ASX/Media Release *5 December 2019*

Mount Mackenzie Scoping Study confirms potential for low-cost gold project - $13m capex, EBITDA $30.5m. Mineral Development License Granted.

Scoping Study highlights a strong case for development of open cut gold mining operations in Central Queensland with scope for growth in the resource by targeting the extent of the untested Primary Ore.

OVERVIEW

Resources and Energy Group Limited (ASX: REZ) announce the findings of a scoping study for its Mount Mackenzie Gold Project (MMGP) in the Bowen Basin, Queensland. The company also advises that a Mineral Development License (MDL) has been formally granted over the entire Mount Mackenzie Mineral Resource area. The effective grant date for the MDL is 1st November 2019. The MDL encompasses the current project area and all land required for its development.

The scoping study investigated a range of production and processing options and identifies a 300,000tpa open cut development with an onsite gold plant as the most appropriate case for the progression of the project to Feasibility Study. The processing plant is proposed to be a low cost modular crushing, grinding and CIL circuit.

An evaluation of the 300,000tpa option using a gold price of $2000 indicates the project would be a technically low risk operation supported by strong economic performance. The scoping study has also identified opportunity for a staged increase in plant capacity to 500,000tpa, and introducing a flotation circuit for recovery of a gold concentrate from the treatment of primary ore. This option requires further investigation but has potential to recover a larger part of the primary resource than currently envisaged.

The Mineral Resources in the proposed Life-of-Mine (LOM) schedule are estimated to be approximately 1Mt at 1.86 g/t gold (Equivalent) with gold production of 45,500 oz over 43months. In parallel with feasibility studies, further exploration work directed at upgrading and expanding the current JORC Resource of 2.37Mt at 1.31gpt gold and 8.2gpt silver will be implemented.

CAUTIONARY STATEMENT

The Scoping Study referred to in this announcement has been undertaken to provide guidence on the prefered scale of operations, processing options and potential economic perfomance of the Mount Mackenzie Mineral Resource. It is a preliminary technical and economic study of the potential viability of the Mount Mackenzie Gold Project. It is based on low level technical and economic assessments that are not sufficient to support the estimation of ore reserves. Additional exploration and evaluation work are required before the company will be in a position to estimate ore reserves or to provide assurance for an economic development case. The Scoping Study is based on the material assumptions which are outlined within this report. These include assumptions about the availability of funding. While REZ considers all of the material assumptions are based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved. To achieve the range of outcomes indicated in the Scoping Study, funding in the order of approximately $13million will be required. Investors should note that there is no certainty that the Company will be able to raise that amount of funding when needed. It is also possible or likely that such funding may only be available on terms that may be dilutive to or otherwise affect the value of the Companies existing shares. It is also possible that the Company could pursue other 'value realisation' strategies such as a sale, partial sale or joint venture of the project. If it does, this could materially reduce the Companies proportionate ownership of the project. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.

KEY POINTS:

- **Technically low-risk, shallow open cut gold mine.**
- **The Mineral Resources estimated in the Life of Mine (LOM) schedule are 1.05mt@1.78 gold and 7.79gt Silver**
- **LOM schedule estimate of 43 months.**
- **LOM strip ratio (W: 0) estimate of 0.9:1 (Bcm/t).**
- **LOM Gold production estimate of 43.2k oz of Gold and 242.4k oz of Silver**
- **C1 cash costs LOM estimate of $1,400/oz.**
- **Project CAPEX of approximately $13m, operating revenue $91m.**
- **Cash flow positive after 15 months from commencement of operations**
- **Projected EBITDA of $30.5m**
- **Potential to improve the economic performance and life of the project by targeting higher throughput capacity and producing a flotation concentrate from primary ore.**
- **Next steps include drilling to improve resource classification and test the suitability of ore for preparation of a flotation concentrate. Commencement of Feasibility study on the base case.**
- **Investigate satellite resources within EPM 1006 for resource growth and to sustain operations.**

SUMMARY

The Mount Mackenzie Gold Project (MMGP) scoping study was designed to focus on open cut mining and processing of three gold resources within the project area (The North Knoll, South West Slopes and Lode 355). The scoping study incorporates Indicated and Inferred Resources of 2.37Mt grading 1.31g/t Au for 100koz of contained gold and 2.37Mt grading 8.2g/t Ag for 624koz of contained silver. This JORC 2012 Mineral Resource estimate was reported to ASX on 7th September 2015 and is the basis for this scoping study. A copy of this Mineral Resource Estimate is attached in Appendix 1.

The scoping study was initially prepared in March 2018 by Minecore Pty Ltd, process design engineers, in association with Integrated Mining Services Pty Ltd for mine planning and design. This body of work has been updated by REZ personal and has been prepared to an accuracy of +/- 35% for operating and +/-50% for capital cost estimates. A complete list of parties participating in the study is provided in Appendix 2; Material Assumptions.

The scoping study identifies a 300,000tpa open cut development with an on-site gold plant which would process the oxide, transitional and a part of the primary resource as the preferred base case. The processing plant is proposed to be a low cost modular crushing, grinding and Carbon in Leach circuit.

For the 300,000ktpa base case, operating costs of between $32/t and $38/t milled are estimated. The capital required to bring the project into production is approximately $13m.

Pit optimisation and economic evaluation undertaken by REZ for the 300,000tpa leach only case indicates favourable project economics, with a pit resource of 1.05mt at 1.86g/t Au equivalent containing approximately 63,000oz Au (mined) and 45,500 oz Au equivalent (milled). The C1 cash cost for this production is estimated at $1,400/oz, and $58/t respectively. The financial performance of the base case is solid, and delivers operating revenue of $91m, operating costs including capital of $61m, and a free cash flow of approximately $30.5m.

The pit optimisation and economic evaluation used in the study is based on a Mineral Resource estimate which comprises a combination of Indicated (55%) and Inferred Resource (45%) blocks. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised. The Mineral Resource areas used for the scoping study production target are presented in Table 1 and Figure 1.

Area	North Knoll (Indicated)			South West Slopes (inferred)			Lode 355 (Inferred)		
Class	Waste (BCM)	Ore (t)	Au Equiv (g/t)	Waste (BCM)	Ore (t)	Au Equiv (g/t)	Waste (BCM)	Ore (t)	Au Equiv (g/t)
Oxide	385,866	276,740	1.47	411,529	204,661	1.81	14,673	8,676	4.11
Transitional	37,190	46,124	2.07	28,249	39,473	1.73	3,528	3,579	2.58
Fresh	183,168	252,105	2.08	174,510	208,700	1.92	3,560	6,608	3.20
Total:	**606,224**	**574,968**	1.79	**614,288**	**452,834**	1.86	**21,761**	**18,863**	3.50

Table 1 Waste and Ore volumes

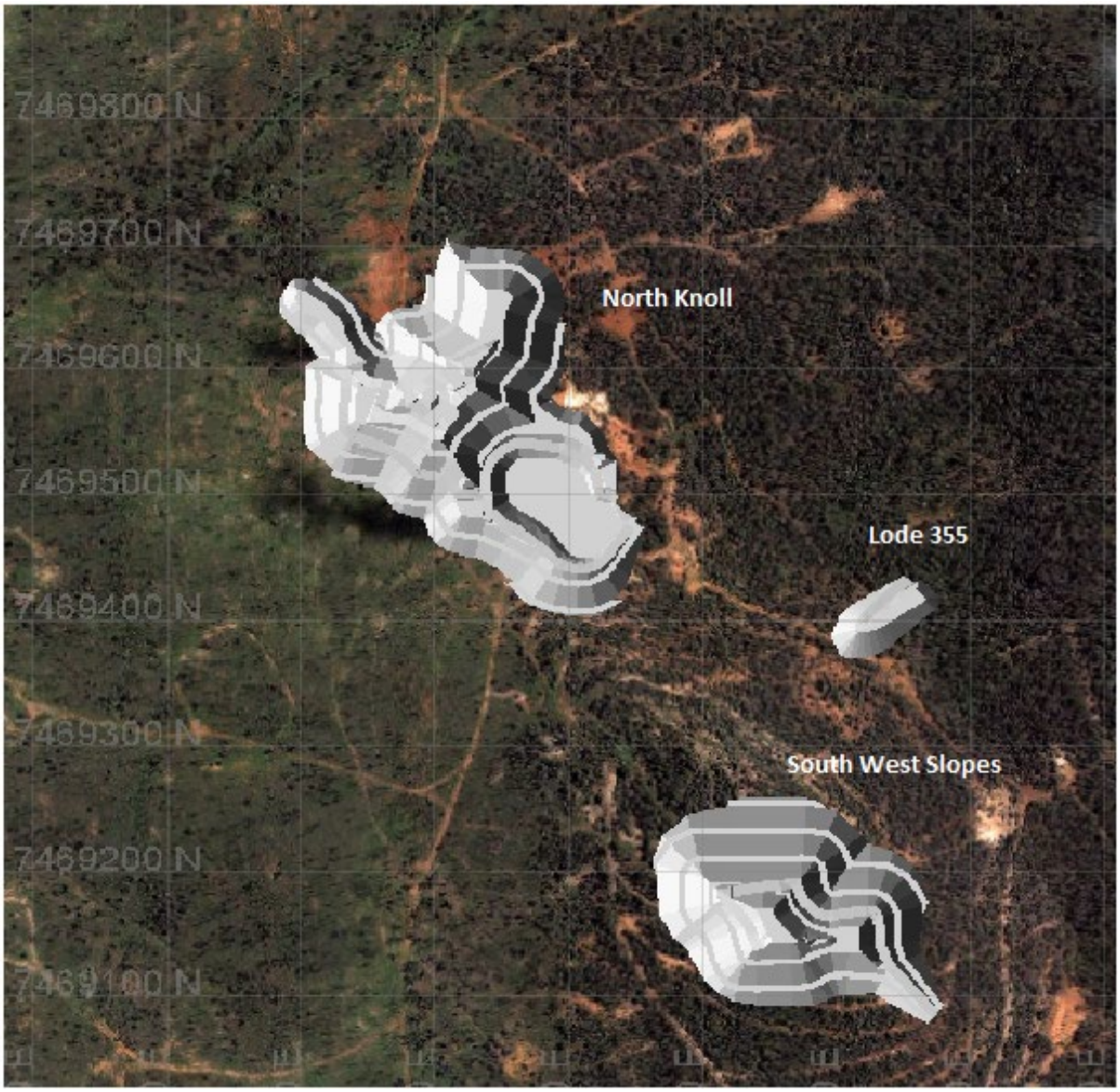

Figure 1 Mount Mackenzie Gold Project Preliminary Pit Layout

Commenting on the results of the Mount Mackenzie Scoping Study, REZ CEO said

"The outcomes of the Scoping Study based on the recently optimised Mineral Resource for the Mount Mackenzie Gold Project indicate the potential for development of a low cost and profitable project. The Study concludes that a mine life of about 4 years with production of 45koz gold would provide an attractive payback period of approximately 15 months based on an initial capital cost of approximately $A13m. The study has also indentified a potenital mining and process route which would enable recovery of a greater proportion of the Primary Mineral Resource than presently contemplated.

The Feasibility Study for the Project and the exploration potential in the immediate vicinity are priorities for the Company as we look forward to completing the project Feasibility Study. The Scoping Study has demonstrated that Mount Mackenzie has the potential to be a profitable development with considerable upside."

MOUNT MACKENZIE GOLD PROJECT SCOPING STUDY DETAILS

1.0 Project Location

The MMGP is located within the Broadsound Range on the eastern margin of the Bowen Basin 150km north west of Rockhampton. Access to the project site is 110 km north to Marlborough via the Bruce Highway (National Highway 1) then 50km west of Marlborough via the Marlborough Road-Sarina Road, refer figure 1. Marlborough offers basic facilities including accommodation, fuel, and emergency services. Major services and facilities are available at Rockhampton, a regional hub which supports most mining activity in Central Queensland.

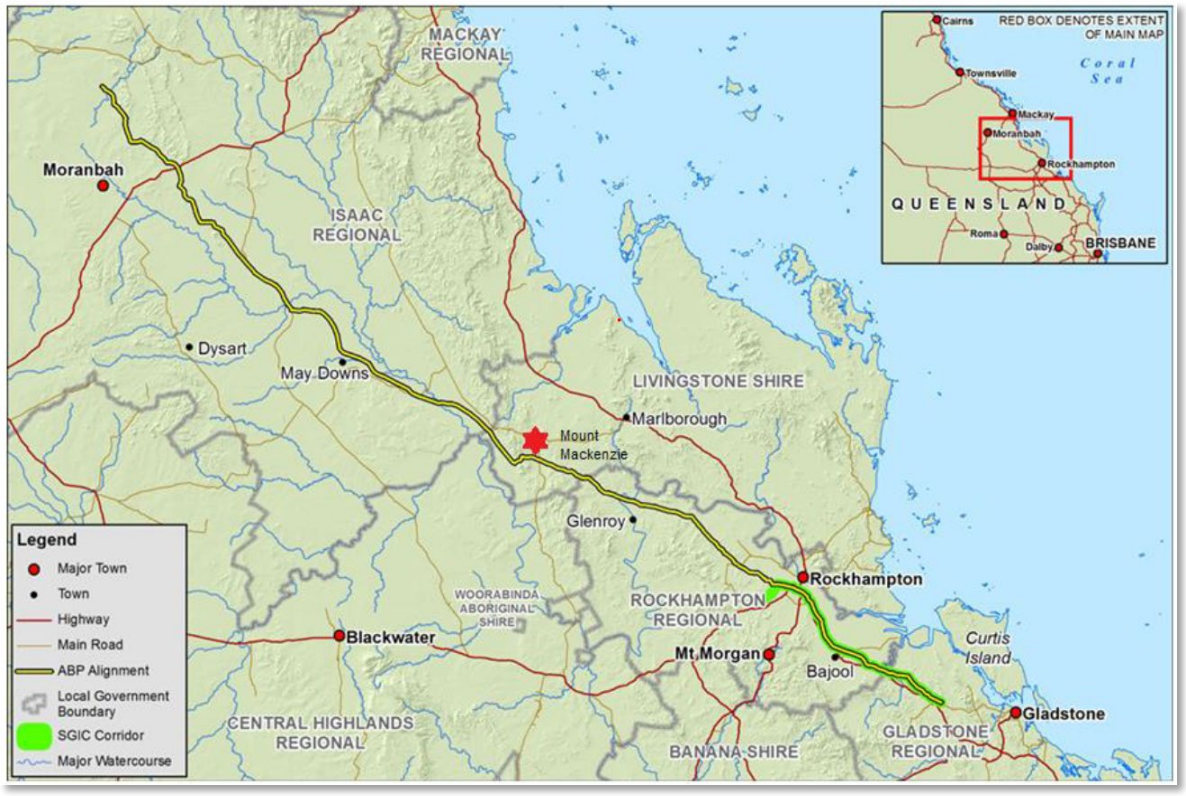

Figure 1 - Mount Mackenzie Gold Project Regional Location Map

2.0 Tenement Details and Planning Considerations

The MMGP is secured under Mineral Development License (MDL) 2008, which was granted to Mount Mackenzie Gold Mines on 1st November 2019 for an initial term of 5 years. Mount Mackenzie Gold Mines Pty Ltd is a wholly owned subsidiary of REZ. The MDL has a surface are of 1256ha which encompasses the total project site, including satellite prospects, refer figure 2. Mineral Development Licenses are a higher level of mining title and are issued in Queensland for advanced projects. Subject to the grant of an appropriate Environmental Authority, further exploration, trial mining and bulk sampling activities are permitted activities in a MDL.

A preliminary environmental and planning constraints assessment of the project site has been completed by COG consulting Pty Ltd. The assessment did not identify any Strategic Environmental Areas or Environmentally Sensitive Areas (ESA's) or protected flora survey triggers occurring on or within proximity to project site. The study concluded that the need

for an Environmental Impact assessment under the Environmental Protection Act 1994 (QLD) (EP act) was not considered likely. Rather, an Environmental Authority (EA) application will be submitted to and assessed by the Department of Environment and Heritage (EHP) as a site specific resource activity under the QLD EP Act.

A significant portion of the project site including road access is owned by the company. This includes land required for initial mine operations, waste emplacement, tailings storage and site infrastructure.

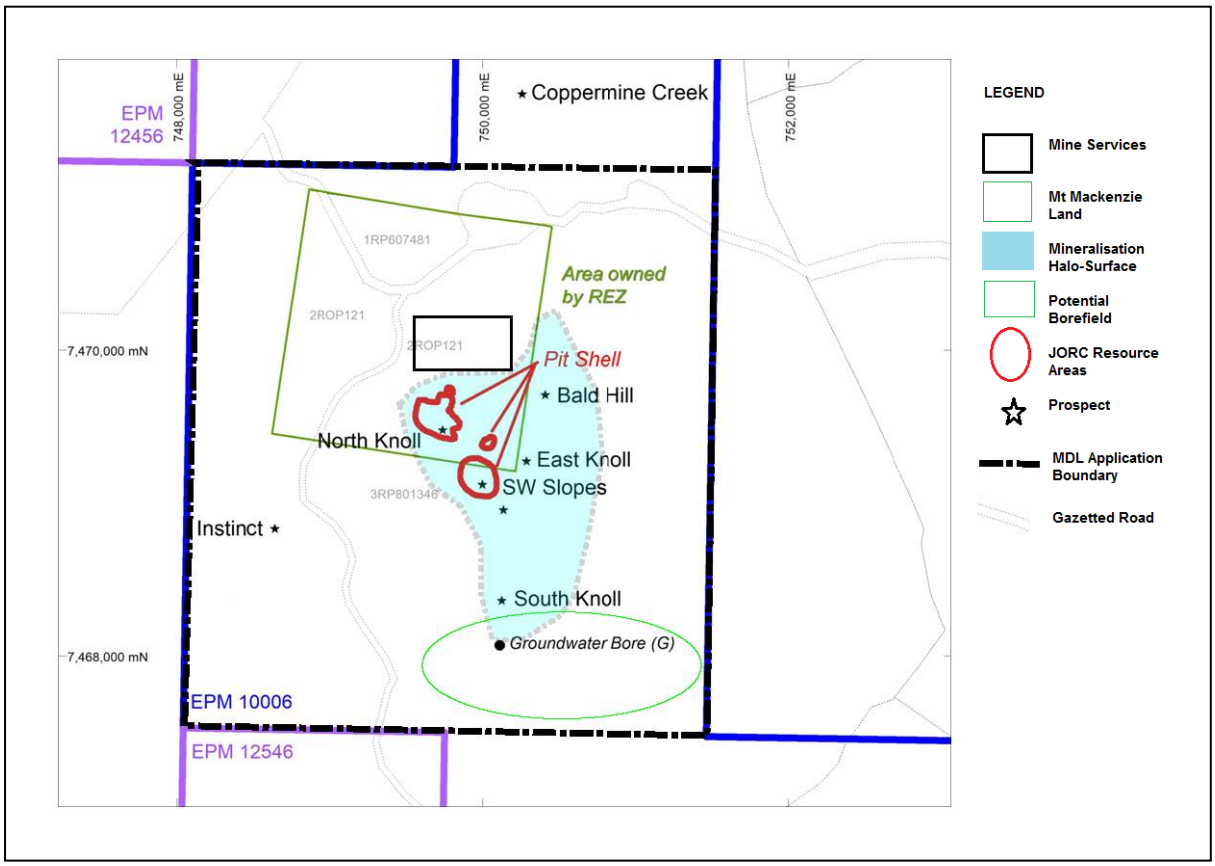

Figure 2 – Resource Areas and Prospect Location Map

3.0 Resource Description

The MMGP covers a sequence of Late Carboniferous rocks which have been subject to epithermal mineralisation and alteration. The mineralisation style is classified as a high level high-sulphidation epithermal gold system. The prospect displays the typical zonal relationships of a high sulphidation epithermal deposit, with the alteration decreasing in intensity outwards from the mineralised zone of vuggy silica, to zones of quartz-alunite (very low pH), pyrophyllite (low pH), illite (moderately low pH) and smectite (~ neutral pH) alteration. Typically, Au ore grades are associated with the vuggy mineralised silica and quartz-alunite zones.

The current Mineral Resource Estimate is located in three discrete zones of gold mineralisation; the North Knoll, the Southwest Slopes and a small outlier known as Lode 355. The main zones of gold mineralisation are quite broad, ranging from 30 to 60 meters in diameter, containing high grade cores ranging from 15 to 20 meters in the North Knoll and 25 to 30m in the South West Slopes, refer figure 3. This geometry is favourable from an

open cut mining perspective as it leads to reduced strip ratios, reduced ore loss and dilution and reduced grade control costs.

In August 2015, the Company released a Mineral Resource (JORC 2012) Estimate for the North Knoll, SW Slopes and Lode 355. This resource is based on a COG of 0.48 and 0.53g/t Au for Oxide and Primary ore respectively and presently stands at 2.3Mt at 1.3gt/au and 8g/t Ag, comprising;

- Total Indicated: 49,000 oz of Gold, and 455,000 oz of Silver
- Total Inferred: 51,000 oz of Gold and 179,000 oz of Silver

The Indicated resources are located wholly within the North Knoll area. The inferred resources are contained within the South West Slopes and Lode 355. These resource areas are spatially arranged in close proximity <100m of each other. The South West Slopes and Lode 355 inferred resources have been subject of significant exploration and would translate to the indicated class following completion of a small confirmatory drilling program and metallurgical testwork.

For the purposes of this scoping study all resources (Indicated and Inferred) have been considered for the generation of pit designs and resources.

The current mineral resource estimates for the North Knoll and South West Slopes have been constrained using pit shells derived from a mine pit optimization study using a combination of Whittle and Deswik mine planning software. The optimised pit shells for resource generation represents open cut excavation with overall batters of 38 degrees, depth ranging from 20 to 45m, and strip ratio of about 1bcm:1t.

Approximately 50% of the indicated and inferred resource is represented by near surface oxide mineralisation. The oxide resources are available from depths ranging from surface to about 40m. Drilling investigations have not closed off the primary mineralisation which is open at depth below the floor of the currently constrained resource. Further investigations into the extent and grade of primary mineralisation have been proposed.

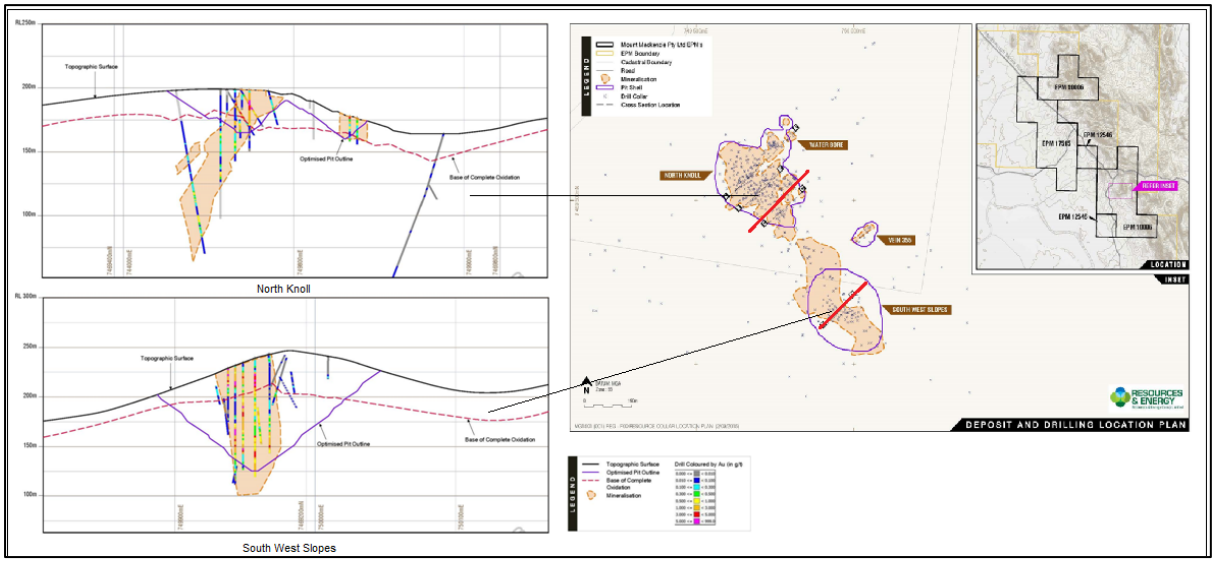

Figure 3 – Section and Plan View North Knoll and South West Slopes

4.0 Metallurgy and Processing

The mineralisation style at Mount Mackenzie is a high-level high-sulphidation epithermal gold system. Mineralisation is present as gold (free gold and rare electrum) and as sulphides (pyrite, chalcopyrite, tennantite, enargite, bornite, Sphalerite, and galena). Sulphide content within the primary ore zones is high with approximately 4.4% - 7.5% total sulphide in fresh ores and around 1% in transitional ores. The top 30-40 meters of the deposit has been weathered creating an oxide zone which represents 40% of the resource metal. The oxide zone has sulphide contents which are typically less than 1.0%.

4.1 Bench Scale Testwork

Australian Laboratory Services Pty Ltd (ALS) has completed several programs of metallurgical testwork on oxidised, transitional and primary ore samples from diamond core and RC chips. In general bottle roll tests on oxide material returned good gold recoveries; column leach tests gave low-moderate recoveries and bottle roll tests on sulphide material returned generally moderate-low recoveries. The low metallurgical recoveries for the sulphide samples are interpreted to be due to gold being locked up in the crystal lattices of the sulphides, and the presence of copper which may have inhibited recovery.

ALS have also examined the gold particle liberation size and leaching gold recoveries of representative samples. A total of 15 individual and 5 composite samples representing Oxide, Fresh and Transitional ore were prepared for direct cyanidation leach test work. These composites were then subjected to three levels of grind size, P_{80}: 150, 106 and 75 microns, the results for Gold Extraction are presented in table 1.

TEST ID	COMP	Grind Size P80 (µm)	Au Head Grade (g/t)		Au Extraction (%)					Au Tail Grade (g/t)	Reagents (kg/t)	
			Assay	Calc.	2-hr	4-hr	8-hr	24-hr	48-hr		NaCN	Lime
BK9822	702-OXIDE MASTER COMPOSITE	150	3.25/2.00	3.57	70.6	86.7	87.5	90.3	91.0	0.32	0.32	0.16
BK9823		106		3.28	73.1	88.8	90.1	89.7	91.8	0.27	0.25	0.21
BK9824		75		3.56	75.4	90.6	93.0	93.4	93.8	0.22	0.30	0.25
BK9825	702-FRESH MASTER COMPOSITE	150	1.13/1.28	1.32	33.1	42.0	47.5	55.5	59.7	0.53	0.40	0.34
BK9826		106		1.20	31.3	39.8	45.8	55.2	60.4	0.48	0.40	0.31
BK9827		75		1.29	33.7	42.8	50.1	61.0	64.7	0.46	0.39	0.41
BK9828	703-OXIDE MASTER COMPOSITE	150	1.29/1.18	1.37	86.3	91.6	92.2	92.7	94.2	0.08	0.33	0.64
BK9829		106		1.44	89.3	92.9	92.9	93.4	95.8	0.06	0.33	0.65
BK9830		75		1.39	89.2	93.9	95.0	94.5	95.0	0.07	0.37	0.68
BK9831	703-FRESH MASTER COMPOSITE	150	1.54/1.56	1.62	44.5	47.7	49.0	50.7	52.4	0.77	0.95	1.41
BK9832		106		1.53	47.7	48.7	50.6	52.9	53.8	0.71	0.94	1.52
BK9833		75		1.53	51.4	53.3	54.7	56.1	55.6	0.68	1.00	1.52
BK9834	TRANSITION MASTER COMPOSITE	150	3.43/3.07	3.32	58.8	62.8	65.8	73.1	78.9	0.70	0.40	1.44
BK9835		106		3.34	58.4	63.7	68.0	74.7	80.5	0.65	0.44	1.36
BK9836		75		3.66	62.3	65.9	69.0	77.5	82.8	0.63	0.40	1.53

Table 1 Crush Sizes and Leach Kinetics

The metallurgical program included testing for Bond Work and Abrasion Index, SMC testing, leach recovery and leach diagnostic tests on crushed bore core, with the following summary results;

- Bond Work index kWh/t (9.5-12) in all classes of ore
- Abrasion Index (0.1-0.3) in all classes of ore
- Gold recoveries (24 hour residence time);
    - Oxide ores: 91-96%

- Transitional ores: 79-82% and,
- Primary ores: 52-64%.

- Silver recoveries
  - Oxide ores: 80-92%
  - Transitional: 53-67% and,
  - Primary: 30-48%

The lower recovery in the primary ores requires further investigation and testwork. Initial leach diagnostic test results indicate the presence of refractory gold which will require additional grinding or sulphide oxidation to improve recoveries. A flotation and concentrate regrind testwork program is proposed to investigate these options. The results of the testwork will help to identify and define a pathway for treatment of primary ore and the suitability of incorporating this process option into the Mount Mackenzie plant design as oxide reserves are depleted.

Recoveries in oxide ore are indicated to be of the order of 95% at a grind size of P106µm for a 24 hour leach time. It is likely that higher recoveries would be achieved with a finer grind size.

Metallurgical test work has shown that the oxide and to a lesser degree, the transitional ores have favourable processing characteristics and it is likely that a low-cost CIL/CIP processing plant could be constructed to enable economic recovery of contained Gold and Silver from the oxide ore and transitional ore.

4.2 Preliminary Flowsheet

Minecore Pty Ltd was engaged to review the metallurgical results obtained by the Company and prepare a preliminary flowsheet and cost schedule for the MMGP. Based on this information Mincore selected the following flowsheet;

- Stage 1 Oxide (including transitional and some primary ore): scrubber and 2 stage crushing circuit to achieve a primary mill feed size of 12mm and product size of 106 microns. Gold recovery is achieved using a standard CIL circuit.
- Stage 2 Sulphide (fresh ore): treated using a flotation, flotation concentrate regrind, and CIL of the ground flotation concentrate, subject to further metallurgical test work.

Recovery of gold from the sulphide concentrate (Stage 2) has not been comprehensively tested and has not been financially modelled in this Scoping Study, with assessment deferred for further feasibility work.

Process design and cost studies indicate that the Stage 1 processing circuit can be built at a very low capital cost, since neither fine grinding nor whole ore flotation is required.

The need for a scrubber circuit will be dependent on the characteristics of the oxide ore. It is likely that the oxide ore can be simply directly crushed for feeding the plant. The scrubber will become redundant as the mining schedule moves into transitional ores. The option of the scrubber requires further review as the oxide ore at Mount Mackenzie could be crushed and directly fed into the grinding circuit.

The current conceptual flow sheet for Stage 1 consists of:

- Scrubber and Crushing
- Comminution and Classification
- Leaching
- Elution and Gold Recovery
- Tails Disposal

4.3 Throughput Optimisation

To maximise value from the ore body a range of different mill sizes were assessed at a high level to establish the optimum mill sizing for the different processing options. For this level of study Minecore determined the optimum mill size using a range of Bond Work index results from work carried out on composite samples. Based on this work a 450Kw mill was selected which provided throughput capacity of 38tph at a grind size of 106 microns, figure 5.

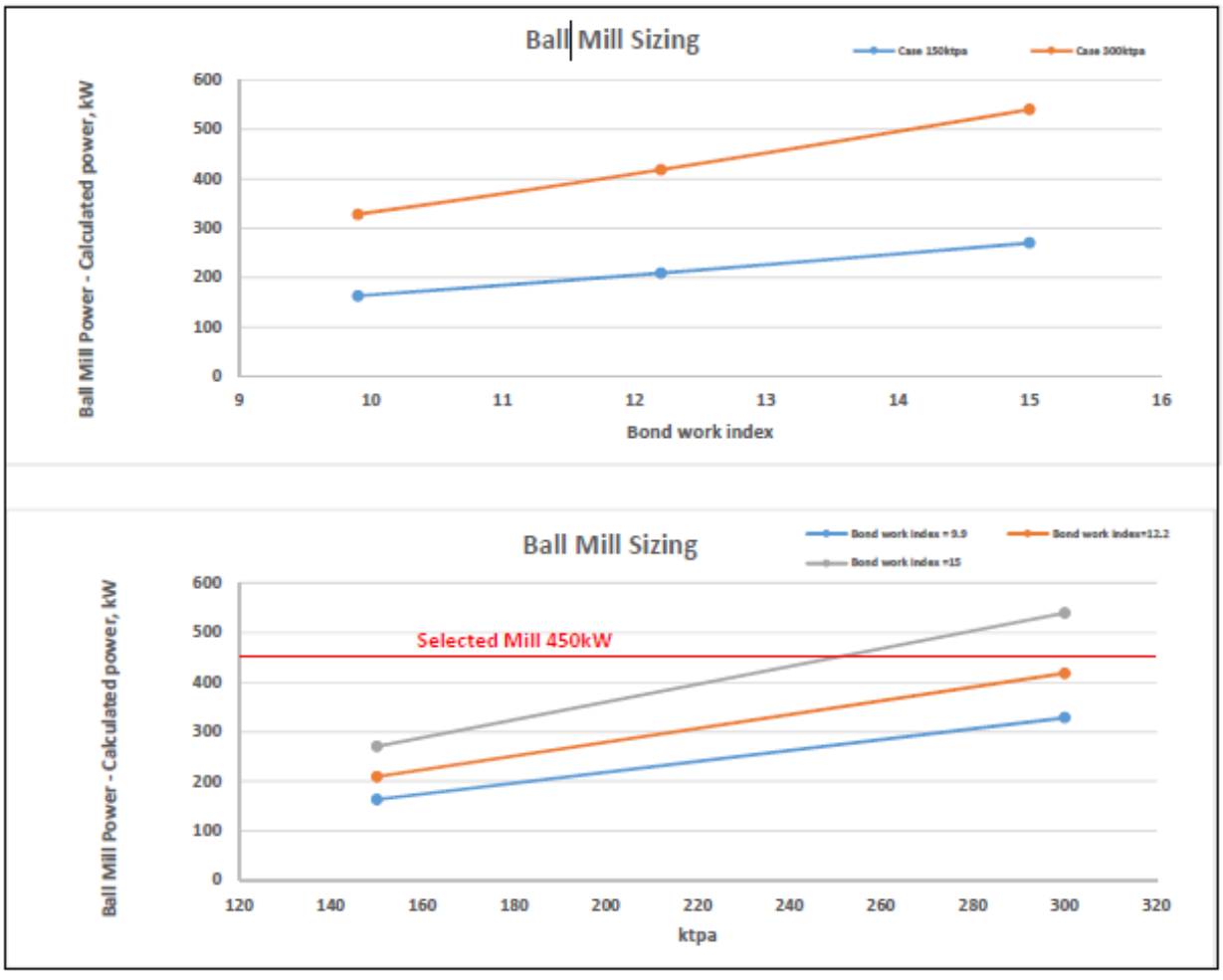

Figure 5 Ball Mill Sizing Criteria

4.4 Processing Operations

The processing plant is proposed to be a low cost modular crushing, grinding and CIL circuit with total gold recovery of 90-95% on oxide ore reducing to 53% on primary ore where

further processing of the sulphide ores maybe justified to increase the recoveries (Stage 1). The additional treatment of primary ore for recovery of a flotation concentrate (Stage 2) requires further investigation, and has not been included in the capital or operating costs estimates provided in this Scoping Study.

(Stage 1): The circuit is to process up to 40tph of run-of-mine ore. The run of mine material will be delivered directly to the scrubber by front end loader-Figure 6.

- Primary Circuit - The facilities include Scrubber, crusher and cyclone are arranged in a closed-circuit. The product from the scrubber is feed into a crusher, then the crusher discharges onto the vibrating screen. After screening the fine material will be collected as a pile.

- Secondary Circuit – 450kW Ball mill is operated in a closed circuit with a cyclone cluster, tank disposals and elution. Operated in this manner control of intermediate size left from screen splits will be possible and grinding efficiency will be improved. The cyclones in the circuit will produce feed for the discharge of the ball mill. Fine material from cluster cyclone is feed into the tank disposal. The loaded carbon is fed into the elution reactivation carbon. The final plant tailings will be pumped from the plant to the tailings dam. The dam will be located approximately 0.5 km from the plant.

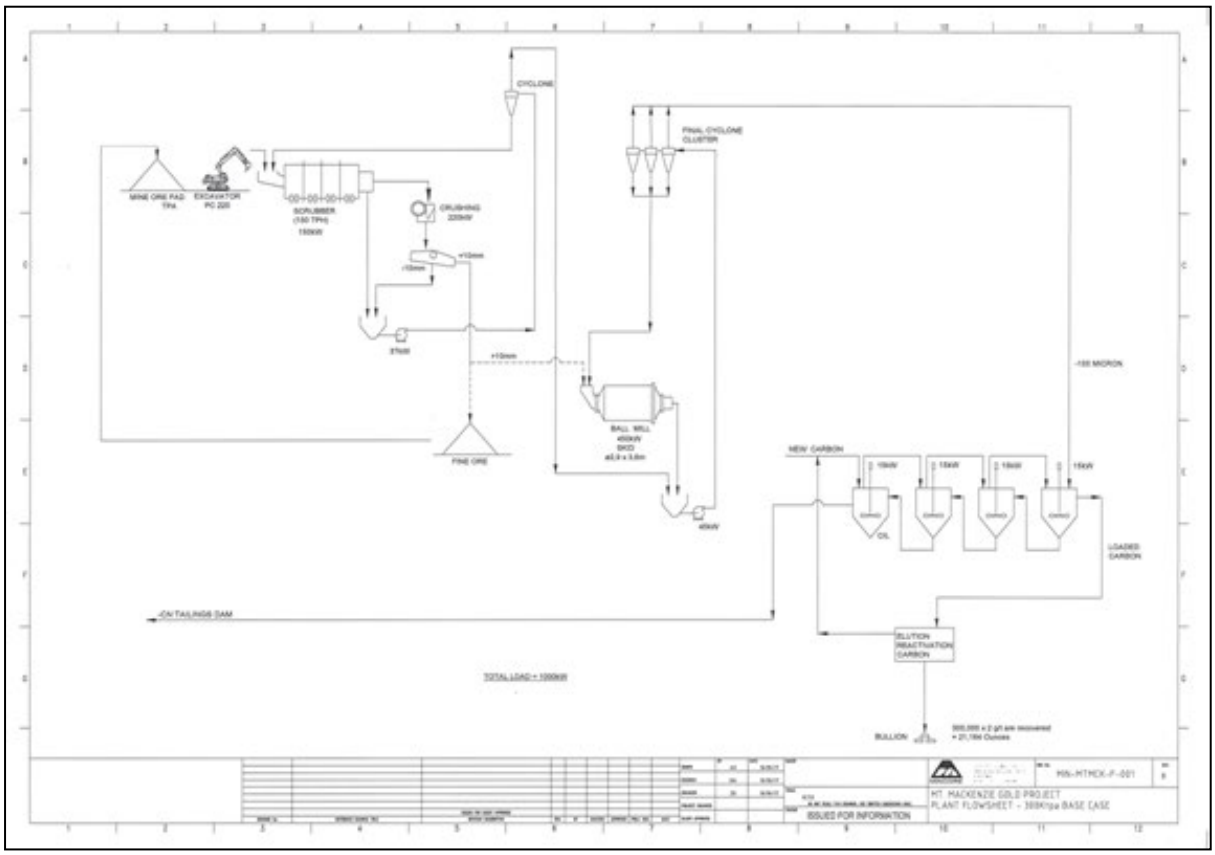

Figure 6 Stage 1 Preliminary Process Flowsheet

(Stage 2): This optional circuit is to process up to 40tph of fresh run-of-mine ore for recovery of a flotation concentrate. The run of mine material will be delivered to the

scrubber by a front-end loader. The concept is subject to validation via additional metallurgical test work-Figure 7

- Primary Circuit - The facilities include scrubber, crusher and cyclone which are arranged in a closed-circuit. The product from the scrubber is fed into a crusher, then the crusher discharges onto the vibrating screen. After screening the fine material will be collected as a pile.

- Secondary Circuit – 450kW Ball mill is operated in a closed circuit with a cyclone cluster, flotation circuit, tank disposals and elution. Operated in this manner control of intermediate size left from screen splits will be possible and grinding efficiency will be improved. The cyclones in the circuit will produce feed for the discharge of the ball mill. In this flowsheet, all ore is processed through the same crush, grinding, and rougher flotation circuit, as stage 1, before dividing into separate treatment process for Au concentrate and Ag concentrate. The flotation rougher concentrate is fed through a regrind circuit and then to a flotation cleaner/scavenger circuit before being fed to the leach circuit.

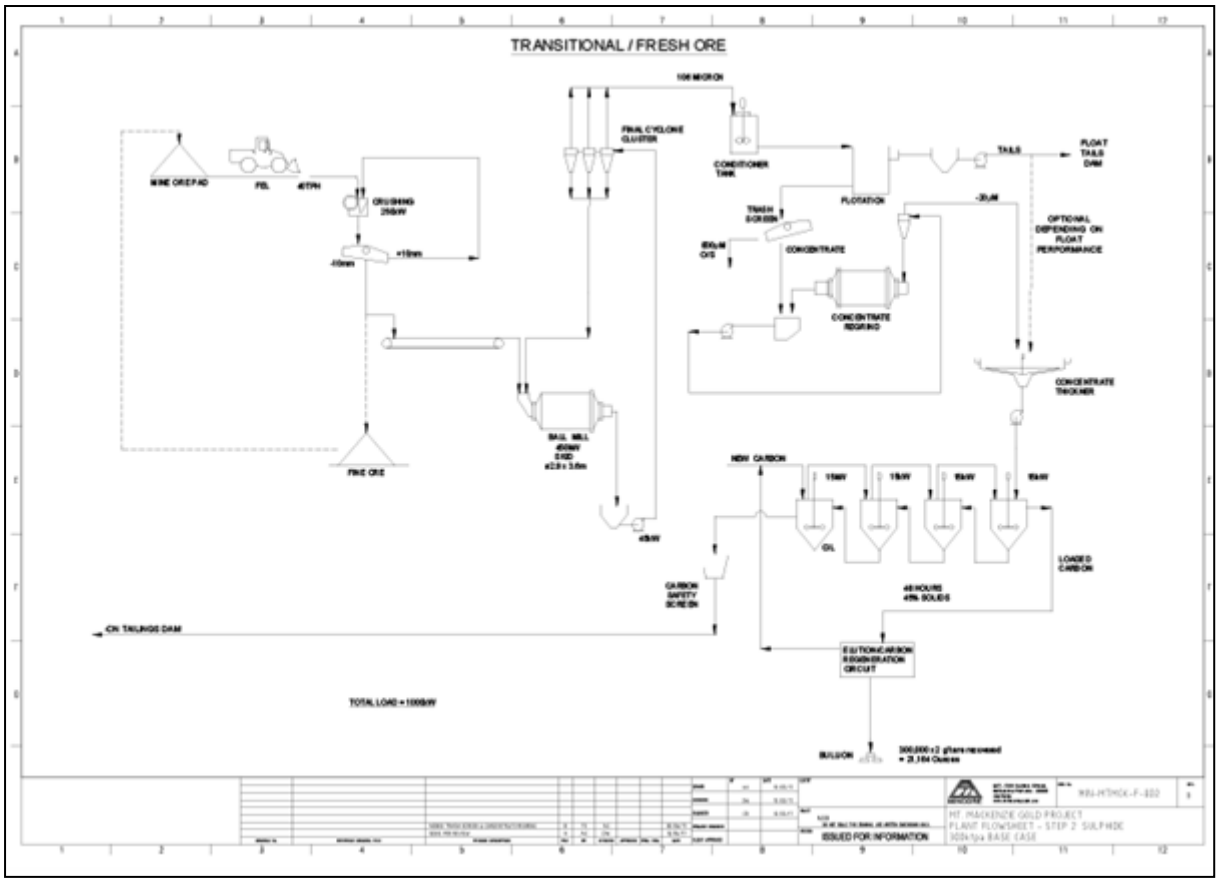

Figure 7 Stage 2 Preliminary Process Flowsheet

5.0 Infrastructure

Infrastructure required to support the Project includes:

- Water Storage dam
- Tailings dam
- Borefield
- Connection to grid power (1MW)

In addition to the major items of power and water supply there are some light infrastructure items required which include the following;

- A workshop for mining and fixed machinery maintenance and repair
- Light vehicle workshop
- Security, public car park and offices
- Explosives magazine
- Emergency response equipment
- Core shed

5.1 Power

It is proposed to connect to Ergon Energy's local power grid which is approximately 3 kilometres north of the project site. Summary of this Zone for Middlemount NCC RATING (MVA) 12 is the peak Load ranges from 3.8 to 4.8 depending on winter or summer peak loads, which should suit the 1MW estimated base case power draw.

5.2 Water

Water for the project will be sourced from a borefield located in alluvial aquifers 1km to the south west of the project site. Water will also be recirculated from the treatment plant settling tanks and dams.

5.2.1 Pit dewatering

Exploration drilling records indicate that the mineralised areas host low yielding hard rock aquifers, and should dewater relatively quickly, with little or no potential for recharging once mining operations commence. Dewatering of the pits will be via trailer mounted diesel pumps if required.

5.2.2 Process Water

The MMGP will use a CIL gold recovery process, requiring approximately 2.3 tonnes of water per tonne of ore processed.

It is estimated that the Tailings Storage Facility water return will approach steady state after around two months of operations. Minecore have estimated that a processing rate of 300,000 tonnes per year of ore, the first two months of operations will require a total of 65ML of water, with makeup water at a rate of about 51ML per year required from month three onwards, as shown in Table 2 below.

5.2.3 Dust Abatement

A truck mounted water tanker will be used for dust suppression around the mine and ROM stockpile areas. Water will be supplied from a bore field into a raw water dam before delivery to the tanker via a standpipe.

AREA		Factor	Yearly ML	Daily ML
1) FEED				
Total ore tonnage			300,000	1,000
Water in feed		7%	22,581	75
Process water per dry tonne		2.3	690,000	2,300
2) PROCESS				
Fines				
Cyclone split to fines	Solids	20%		
	Water	50%		
Fines tonnage to TSF			60,000	200
Water to TSF			345,000	1,150
Water from TSF at 65% settled density		65%	312,692	1,042
Water retained (after decanting) in fines in TSF			32,308	108
Coarse				
Cyclone split to coarse stockpile - solids		80%		
Cyclone split to coarse stockpile - Water		50%		
Coarse tonnage			240,000	800
Water to coarse SP			345,000	1,150
Water retained in coarse SP		10%	26,667	80
Water recovered from coarse SP			318,333	1,070
Water recycled			631,026	2,112
Water retained in TSF and coarse SP			58,974	188
Makeup water required (total retained - water in feed)			36,394	112
3) DUST ABATEMENT			15,000	50
4) INITIAL WATER REQUIREMENT				
Months before TSF water return / Total makeup water required for the period		2	60,681	
Plus first fill			2,800	
Plus process water dam			2,800	
Total initial water required over first two months			66,281	

Table 2 Water Balance Estimate (300ktpa option)

5.2.4 Water Discharge from Site

The Tailings Storage Facility (TSF) is planned to be located alongside the processing plant. Sediment settling dams will also be constructed to settle out particulate matter prior to discharge from the site.

Site discharge water is expected to be of a quality that is suitable for release into the local waterways. If excess water is produced from pit dewatering activities, then dewatering bores may need to be located beyond the edge of the pit so that clean water can be directly discharged into local waterways.

The major environmental issues involving surface and groundwater that are likely to need to be resolved in developing the two pits are identified as:

- Volumes that can be sustained by abstracting from the local aquifers;
- Impacts experienced by local users and the environment, in terms of drawdown, interactions with surface water and impounded process waters;
- Avoidance measures and mitigations (e.g. compensation to bore owners, alternative sources, storage and reuse of water) proposed in order to deal with any adverse impacts envisaged.

5.3 Site Works

The existing site entrance off Marlborough-Sarina Road will be the road access point into the project site, with the intersection requiring minor upgrades to meet Queensland RMS requirements. As the lead in from Marlborough road to the mill area is estimated at less than 300m, road upgrade costs will be very minor.

The plant and administration areas are on relatively flat lying ground adjacent to the site entrance and land-forming costs will be low.

6.0 Processing Plant Operating Costs

The key operating costs based on the 300,000tpa base case plant were estimated from a combination of Mincore benchmarks and operating costs provided by IMS.

A total processing unit cost of approximately A$24.3/tonne of ore treated is estimated. An additional A$5.5/tonne is estimated for administration costs for a total (excluding grade control and mining) of A$29.75/tonne-Table 3

Processing Criteria			
Throughput Tonnes Per annum			300,000
Source			Gold
Operating Hours Tonnes per annum			8,000
Throughput Tonnes per hour			38
Area	**Estimated ($/pa)**	**$/tonne**	**% Fixed**
Processing Manning	1,866,000	6.22	27.30%
Power	2,240,000	7.47	32.80%
Consumables	1,315,000	4.38	19.20%
Maintenance	716,000	2.39	10.50%
General and Administration	701,000	2.34	10.30%
TSF Allowance	300,000	1	4.10%
Water Allowance	144,000	0.48	2.00%
Processing Total	7,282,000	24.27	100.00%
Administration Total	1,643,000	5.48	100.00%
Total Processing and Admin	**8,925,000**	**29.75**	**100.00%**

Table 3 Processing Cost Estimates

The operating costs presented in Table 3 exclude the following;

- Mining costs

- Grade control
- Treatment and refining costs
- Royalties

For comparison, processing costs have been estimated by Minecore at different plant factor scales using a fixed and variable factor to each of the cost areas. The results of processing cost at different plant scales are presented in the following table 4. This table indicates opportunity to improve the financial performance of the project by increasing throughput capacity to 500ktpa.

Area	Fixed %	120ktpa	140ktpa	150ktpa	300ktpa	500ktpa	800ktpa
Processing Manning ($/t)	90%	14.6	12.6	11.8	6.2	4	2.7
Power ($t)	0%	7.5	7.5	7.5	7.5	7.5	7.5
Consumables ($/t)	0%	4.4	4.4	4.4	4.4	4.4	4.4
Maintenance ($/t)	80%	5.3	4.6	4.3	2.4	1.6	1.2
General and Administration ($/t)	0%	2.3	2.3	2.3	2.3	2.3	2.3
TSF Allowance ($/t)	30%	1.5	1.3	1.3	1	0.9	0.8
Water Allowance ($/t)	20%	0.6	0.6	0.6	0.5	0.4	0.4
Processing Total ($/t)		33.3	30.3	30.6	24.3	21.7	20.6
Administration Total ($/t)	80%	12	8.8	8.2	5.5	3.4	2.6
Total Processing and Admin ($/t)		48.2	39	38.8	29.8	25.2	23.2

Table 4 Unit Operating Cost Estimates at different Mill Scales

6.1 Estimated Processing Plant Capital Cost

A Class 5 Capital estimate (accuracy of estimate +/-50%) has been completed by Mincore for production scales ranging from 120ktpa to 800ktpa.

For the assumed base case of 300ktpa, the total capital for the processing plant and key infrastructure is estimated to be $12.34m, refer table 5.

Note that the power supply is on a leased basis.

The capital cost estimate prepared by Minecore has included an option for the outright purchase, relocation and upgrading of used equipment. A plant with a design capacity of 120ktpa has been identified and has been included for reference and comparison with the new plant alternatives.

The capital costs presented in table 5 includes provision of $2M for the following additional pre-development activities;

- Mining capital
- Owners costs
- Pre-construction costs
- Studies
- Exploration, resource and reserve drilling

Scale	120ktpa	140ktpa	150ktpa	300ktpa	500ktpa	800ktpa
Area	**Used Plant ($)**	**New Plant ($)**				
Total Direct Costs	4,875,000	3,680,000	3,835,000	5,813,000	7,898,000	18,843,000
Indirect Costs						
Engineering and Procurement	300,000	300,000	313,000	474,000	644,000	854,000
Eng & Construction Supervision	69,000	69,000	72,000	109,000	149,000	197,000
Light vehicles	52,000	52,000	54,000	82,000	112,000	148,000
Additional EES costs	26,000	26,000	27,000	41,000	56,000	74,000
First Fills (lime/cyanide/balls)	95,000	95,000	99,000	150,000	204,000	271,000
FEL	156,000	156,000	162,000	246,000	335,000	444,000
Total Indirect Costs	698,000	698,000	728,000	1,103,000	1,499,000	1,987,000
Site Specific Costs						
HV Power line (2km)	100,000	100,000	100,000	100,000	100,000	100,000
Water Supply -Borefield	250,000	250,000	250,000	250,000	250,000	250,000
Water Supply -Reticulation	250,000	250,000	250,000	250,000	250,000	250,000
Total Process Plant and Infrastructure	6,871,000	5,676,000	5,890,000	8,618,000	11,497,000	23,418,000
Contingency and Design Growth (@ 20%)	1,374,200	1,135,200	1,178,000	1,723,600	2,299,400	4,683,600
Predevelopment Activities	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Total Capital Costs	**10,245,200**	**8,811,200**	**9,068,000**	**12,341,600**	**15,796,400**	**30,101,600**

Table 5 Project Capital Cost Estimates

7.0 Mining Cost Estimate

Integrated Mining Solutions Pty Ltd were engaged to prepare a preliminary mine plan and a mining equipment and cost schedule for the project. The broad geometry of the ore bodies and favourable topography result in a low strip ratio of about 1:1 (Bcm: t), with an overall total materials movement of between 1000-600bcm/day. This is best achieved by dayshift only mining with a digger of between 65t and 90t in a mass excavation configuration. A fleet of four 40t class articulated dump trucks would be a well suited match for the excavator, with an ancillary grader, dozer (D8 or equivalent) and water cart (15kl) to complement the fleet.

Mining would be conducted with a single crew of workers on a 12 hour 4:3 roster (e.g. Monday to Thursday) or an 8 hour 5:2 roster (e.g. Monday to Friday), with flexibility to increase or decrease mining rates via an increase or reduction of working hours. It is noted that the capacity to source a local workforce requires further investigation. Staged pit designs would be used to smooth out working capital requirements and ore supply but have not been allowed for in this study.

Mining costs used in the study are based on an owner operator model, utilising used, leased earthmoving equipment with moderate hours. Such equipment is readily available with an appropriate fleet costing around $M1.5 with financing at rates of 6% used for cost estimation. Pit ramps have been positioned to take advantage of the topography and to

minimise vertical haulage distances, with pit base to ramp crest being a maximum of 30m in North Knoll and 45m in South West slopes.

7.1 Mining Costs

Unit Mining Costs are presented in table 6 and are based on an average three truck circuit in ore and waste. These costs include fleet leasing charges for primary mining equipment which allows for a 6% interest rate and 40% residual value over a 24 month lease.

Area	Annual	Per Week	Per BCM
Fuel (Net rebate)	$302,907	$5,825	$0.63
Lease Cost	$513,000	$10,688	$0.70
Tyres/GET	$23,161	$445	$0.05
Maintenance Consumables	$132,118	$2,541	$0.28
Wages - Load and Haul	$1,220,269	$23,467	$2.04
Drill and Blast	$645,840	$12,420	$1.35
Technical Services	$528,000	$6,692	$0.73
Total	$2,191,456	$42,143	$5.77

Table 6: Mining Costs Estimates

The drill and blast costs have been calculated on the assumption that light blasting is required in the oxide material. It is possible that all or part of the oxide zone will be free digable. An additional cost factor of 1.20 from oxide to transitional and fresh ore has been applied to these costs in the financial analysis.

8.0 Geotechnical Assessment

A preliminary slope stability analysis for the project was undertaken by Turner Mining and Geotechnical Pty Ltd. Data was limited for the study and only included logging and structural information from 2 core holes drilled through the ore-body. The stability analysis indicated the northern slopes have an elevated potential for wedge failure. The slope design guidelines have taken this into account and are reproduced below in Table 7.

For detailed design, additional diamond drillholes are recommended into proposed open pit walls at various orientations and dips. This work will be the basis of a more comprehensive geotechnical study to be used as final inputs to the pit optimisation and design work for future Feasibility Study.

Area	Surface to 40m	North	East	South	West
Bench Face Angle	50^0	60^0	70^0	70^0	70^0
Berm Width	5m	8m	5m	5m	5m
Bench Height	20m	20m	20m	20m	20m
Inter Ramp Slope Angle	40^0	46^0	58^0	58^0	58^0

Table 7: Pit Slope Criteria

9.0 Pit Optimization

A series of pit optimisations utilising the capital, operating and pit design criteria described in the preceding sections of this report has been carried out. This work has used a combination of Whittle and Deswik mine planning software. The analysis has also incorporated a number of other physical and unit cost inputs which are provided in Tables 6 and 8. As a result of this work the pit optimisation for the 300,000tpa leach only base case indicates favourable project economics, with an economic pit resource of 1.05mt at 1.86g/t Au equivalent containing 62koz Au equivalent and 45.5koz Au equivalent recoverable.

Base Case Inputs	
Physical Inputs	
Mining Ore Loss	5%
Mining Dilution	5%
Au Oxide CIL Recovery	93.30%
Tran CIL Recovery	76.00%
Au Fresh CIL Recovery	54.70%
Ag Oxide CIL Recovery	87.60%
Ag Tran CIL Recovery	54.10%
Ag Fresh CIL Recovery	35.20%
Throughput factor for fresh	83.30%
Cost Inputs	
Au Price/$oz	$2,000
Ag Price/$oz	$22.50
Au Equivalents	Au + (22.5/1650) x Ag x 0.94
Processing Costs ($/t Processed OX/TR)	$24.27
General and Administration Costs ($/t OX/TR Processed)	$5.48
Grade Control Costs ($/t)	$2.00
Offices and site consumables ($/t)	$0.65
Total Costs ($/t OX/TR Processed)	$32.40
Total Costs ($/t FR Processed)	$38.88

Table 8 Base Case Inputs

10.0 Open Pit Design

Preliminary open pit designs have been developed utilising the slope design parameters determined by Turner Mining and Geotechnical (Section 8). Ramp widths and grades suitable for articulated dump trucks have also been utilised.

Grades and tonnes are within the volumes and tolerances for the optimised pit shells however the total material movement between the designed and optimised shells differs slightly. This is due to the strategic positioning of ramps and associated increases and decreases in slope angles and corresponding changes in waste stripping requirements. Material flows have also been smoothed out to deliver a consistent mix of oxide and fresh

ore over the Life of mine Schedule. In practice this production mix would better managed by detailed scheduling and maintaining plant feed from ROM stockpiles. However, these aspects have not been considered in this Scoping Study.

The pit designs adopted for this Scoping Study are presented in figure 8. These preliminary design shells collectively require the removal of 1.24mbcm of waste for the recovery of 1.05mt of ore with a diluted head grade of 1.79gt/t au equivalent. The economic resource is distributed over three pits, known as the North Knoll, the South West Slopes and Lode 355, refer table 9.

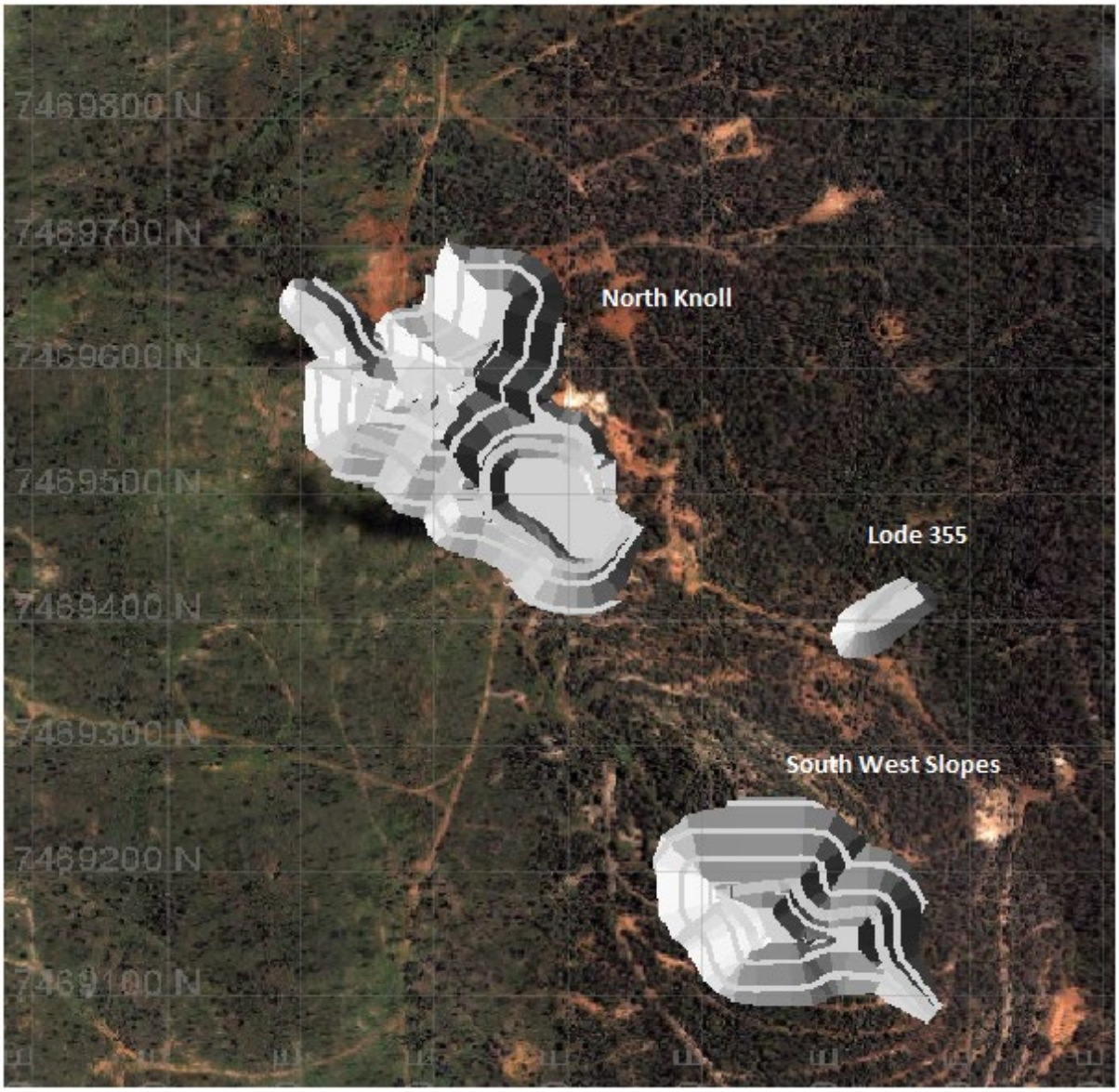

Figure 8: Pit layout

Area	North Knoll (Indicated)			South West Slopes (inferred)			Lode 355 (Inferred)		
Class	Waste (BCM)	Ore (t)	Au Equiv (g/t)	Waste (BCM)	Ore (t)	Au Equiv (g/t)	Waste (BCM)	Ore (t)	Au Equiv (g/t)
Oxide	385,866	276,740	1.47	411,529	204,661	1.81	14,673	8,676	4.11
Transitional	37,190	46,124	2.07	28,249	39,473	1.73	3,528	3,579	2.58
Fresh	183,168	252,105	2.08	174,510	208,700	1.92	3,560	6,608	3.20
Total:	**606,224**	**574,968**	1.79	**614,288**	**452,834**	1.86	**21,761**	**18,863**	3.50

Table 9 Waste and Pit Volumes

All of the resources within the North Knoll (575,000t or 55%) are classed as indicated. The remaining resources have been assigned as inferred. The resources in the South West Slopes and Lode 355 would translate to the indicated class following completion of a small program of confirmatory drillings and metallurgical evaluation.

10.1 Open Pit Schedule and Cashflow Model

A dayshift only mining schedule has been sequenced to mine the North Knoll first, followed by Lode 355 and the South West Slopes. This approach enables initial mine operations in an area of very low strip ratio (<0.5:1), in close proximity to processing and waste emplacement areas, and within resources which are primarily indicated class (91% Yr1 and 62% Yr2). The yealy distribition of resource by class is presented in figure 9.

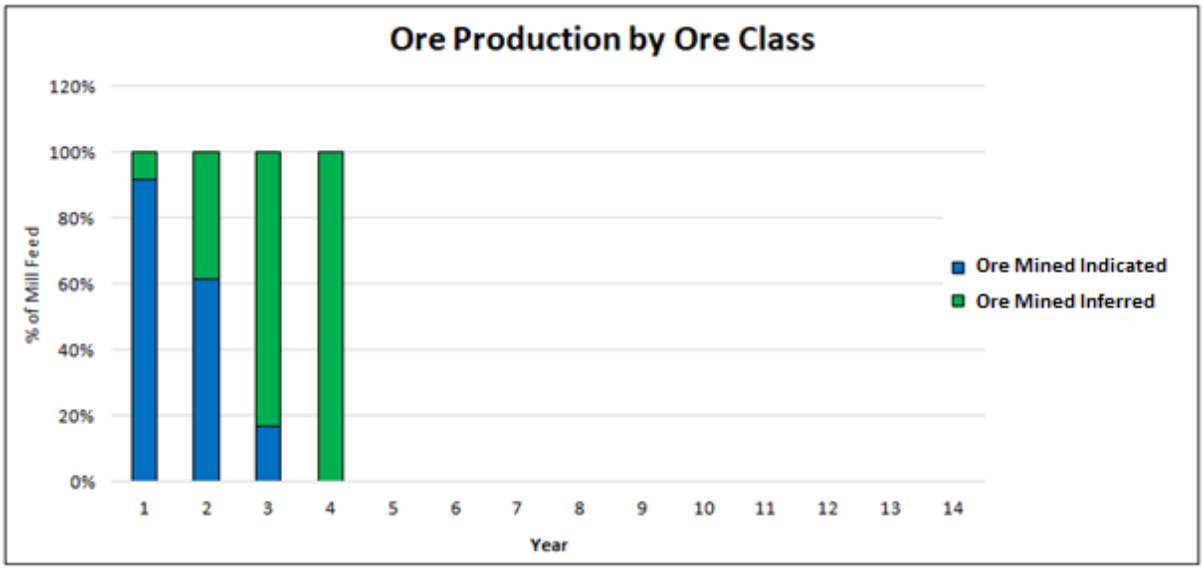

Figure 9: Ore Production by Class

To achieve the required plant feed for the base case, a target schedule has been prepared which generates 75kt of ore per quarter from the optimised mineral resource estimate of 1.05mt. This provides a LOM of about 43 months.

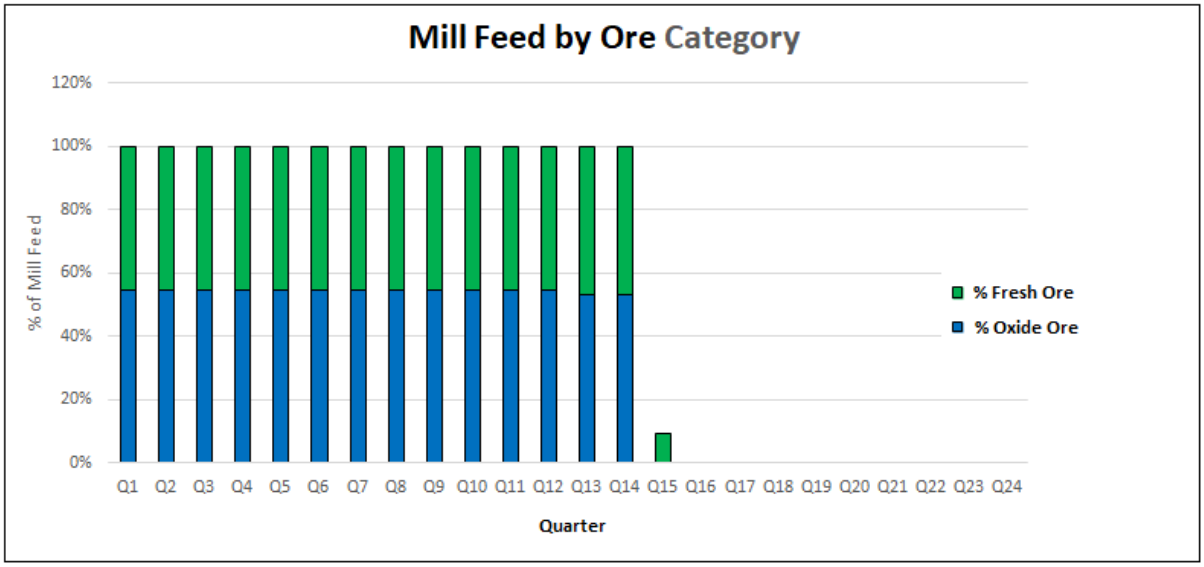

Figure 10 Mill Feed Ore by Category

Approximately 55% of the optimised resource or 41kt per quarter is oxide and transitional ore with the balance 34kt per quarter fresh ore, refer figure 10. Working capital requirements may be reduced by taking a staged approach to mining, however a single crew mining on a 5:2 or 4:3 roster utilising a bench by bench unstaged approach gives good ore flow. This is primarily due to reasonable uniformity in grade and exceptionally low strip ratio.

Payback is achieved in approximately 15 months from the start of processing in Q13, refer figure 11.

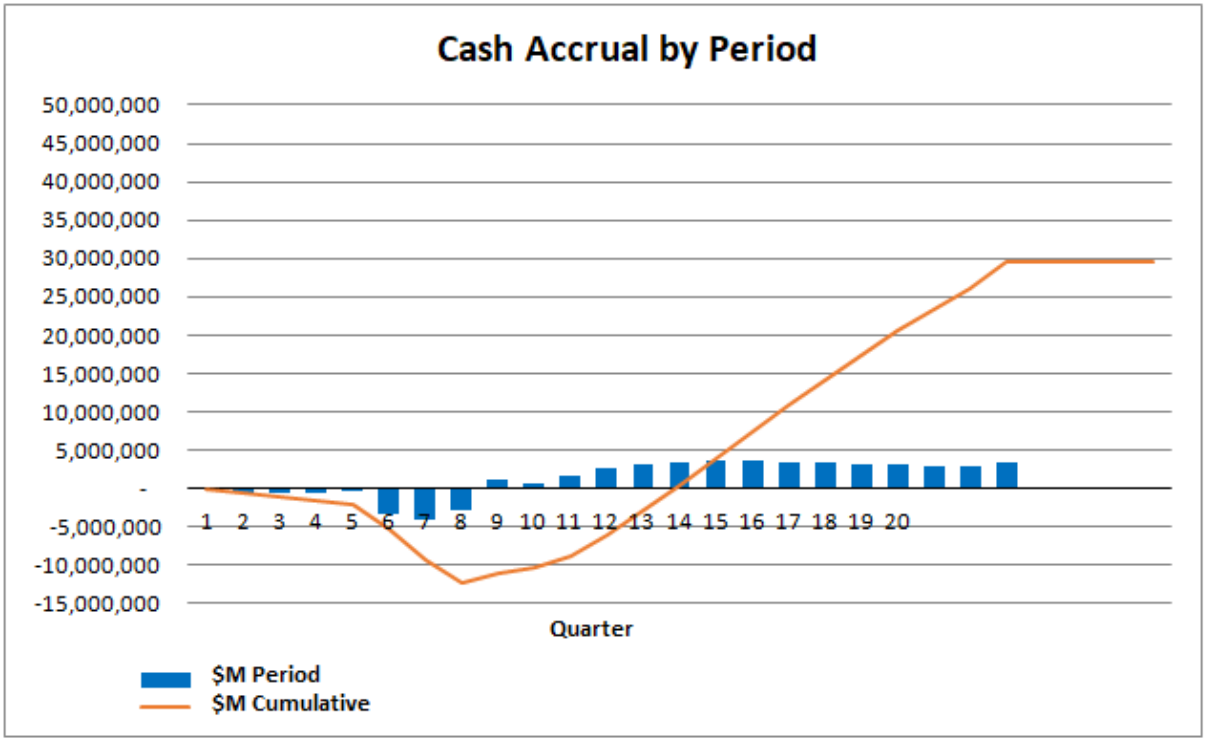

Figure 11 –Mount Mackenzie cash accrual by quarter

10.2 Project Timetable

A project set up period of approximately 9 months has been allowed for to complete feasibility studies and to launch the project through the project planning and approvals process in Queensland. Based on advice received from COG Pty Ltd, the project will require an Environmental Authority (EA) application which will be assessed by the Department of Environment and Heritage (EHP) as a site specific resource activity under the QLD EP Act. A further 6 months has been allowed for this assessment process to take place.

Following approval, a 9 month lead time has been allowed for Construction activities, including site development, and infrastructure. The proposed CIL plant will be modular in design and will be largely fabricated off-site. This activity will be carried out in parallel with site development.

11.0 Site Layout

The site layout has been arranged to ensure all key infrastructure is located in land which is currently owned by the company and is accessible by a short lead from the Marlborough-Sarina road. Areas of land which are already cleared of vegetation, and relatively flat have been specifically identified to reduce site construction costs, reduce environmental disturbance and mining and rehabilitation costs.

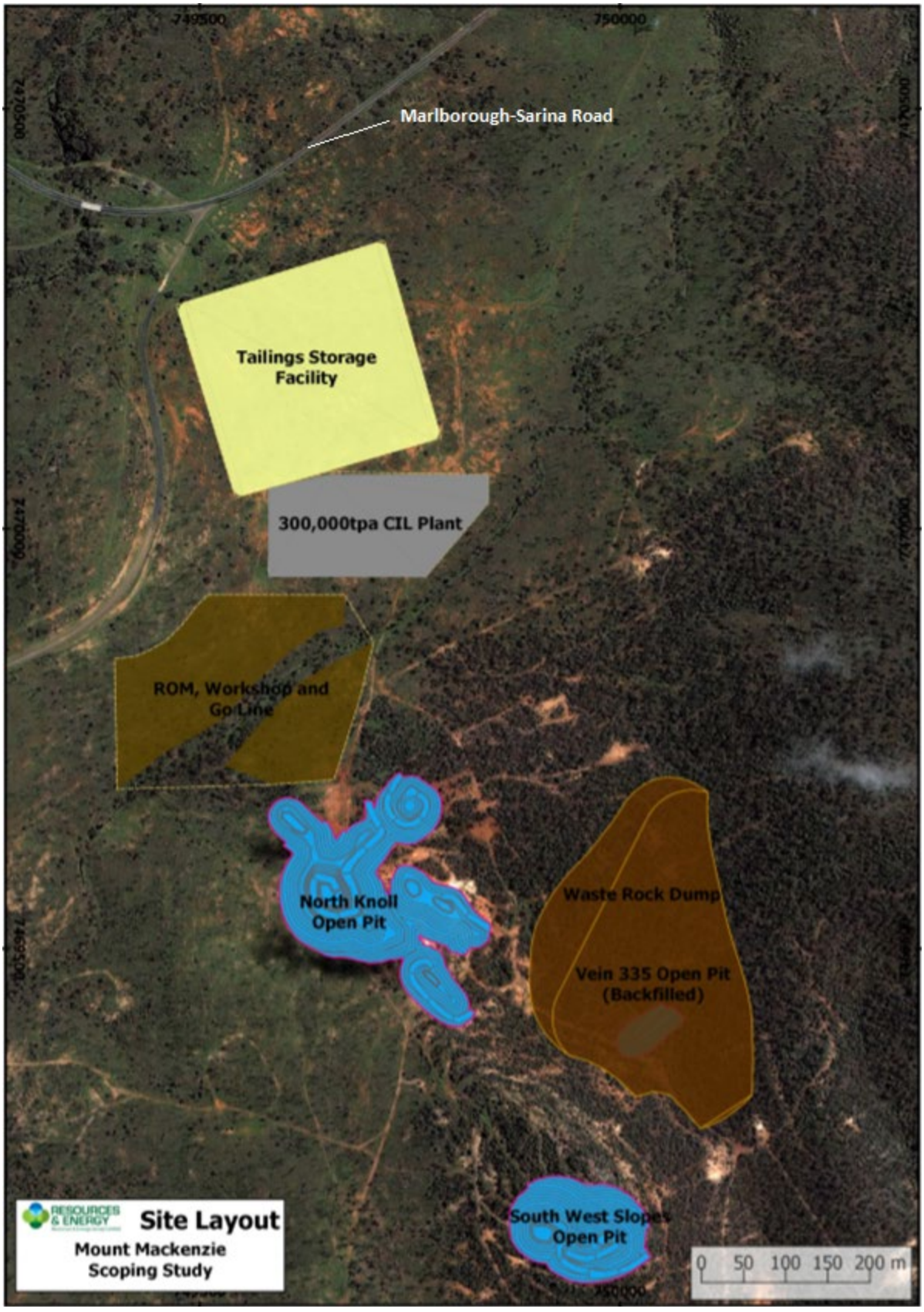

Figure 9 Site Layout

12.0 Sensitivity to Material Assumptions

The sensitivity of the project base case to changes in the principal material assumptions has been carried out, and the results of this analysis are presented in figure 11. The principal

assumptions considered include changes in the Gold Price, Mining Cost and Processing Costs, at increments of +/- 5%, 10% and 20%.

Figure 11 Base Case Sensitivities

13.0 Project Opportunities and Risks

13.1 Project Opportunities

Initial estimates for the processing of primary ore via flotation followed by fine grinding suggest favourable economics, however this option has been excluded from this Scoping Study as further metallurgical investigation is required to prove up the processing route. There is significant upside to the base case if an effective flotation reagent and re-grind flow sheet for the primary ore can be established. The development of this flow sheet has potential to generate an additional $10.6m to $28.6m in project cashflow for a relatively minor capital outlay of approximately $1.2m.

The economic analysis indicates that the projects financial performance is maximised for a 500ktpa mill however the increased capital requirements suggest that a 300ktpa mill may still be preferable. Further work to investigate potential upside cases is warranted and should be incorporated into future feasibility study.

The existing resources at Mount Mackenzie are not closed of a depth, and further exploration is warranted. This work has potential to increase the current extent of primary ore mineralisation.

13.2 Project Risks

The Scoping Study is based on the material assumptions outlined within this report. While REZ considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved. Key amongst these would be access to funding and adverse movements in gold prices and US$ exchange rates.

14.0 Conclusions

The processing concept study outlined in this report has defined a preliminary flow sheet for the oxide and primary ores as well as a capital and operating cost estimate. The capital cost has been estimated at an accuracy of ±50% and represents an early stage estimate. Previous metallurgical test work has provided indicative recoveries for the different ore types and at different grind sizes, however, there remains significant opportunity to improve the recoveries by way of further grind size optimisation, particularly in the primary and transitional. Further investigation into the nature of the gold within the primary ore could result in improved flow sheet design and higher recoveries and additional metallurgical work is warranted to determine the optimum path forward.

Sensitivity analysis demonstrates a positive cashflow profile at the downside limits of the stated confidence ranges, provide adequate financial metrics that confirm the robustness of the project economics and strongly support the case for progression to prefeasibility.

FORWARD LOOKING STATEMENT

This announcement may contain certain “forward-looking statements” which may not have been based solely on historical facts, but rather may be based on the Company’s current expectations about future events and results. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed is expressed in good faith and believed to have a reasonable basis. However, forward looking statements are subject to risks, uncertainties, assumptions and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward looking statements. Such risks include but are not limited to metals price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, as well as political and operational risks in the Countries and States in which we operate or sell product to, and governmental regulation and judicial outcomes. For a more detailed discussion on such risks and other factors, see the Company’s Annual Reports, as well as the Company’s other filings. The Company does not undertake any obligation to release publicly any revisions to any “forward-looking statement” to reflect events or circumstances after the date of this announcement, or to reflect the occurrence of unanticipated events, except as maybe required under applicable securities laws.

Competent Persons Statement

The information in this release that relates to Resources is based on and fairly represents information compiled by Mr. Michael Johnstone who is a member of the Australasian Institute of Mining and Metallurgy, and Principal Consultant for Minerva Geological Services (MGS). MGS has been contracted by Resources and Energy Group to provide Exploration Management, technical advice and guidance to the company. Mr. Johnstone has sufficient experience that is relevant to the reporting of Exploration Results 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. Johnstone consents to the inclusion in this release of the matters based on their information in the form and context in which it appears.

About Resources and Energy

Resources and Energy Group Limited (ASX: REZ) is an independent, ASX-listed mineral resources explorer, developer and producer, holding mining leases in Western Australia and Queensland. REZ aims to develop a portfolio of mining tenements through to production.

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Appendices

Appendix 1 – ASX Announcement Mount Mackenzie JORC Announcement

https://www.asx.com.au/asxpdf/20150907/pdf/4314rd802gffjn.pdf

Appendix 2- Material Assumptions

Appendix 2 Material Assumptions

Item	Criteria	Commentary
1	Mineral Resource estimate used in Scoping Study Base Case	The Scoping Study is based on a Mineral Resource Estimate published in ASX announcements on 15th September 2015. The estimate was prepared by Competent Persons as defined in the JORC Code, 2012 Edition
2	Parties contributing to the Scoping Study	The following parties have contributed to this Scoping Study; • Martlet and Associates Pty Ltd -Resource Estimation • Minerva Geological Services Pty -Resource Estimation • Geko-Co Pty Ltd -Resource Estimation • ALS Pty Ltd -Metallurgical Investigation • COG Pty Ltd -Environmental and Planning Constraints • Integrated Mining Solutions Pty Ltd –Mine planning and cost estimation • Minecore Pty Ltd- Process Design and cost estimation • Resources and Energy Group Pty Ltd-Mine planning and pit optimisation, study report compilation
3	Study Status	The study is a scoping study as defined in the JORC code, 2012 Edition
4	Cost inputs and parameters	The following inputs were used to estimate project revenue; • Gold Price A$2000/oz • Silver priceA$22.50/oz • Gold recovery factor of 93%, 76% and 54% (OX, FR, TR) • Silver recovery factors of 87%, 54% and 33% (OX, FR, TR) • 5% QLD State Royalty The following inputs were used to estimate operating cost per tonne • Mining Costs (table 8) • Processing Costs (table 8) • Leasing, administration and grade control (table 8) • Mining and processing factor for fresh ore (table 8)
5	Mining factors applied and considerations	The following factors have been applied; • No conversion from Resources to Reserves • Mining Loss's of 5% • Grade Dilution of 5% • Conventional Open Cut development • No minimum mining widths • Inferred Resources included in evaluation • Further geotechnical investigation is required • All Infrastructures required for development has been considered with exception of wether a mine camp will be required. The project site is located in close proximity to Marlborough, which is a half hour commute to the project site. This aspect will be considered as Feasibility study progress's

6	Metallurgical factors and Assumptions	The process flowsheet adopted is based on a conventional means of gold recovery using CIL methods. The potential for improving gold recovery in primary ore using a flotation path requires further investigation. Metallurgical recoveries applied in the project base case have used composite results from leach recovery testwork completed by ALS Metallurgy. This work has been on bore-core. Additional testwork on larger sample mass's will be carried out as the study work progress's Metallurgical recoveries for oxide, transitional and fresh ore are based on bench scale test results undertaken by ALS. These factors are provided in table 8 of the Study report. No bulk sample testwork has been carried out.
7	Infrastructure	The Mount Mackenzie Project is located 150km north west of Rockhampton in Queensland. The project site is accessible by sealed State roads. There is no existing infrastructure. The Study has included provision for Power, Water, Site Office and Work shop, Processing, Tailings and Waste emplacement. Currently it is expected that the workforce will commute from Marlborough which is a half hour commute east of the project site. All proposed mining infrastructure is located in a granted MDL in land owned by the Company, which is accessible from existing roads.
8	Environmental	A preliminary environmental and planning constraints assessment of the project site has not identified any issues or areas of environmental concern, that would prohibit develop proceeding.
10	Tenement Status	The project is wholly located within MDL2008, which is a Mineral Development License granted to the Company in October 2019 for an initial term of 5 years. The license is renewable.
11	Capital and Operating Costs	The Capital and Operating cost estimates for processing plant were determined by Minecore and are based on the conceptual flowsheet which has been presented in the study. The cost estimates are (+/- 50%) for capital items, and +/- 35% for operating items. The Capital cost estimates by Minecore have not considered capital for predevelopment or owner's costs. These have been assessed by internally by Resources and Energy Group, and reported at the same level of confidence i.e. +/- 50%. The mining cost estimates have been provided by Integrated Mining Solutions, and are based on a combination of published cost factors and reasonable assumptions. The mining cost estimates are +/- 30% which is appropriate for this level of study. Bullion handling, security and refining costs have not been considered in this study
12	Project Funding	To achieve the range of outcomes indicated in the Scoping Study, funding of in the order of $15 million will likely be required. There is no certainty that REZ will be able to raise that amount of funding when needed. It is also possible/likely that such funding may only be available on terms that may be dilutive to or otherwise affect the value of REZ's existing shares. It is also possible that REZ could

		pursue other 'value realisation' strategies such as a sale, partial sale or joint venture of the project. If it does, this could materially reduce REZ proportionate ownership of the project.
13	Project approvals and pre-conditions	Statutory approvals and planning consent will be pre-condition to development at Mount Mackenzie proceeding. This includes granting of a Mining License and an Environmental Authority by the regulatory authorities. Additional approvals for water abstraction, road turn out, and power connection may also be required. Before the grant of a Mining License a compensation agreement with any affected landholder will also need to be executed.