



Mt Thirsty Cobalt Project - Scoping Study

The Mt Thirsty Joint Venture (MTJV, **Barra Resources Ltd-ASX:BAR**: 50%, **Conico Ltd-ASX:CNJ**: 50%) is pleased to announce that the Scoping Study (Study) has returned a robust set of financial metrics over a 21 year mine life. The project is strongly leveraged to the emerging Electric Vehicle/Battery industry with exposure to the rebounding nickel market.

Scoping Study - Cautionary Statements

The Scoping Study referred to in this announcement has been undertaken to determine the potential viability of the Mt Thirsty Cobalt Project utilising atmospheric sulphur dioxide (SO₂) leaching and if progress to a pre-feasibility study is warranted. It is a preliminary technical and economic study of the potential viability of the Mt Thirsty Cobalt Project. It is based on low level technical and economic assessments that are not sufficient to support the estimation of ore reserves. Further exploration and evaluation work and appropriate studies are required before the MTJV will be in a position to estimate any ore reserves or to provide any assurance of an economic development case.

Approximately 55% of the Life of Mine production target is in the JORC (2004) Indicated Mineral Resource Category and 45% in the JORC (2004) Inferred Mineral Resource category. The Mt Thirsty Joint Venture believes that it has reasonable grounds for disclosing a production target with 45% of Mineral Resources in the Inferred Mineral Resource category.

There is a low level of geological confidence associated with an Inferred Mineral Resource and there is no certainty that further exploration work will result in the determination of an Indicated Mineral Resource or that the production target itself will be realised. However, the existing Mt Thirsty (2011) Inferred Mineral Resource has been defined by 165 air core holes on a 50m by 80m grid that shows the flat lying cobalt-nickel mineralised horizon to be relatively consistent internally and similar in geological characteristics and geometry to the more densely drilled, higher confidence Indicated Mineral Resource, located adjacent to the east.

A previous JORC (2004) Resource Estimate in 2008 (refer Barra ASX Announcement; "Mt Thirsty Co-Ni-Mn Resource Increased by 38%" dated 10th July 2008 and available to view at www.barraresources.com.au) based on a 100m by 80m grid spacing resulted in an Inferred Mineral Resource (2008) of 14.23 Mt at 0.11% Co and 0.52% Ni. As the 2008 Inferred Mineral Resource is very similar to the existing (2011) Inferred Mineral Resource that was estimated at half the drill spacing (50m by 80m) and with approximately twice the number of holes, a high conversion rate of the 2011 Inferred Mineral Resource to the Indicated Mineral Resource category might be expected by further infill drilling to a 50m by 40m spacing, the same spacing as the Indicated Resource. On this basis, the MTJV has relied on a significant amount of the 2011 Inferred Mineral Resource for this preliminary scoping study. Further infill drilling to upgrade the 2011 Inferred Mineral Resource to Indicated is anticipated prior to commencement of a prefeasibility study.

The Scoping Study is based on the material assumptions outlined below. These include assumptions about the availability of funding. While the MTJV 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.

To achieve the range of outcomes indicated in the Scoping Study, funding in the order of \$212 million will likely be required. Investors should note that there is no certainty that either Barra Resources Ltd (Barra) or Conico Ltd (Conico) will be able to raise that amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Conico or Barra's existing shares. It is also possible that Conico or Barra 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 either Conico's and/or Barra's proportionate ownership of the project.

The MTJV has concluded it has a reasonable basis for providing the forward-looking statements and to expect that it will be able to fund the development of the project. The MTJV recognises that exclusion of some of the Inferred Mineral Resource from the mine plan would reduce the potential returns for the Mt Thirsty Cobalt Project.

Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.

Scoping Study Outcomes

- The Study used a life of mine average cobalt price of US\$72,200 (A\$97,600) per tonne, a nickel price of US\$15,500 (A\$20,945) per tonne and returned a preferred case after tax Net Present Value (8% discount rate - NPV₈) of A\$290 million (lower case A\$245 million, upper case A\$335 million) with a healthy base case 21.5% Internal Rate of Return and expected four-year pay back.
- Low capital cost of A\$212 million (incl. A\$34 million contingency) employing an atmospheric sulphur dioxide (SO₂) leaching process with overall base case metal recoveries of 73% for cobalt and 21.5% for nickel. Life of mine operating costs are projected to be A\$43/tonne of ore treated due to the very low reagent consumption. Planned optimisation testwork is aimed at significantly improving metal recoveries.
- Plant throughput up to 1.5 million tonnes per annum with potential to produce an average (as a mixed sulphide concentrate) of up to 1,280 tonnes of cobalt and up to 1,660 tonnes of nickel per annum over a 21-year mine life.
- A total of up to 27,000 tonnes of cobalt and up to 35,000 tonnes of nickel could be produced over the life of mine. Year 1-5 average Cobalt production up to 1,900 tonnes of cobalt and up to 1,760 tonnes of nickel.
- The Study is based on a JORC (2004) Inferred and Indicated Mineral Resource of 32Mt @ 0.13% cobalt and 0.55% nickel.
- The results of the Study confirm the MTJV's view that the Mt Thirsty Cobalt Project represents a long mine life, low capital and operating cost mining opportunity in a stable jurisdiction with excellent logistics.
- Partners/funding sought to progress to a Pre-Feasibility and/or Feasibility Study as soon as possible.

*Scoping Study Parameters

Item	Base Case Cost	Range
Process Plant Throughput	1.5Mtpa	
Cobalt Head Grade	0.12%	
Nickel Head Grade	0.52%	
Recovery Rate - Agitated Leaching – Cobalt	73%	73% to 80%
Recovery Rate - Agitated Leaching – Nickel	21.5%	20% to 27%
Construction and Commissioning Period	24 months	
Life of Mine	21 Years	
Exchange Rate	US\$/A\$ 0.74	
Operating Costs	A\$43/t	A\$38.7 to A\$47.3/t
Capital Costs	A\$212m	A\$190m to A\$232m
NPV ₈	A\$290m	A\$245m to A\$335m
Cumulative Net Cash Flow	A\$746m	A\$651m to A\$840m
IRR (After Tax)	21.5%	18.7% to 24.3%

TABLE 1: MTJV Scoping Study parameters (source: MTJV Scoping Study, 4/10/2017).

* Refer to Material Assumptions in Annexure A.

Financial Summary...a compelling set of financial metrics

A financial analysis formed part of the Study and was undertaken by Provide Advantage Pty Ltd (“**Provide Advantage**”) using discounted cash flows over the construction period and 21-year life scheduled by **CSA Global**. This analysis was also based on inputs from metallurgical, capital and operating cost estimates developed by **CPC Project Design**. The base case financial summary is set out in Table 2.

Parameters (Base Case-Life of Mine)	Value
Discount Rate %	8
Depreciation %	10
Operating Costs A\$/t	43
Capital Costs A\$m	212
Co Price A\$/t	97,600
Ni Price A\$/t	20,945
Life Of Mine Ex Rate US\$/A\$	0.74
Head Grade Co%	0.12
Head Grade Ni%	0.52
Recovery Rate Co%	73
Recovery Rate Ni%	21.5
Cumulative Net Cash Flow A\$m	746
NPV ₈ A\$m (After Tax)	290
IRR % (After Tax)	21.5

TABLE 2: Base case study parameters (source: MTJV Scoping Study, 4/10/2017).

The Sensitivity analysis for the NPV₈ in A\$ million is outlined in Figure 1.

Sensitivity analysis returns robust A\$290m base case NPV₈ & 21.5% IRR

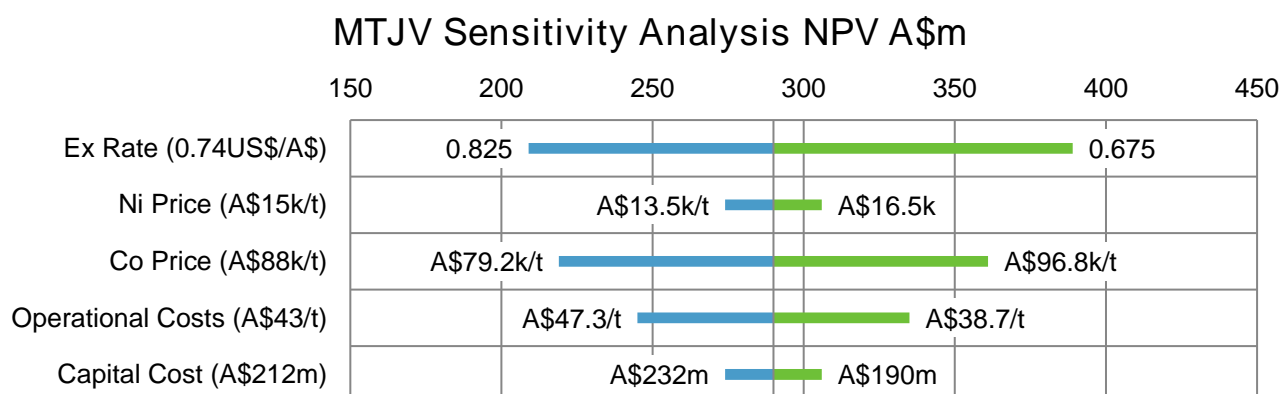


FIGURE 1: MTJV sensitivity analysis (source: MTJV Scoping Study, 4/10/2017).

SCOPING STUDY DETAILS

Mt Thirsty is strategically located 20km NW of Norseman

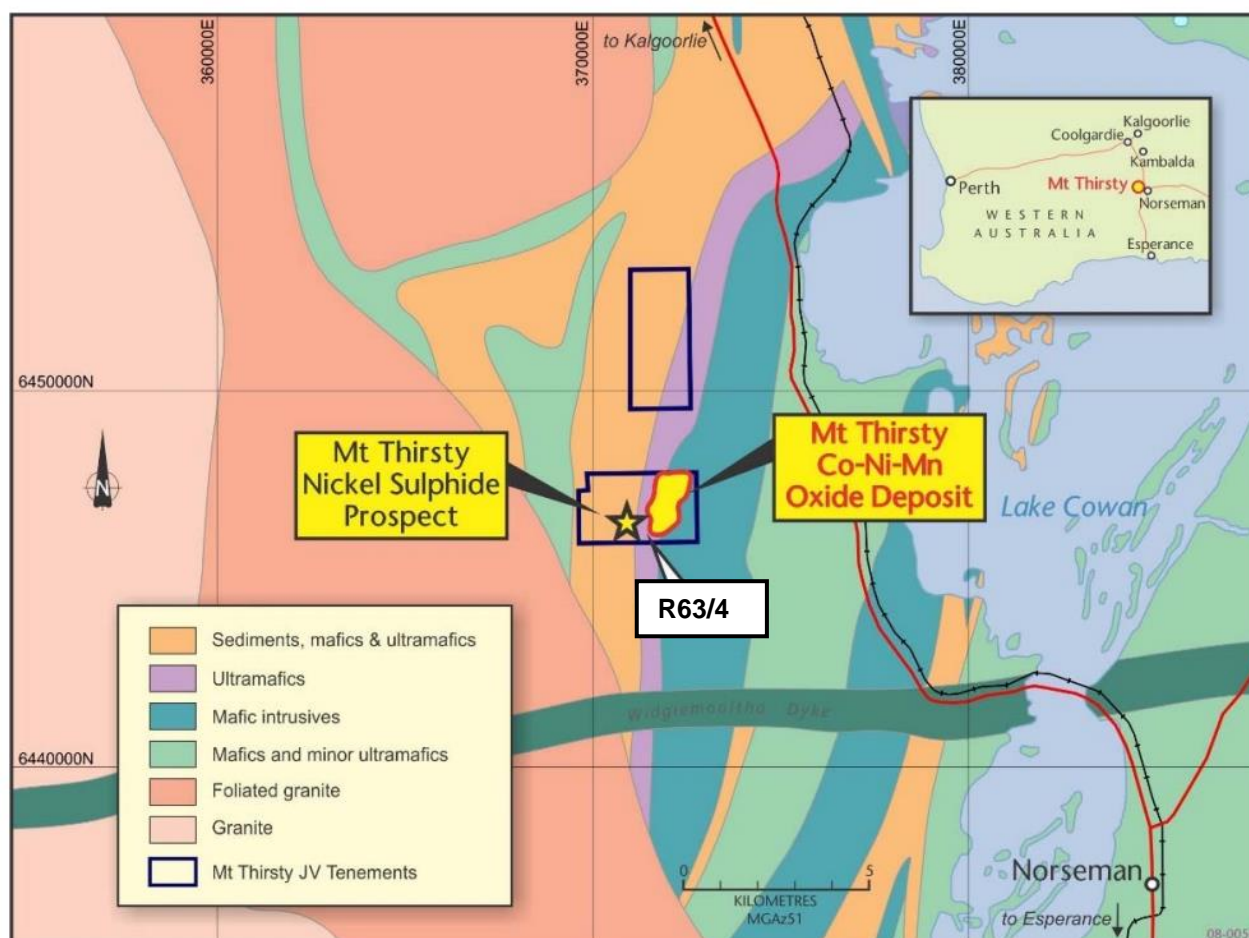


FIGURE 2: Mt Thirsty Cobalt-Nickel Project location map (source: MTJV Scoping Study, 4/10/2017).

Scoping Study Parameters-Discussion

The Scoping Study (**Study**), developed by CPC Project Design Pty Ltd (**CPC Project Design**) and managed by Provide Advantage Pty Ltd (**Provide Advantage**) is based on a sulphur dioxide (SO₂) leach circuit targeting enriched manganese horizons, with a design capacity of 1.5Mtpa.

Processing will comprise a crushing and grinding circuit followed by an atmospheric, low temperature, agitated leach circuit using SO₂ gas as the active reagent to selectively leach cobalt and nickel from the enriched manganese horizons, a neutralisation circuit for impurity removal, a six stage counter current decantation (CCD) circuit to recover pregnant liquor, cobalt and nickel sulphide precipitation with sodium sulphide and a tailings neutralising stage to raise the pH to 7-8 for disposal to a tailings dam.

The feed consists of oxide material containing head grades of 0.12% cobalt and 0.52% nickel, as well as significant levels of smectite, silica and goethite. The overall metal recovery to the mixed sulphide product (MSP) with the selected flowsheet was estimated to be 73% for cobalt and 21.5% for nickel, with the plant producing approximately 6,000t/y of the MSP.

A MSP has been selected for the Study to maximise the payable component for cobalt from the mixed cobalt and nickel intermediate product. The facility is expected to take two years to construct and commission.

The Study is based on the Mt Thirsty Cobalt Oxide Deposit JORC (2004) Resource (Table 3).

CSA Global carried out an open pit optimisation and mining schedule study using GEOVIA Whittle software (Whittle). Mining cost estimates, anticipated mining dilution and mining recovery factors, metallurgical recoveries, metal prices, and processing costs etc., were applied to the resource model which predicted a life of mine of approximately 21 years at a processing plant throughput of 1.5Mtpa.

Mt Thirsty Mineral Resource supports long mine life

The Mt Thirsty Cobalt Oxide Deposit Mineral Resource (Resource) (Table 3) was reported in accordance with the JORC Code (2004), announced to the ASX on 8th March 2011 using a lower cut-off grade of 0.06% cobalt. Over half of the Resource is in the Indicated Mineral Resource category and the remainder is Inferred (refer details in next section).

Mineral Resource Category	Tonnes	Cobalt (Co) (%)	Nickel (Ni) (%)	Manganese (Mn) (%)
Indicated	16,600,000	0.14	0.60	0.98
Inferred	15,340,000	0.11	0.51	0.73
Total Mineral Resource	31,940,000	0.13	0.55	0.86

TABLE 3: Mt Thirsty Cobalt Oxide Deposit Mineral Resource Summary (0.06% Co lower cut-off).

(This resource information was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported, refer ASX Announcement 8th March 2011: "Resource Upgrade", available to view at www.mtthirstycobalt.com).

CSA Global (CSA) were engaged in May 2017 to carry out an open pit optimisation and mining schedule study using GEOVIA Whittle software (Whittle). Relevant mining cost estimates, anticipated mining dilution and mining recovery factors, metallurgical recoveries, metal prices, and processing costs etc., were applied to the Resource model. All costs and parameters used for the pit optimisation and conceptual mining study were assumed by CSA to be within an accuracy of $\pm 50\%$.

The optimum pit shell (applying mining dilution and recovery factors) contains a total mineral resource of **31Mt @ 0.12% Co and 0.52% Ni** (comprising 17Mt Indicated @ 0.13% Co and 0.55% Ni and 14Mt Inferred @ 0.11% Co and 0.48% Ni). This pit shell has been used as the basis of the scoping study. The total estimated metal which could be recovered from the pit shell is approximately 27,000 tonnes of cobalt and 35,000 tonnes of nickel.

The optimisation results indicate that almost the entire Resource has been included in the pit shell.

Shallow oxide mineralisation amenable to low cost open pit mining

The Mt Thirsty Cobalt Deposit (Figures 3 & 4) would be mined by open pit, reaching a maximum depth of approximately 115m, with a total mine life of approximately 21 years at a processing rate of 1.5Mtpa.

The deposit is soft and strongly weathered and only limited drilling and blasting is anticipated. Overall strip ratio for the open pit would be approximately 1.5:1 but would vary from 3.3:1 to 0.3:1 on a yearly basis. Drilling has not encountered any groundwater flow and the open pit would most likely be dry.

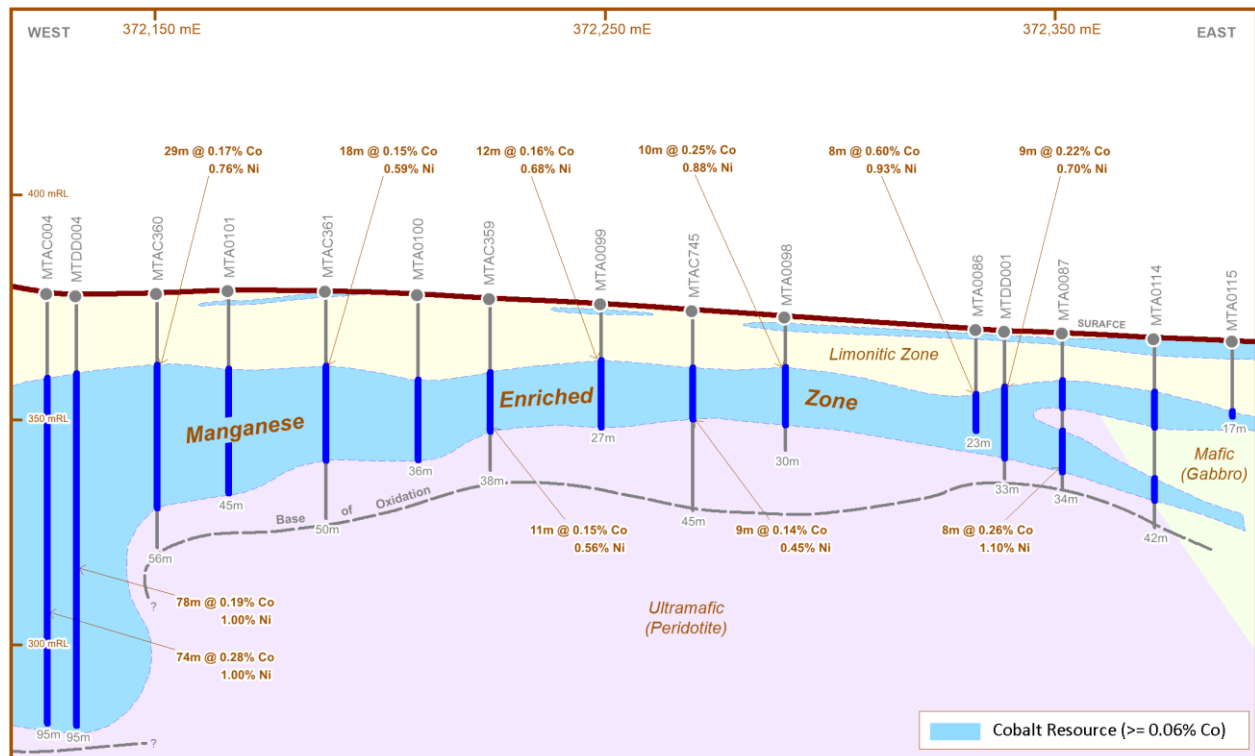


FIGURE 3: Representative schematic cross-section through the Mt Thirsty Cobalt Oxide Deposit (source: MTJV website, August 2017).

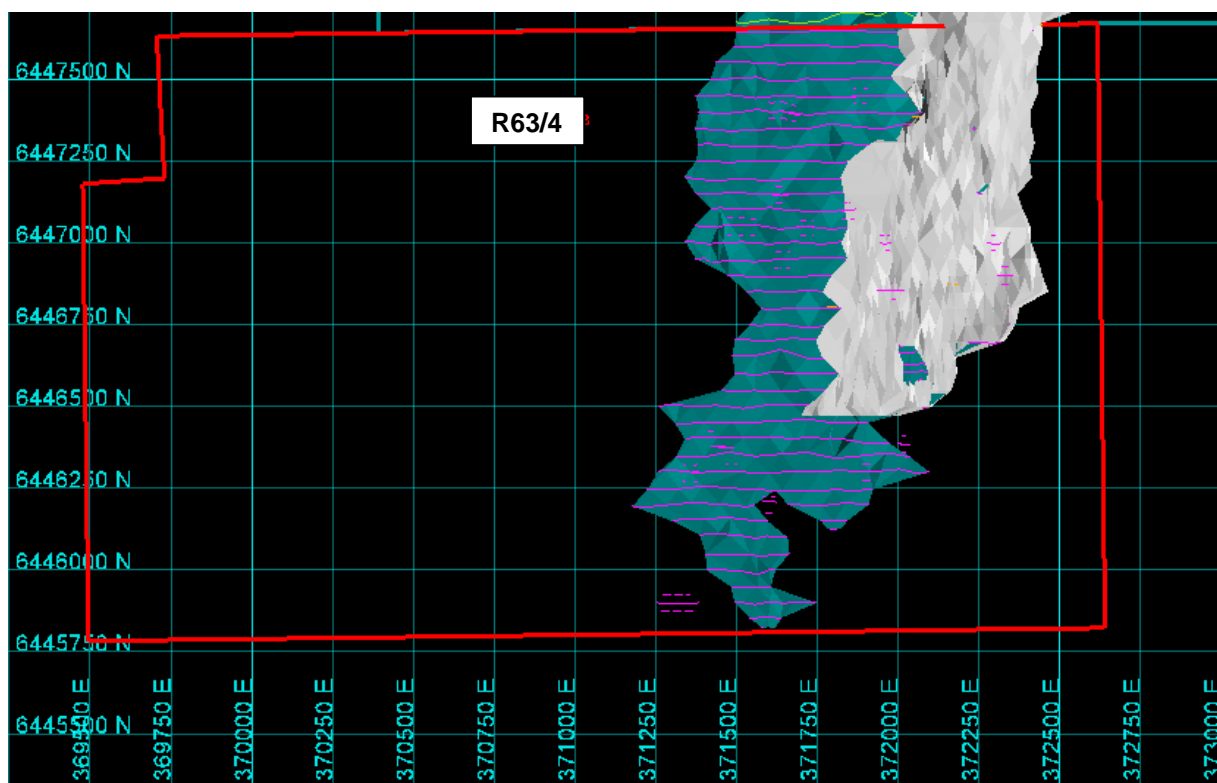


FIGURE 4: Plan of Mt Thirsty Cobalt Oxide Deposit showing Inferred Mineral Resource (blue), Indicated Mineral Resource (white) (source: MTJV website, August 2017).

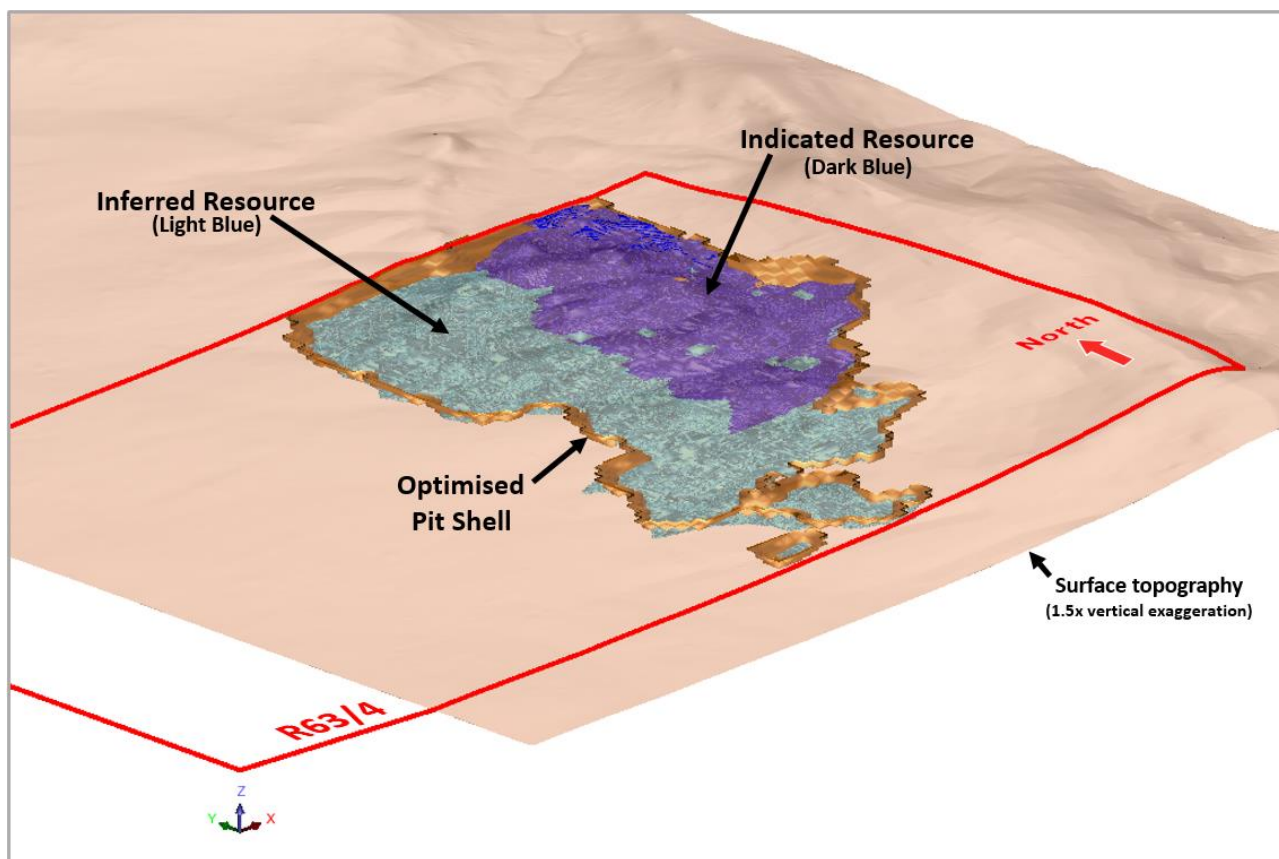


FIGURE 5: Whittle 4D Shell showing oxide mineralisation within current preferred optimised shell (source: MTJV Scoping Study, 4/10/2017).

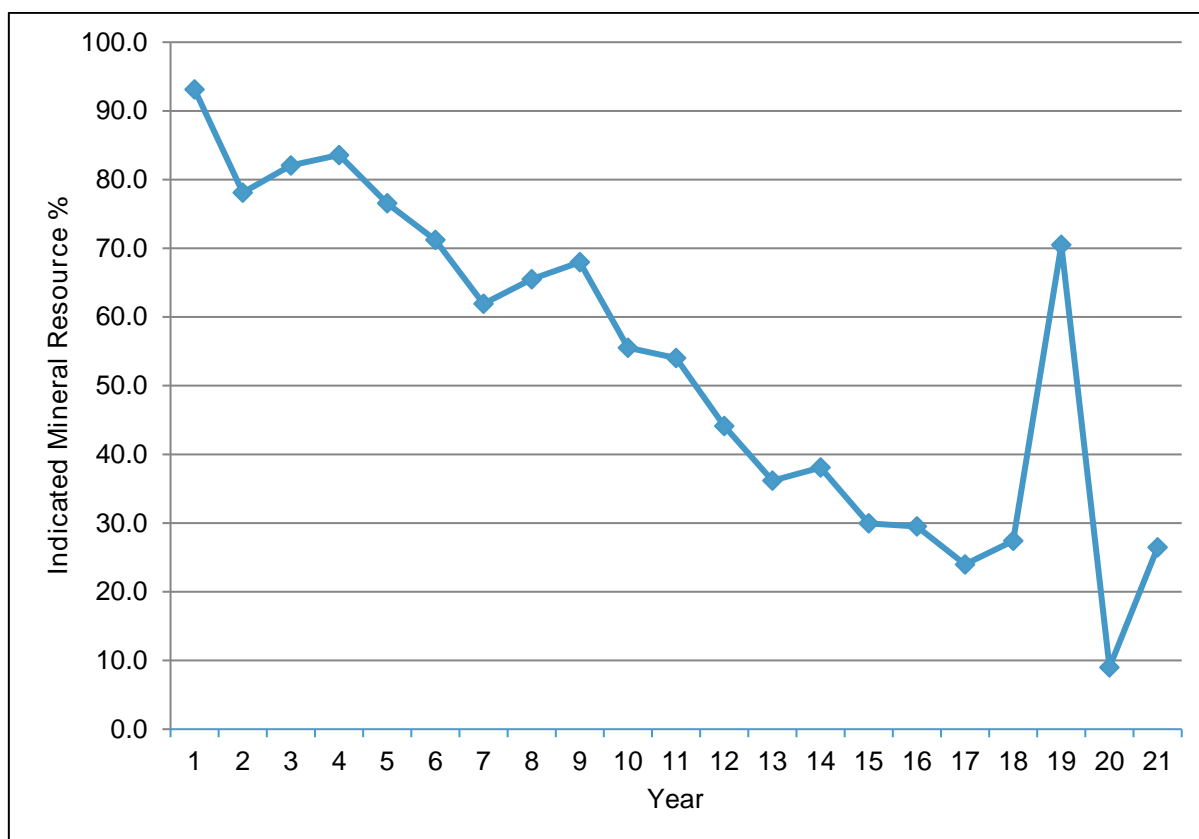


FIGURE 6: Graph showing percentage of Indicated Mineral Resource tonnage in mine schedule on a yearly basis. (source: MTJV Scoping Study, 4/10/2017).



FIGURE 7: Graph showing mine production schedule including break down of total, ore and waste tonnes mined for the Mt Thirsty Project. (source: MTJV Scoping Study, 4/10/2017).

The mine schedule (Figures 6 and 7) relies predominantly on mining the Indicated Mineral Resource portion of the deposit for the first 5 years. The Indicated Mineral Resource comprises 77% to 93% of the total resource to be mined each year (on a tonnage basis) for the first five years (the remaining tonnage in each year is in the Inferred Mineral Resource category). The percentage of Indicated Mineral Resource reduces to 55% in year 10, 30% in year 15 and 27% in final year 21 as shown in the graph in Figure 6.

Mineral Tenure and Native Title

The Mt Thirsty Cobalt Oxide Deposit is held under a retention licence (R63/4). Before any mining can proceed a mining lease would need to be applied for and granted. The MTJV can see no reason why a mining lease would not be granted provided a suitable agreement can be reached with the Ngadju Native Title Aboriginal Corporation. No native title costs have been included in the Scoping Study as they are an unknown at this stage.

Metallurgy and processing using low cost selective SO₂ leaching

The Mt Thirsty processing plant has been designed to process up to 1.5Mtpa of run-of-mine (ROM) ore bearing 0.12% cobalt and 0.52% nickel as oxides with leach extractions of 73% to 80% for cobalt and 20 to 27% for nickel (Figure 8). The plant flowsheet consists of proven unit operations including crushing, grinding, atmospheric leaching, neutralisation (impurity removal), CCD, MSP and product handling, tailings neutralisation, reagents, and a sulphur dioxide (SO₂) plant for leaching.

The overall metal recovery from ROM ore to MSP with the selected flowsheet was modelled to be 73% for cobalt and 21.5% for nickel. Waste heat from the production of SO₂ will be used for power generation and in process heating. A simplified block flow diagram for the Mt Thirsty process is set out in Figure 9.

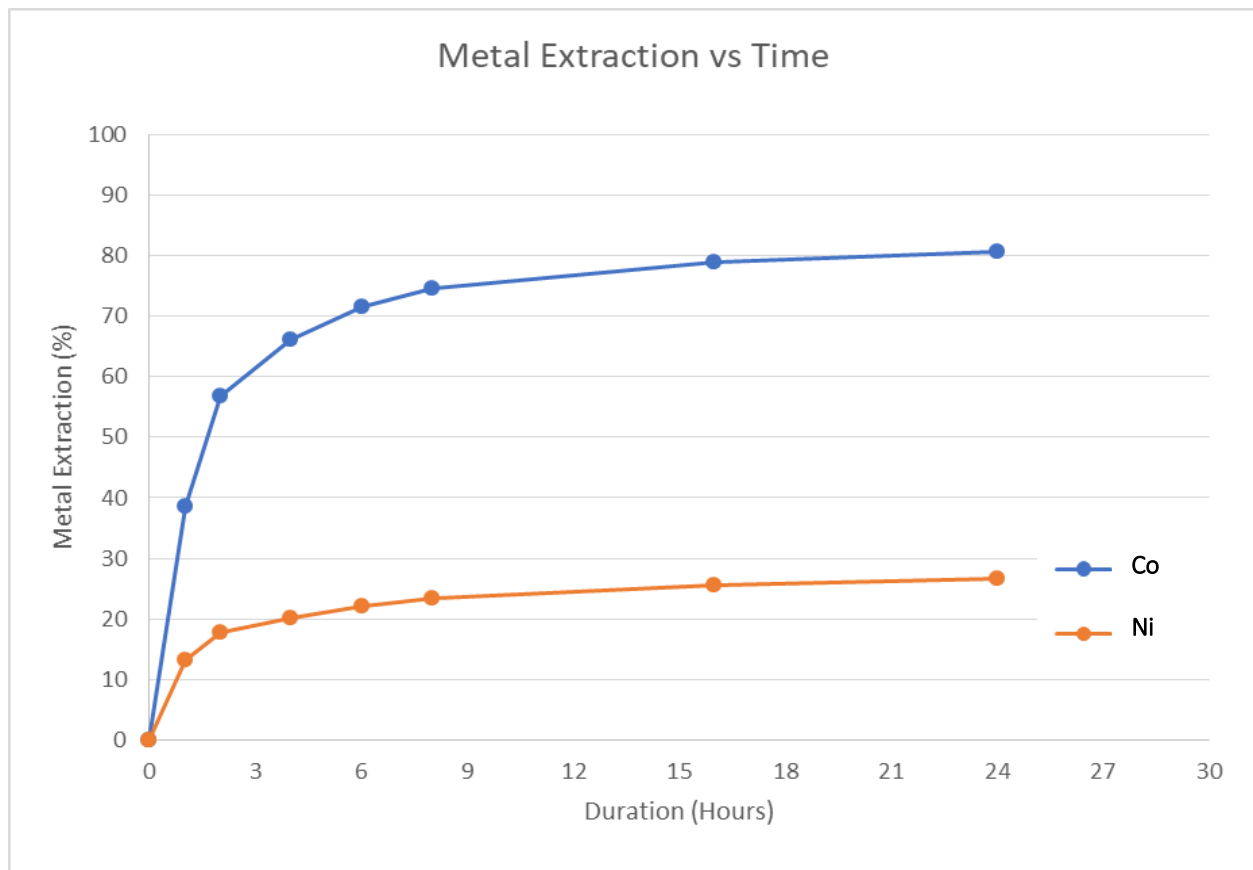


FIGURE 8: Graph of cobalt and nickel recoveries based on residence times for test HY5350 at 70°C and atmospheric pressure (source: **ALS Metallurgy**, technical report, 4 August 2017).

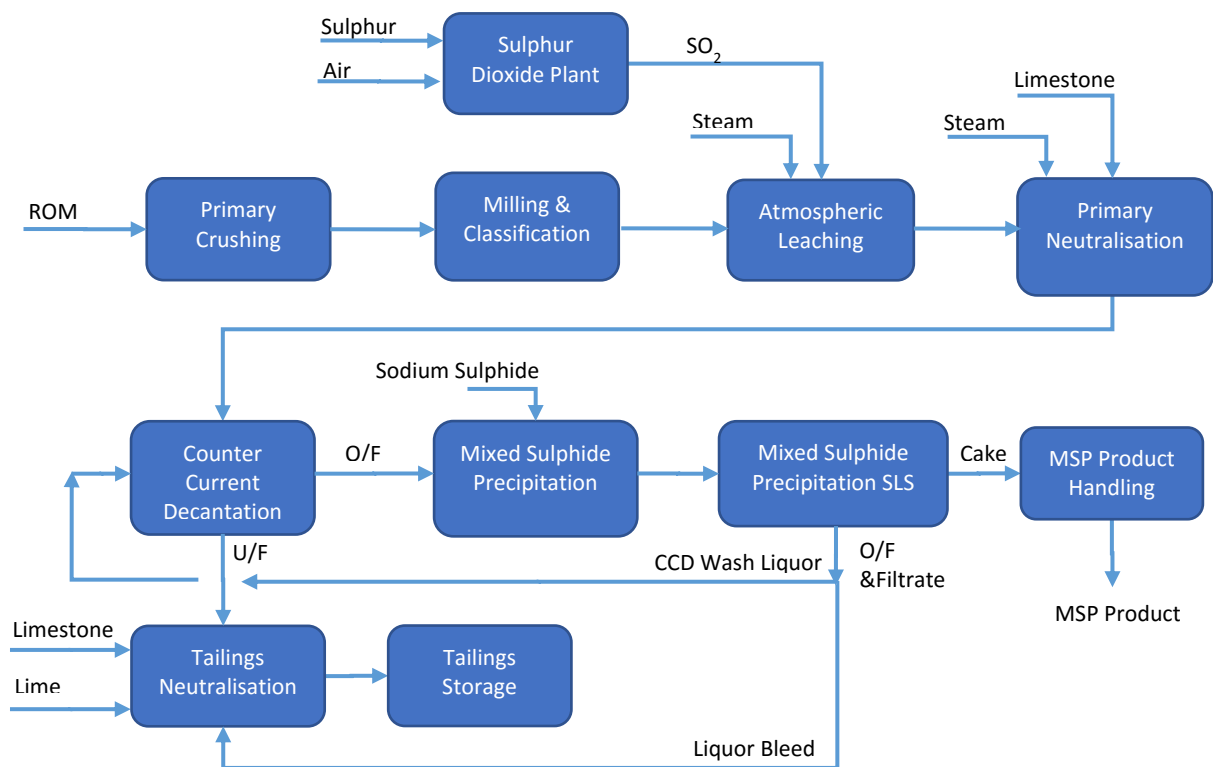


FIGURE 9: Mt Thirsty scoping study simplified block flow diagram (source: MTJV Scoping Study, 4/10/2017).

Low reagent consumption contributes to low OPEX

The operating cost estimate is presented in Australian dollars (A\$) and uses prices obtained in, or escalated to, the first calendar quarter of 2017 (Q1 2017). The estimate has an accuracy of $\pm 35\%$ and was developed by **CPC Project Design**. The main operating and cost input parameters are summarised in Table 4.

Category	Cost	
	A\$/y	A\$/t
Mining Costs	6.9	4.60
Reagents	23.7	15.8
Labour	10.6	7.1
Power	12.4	8.2
G&A	6.0	4.1
Maintenance	4.1	2.7
Consumables	0.8	0.5
Total	64.5	43.0

TABLE 4: Summary of Process Operating Costs
(source: MTJV Scoping Study, 4/10/2017)

Power consumption is based on the load list developed from the mechanical equipment lists for each process area, accounting for load and motor efficiency factors, and equipment utilisation.

Reagent and other supply costs were gathered from suppliers and **CPC Project Design's** database of similar project's consumption has been calculated in the SysCAD model based on the PDC inputs. Consumables include items such as grinding media, filter cloths and product bulk bags.

Reagent and Consumable costs are summarised in Table 5.

Category	Cost	
	\$m/y	\$/t
Reagents		
Sulphur	7.7	5.1
Sodium Sulphide	6.2	4.1
Limestone	1.9	1.3
Quicklime	6.4	4.3
Caustic soda	0.2	0.1
Flocculant	1.0	0.7
Water Treatment Chemicals	0.3	0.2
Consumables	0.8	0.5
TOTAL	24.5	16.3

TABLE 5: Reagents operating costs (source: MTJV Scoping Study, 4/10/2017).

Low capital costs driven by atmospheric leach process engineering

The capital cost estimate covers the design and construction of the process plant and is based on the supply and installation of new equipment and includes all indirect costs such as Engineering Procurement Construction Management (EPCM) costs. The estimate has a base date of the second quarter 2017 (Q2 2017) and is reported in Australian dollars (A\$) as outlined in Table 6.

Area	A\$m
Process Plant Direct	102.4
Other Direct Costs	26.9
Indirect Costs	40.7
Owner's Costs	8.0
Contingency	33.9
Project Grand Total	211.9

TABLE 6: CAPEX summary (*source: MTJV Scoping Study, 4/10/2017*).

Preliminary engineering and design has been completed for the development of the capital cost estimate to be calculated with an accuracy of $\pm 35\%$. This cost includes estimates for each individual WBS area. Direct costs are those expenditures that include supply of the equipment and materials, freight to site and project site labour to construct plant and assembled equipment, supporting facilities and services, and growth allowances. Indirect costs are those expenditures not directly accountable to any particular equipment purchase or construction installation activity. These include administration, plant hire, temporary construction facilities and equipment, first fills, spares, contractor and EPCM costs.

Environmental & Permitting

Vegetation within the project area is dominantly open Eucalyptus woodland with saltbush and bluebush understory with some localised low Eucalypt forest thickets. A broader area of low denser Eucalypt forest occurs along the low to mid slopes bordering the ridge line near the eastern boundary.

No Declared Rare Flora species pursuant to subsection (2) of section 23F of the Wildlife Conservation Act 1950 [WA] and as listed by the Department of Environment and Conservation (2007) and no threatened Flora listed under the Environment Protection Biodiversity Conservation Act 1999 [Commonwealth] have been recorded by a Flora survey within the Mt Thirsty Project Area in 2007.

An Environmental Impact Study will be completed during future studies when required.

Commodity outlook remains favourable

Lithium battery and electric car demand continues to drive cobalt prices

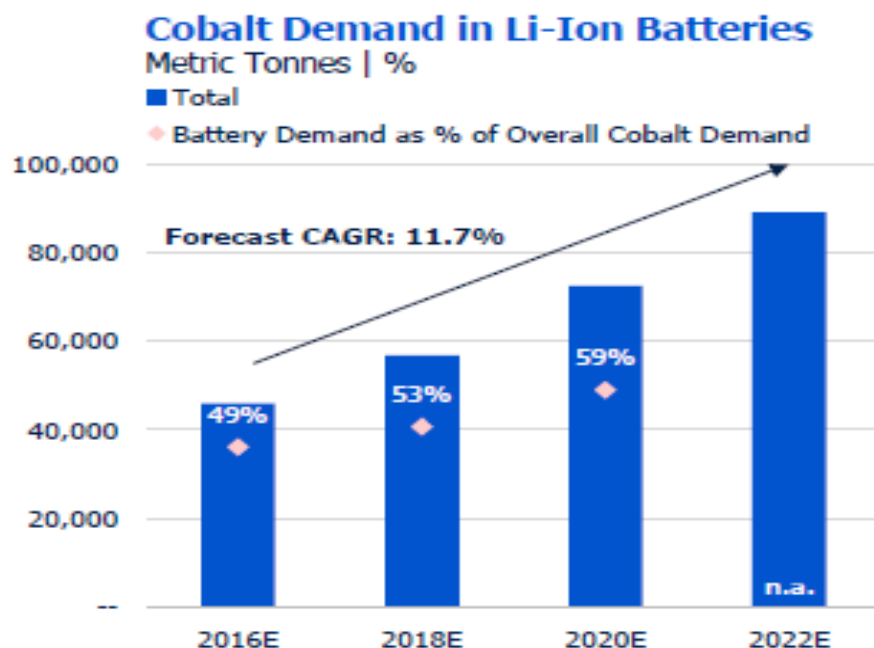


FIGURE 10: Projected cobalt demand in Lithium-ion batteries (source: Darton commodities¹).

Life of Mine cobalt production from the Study represents ~1.6% of current world production

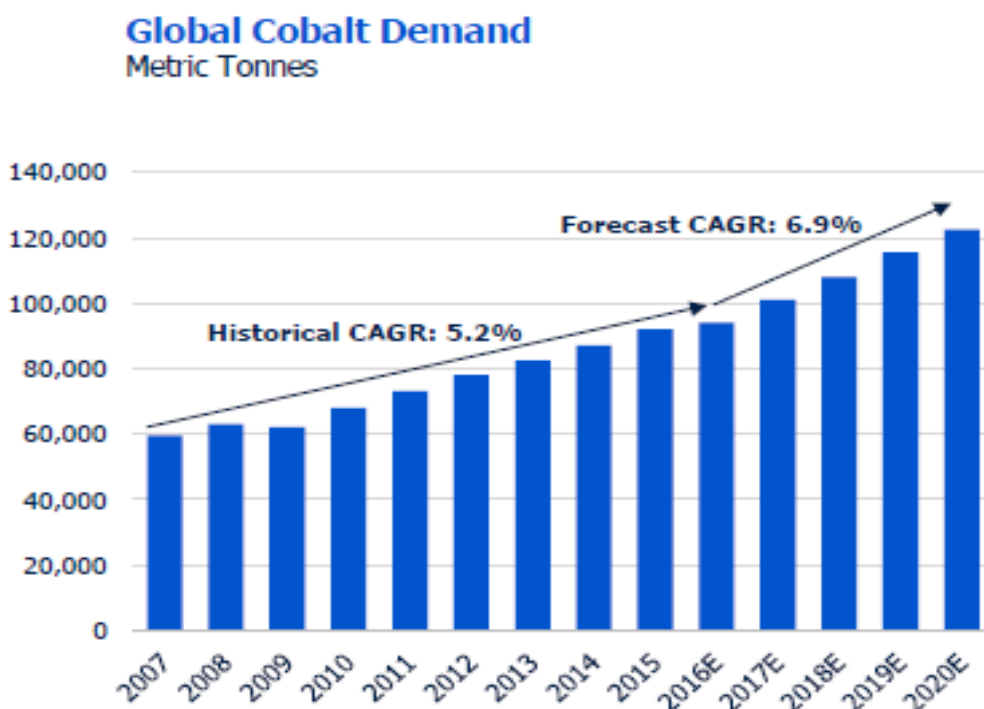


FIGURE 11: Global cobalt demand (source: Darton commodities¹).

DRC currently accounts for >65% world cobalt production

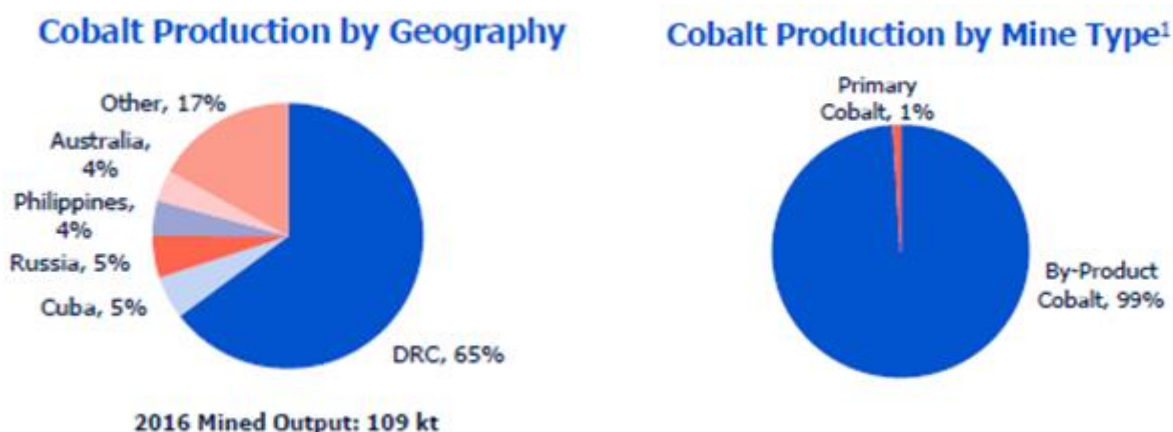


FIGURE 12: World cobalt production by type and region (source: Darton commodities¹).

Nickel price also recovering...

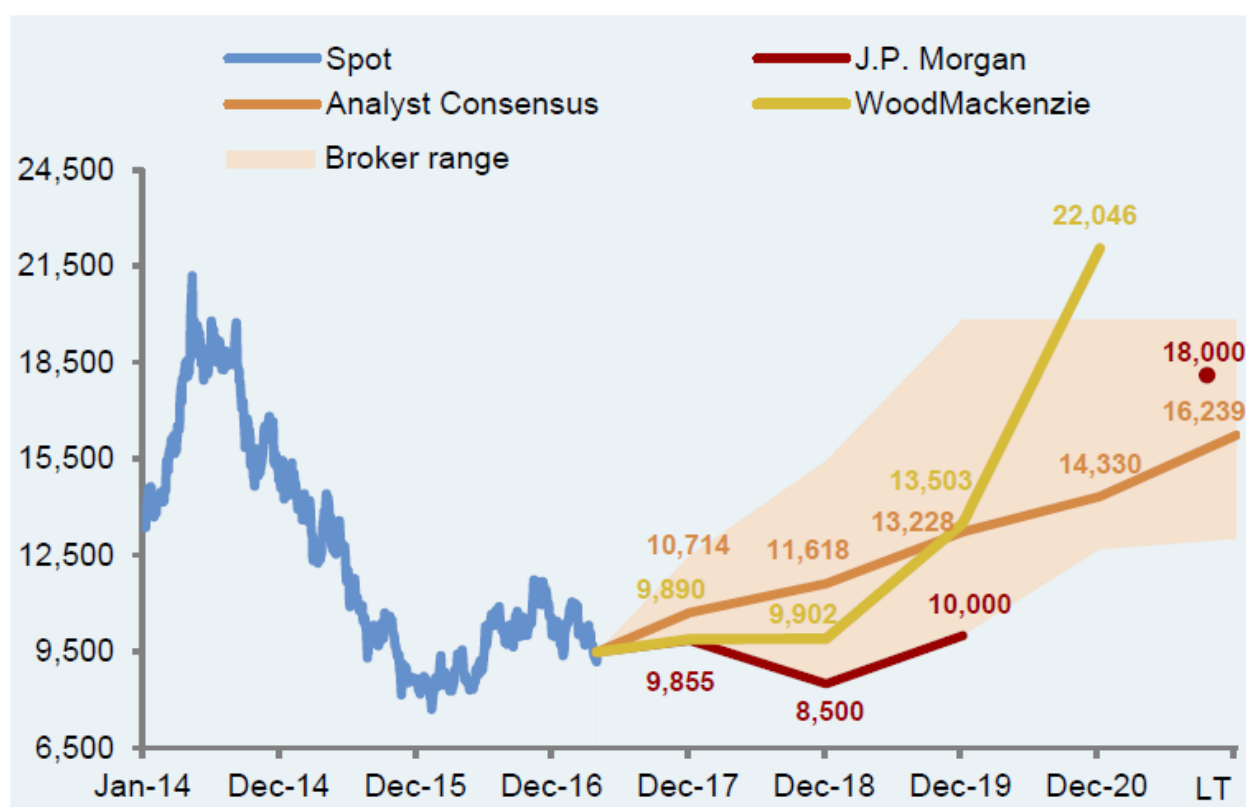
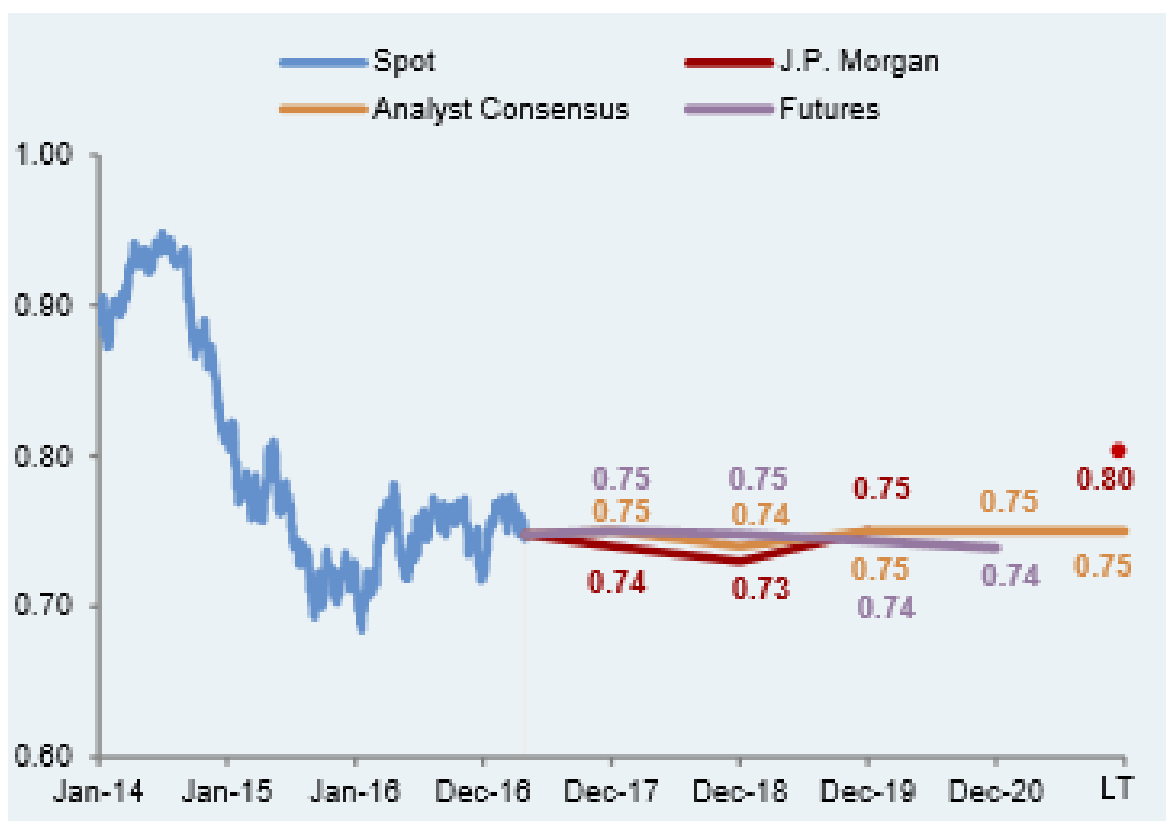


FIGURE 13: LME Nickel projections versus current spot prices (source: JP Morgan, Asia Pacific Metals & Mining, May 2017).

¹ Figures 10, 11 and 12 are sourced from **Darton Commodities**, a wholly independent specialist in the procurement, financing, marketing and distribution of cobalt metal. Darton are one of the largest, independent and specialized full-service cobalt metal suppliers operating in the market today.

USD/AUD exchange rate forecasts (nominal)



Source: FactSet as of 28 April 2017, Broker reports

FIGURE 14: Exchange Rate Forecasts (Nominal) (source: JP Morgan, Asia Pacific Metals & Mining, May 2017).

Further Potential

There is potential to extend the mine life at Mt Thirsty through the inclusion of additional tonnages from other prospects in the region. The MTJV has recently discovered a small cobalt deposit approx. 3km to the north (refer ASX announcement 29 May 2017 "Mt Thirsty Drilling Update" available to view on www.mtthirstycobalt.com).

Conclusion.... Mt Thirsty Cobalt Project a stand out among its peers

The MTJV is delighted with the results of the Scoping Study which confirms that the Mt Thirsty Cobalt Project has the potential to become a low capital and operating cost producer of cobalt and nickel with excellent logistics in a first world jurisdiction.


Unlike many cobalt projects (for example laterite projects), the deployment of low cost atmospheric leaching using SO₂ means that the project has the potential to be brought on line for a fraction of the cost of many of its peers. Another stand out is the strategic location just 20km NW of Norseman and only 224km from the deep-water port of Esperance (Western Australia). In addition, the project is situated within 5km of a water pipeline, rail, sealed highway and grid power.

Next Steps

On the back of strong market interest and the completion of a positive Scoping Study, the joint venture partners will examine several alternatives to advance the Mt Thirsty Cobalt Project (Project), including, but not limited to;

1. Seeking a joint venture partner to fund further studies (such as pre-feasibility and feasibility studies) and, subject to the outcome of these studies, develop the Project;
2. Undertake discussions with Cobalt end users with a view to offtake agreements and/or funding with a view to conducting further studies and potentially developing the Project;
3. Examine alternative sources of finance (such as stream funding) to fund further studies and/or develop the Project

Progressing a pre-feasibility and/or feasibility under the current joint venture arrangement or other appropriate corporate structure.

A handwritten signature in black ink, appearing to read 'Berrell'.

Gary Berrell
Chairman & CEO
Barra Resources Limited

Disclaimer

The interpretations and conclusions reached in this report are based on current geological theory and the best evidence available to the authors at the time of writing. It is the nature of all scientific conclusions that they are founded on an assessment of probabilities and, however high these probabilities might be, they make no claim for complete certainty. Any economic decisions that might be taken on the basis of interpretations or conclusions contained in this report will therefore carry an element of risk.

Competent Persons Statement

The information in the 2011 report relating to the Mt Thirsty Mineral Resource Update is based on information compiled by Alan Miller, who at the time was a full time employee of Golder Associates Pty Ltd and a member of the Australasian Institute of Mining and Metallurgy. Alan Miller has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves prepared by the Joint Ore Resources Committee, the Australian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and the Mineral Council of Australia." Alan Miller consented to the inclusion in the 2011 report of the matters based on this information in the form and context in which it appears.

The information in this announcement that relates to the discussion of the Inferred Mineral Resource in the Scoping Study is based on and fairly represents information compiled by Michael J Glasson, a Competent Person who is a member of the Australian Institute of Geoscientists. Mr Glasson is an employee of Tasman Resources Ltd and in this capacity, acts as a part time consultant to Conico Ltd. Mr Glasson hold shares in Conico Ltd. Mr Glasson has sufficient experience which is relevant to the style of mineralisation and type of the deposit under consideration and to the activity being undertaking 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 Glasson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Annexure A – Material Assumptions

Material assumptions used in the preparation of the Scoping Study are set out in the following table.

Criteria	Commentary																																
Study Status	The production target and financial information in this release are based on a Scoping Study. The Scoping Study referred to in this announcement is based on low-level technical and economic assessments and is insufficient to support the estimation of Ore Reserves or to provide assurance of an economic development case at this stage or to provide certainty that the conclusions of the Scoping Study will be realised.																																
Resource Classification	<p>The resource model used in the open pit optimisation was estimated by Golder Associates in 2011 under the guidelines of JORC (2004). It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.</p> <p>In classifying the resource, the competent person gave consideration to data quality, data density, confidence in the geological interpretation and confidence in the estimation. The eastern portion of the deposit was mostly classified as an Indicated Mineral Resource due to the close 50 x 50m drill spacing and strong continuity of the mineralisation. The portion drilled at 50 x 80m spacing on the western side of the deposit was classified as an Inferred Mineral Resource due to the drill density and continuity of mineralisation.</p>																																
Mining Factors or Assumptions	<p>The CSA Global (CSA) open pit optimisation study based on the 2011 JORC (2004) resource model assumed a 98% mining recovery and 8% dilution based on CSA's experience with similar deposits elsewhere. As there is currently no geotechnical information available, a conservative overall pit slope angle of 38° was used in the study.</p> <p>It is assumed mining would be by conventional open pit methods. Owing to the conceptual nature of the open pit scheduling work, a mining fleet wasn't considered by CSA. However, they assembled a typical mining fleet (refer Table below) that may resemble what could be utilised at Mt Thirsty. The assumptions are based on an 5m bench height (nominal blasting height) and a 2m digging flitch. CSA estimated a C1 mining cost of \$1.83/t for the study, based on a contractor mining fleet.</p> <p>Mt Thirsty Typical Mining Fleet</p> <table><tr><th>Equipment Type</th><th>Make and Model</th><th>Size</th><th>Qty</th></tr><tr><td>Excavator</td><td>Komatsu PC 1250</td><td>120 t</td><td>1</td></tr><tr><td>Dump Truck</td><td>Cat 777D</td><td>90 t</td><td>4 to 5</td></tr><tr><td>Wheel Loader</td><td>Cat 992G</td><td>12 m³</td><td>1</td></tr><tr><td>Grader</td><td>Cat 14H</td><td>20 t</td><td>1</td></tr><tr><td>Water Cart</td><td>Cat 773</td><td>50 t</td><td>1</td></tr><tr><td>IT</td><td>Cat 924</td><td></td><td>1</td></tr><tr><td>Service Truck</td><td>Hino</td><td></td><td>1</td></tr></table> <p>Mining during the first 5 years would be mostly in the area of the higher grade Indicated Mineral Resource on the eastern side of the deposit. In later years mining would advance westwards and comprise a higher percentage of what is currently categorised as Inferred Mineral Resource. Mine life is approximately 21 years comprising 55% Indicated Mineral Resource tonnes and 45% Inferred Mineral Resource tonnes in the optimised pit shell. During the first five years the Indicated Mineral Resource comprises 83% of the total resource tonnes available to be mined.</p>	Equipment Type	Make and Model	Size	Qty	Excavator	Komatsu PC 1250	120 t	1	Dump Truck	Cat 777D	90 t	4 to 5	Wheel Loader	Cat 992G	12 m ³	1	Grader	Cat 14H	20 t	1	Water Cart	Cat 773	50 t	1	IT	Cat 924		1	Service Truck	Hino		1
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Metallurgical Factors or Assumptions	<p>Base case metal recovery of 73% for cobalt and 21.5% for nickel was used, based on outcomes of process modelling and analysis of 7 unoptimized 5kg batch SO₂ leaches completed on a composite sample, developed from material across the indicated resource and within the modelled pit shell (Mt Thirsty Metallurgical Testwork Update 8/8/17). The SO₂ leaches appear to be selective to cobalt and nickel containing clay (smectite) and silicate mineralisation, with only minimal leaching of goethite observed. Following the selective SO₂ leach results the process flowsheet was designed by CPC Project Design, containing proven impurity removal and product precipitation stages typically used in the Nickel Laterite Industry and appropriate for an oxidised cobalt-nickel near surface deposit. Further definition and optimisation of this flowsheet will be undertaken as part of future pre-feasibility/feasibility studies.</p>																																

Ore Mineralogy	Nickel and cobalt mineralisation is associated with soft and friable manganese enriched horizons within the oxidised zones. Cobalt and nickel are intimately associated with the nickel-cobalt-manganese oxide mineral asbolane $((\text{Ni},\text{Co})_{2-x}\text{Mn}^{4+}(\text{O},\text{OH})_4 \cdot n\text{H}_2\text{O})$.
Environmental	<p>To date only reconnaissance Flora and Fauna surveys have been carried out over the Mt Thirsty Cobalt Project area.</p> <p>Flora Survey</p> <p>Two experienced ecologists from Mattiske Consulting Pty. Ltd. surveyed the area in 2007. A total of 65 sites within different vegetation communities were surveyed for floristic values. As the survey was undertaken in the spring season, coverage of the annual species was considered relatively comprehensive.</p> <p>No Declared Rare Flora species pursuant to subsection (2) of section 23F of the Wildlife Conservation Act 1950 [WA] and as listed by the Department of Environment and Conservation (2007a) and no Threatened Flora listed under the Environment Protection Biodiversity Conservation Act 1999 [Commonwealth] were recorded within the Mt Thirsty Project Survey Area. However, two priority Eucalyptus species were recorded.</p> <p>Twenty-eight vegetation communities were defined for the Mt Thirsty survey area, of which 20 are Eucalypt woodlands and 8 are Eucalypt forests. Of these none are Threatened Ecological Communities pursuant to schedule 2 of the Environment Protection Biodiversity Conservation Act 1999 [Commonwealth] and as listed by the Department of Environment and Conservation (2007c), and none are Priority Ecological Communities.</p> <p>Fauna Survey</p> <p>A reconnaissance fauna survey was undertaken by consultant Outback Ecology in September 2007. The report stated that whilst final development concepts are yet to be confirmed, the clearing footprints for the proposal are unlikely to have long-term impact to terrestrial fauna populations as all broad habitats affected are widespread in the region. Nevertheless, potential impacts of the proposal were identified and general management prescriptions were recommended to mitigate impacts.</p> <p>Environmental Impact Study</p> <p>A full Environmental Impact Study would be completed over the Mt Thirsty Cobalt Project area as part of any future feasibility studies.</p>
Infrastructure	A review of the available infrastructure was undertaken in the Study. The infrastructure required to support the mine and process plant includes; onsite power generation with future conversion to grid power; raw water supply from a nearby sub-terranean source dam; a tailings facility; buildings including offices, workshops, warehouse, laboratory, crib room and ablutions, and an accommodation camp.
Commodity Price Assumptions	Cobalt prices have been escalated by 1.50% per annum over the life of mine commencing at US\$62,000. Nickel prices have been escalated at 2.5% starting at US\$12,240. Prices were US\$83,505 and US\$18,000 for cobalt and nickel respectively in the final year of production (Year 21).
Exchange Rate Assumptions	This is modelled around consensus forecasts as publish by JP Morgan in Asia Pacific Metals & Mining, May 2017.
Capital Costs	<p>Capital estimates have been developed using a combination of enquiry to suppliers, benchmark projects and consultant databases. The costs presented have a base date of Q1 2017.</p> <ul style="list-style-type: none"> (a) Capital costs were prepared by CPC Project Design for the operation of the mine and process plant. (b) The cost of the processing plant, which includes all infrastructure related to processing the ROM cobalt-nickel mineralisation and disposing of the tailings. (c) The cost of mine support infrastructure, including in pit power and pumping. (d) The cost for the mobilisation of the mining contractor. (e) Indirect project costs, such as engineering costs, freight and contingency. (f) Sustaining capital and mine closure costs. <p>The capital costs do not make provision for social responsibility costs.</p>
Mine Closure	The Mine Closure costs are estimated to range from \$8.0 million to \$10 million at the cessation of the Mining Operations.

Operating Costs	<p>The Operating Costs have been defined as the cost of all ongoing mining, processing, operational activities and selling costs. Operating costs were prepared by CPC Project Design, CSA Global, Project Advantage and comprise:</p> <ul style="list-style-type: none"> (a) The cost of mining the cobalt-nickel mineralisation and waste material from the open pit, including the cost of man power, consumables and bulk supply. (b) The cost of processing the cobalt-nickel mineralisation to saleable products, including the cost of man power, grid power, consumables and bulk supply. (c) The cost of shared services for the support of the operation, including the cost of on- site labour, infrastructure, camp costs and bulk supply. (d) The cost of transporting the cobalt-nickel mixed sulphide concentrate to the Port of Esperance. (e) Head office costs. <p>Operating costs have been determined through database costs, quotes and estimations based on similar operations.</p>
Revenue Factors	<p>The Company has established the characteristics of the expected final product through test work programs in Perth. Price forecasts have been assumed from an examination of other studies, discussion with end users and recognised market analysis.</p>
Schedule and Timeframe	<p>The next phase of the project will comprise pre-feasibility/feasibility studies. It is likely that construction, subject to the outcome of these studies, permitting, financing etc, would be completed within two years of completion of such studies/decision to mine.</p>
Market Assessment	<p>The joint venture partners have assessed various marked data from independent providers in respect to the outlook for both cobalt and nickel. Based on this data, the outlook for cobalt, driven by battery demand remains strong. The outlook for nickel has recently firmed on the back of policy shifts in Asia with respect to the export of unprocessed ores.</p>
Funding	<p>To achieve the range of outcomes indicated in the Scoping Study, funding in the order of \$212 million for the project could be sourced through end users, potential joint venture partners or a combination of equity and debt (domestically or offshore).</p> <p>The joint venture parties may need to raise additional capital to fund further pre-feasibility/feasibility studies. Given the strong interest in the Project to date, it is the opinion of the joint venture parties that end users/joint venture partners may contribute capital to further studies or capital costs required to develop the project.</p> <ul style="list-style-type: none"> (a) The joint venture parties have significant experience in the funding of both exploration and development projects in the resource sector. (b) The joint venture parties have proven ability to attract new capital. <p>The joint venture parties are confident in expanding the existing JORC Resources used to complete the Scoping Study. Additionally, the Study outcome excludes optimisation of capital and operating costs.</p>
Sensitivity Analysis	<p>The sensitivity analysis has been undertaken on the following basis:</p> <p>Base case: The Base Case was selected after drawing upon price forecasts which have been assumed from an examination of other studies, discussions with end users and market forecasts. Information has also been sought directly from the CPC Project Design Scoping Study Report and ALS Metallurgical results which form the basis of the Scoping Study.</p> <p>Lower case: minus 10-15%</p> <p>Upper case: plus 10-15%</p>
Economic	<p>A discount rate of 8% has been used for financial modelling. This number was selected as a generic cost of capital and considered a prudent and suitable discount rate for project funding and economic forecasts in Australia. The model has been run as a life of mine model and includes sustaining capital costs. The Study outcome was tested for key financial inputs including: Basket Price, Capital and Operating Costs. All these inputs were tested for variations of +/-10-15%.</p>
Social	<p>The Company has embarked on several exercises in relation to the local communities in the area. General acceptance of the project is good. No material risks have been identified in this regard.</p>

Other	There are several other material risks to the Mt Thirsty Project including tax, compliance, price, competition, and insolvency which are common risks of all mining projects.
Audit or Reviews	The Scoping Study document has been extensively reviewed by various Barra and Conico personnel and several external industry consultants. All study inputs have been prepared by personnel with considerable industry experience including CPC Project Design, CSA Global, Provide Advantage and executives and staff of the joint venture parties.