.75	9.8	85	123	74

Table 1- Phillips River Resource Statement



Table 1 above provides a mineral resource statement for the Phillips River Project, estimated in accordance with the JORC Code. This table is a compilation of a number of individual resource estimates.

The lower cut off grade applied to the Kundip mineral resource is either 1.0 g/t gold or a 1.0g/t gold equivalent value depending on the copper values within the resource. The Trilogy resource is based on wire-framing to drill holes on a 0.5% Cu equivalent cut-off and reporting to a 1.0% Cu equivalent cut-off\*.

# Mines

To determine the mining potential of each deposit the entire resource, including the inferred component was evaluated using Whittle optimization software. The resultant mining inventory was estimated within optimal Whittle pit shells developed by Intermine Engineering Consultants Pty Ltd and a final pit design prepared by Design Support Pty Ltd under direction of Mining and Cost Engineering Pty Ltd.

Dependent on the style of mineralisation the assumed mining recoveries applied to each deposit ranged from 95% to 97% with dilution rates ranging from 8% to 22%.

Given that some inferred resource has economic potential, drilling aimed at converting the "inferred" resource to "indicated" status has commenced. It is envisioned the drilling will result in an up-dated resource estimate demonstrating an overall higher level of confidence which will then be used for the definitive feasibility process.

# Kundip

Five open pit mines were optimised using a \$1000/oz AUD gold price yielding 1.38Mt@ 4.3g/t Au & 0.3% Cu. An overall strip ratio of 20:1 resulted in recovered metal production of 174,000 oz and 2,900t Cu in concentrate.

Three underground mines were incorporated into the mining model utilising an Au equivalent cutoff grade of 4.5g/t gold yielding 720,000t @ 6.3 g/t Au and 0.9% Cu for recovered metal production of 139,000 oz Au and 5,400t of copper. Standard design assumptions were applied for capital development requirements with material proposed to be extracted via bulk up hole benching methods and/or hand held methods according to geometry. Appropriate dilution and recovery parameters were adopted in line with standard industry practice.

All material warranting processing is assumed to be carted via road 10kms to the south to the proposed processing facility.





Figure 2- Kundip Site Layout with Resource Outline Projections

# Trilogy

A single large open pit Whittle optimized shell was derived yielding a total mineable resource of 3.8Mt based on a strip ratio of 5.9:1. Mining is assumed to be carried out by means of conventional excavator and truck haulage with drill and blast as determined by rock competency.

The mining inventory relating to Trilogy comprised:

Oxide	907,000t @1.3g/t Au and 76g/t Ag
Cu Au Sulphide	1,171,000t @ 1.1% Cu, 1.0g/t Au and 31g/t Ag
Polymetallic Sulphide	1,744,000@ 1.2%Cu, 0.6g/t Au, 67g/t Ag, 4.7%b& 2.4%Zn

Ore will be hauled direct to the ROM pad/crusher adjacent to the pit. Some 2.5Mt of mineralisation remains below the open pit. No underground mining of this remaining resource was contemplated as part of this study.





Figure 3- Isometric View- Trilogy Resource and Optimised Pit Shell

# **Processing Facility**

The processing facility is proposed to be located adjacent to the Trilogy open pit on the company's wholly owned 1200ha free-hold farm.



Figure 4: Trilogy Site Layout



The study contemplated a single crushing and grinding circuit with a notional 800,000tpa CIP circuit for production of gold and silver dore. A flotation circuit of similar size capable of producing copper, lead, zinc and zinc/lead bulk concentrates was configured to enable processing of material by the following routes.

- Trilogy Oxide and low copper Kundip material CIP only
- Kundip High copper oxide and sulphide material- flotation with subsequent CIP
- Trilogy Copper gold sulphide material- copper flotation only
- Trilogy Polymetallic material- copper flotation with subsequent zinc or lead or bulk zinc/lead flotation.

Due to the diversity in the metallurgical domains targeted for treatment, recoveries vary, these are summarised below

	Floatation	Leach	Concentrate
	recovery	recovery	grade
KUNDIP			
Oxide- Gold		95%	
Oxide-Silver		75%	
Sulphide Copper	85%		25%
Sulphide Gold	50%	90%	
TRILOGY OXIDE			
Gold		80%	
Silver		90%	
TRILOGY COPPER- GOLD			
Copper	75%		25%
Gold	60%		
Silver	50%		
TRILOGY POLYMETALLIC			
Copper- Fresh/transitional	75%-60%		25%
Gold	50-25%		
Silver	40-25%		
Zinc in zinc concentrate	50%		50%
Lead in zinc-lead bulk concentrate	13%		15%
Zinc in zinc-lead bulk concentrate	50%		35%
Lead in lead concentrate	50%		45%

Table 2- Metallurgical Recoveries



# Infrastructure, Tailings and Water Storage Facilities

Both mining centre's will have office workshop complexes.

A central miscellaneous license has been granted joining both mining areas which will allow centralised power generation and mine water storage. A power line and pipeline connection joining both operations minimises the requirement for dams at Kundip and multiple generating plants at either site.

The mines power generation in this study is contemplated to be provided onsite via diesel power generators located at Trilogy.

A thickened tailings product has been proposed with deposition into an integrated waste landform tailings dam constructed in four lifts during the life of mine. This facility will cater for 6.5Mt of total tailings. Mine water storage is proposed in a staged, expandable paddock style water storage facility with a total 54Ha surface area. This facility will handle all mine water storage requirements for both Kundip and Trilogy.

The company will house the construction workforce in the 88 man camp facility it owns in the town of Ravensthorpe.

# Marketing

Dore is assumed to be sold direct to the Perth mint/refiners.

Concentrates are assumed to be exported from the Esperance port with transport costs recognising the anticipated mode of transport. Concentrates containing lead are assumed to be containerised thus were assigned a higher transport cost.

All concentrates are assumed to be sold into the Asian market.

# Scheduling

Mill feed is initially sourced from the Trilogy oxide followed by a mix of Trilogy oxide and Kundip oxide material. Material thereafter is sourced both from Trilogy and Kundip.

Kundip scheduling aims to maximise gold output thus production from underground is scheduled for commencement in year three. Capital development of the underground mines is scheduled to commence at the end of year two, enabling rapid access to the higher grade material at depth. Open pit and underground mining at Kundip occur concurrently from year three to year six of the project life.



Overall contribution of material to the process plant from Kundip is exhausted at the end of the sixth year with material processed in the remaining life of project sourced exclusively from Trilogy

# Approvals

The company gained Ministerial approval for the project in 2006 under an Environmental Protection Statement. It is anticipated a revision, or section 45 (c) under the Environmental Protection Act, will be required to cater for the changes contemplated from the study assumptions to that proposed in 2006. The major departures from that study are;

- No requirement to construct an 18km haul road from Kundip to the previously assumed location for the processing plant at the Rav 8 mine site.
- Relocation of the proposed processing plant from Rav 8 to the freehold farming property owned by the company adjacent to the Trilogy orebody.
- An above ground tailing storage facility is now proposed, unlike the sub aqueous in-pit tailings storage method previously contemplated.
- Mining of the Trilogy deposit previously contemplated only excavating the oxide portion of the deposit with a minor contribution from the sulphide component. The Trilogy open pit will be considerably larger as a result of the improved overall economics of the deeper sulphide material

All tenements upon which mining is anticipated are on granted mining leases and relevant other miscellaneous leases required have been granted with no tenure issues outstanding.



## **Major Assumptions**

Commodity pr	ices	Au Ag Cu Zn Pb	\$900/oz US \$15/oz US \$2.50/lb US \$1.00/lb US \$0.85/lb US	
Exchange Rate		\$1AUD= \$0.75US		
Diesel Price (l	anded)	\$1.24/I AUD		
Concentrate T	reatment Charges	Cu Pb Zn Zn/Pb	\$50/t treatment, \$0.05/lb refining cost \$150US/t subject to normal deductions \$160US/t subject to normal deductions \$180US/t subject to normal deductions	
Capital	Processing Facility Support Infrastructure Tails/Water Storage Services Infrastructure Bonds UG Waste development Sustaining Capital	\$68 \$15 \$10 \$6.3 \$1.2 \$18.5 \$6.0	million AUD million million million million million million	

### Consultants Used

Mining and Cost Engineering Pty Ltd Coffey Mining Abesque Engineering Ltd Mineralurgy Pty Ltd Intermine Engineering Consultants Pty Itd Rockwater Pty Ltd P. O'Brien and Associates Pty Ltd Design Support Pty Ltd

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#### -ENDS-

### **Competent Person's Statement**

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Bruce Armstrong who is a Member of the Australasian Institute of Geoscientists. Mr Armstrong is a full time employee of Tectonic, and has sufficient experience which is relevant to the style of mineralisation under consideration to qualify as a Competent Person as defined in the 2004 edition of the JORC Code. Mr Armstrong has given his consent to the inclusion in the report of the matters based on the information in the form and context in which it appears. "This release may contain forward–looking statements. Forward-looking statements address future events and conditions and therefore involve inherent risks and uncertainties. Actual results may differ materially from those currently anticipated in such statements."