

Updated Savannah Feasibility Study “Enhances fundamentals for a decision to restart”

Highlights

- Life-of-mine cash costs (Base Case - after by-product credits):
 - C1 cash costs - US\$1.50/lb or A\$1.90/lb (nickel in concentrate)
 - Operating cash costs - US\$2.40/lb or A\$3.10/lb (payable nickel)
- Annual Production - metal in concentrate (LOM average):
 - 10,800t nickel, 6,100t copper, 800t cobalt
- Mine life - approximately 8.3 years
- Life-of-mine (LOM) metal in concentrate production*:
 - 90,200t nickel, 50,700t copper, 6,700t cobalt
- Project highly leveraged to the US\$ nickel price and the US\$:A\$ FX rate:

Savannah Project Pre-tax NPV sensitivity table for a range of US\$ nickel prices and US\$:A\$ FX rates

Pre-tax NPV ₈ (\$'M)		Nickel Price (US\$/lb)					
		5.00	6.00	7.00	8.00	9.00	10.00
US\$:A\$ FX Rate	0.65	270	453	635	790	946	1,102
	0.70	207	377	546	690	835	979
	0.75	153	312	469	604	739	874
	0.80	105	254	401	528	654	781
	0.85	63	203	342	461	580	699

Panoramic’s Managing Director, Peter Harold said “The update of the Savannah Feasibility Study has enhanced the fundamentals prior to a decision to restart the Savannah Project. The improved mine plan and higher level of confidence around expected future production and costs, together with the short lead time, long mine life and modest capital investment required to resume operations and the outstanding exploration upside, places Panoraminc in a strong position to take full advantage of the expected upswing in commodity prices.”

*Approximately 1.1% of nickel in the production target is from material classified as Inferred Resource. The maximum annual proportion of contained nickel derived from Inferred Resources is 2.4%, in Year 5 of the mine plan.

Cautionary Statement

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.

Summary

Panoramic Resources Limited (“Panoramic”, ASX Code: PAN) is pleased to provide the results of the Updated Savannah Feasibility Study (“Updated FS”). The Updated FS supersedes the February 2017 Savannah Feasibility Study (“February 2017 FS”) (refer to the Company’s ASX announcement of 2 February 2017) and July 2017 Savannah FS Optimisation (“July 2017 Optimisation”) (refer to the Company’s ASX announcement of 20 July 2017). The optimisation work resulting in the Updated FS focussed on further improvements to the mine plan and schedule, additional metallurgical testwork leading to a better understanding of expected flotation performance, and updates to capital and operating costs to reflect recent movements in pricing since the earlier studies.

The key financial assumptions for the Updated FS Base Case was undertaken using monthly physicals and cash flows and includes movements in working capital. Modelling has been undertaken on a pre-tax, ungeared, real-dollars basis using a discount rate of 8%. All amounts are expressed in A\$ unless noted otherwise. Input costs are as at September 2017.

Commodity prices and the US\$:A\$ FX rate used in the Base Case are shown in Table 1 and are close to current prices. Marketing terms are based on recently received indicative terms based on specifications provided by the Company and derived from the 2017 metallurgical testwork program for a concentrate grading 8% Ni.

Table 1 – US\$ Commodity price lines and US\$:A\$ FX rate used for the Updated FS (Financial Base Case)

Commodity/FX	Base Case
Nickel	US\$5.50/lb
Copper	US\$3.10/lb
Cobalt	US\$28.00/lb
US\$:A\$ FX rate	0.78

The key physicals from the Updated FS are summarised in Table 2.

Table 2 – Resource and Production Summary

Operating Metric	October 2017 Updated FS
Mineral Resource	13.2Mt @ 1.65% Ni, 0.75% Cu and 0.11% Co for 218,300t nickel, 99,100t copper and 14,900t cobalt
Mine Production	7.65Mt @ 1.42% Ni, 0.68% Cu and 0.10% Co for 108,700t nickel, 51,700t copper and 7,300t cobalt
Mine Life	8.3 years
Life-of-mine metal in concentrate production	90,200t Ni, 50,700t Cu and 6,700t Co
Average annual metal in concentrate production	10,800tpa Ni, 6,100tpa Cu and 800t Co

As with the February 2017 FS, the Updated FS is based on mining the remaining Ore Reserve at Savannah, whilst developing across to the Savannah North deposit. The proposed access method and development timeframe for Savannah North are unchanged from the February 2017 FS, i.e. via decline from the existing Savannah decline at the 1440 Level, with access development from Savannah to first ore at Savannah North scheduled to take approximately nine months.

Changes to the mine plan and schedule since the February 2017 FS have focused on smoothing the development and mining rates to achieve more effective equipment utilisation, better management of ventilation requirements, and delivering more consistent ore tonnages and higher grades to the mill, resulting in the following amendments:

- Ore mining rates average 65,000 tonnes per month for the first 12 months, thereafter averaging approximately 80,000tpm;
- The vertical pillar in the upper portion of Savannah North, which had been included in the July 2017 Optimisation, is no longer required; and
- Removal from the mine plan of lower grade stopes (0.8 – 1.0% Ni) on the western side of the Upper Zone. This results in approximately 750,000t of material grading 0.9% Ni being removed from the mine plan. It is important to note that this material is not sterilised and remains accessible for mining at higher nickel prices.

The above changes to the mine plan result in a shorter mine life of 8.3 years compared to the February 2017 FS, but with an ore mining rate over LOM averaging 0.92Mtpa (February 2017 FS LOM average 0.8Mtpa).

The 2017 Savannah North mineralogical and metallurgical testwork programs are now complete. The programs were primarily focused on confirming the metallurgical performance of treating Savannah North ore through the existing Savannah plant to deliver an optimum bulk nickel/copper/cobalt concentrate product for sale. QEMSCAN™ mineralogical testwork completed on Savannah North has shown that Savannah North ore, whilst mineralogically similar to Savannah ore, has a higher pyrrhotite:pentlandite ratio than Savannah. Laboratory scale flotation testwork has shown that Savannah North samples achieve a slightly lower recovery (typically 3-5% lower) compared to a Savannah reference sample, which is reflective of the higher pyrrhotite:pentlandite ratio. The Updated FS assumes life-of-mine average recoveries of ~84% for Savannah North Lower Zone and ~82% for Savannah North Upper Zone into a bulk Ni-Cu-Co concentrate targeting an 8% nickel in concentrate grade.

Testwork also shows that Savannah North has higher Cu and Co recoveries than previously achieved from Savannah ore. These higher recoveries are included in the Updated FS.

Metal in concentrate production is forecast to average 10,800t Ni, 6,100t Cu and 800t Co per year with 90,200t Ni, 50,700t Cu and 6,700t Co in concentrate produced over the life of mine. The Savannah North concentrate is low in impurities and has attractive Fe:MgO and Ni:Fe ratios, making it an ideal blending feed for nickel sulphide smelters.

The Updated FS forecasts a pre-production and ramp-up capital investment of \$36 million (inclusive of working capital requirements but excluding any contingency). The pre-production and ramp-up capex estimate is higher than previously reported, due primarily to:

- Bringing forward processing plant refurbishment costs;
- Additional pre-production maintenance expenditure on mobile equipment; and
- Higher capitalised operating costs, primarily salaries, increased power demand and a slightly longer recommissioning period.

Operating costs have been updated to reflect September 2017 pricing. The main increase in operating costs compared to the February 2017 FS is due to salaries, reflecting a recent tightening up of labour rates in the WA mining industry. Power costs are also higher, reflecting increased ventilation and cooling requirements, particularly later in the mine life. Conversely, a range of consumables costs have decreased compared to the February 2017 FS. **Overall, site operating costs, on a cost per tonne milled basis, are 2% lower than in the February 2017 FS.** Other initiatives having a positive impact on operating costs include:

- Higher mill throughput and average head grade;
- Owner-operated concentrate transport fleet;
- Improved village catering terms; and
- Hybrid solar-diesel power generation.

Forecast average life-of-mine operating cash costs of US\$2.40/lb Ni (payable nickel basis after by-product credits) derived from the Updated FS are significantly lower than the February 2017 FS estimate of \$US3.30/lb. Apart from the cost areas discussed above, the other major contribution to the reduction in payable cash costs is the uplift in by-product credits, primarily from the higher US\$ cobalt price.

Panoramic remains in discussions with a number of potential offtake partners who have expressed an interest in securing Savannah North concentrate. The Updated FS incorporates revised offtake terms based on indicative term sheets received to date.

Table 3 summarises the financial outcomes of the Updated FS for the Base Case commodity prices/ US\$:A\$ FX rate and Long Term (LT) Real (2017\$) commodity prices/ US\$:A\$ FX rate.

Table 3 – Updated FS Financial Summary for a range of US\$ commodity prices and US\$:A\$ FX rates (rounding to two significant figures).

Financial Metrics	Units	Base Case Prices	Long Term Prices*
Commodity Price Assumption - Ni	US\$/lb	5.50	6.75
Commodity Price Assumption - Cu	US\$/lb	3.10	2.72
Commodity Price Assumption - Co	US\$/lb	28.00	26.00
US\$:A\$ Exchange Rate Assumption	US\$	0.78	0.75
Revenue	A\$M	1,470	1,720
Up-front Capital (pre-production)	A\$M	36	32
LOM Capital (inclusive of up-front capital)	A\$M	240	230
Operating costs plus royalties	A\$M	900	920
Pre-tax cash flow	A\$M	330	570
Pre-tax NPV (8% discount rate)	A\$M	210	380
IRR	%	100	200
C1 cash costs (Ni in concentrate basis)	A\$/lb Ni	1.90	2.10
	US\$/lb	1.50	1.60
Operating cash costs (payable Ni basis)	A\$/lb Ni	3.10	3.40
	US\$/lb	2.40	2.60
Sustaining cash costs (operating cash costs plus sustaining capital, payable Ni basis)	A\$/lb Ni	4.50	4.80
	US\$/lb	3.50	3.60

* The Long Term (LT) Real (2017\$) US\$ nickel and copper prices and the US\$:A\$ FX rate are consensus forecasts sourced from UBS Global I/O Miner Price Review, dated 5 October 2017. The LT Real (2017\$) US\$ cobalt price is sourced from Macquarie Bank Limited Research Report titled "Price Forecast Changes", dated 9 October 2017.

Details

Project Background

The Savannah Nickel Project is located 240km south of Kununurra in the East Kimberley region of Western Australia, and consists of a nickel sulphide orebody, underground mine, process plant and associated infrastructure. Panoramic was formed in 2001 for the purpose of developing Savannah. Panoramic successfully commissioned the Savannah Project in late 2004, and over a twelve year period, Savannah milled 8.5 million tonnes at an average grade of 1.29% nickel, 0.65% copper and 0.06% cobalt to produce 1.22 million tonnes of concentrate containing 94,600 tonnes nickel, 53,000 tonnes copper and 5,000 tonnes cobalt. In FY2016, Savannah achieved a record year with 9,845 tonnes nickel, 6,011 tonnes copper and 476 tonnes cobalt in concentrate produced. The Savannah Project was placed on care and maintenance in May 2016 pending a sustained recovery in the US\$ nickel price and confirmation that Savannah North was a viable project.

Savannah North was discovered in February 2014, when drill-hole KUD1525, targeting the interpreted fault offset of the main Savannah orebody, intersected 89.3m @ 1.60% Ni, 0.76% Cu and 0.12% Co (refer to the Company's ASX announcement of 18 February 2014). Resource drilling commenced in early 2015, and in October 2015 the Company released the maiden Savannah North Mineral Resource estimate of 6.88 million tonnes at 1.59% Ni for 109,600t Ni (refer to the Company's ASX announcement of 1 October 2015).

In January 2016, the Company released the results of a Scoping Study on the maiden Savannah North Mineral Resource estimate, which indicated a positive economic outcome given the production, revenue and cost assumptions modelled (refer to the Company's ASX announcement of 27 January 2016).

In February 2016, the Company resumed underground drilling at Savannah North with the purpose of infilling and converting areas of Inferred Resource to Indicated category, while also testing for extensions to the Resource both up dip to the east and down dip to the west and north. The program was completed in July 2016 and culminated in the release of an upgraded Savannah North Mineral Resource estimate of 10.27 million tonnes at 1.70% Ni for 175,100t Ni, 74,400t copper and 12,700t cobalt in August 2016 (*refer to the Company's ASX announcement of 24 August 2016*).

On 2 February 2017, the Company announced the results of the Savannah Feasibility Study. The Study evaluated the technical and financial viability of recommencing operations at Savannah, based on mining the remaining Savannah orebody plus the Savannah North deposit. The Base Case for the Study assumed no material changes to recent Savannah mining and processing practices and that the operation would continue to produce a bulk Ni-Cu-Co concentrate sold under terms similar to the current contract with Sino Nickel / Jinchuan, which expires in March 2020. Based on the results of the Savannah Feasibility Study, a maiden Ore Reserve for Savannah North, of **6.65Mt @ 1.42% Ni, 0.61% Cu and 0.10% Co for contained metal of 94,500t nickel, 40,900t copper and 6,700t cobalt**, was declared. The February 2017 FS demonstrated a 10 year mine life, producing approximately **99,200t Ni, 51,500t Cu and 6,900t Co in concentrate** over LOM, with initial (pre-production) capital requirements of \$20M, and payable operating cash costs of US\$3.30/lb (*refer to the Company's ASX announcement of 2 February 2017*).

During 2017, the Company has continued to optimise the February 2017 FS. On 20 July 2017, the Company released the results of the Savannah FS Optimisation (*refer to the Company's ASX announcement of 20 July 2017*). The July 2017 Optimisation focussed on improvements to the mine plan and schedule and review of major operating cost centres to reduce operating costs. The optimisation work resulted in a revised mine plan with an approximate 8.3 year mine life, due to faster mining rates and the omission of some low-grade stopes. The changes to the mine plan and cost saving initiatives, resulted in a reduction in operating costs of over 10% compared to the February 2017 FS.

Updated Feasibility Study Scope

The Updated FS reported herein is the culmination of optimisation work of the February 2017 FS conducted during 2017. The objective of the Updated FS was to address the following key areas:

- **Mining productivity** – complete the assessment of alternative mine designs and schedules, and finalise the preferred production scenario;
- **Product optimisation** – complete the metallurgical testwork on Savannah North samples to confirm the processing characteristics and provide concentrate specifications for marketing negotiations with potential offtake partners;
- **Capital costs** – review and update pre-production and early-stage capital expenditure requirements to reflect September 2017 plant and equipment pricing;
- **Operating costs** – update the major cost areas (e.g. labour, power, consumables, contractor services) to September 2017 prices; and
- **Marketing and financing** – continued engagement with potential off-take partners and financiers.

Each of these study areas is discussed below.

Mineral Resources and Ore Reserves

Mineral Resources and Ore Reserves for the Savannah Project used in the Updated FS have been previously reported by the Company (*refer to the Company's ASX announcements of 24 August 2016 and 2 February 2017 respectively for Competent Persons' statements and JORC disclosure tables*).

No New Information or Data

This announcement contains references to exploration results, and Mineral Resource and Ore Reserve estimates, all of which have been cross referenced to previous market announcements made by the Company. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements and, in the case of estimates of Mineral Resources and Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

Mining

Changes to the mine plan and schedule since the February 2017 FS have focused on smoothing the development and mining rates to achieve more effective equipment utilisation, better management of ventilation requirements, and to deliver more consistent ore tonnages and higher grades to the mill, resulting in the following amendments:

- Ore mining rates average 65,000 tonnes per month for the first 12 months, thereafter averaging 78,000tpm;
- The vertical pillar in the upper portion of Savannah North, which had been included in the July 2017 Optimisation, is no longer required; and
- Removal from the mine plan of lower grade stopes (0.8 – 1.0% Ni) on the western side of the Upper Zone. This results in approximately 750,000t of material grading 0.9% Ni being removed from the mine plan. It is important to note that this material is not sterilised and remains accessible for mining at higher nickel prices.

Access development from Savannah to Savannah North is scheduled to commence concurrently with the resumption of production from Savannah. Access development to first ore at Savannah North is approximately nine months, first Savannah North stopes are in production 11 months after commencement of access development and full production from Savannah North is reached 15 months after commencement of access development (unchanged from the February 2017 FS).

Detailed modelling of ventilation requirements by the Company’s ventilation consultant identified potential constraints with the proposed ventilation design adopted in the February 2017 FS. The Company has retained the ventilation design used in the February 2017 FS (the key component being a 5m raise-bored fresh air rise to the 1570 Drill Drive at Savannah North), but increased the capacity of the primary fan on the second Savannah return air rise by using the primary fan to be relocated from the Company’s Lanfranchi operation. Raise boring of the Savannah North fresh air rise is scheduled to take 15 months, which will initially limit production capacity until established. The revised mining and development rates are within the limits of the proposed ventilation design and development timeframe.

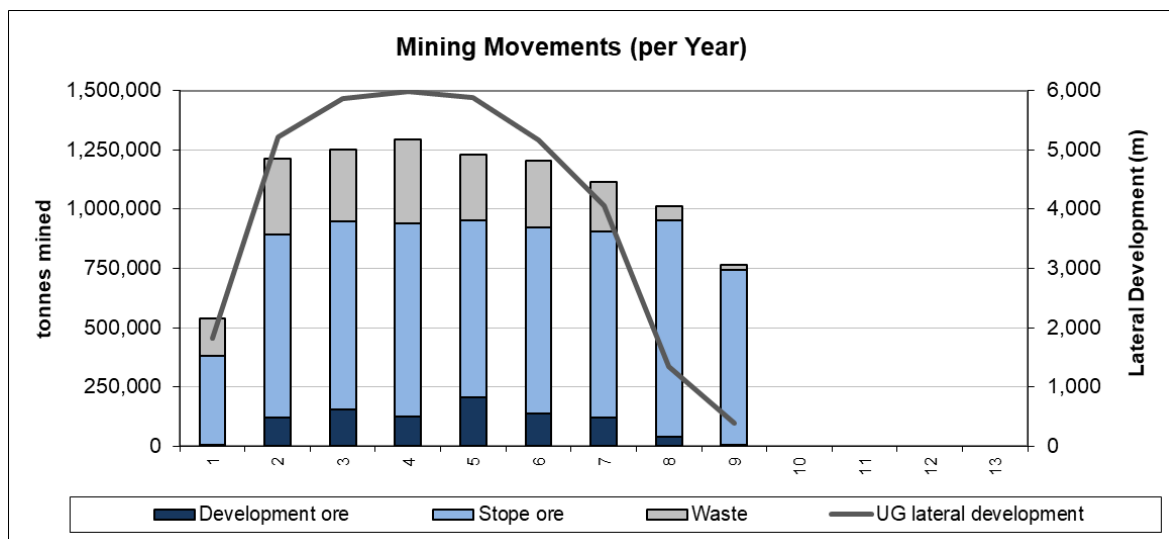
A vertical pillar, which had been included in the July 2017 Optimisation, was identified by Panoramic’s geotechnical consultant as a potential source of seismicity/deformation. The mine design adopted for the Updated FS excludes the vertical pillar and is otherwise essentially unchanged from the February 2017 FS, which had previously been assessed by the Company’s geotechnical consultant.

Other mining productivity assumptions, including equipment selection, jumbo development rates, load and haul rates, stope designs, and paste fill and curing times are largely unchanged from the February 2017 FS.

The above changes to the mine plan result in a shorter mine life of approximately 8.3 years compared to the February 2017 FS, but with an increased average ore mining rate once at full production of 0.94Mtpa (February 2017 FS LOM average 0.82Mtpa).

The updated mine plan has a mining production target of **7.65Mt @ 1.42% Ni, 0.68% Cu and 0.10% Co, containing 108,700t Ni, 51,700t Cu and 7,300t Co**. Total ore tonnes mined and development rates are shown in Figure 1.

Figure 1 - Annual mining development and production



The optimised mining plan includes approximately 1.1% of contained nickel derived from material classified as Inferred Resource (Table 4). The maximum annual contribution of contained nickel derived from Inferred Resources is 2.4%, in Year 5 (Figure 2).

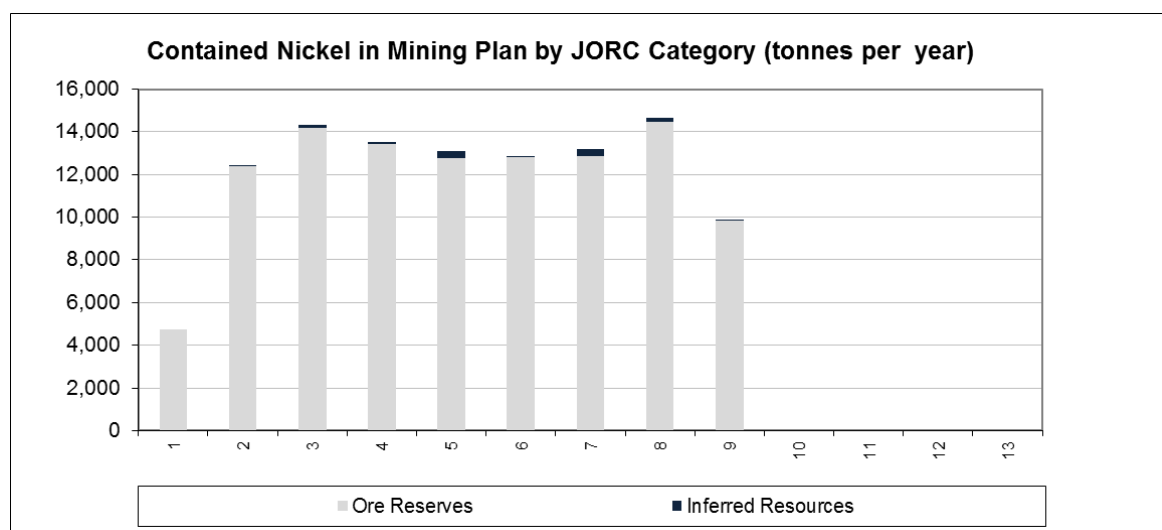
Table 4 – Updated FS – Mineralised material in the mining plan by JORC category

	Mineralised Material Tonnes	Grade Ni%	Grade Cu%	Grade Co%	Contained Ni Tonnes	Contained Cu Tonnes	Contained Co Tonnes
Ore Reserves	7.58	1.42	0.68	0.09	107,500	51,200	7,200
Inferred Resource	0.06	1.91	0.69	0.13	1,200	400	100
Total	7.65	1.42	0.68	0.10	108,700	51,700	7,300

Cautionary Statement

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.

Figure 2 – Updated FS – Annual nickel in material mined by JORC category



Metallurgy

The 2017 Savannah North mineralogical and metallurgical testwork programs, undertaken under the supervision of a metallurgical consultant, are now complete and the results have been reviewed by an independent metallurgical consultancy. The programs were primarily focused on determining the expected metallurgical performance of treating Savannah North ore through the existing Savannah plant to deliver an optimum bulk nickel/copper/cobalt concentrate product for sale.

Savannah North mineralisation is broadly similar to Savannah ore, i.e. pyrrhotite-dominant sulphides with sub-ordinate pentlandite and chalcopyrite. QEMSCAN™ mineralogical testwork shows that approximately 85% of the elemental nickel occurs as pentlandite, with around 7% of the nickel occurring as non-sulphide. Laser ablation ICP-MS confirms that the remainder of the nickel is present as solid solution in pyrrhotite. Approximately 60% to 75% of the pentlandite occurs in a liberated form, with the less liberated pentlandite mainly locked with pyrrhotite (occurring as fine inclusions, thin or thick flames). The P₈₀ of pentlandite varies between 59µm and 78µm across the sample set. Chalcopyrite has a P₈₀ of about 80µm and about 75% is classified as 'liberated'; the less liberated chalcopyrite is mainly locked with pyrrhotite and less frequently with pentlandite. Cobalt occurs within the pentlandite, with no discrete cobalt minerals observed in the QEMSCAN™ study.

QEMSCAN™ mineralogical testwork completed on bulk composites and individual variability samples from Savannah North has shown that Savannah North ore, whilst mineralogically similar to Savannah ore, has a higher pyrrhotite:pentlandite ratio than Savannah. Nickel in solid solution with pyrrhotite in the Savannah North Upper Zone (SNUZ) and Savannah North Lower Zone (SNLZ) composites accounts for 16-17% of the overall nickel content, compared to 12% in the Savannah reference composite. The implication of this difference in nickel department, is that nickel recovery from SNLZ and SNUZ may be 3-5% lower than for Savannah ore at an equivalent concentrate grade.

Comminution testwork returned Bond Work Indices ranging from 9.5 to 12.5 (“medium”). SAG mill comminution (SMC) testing showed the Savannah North mineralisation to be “very soft” to “soft”. The softer comminution parameters will provide some scope to either maintain mill throughput while producing a finer grind P₈₀ or alternatively maintain the existing grind P₈₀ at a slightly higher mill throughput.

Flotation testwork on Savannah North material for the Updated FS is now complete. A total of 46 rougher-scavenger flotation tests and 19 cleaner tests were conducted. The final product specifications are a function of mineralogy, plant configuration and performance, customer requirements and offtake terms. Historically, the optimum product from Savannah was a bulk concentrate averaging 7.5% nickel grade at a recovery of 85-87% depending on the mill head grade. Laboratory scale flotation testwork has shown that Savannah North samples achieve a slightly lower recovery (typically 3-5% lower) compared to a Savannah reference sample, which is reflective of the higher pyrrhotite:pentlandite ratio. The flotation testwork indicates average recoveries of ~84% for SNLZ and ~82% for SNUZ into a bulk Ni-Cu-Co concentrate targeting an 8% nickel in concentrate grade.

The flotation testwork indicates that recoveries for Cu and Co from Savannah North are expected to be higher than historically achieved from Savannah. Forecast recoveries for SNUZ are 99% for Cu and 92% for Co, and SNLZ are 99% for Cu and 95% for Co.

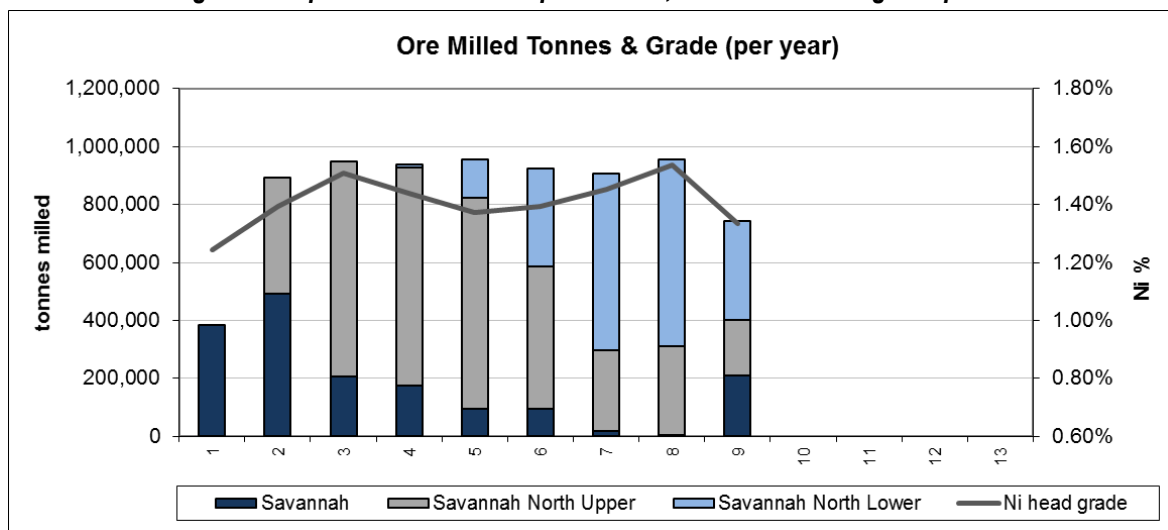
Processing

The Updated FS assumes no change to the existing Savannah processing plant configuration or capacity. The nominal throughput capacity of the Savannah plant is approximately 1.0Mtpa. Between February and May 2016, prior to going into care and maintenance, the Savannah plant was operating between 120tph and 140tph, averaging approximately 130tph (85,000t per month, or over 1Mtpa).

For the Updated FS, plant throughput ranges between 90tph and 130tph, averaging approximately 120tph at full production (approximately 78,000t per month). On an annual basis, life-of-mine mill throughput averages 0.94Mtpa, up from 0.82Mtpa in the February 2017 FS, and peaks at 0.95Mtpa. A three-month ramp-up to steady-state production (~65,000tpm) is assumed in the Updated FS and full production is achieved after 12 months, as Savannah North material becomes available.

Life-of-mine nickel head grade for the Updated FS averages 1.42% Ni, with monthly averages varying from 1.0% Ni to 1.7% Ni. Lower nickel grades are processed in the first year of production, associated with the remnant Ore Reserves at Savannah. The annual milling profile and ore sources are shown in Figure 3.

Figure 3 – Updated FS – Annual production, ore sources and grade profile

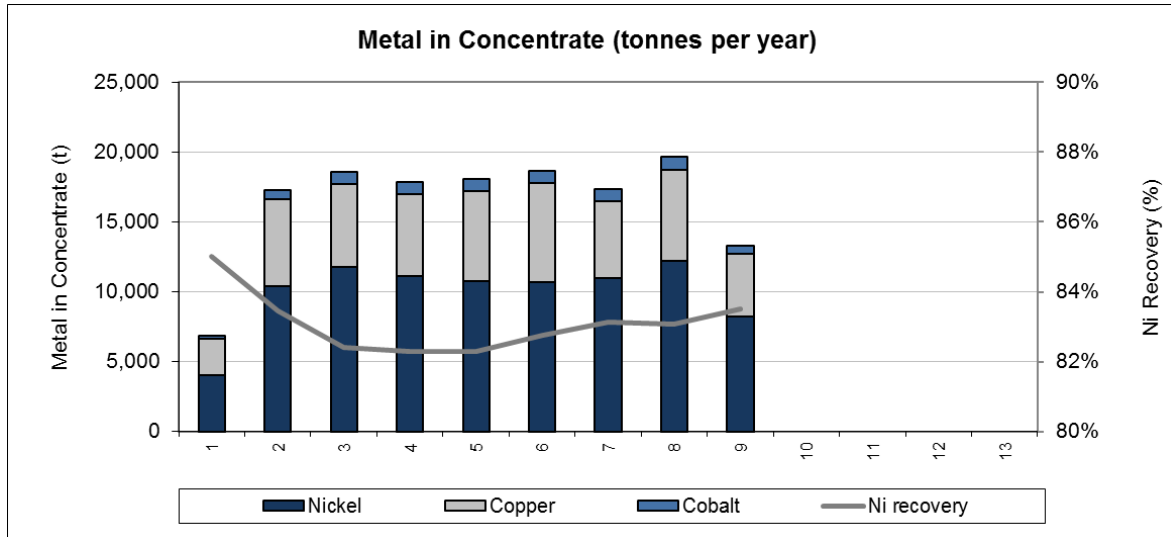


For the Updated FS, the Company is targeting production of a bulk Ni-Cu-Co concentrate with a concentrate grade of 8% Ni. Processing recoveries at the target concentrate grade will vary with each ore type. Over the mine life, recoveries average 83% Ni, 98% Cu and 92% Co, based on historical plant performance for Savannah ore and the 2017 metallurgical testwork results on Savannah North samples.

Concentrate Production

Metal in concentrate production is forecast to average 10,800t Ni, 6,100t Cu and 800t Co per year with 90,200t Ni, 50,700t Cu and 6,700t Co in concentrate produced over life of mine. Annual metal in concentrate production is shown in Figure 4.

Figure 4 - Annual nickel processing recovery and metal in concentrate production



The Savannah North concentrate is low in impurities and has attractive Fe:MgO and Ni:Fe ratios, making it an ideal blending feed for nickel concentrate smelters. Typical concentrate specifications, based on analysis of concentrates from the 2017 metallurgical testwork program, are shown in Table 5.

Table 5 – Savannah North typical concentrate specifications

Savannah North Concentrate Specifications	Typical
Nickel (Ni)	8%
Copper (Cu)	4.5%
Cobalt (Co)	0.6%
Magnesium Oxide (MgO)	<1%
Iron (Fe)	46%
Sulphur (S)	35%
Arsenic (As)	<5ppm
Lead (Pb)	<100ppm
Selenium (Se)	<100ppm
Fluorine (F)	<100ppm
Chlorine (Cl)	<50ppm

Infrastructure

The existing processing plant and accommodation camp are sufficient for the proposed future operations under the Updated FS.

Infrastructure required for a re-start of operations remains on site and is being maintained by care and maintenance crews. Major fixed plant and mobile equipment is either ready to be recommissioned or can be at short notice, with refurbishments costed in the financial model. Underground decline and pumping systems have been maintained and operated so that minimal rehabilitation will be required to recommence underground operations.

The Company has received pricing estimates from two independent engineering firms for refurbishment of the Savannah processing plant, paste fill plant and Wyndham concentrate storage shed. Due to the age of some components, the Company considers it prudent to bring forward some aspects of the process plant refurbishment prior to recommissioning, in order to mitigate unplanned maintenance. This refurbishment has resulted in an increase in pre-production capital costs, as discussed below.

Other major infrastructure works required on re-start of operations for the Updated FS are unchanged from the February 2017 FS, and include: Savannah North decline access development, Savannah North Fresh Air Rise and tailings storage facility wall lift.

The Updated FS includes provision for solar power. A proposal for solar power has been provided by the incumbent third-party power provider, utilising a 4MW system generating approximately 10% of the life-of-mine power requirement. Modelling assumes the Company will own the solar power infrastructure. Annual savings on power costs of approximately \$2M are estimated, compared with 100% diesel power.

Approvals and Permitting

Savannah North is located on the existing granted Savannah mining leases. The site groundwater licence issued by the Department of Water and the Licence to Operate issued by the Department of Environment Regulation remain current.

Before mining operations can recommence, the standard notifications and approvals under the Mines Safety and Inspection Act 1994 (WA) will be sought. Panoramic does not anticipate any issues with regulatory approvals upon a restart of operations as the Savannah operation ran successfully for 12 years, and the restart will be based on the existing systems and processes.

No environmental permitting issues are expected upon a re-start of operations as all environmental reporting, monitoring and licence conditions are being complied with during care and maintenance. A works approval for the TSF1 tailings dam lift has been granted and an extension is being sought to ensure this approval remains in place. Shortly after a recommencement of operations, permits will be sought for an increase in tailings storage capacity (TSF2).

Social and Heritage

The Savannah operation has maintained strong social and heritage relationships with the traditional owners, pastoralists and other local business and community groups over the last twelve years. The 2007 Kimberley Nickel Co-existence Agreement outlines the processes for acknowledgement and engagement with traditional owners and has given rise to employment and business opportunities, heritage and cultural awareness training and other support and services in health, education, sports and arts for local communities. This agreement remains in place and applies to the recommencement of operations and life of mine production.

Capital Costs

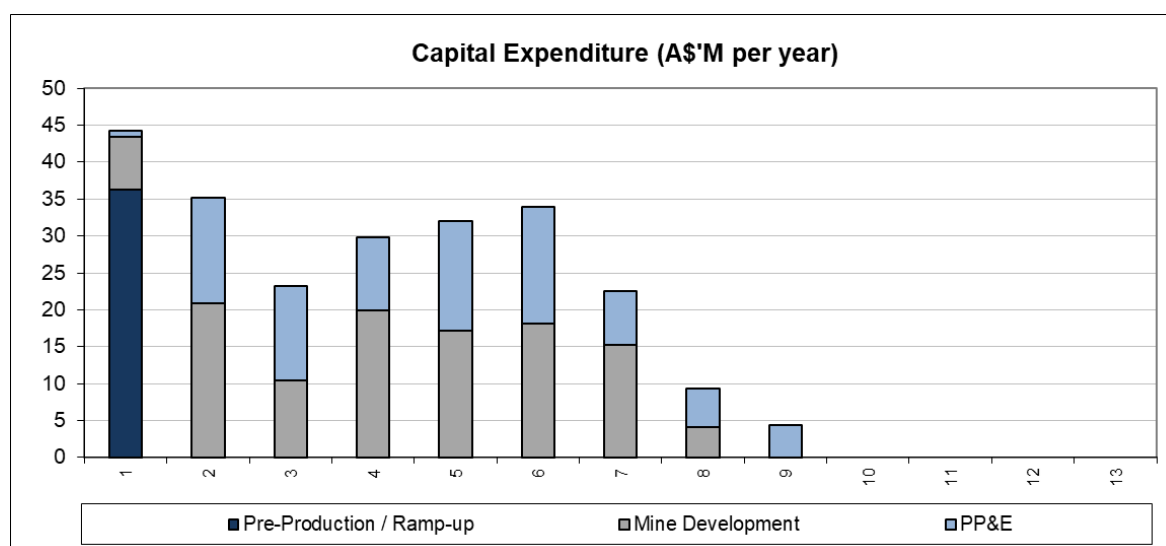
Pre-production and ramp-up capital costs in the Updated FS (Base Case) are \$36M. The ramp-up period is assumed to cover the first three months of production, during which time all operating costs and revenue would be capitalised. Life-of-mine capital expenditure, inclusive of pre-production costs, mining capital development and sustaining property, plant and equipment (PP&E), but excluding closure costs, is estimated to be \$235M (*Table 6*). The estimated annual capital expenditure profile is shown in Figure 5.

Costs are as at September 2017. PP&E capital estimates are mostly based on current supplier quotes. Fixed plant refurbishment costs are based on recently obtained estimates provided by reputable engineering firms. Costs for the Savannah North primary ventilation include contractor quotes for raiseboring, mobilisation and site works, and the cost to dismantle, transport and reinstall the Deacon primary fan from Lanfranchi. Costs for the underground mobile fleet include estimates from an independent maintenance supplier to refurbish the existing fleet, and finance lease costs for new equipment. General sustaining capital after the first two years is based on Savannah historical PP&E expenditure. No contingency is applied.

Table 6 - Updated FS – pre-production, ramp-up, sustaining and LOM capital cost estimates (\$'M).
Amounts are rounded to nearest \$1M.

Description	Pre-production and ramp-up	Sustaining	Life of Mine
Mine development	8	103	111
Mining mobile equipment	4	32	36
Capitalised pre-production and ramp-up opex	28	-	28
Other pre-production and sustaining capital	6	23	29
Savannah North primary ventilation	4	13	17
Plant refurbishment	10	-	10
Tailings facilities construction	2	8	9
Solar power plant	-	7	7
TSF 1 capping	-	7	7
Concentrate haulage fleet	-	5	5
Initial store inventories	2	-	2
Capitalised Revenue	(28)	-	(28)
TOTAL	36	198	235

Figure 5 – Updated FS – Annual capital expenditure profile



Operating Costs

Operating costs used in the Updated FS are generally based on recently obtained pricing from reputable suppliers and service providers, and are as at September 2017.

Operating costs for the major consumable items (e.g. explosives, cement, ground support, processing reagents) are based on recently obtained pricing from suppliers. Fuel cost is the estimated landed price at Savannah based on a long-term oil price of US\$55/bbl, and includes the diesel fuel rebate, where applicable. Unit consumption rates are based on historical performance at Savannah for the same equipment or activity.

Employment levels are derived from detailed activity modelling. Rosters are generally on a 15:13 basis, in line with past practice at Savannah. Salaries have been benchmarked to current WA mining industry levels, based on reports provided to the Company from labour hire and recruitment firms. Labour costs include statutory superannuation and payroll tax requirements, and estimated redundancy provisions at the end of mine life.

Forecast maintenance requirements are based on detailed equipment performance records achieved for the same or equivalent equipment at Savannah.

Costs for the major contractor services (ground support / production drilling, camp services, laboratory, power) are based on existing contract terms or recent proposals for these services.

Costs for items of a general nature were factored either on a per tonne or per month basis from recent Savannah costs for the same cost categories, adjusted for price inflation where appropriate.

Royalties to the WA state government and traditional owners are included in the model.

Unit site operating costs on a per tonne milled basis in the Updated FS are estimated to be \$97/t compared to \$99/t in the February 2017 FS, a reduction of 2% (*Table 7*). Total life-of mine site-based operating costs in the Updated FS are reduced to \$730M, compared to \$800M in the February 2017 FS.

Employment-related costs comprise the largest single item at over 25% of total operating costs. When flights and contractor costs relating to camp services are included, labour and associated employment costs comprise over 30% of total cash operating costs. Power and fuel expenditure, largely due to diesel consumption for on-site power generation, together comprise almost 15% of costs.

Table 7 - Updated FS – Life of Mine Unit Cash Operating Cost (\$/t milled)

Description	LOM cost per tonne milled (A\$/t)	LOM total (A\$'M)
Mining (including Geology)	59	440
Processing	21	160
Other site costs	17	130
Total	97	730

Annual unit operating costs per tonne ore milled and total operating costs for the Financial Base Case are shown in Figures 6 and 7.

Figure 6 - Updated FS – Annual unit operating costs per tonne milled

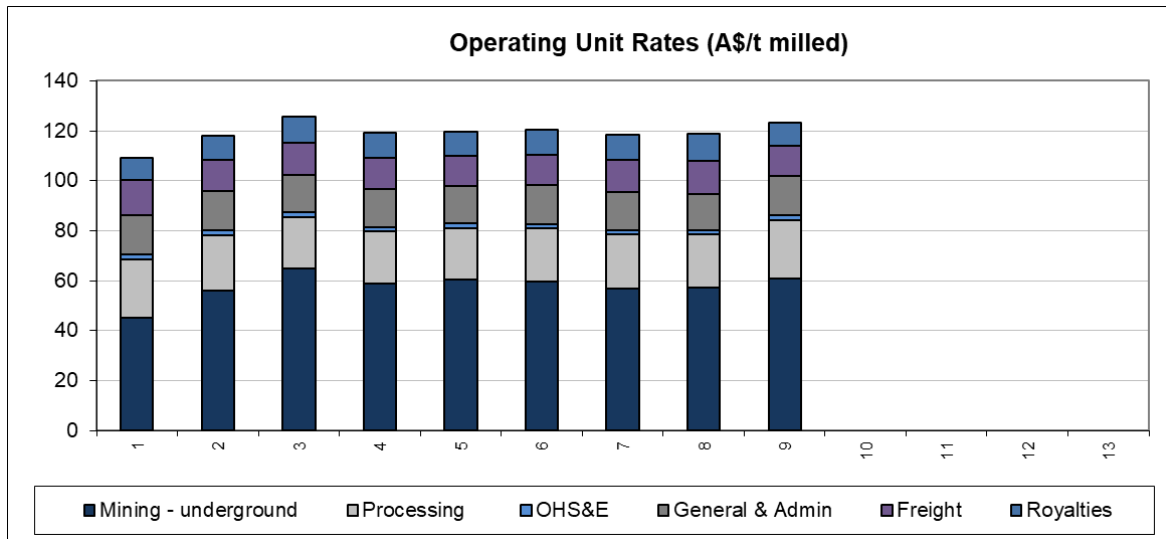
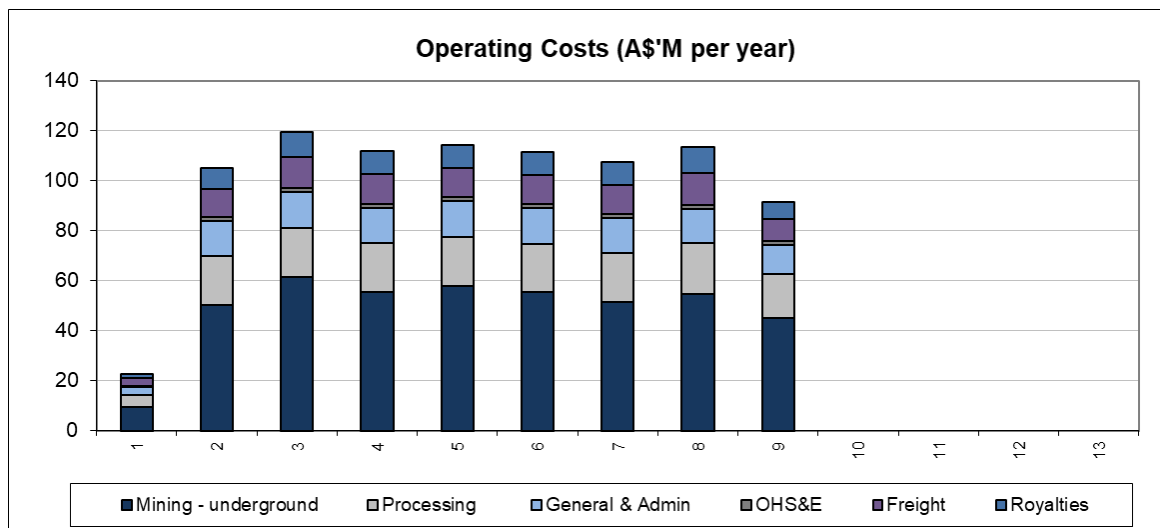


Figure 7 - Updated FS – Annual operating costs



Marketing

The current offtake agreement with Sino Nickel / Jinchuan expires 31 March 2020. Terms under the agreement are confidential.

Panoramic has held further discussions with potential offtake parties including Sino Nickel / Jinchuan regarding future concentrate purchases. Indicative terms for bulk concentrate sales have been received from various interested parties and incorporated into the Updated FS financial model.

Marketing activities are on-going.

Financial Modelling for Updated FS

Base Case Key Financial Assumptions

Modelling for the Updated FS was undertaken using monthly physicals and cash flows and includes movements in working capital. Modelling has been undertaken on a pre-tax, ungeared, real-dollars basis using a discount rate of 8%. All amounts are expressed in A\$ unless noted otherwise. Input costs are as at September 2017.

Commodity prices and the US\$:A\$ FX rate used in the Base Case are shown in Table 8 and are close to current prices. Marketing terms are based on recently received indicative terms based on specifications provided by the Company and derived from the 2017 metallurgical testwork program for a concentrate grading 8% Ni.

Table 8 – US\$ Commodity price lines and US\$:A\$ FX rate used for the Updated FS (Base Case)

Commodity/FX	Base Case
Nickel	US\$5.50/lb
Copper	US\$3.10/lb
Cobalt	US\$28.00/lb
US\$:A\$ FX rate	0.78

Standardised Reportable Costs

Forecast average operating cash costs of US\$2.40/lb Ni (payable nickel basis after by-product credits) over the life of the project derived from the Updated FS are significantly lower than the February 2017 FS estimate of \$US3.30/lb. In addition to the cost initiatives discussed above, the other significant contributor to the reduction in payable cash costs is the higher US\$ cobalt price, which results in an improved by-product credit attributable to this metal. Standardised reportable costs for the Updated FS Base Case are shown in Table 9 and Figure 8. **C1 cash costs are expected to lie at the bottom end of the second quartile of the global nickel mining cost curve (Figure 9).**

Table 9 – Standardised reportable unit costs for the Updated FS compared with the February 2017 FS (rounding to two significant figures)

Financial Metrics	Units	February 2017 FS	Updated FS
C1 cash costs (Ni in concentrate basis)	A\$/lb Ni	2.70	1.90
	US\$/lb Ni	2.00	1.50
Operating cash costs (payable Ni basis)	A\$/lb Ni	4.50	3.10
	US\$/lb Ni	3.30	2.40
Sustaining cash costs (operating cash costs plus sustaining capital, payable Ni basis)	A\$/lb Ni	6.00	4.50
	US\$/lb Ni	4.40	3.50

Definitions:

C1 cash cost:	Operating cash costs including mining, processing, geology, OHS&E, general and administrative, and concentrate transport costs, less by-product credits, divided by nickel in concentrate produced.
Operating cash cost:	Operating cash costs including mining, processing, geology, OHS&E, general and administrative, and concentrate transport costs, plus royalties, less by-product credits, divided by payable nickel produced.
Sustaining cash cost:	Operating cash costs including mining, processing, geology, OHS&E, general and administrative, and concentrate transport costs, plus royalties, plus stay-in-business capital expenditure, less by-product credits, divided by payable nickel produced.

Figure 8 Annual unit operating and sustaining cash costs (US\$ per pound payable nickel)

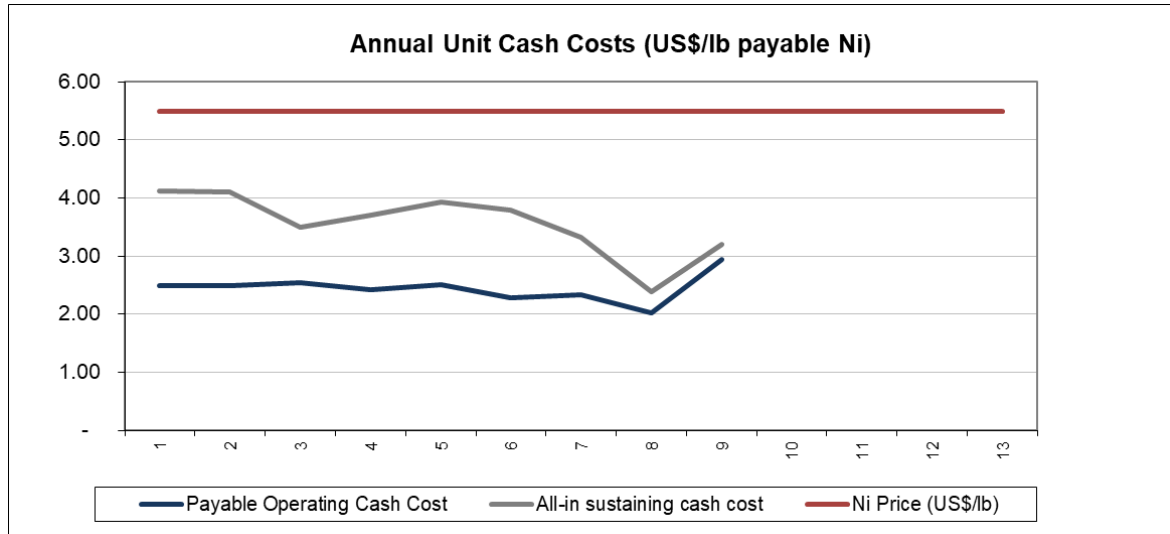
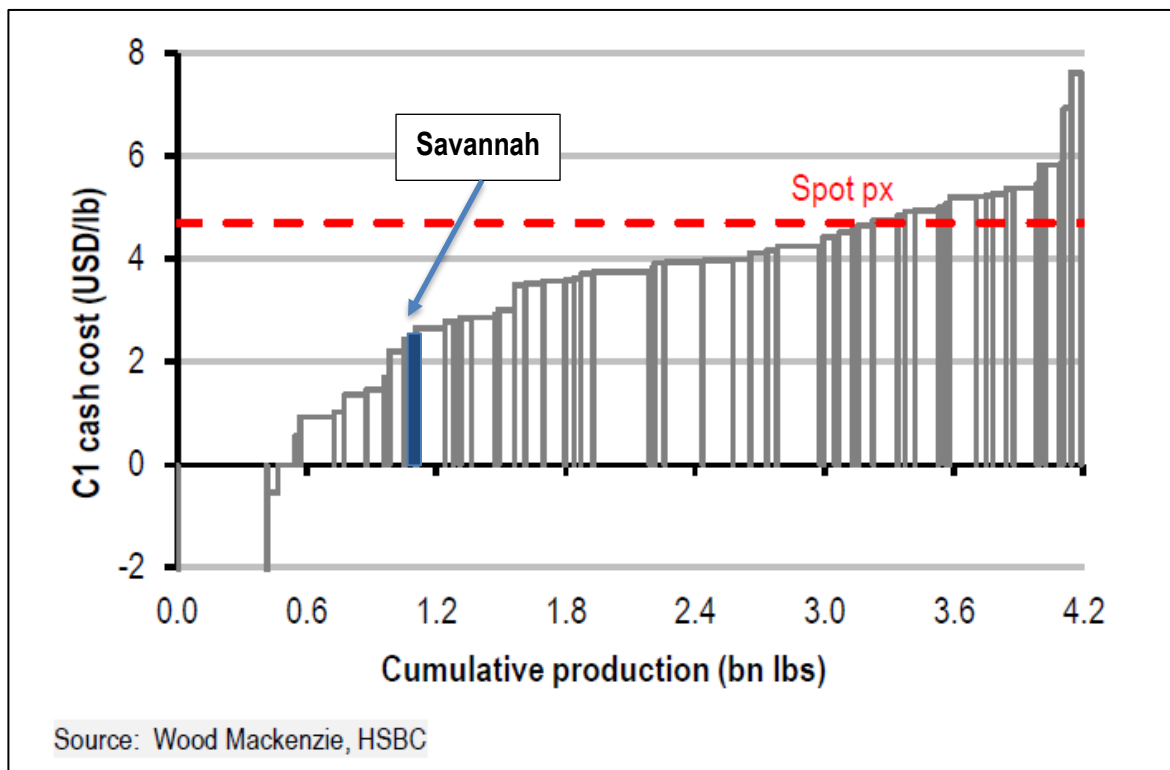


Figure 9 – Global 2017 nickel mining C1 cash costs (US\$ per pound. Source - HSBC Metals Quarterly Q4 2017, 11 October 2017). Forecast Savannah Updated FS payable nickel cash costs superimposed in blue (width is not to scale and is therefore not reflective of relative quantity of nickel produced at Savannah).

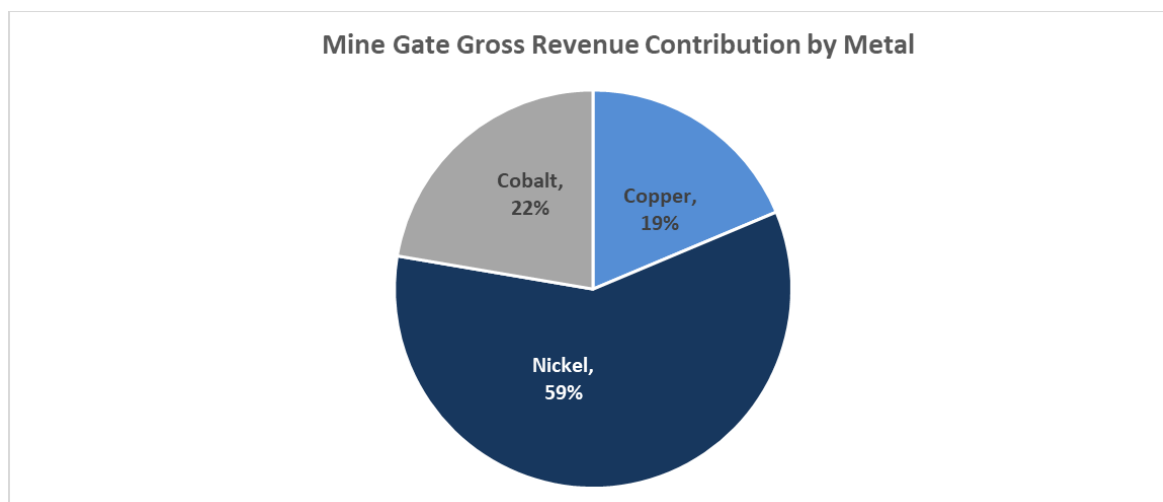


Base Case Cash Flow

The Updated FS shows a positive financial outcome, at the Base Case price lines adopted for the study. Revenue is estimated at \$1,470M over life of mine, or ~\$180M on an annual basis over the 8.3 year period of production. EBITDA is \$570M over life of mine, or ~\$70M per annum. **Undiscounted pre-tax free cash flow generated over life of mine is \$330M.**

In the Updated FS, cobalt is an important contributor to revenue, comprising over 20% of gross (mine gate) revenue, over life-of-mine (Figure 10).

Figure 10 – Percentage contributions to gross (mine gate) revenue of nickel, copper and cobalt



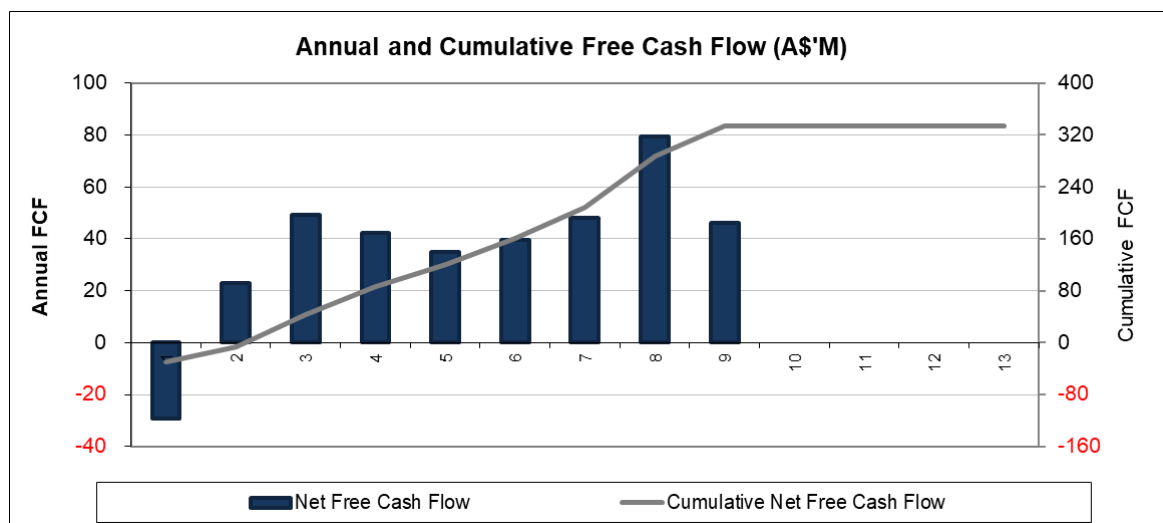
At the price lines assumed for the Updated FS Base Case, **maximum cash draw down is approximately \$40M**, which occurs during the three-month ramp-up period after commencement of production. The Project becomes sustainably cash flow positive 14 months after recommencement of production and **project payback is achieved less than two years after the commencement of production.**

The Key financial metrics for the Base Case are shown in Table 10. **The pre-tax NPV generated at 8% discount rate is \$210M and the IRR is 100%.** Annual and cumulative cash flow is shown in Figure 11.

Table 10 - Key Base Case Financial Metrics

Parameter	Updated FS Base Case
Revenue	\$1,470M over LOM
EBITDA	\$570M over LOM
Pre-tax cash flow	\$330M over LOM
Pre-tax NPV (8%)	\$210M
IRR	100%
Payback	Less than 2 years
Maximum cash drawdown	Approximately \$40M

Figure 11 - Annual and cumulative cash flow at Base Case US\$ commodity prices and US\$:A\$ FX rate



Sensitivity Analysis

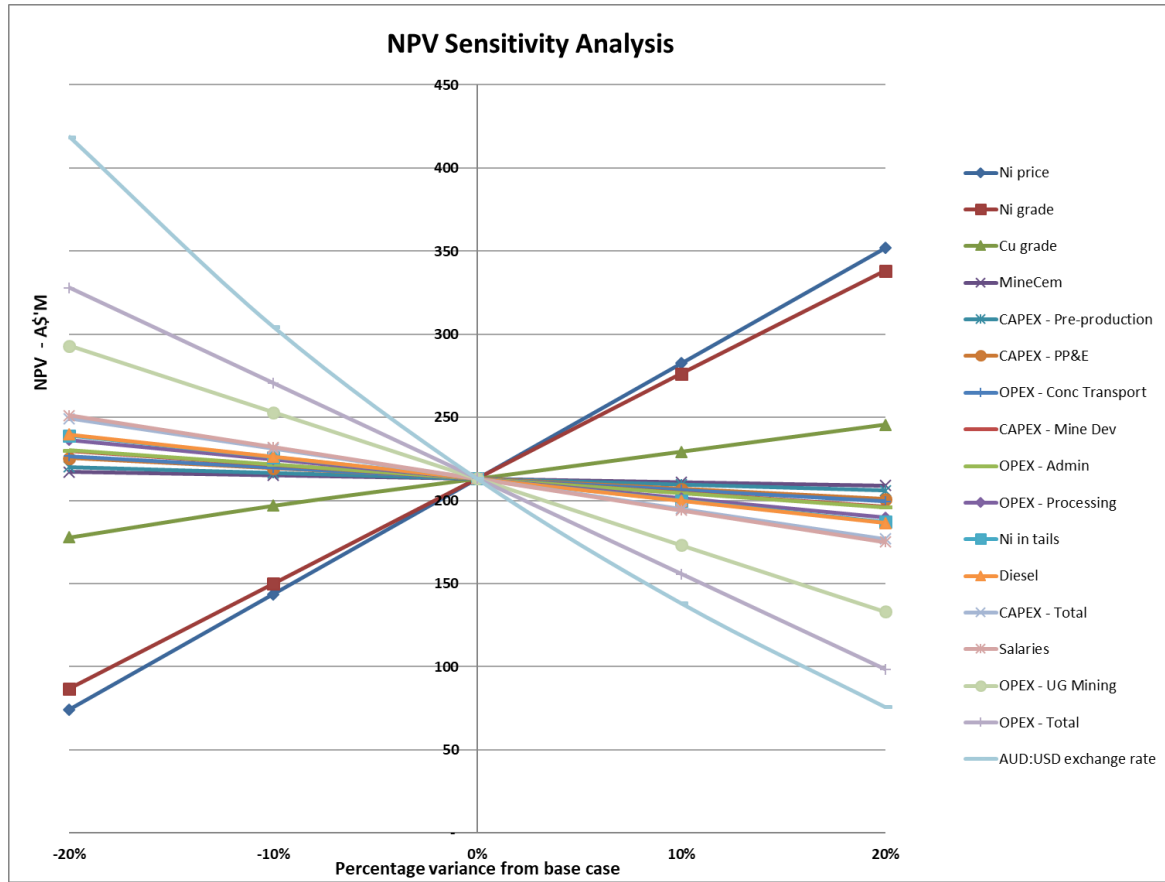
The Updated FS Base Case uses a nickel price of US\$5.50/lb, over the 8.3 year life of mine. Importantly, the consensus view of commodity price forecasters is for a return to higher nickel prices, partly driven by increased use of nickel in batteries by the rapidly emerging electric vehicle industry. Accordingly, **the Project is highly leveraged to any future recovery in the US\$ nickel price. At a nickel price of US\$8.00/lb and US\$:A\$ FX rate of US\$0.75 (Long Term Real (2017\$) FX rate), the Savannah Project would generate a pre-tax NPV of ~\$600M.**

Project NPV sensitivities at a range of US\$ nickel prices and US\$:A\$ FX rates are shown in Table 11. Sensitivities to a range of internal and external factors for a +/- 20% movement from the Base Case parameters are shown in Figure 12.

Table 11 - NPV sensitivity table for a range of US\$ nickel prices and US\$:A\$ FX rates

Pre-tax NPV ₈ (\$'M)		Nickel Price (US\$/lb)					
		5.00	6.00	7.00	8.00	9.00	10.00
US\$:A\$ FX Rate	0.65	270	453	635	790	946	1,102
	0.70	207	377	546	690	835	979
	0.75	153	312	469	604	739	874
	0.80	105	254	401	528	654	781
	0.85	63	203	342	461	580	699

Figure 12 – Sensitivity of NPV to a range of internal and external factors.



Funding Requirements

A funding requirement (i.e. maximum negative cash draw down) of approximately \$40M inclusive of working capital, but excluding contingency, is estimated for the price lines modelled, peaking during the three-month ramp-up period after commencement of production. The Company is continuing discussions with a range of potential financiers including offtake partners, traditional resource banks and other resource financing organisations. Indicative financing proposals have been received covering a variety of funding options, including:

- Traditional bank resource project financing;
- Offtake financing / prepayments; and
- Streaming mechanisms.

The Company is working through the range of financing options to determine the optimal quantum and structure. As a result of the level of interest received to date, the Company is confident that appropriate funding will be available for the project. Financing activities are on-going.

Key Risks

An updated risk assessment for the project highlighted the following key project risks:

- Capital costs and recommissioning timeframe associated with refurbishment of the processing plant;
- Delays in access development and/or establishment of the Savannah North ventilation circuit, impacting on the transition from Savannah to Savannah North production;
- Concentrate grade and metallurgical recoveries; and
- US\$ commodity prices, diesel fuel price and US\$:A\$ FX rate.

Panoramic's estimates of capital costs to refurbish the processing plant have increased since the February 2017 Feasibility Study. The Company has engaged two reputable engineering firms with prior plant refurbishment experience to provide estimates of refurbishment time and costs. The Company would engage a project manager to oversee the refurbishment works. The Company has allowed five months for plant refurbishment and recommissioning. Additionally, a staged ramp-up to full production over three months has been assumed.

The Company adopted conservative lateral and vertical development rates in its studies, which are below current Australian best practice for these activities. In 2015, the Company developed the 1570 Exploration Drill Drive to Savannah North, without experiencing development problems or delays due to ground conditions. In the event that access to Savannah North is delayed, additional remnant ore at Savannah would be available to maintain milling activities, both from material already in the mining plan, and additional ore sources below the 900 Fault which are currently excluded from the mining plan.

An independent geotechnical assessment of the ground conditions at the location of the proposed Savannah North Fresh Air Rise concluded that apart from the weathered top 35m, ground conditions were favourable for the development of the vent rise. In the event of unforeseen geotechnical issues impacting completion of the ventilation raisebore hole, an option to complete the fresh air raise using the horadial development method would be available. If delays to establishing the Savannah North ventilation circuit impacted production, alternative temporary ventilation strategies would be implemented.

During the ramp-up and initial operating phases, only Savannah ore will be processed. Based on its 12 year operating history processing this material, the Company has a high confidence that the modelled processing recoveries and concentrate grades can be achieved. In regard to Savannah North, grade and recovery parameters are derived from a comprehensive metallurgical testwork program, the results of which have been peer reviewed by an independent metallurgical consultancy.

Commodity price volatility and US\$:A\$ FX rate risks are proposed to be managed using appropriate levels of hedging. Structures that allow the Company to retain exposure to higher nickel prices, such as bought put options, may be preferred over outright forwards. Panoramic notes that the strong appreciation in the US\$ cobalt price has an important positive impact on the Savannah Project economics. In this regard, the Company is exploring ways to lock in this value.

Productivity Improvements

The Updated FS has continued the conservative approach adopted by Panoramic, of applying conventional mining and processing practices established and proven at Savannah over the 12 years of operations. As a result, the Company has a high level of confidence in the ability to deliver the Updated FS outcomes. The Company has also been evaluating a number of opportunities to provide step-changes in productivity and cost reduction. These opportunities involve the adoption of new and emerging technologies, and include:

- **Ore passes** – shorter loader tramming distances to increase productivity;
- **Battery loaders** – reduces heat generation and diesel particulate emissions, resulting in lower ventilation and cooling requirements;
- **Alternative truck technology** – smaller, lighter units, faster travel times, lower capital and operating costs;
- **Small drive sizes** – reduces waste moved, requires less ground support and lowers development costs;
- **Drilling automation** – increases utilisation, improved quality resulting in less rework; and
- **Ore sorting** – rejection of waste prior to milling, improving head grade and increasing milling capacity.

More work is required to advance these opportunities to Feasibility Study standard. These opportunities will continue to be assessed for potential adoption by the Company in the future.

Nickel and Cobalt Outlook

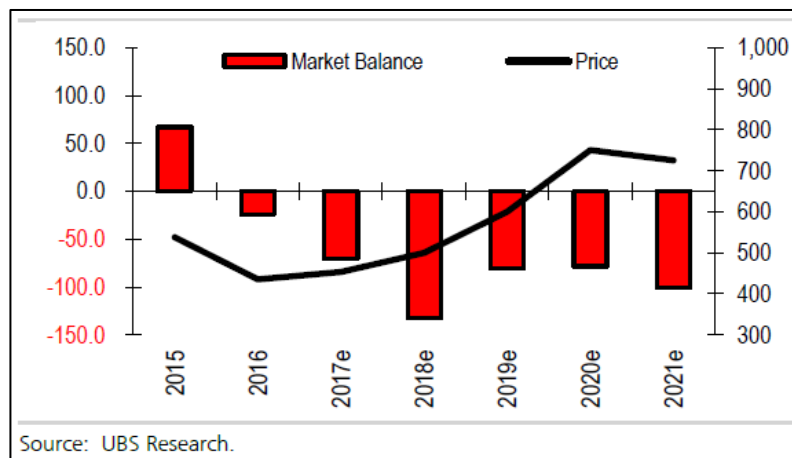
Panoramic is encouraged by the outlook for nickel and cobalt prices, largely on the expected uptake of electric vehicles (EV's). Global investment bank UBS notes in its latest Miner's Price Review (UBS, 5 October 2017) that:

"The EV / Battery industry is feverishly lifting capacity by up to 4-5x by early next decade as auto OEMs turn attention to developing EV powertrains suitable for entire portfolios of vehicles. The supply chain is gearing up; the battery revolution is coming. Momentum is tightening raw material markets, lithium and cobalt most noticeably, but nickel and copper too in coming years.

We think EVs' could offer a renaissance for the nickel market. Nickel-cobalt-aluminium & nickel-manganese-cobalt cathodes are set to capture the lion's share of growth in EV battery capacity. The transition to more nickel rich (and less cobalt rich) chemistries, plus our base case EV forecast of 15mn sales by 2025e implies total nickel demand might increase by 300-900ktpa, or +10%-40%. And only half of the world's nickel supply can produce battery grade."

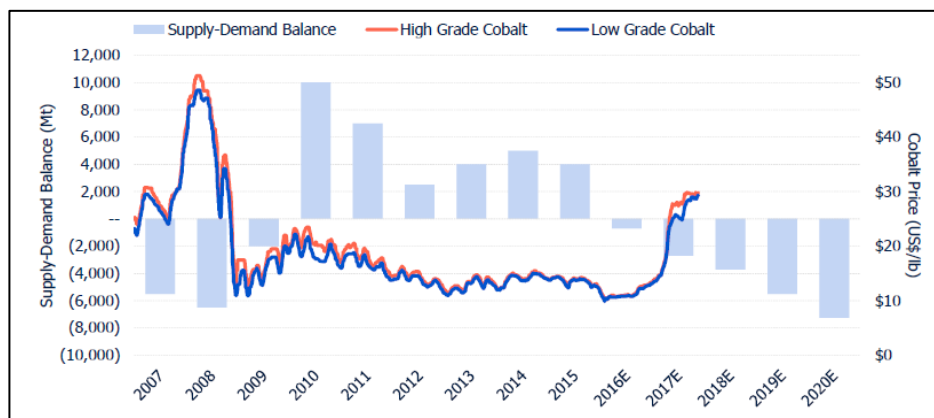
The Company notes that UBS is forecasting nickel deficits of 71kt to 132kt between 2018 and 2021, with nickel prices during that time forecast to increase to US\$7.50/lb in 2020 (Figure 13).

Figure 13 – Forecast nickel supply/demand balance (Mt – left-hand scale) and nickel prices (US\$/lb – right-hand scale) (Source: UBS Global I/O Miner's Price Review, 5 October 2017).



In regard to cobalt, Macquarie Bank is forecasting cobalt prices to increase to US\$41/lb in 2022, with the fast growth of EV demand pushing the cobalt market into sustained and widening shortages (Macquarie Research Commodities Compendium, 10 October 2017). Specialty cobalt investment company Cobalt 27 Capital Corp (C27), is forecasting cobalt demand in lithium-ion batteries to grow at a 11.7% CAGR to 2022. On the supply side, C27 notes that supply is currently concentrated in the DRC, a relatively politically unstable country, where approximately 15% of DRC output is from unregulated artisanal mining (C27 corporate presentation, 20 September 2017). C27 expects the current supply deficit to continue (Figure 14).

Figure 14 – Forecast cobalt supply/demand balance (Mt – left-hand scale) and historical cobalt prices (Metal Bulletin, nominal US\$/lb – right-hand scale) (Source: Cobalt 27 corporate presentation, 20 September 2017).



About the Company

Panoramic Resources Limited (**ASX code: PAN**) is a Western Australian mining company formed in 2001 for the purpose of developing the Savannah Nickel Project in the East Kimberley. Panoramic successfully commissioned the \$65 million Savannah Project in late 2004 and then in 2005 purchased and restarted the Lanfranchi Nickel Project, near Kambalda. In FY2014, the Company produced a record 22,256t contained nickel and produced 19,301t contained nickel in FY2015. The Lanfranchi and Savannah Projects were placed on care and maintenance in November 2015 and May 2016 respectively.

Following the successful development of the nickel projects, the Company diversified its resource base to include platinum group metals (PGM) and gold. The PGM Division consists of the Panton Project, located 60km south of the Savannah Project and the Thunder Bay North Project in Northern Ontario, Canada, in which Rio Tinto is earning 70% by spending up to C\$20 million over five years. Following the ASX listing of Horizon Gold Limited (ASX Code: HRN) in December 2016, the Company's interest in gold consists of an indirect investment in the Gum Creek Gold Project located near Wiluna through its 51% majority shareholding in Horizon.

Panoramic has been a consistent dividend payer and has paid out a total of \$114.3 million in fully franked dividends between 2008 and 2016. At 30 June 2017, Panoramic had \$10.7 million in cash (including \$1.8 million in restricted cash) and no bank debt.

The Company's vision is to broaden its exploration and production base, with the aim of becoming a major, diversified mining company in the S&P/ASX 100 Index. The growth path will include developing existing resources, discovering new ore bodies, acquiring additional projects and is being led by an experienced exploration-to-production team with a proven track record.

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No New Information or Data

This announcement contains references to exploration results, and Mineral Resource and Ore Reserve estimates, all of which have been cross referenced to previous market announcements made by the Company. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements and, in the case of estimates of Mineral Resources and Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

Forward Looking Statements

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 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 of 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 may be required under applicable securities laws.