

1 September 2015

Underground study doubles life of Tasmanian mine and adds \$90m in pre-tax cash

This announcement should be read in conjunction with the attached Cautionary Statements and Appendix.

Elementos Limited (ASX: ELT) is pleased to announce the results of an independent Underground Scoping Study into the final stage of a three-stage development of its wholly-owned Cleveland tin-copper-tungsten mine, located in north-west Tasmania.

The findings demonstrate that underground operations will extend the Cleveland mine life by eight years, **doubling the life of the project, and adding an additional A\$90 million** to the project's pre-tax cash flows. Production from the stage 3 underground mine is scheduled to commence in FY2021.

Elementos CEO Tim McManus said, "The results of this and other recent studies on the Cleveland deposits elevates **Elementos to mine developer status.**"

Highlights

- The projected pre-tax cash flow for the underground project is **A\$90 million**, boosting the integrated Cleveland Project pre-tax cash flow to **A\$166 million**.
- Refurbishment of the **existing 3.5 kilometre decline** and 9.7 kilometres of the existing 25 kilometres of underground development minimises the required development capital.
- Underground infrastructure, orebody geometries and ground conditions are **amenable to low-cost mechanised bulk mining** with large machinery.
- Mining inventory¹ of 1.9 million tonnes (Mt) at 0.61% tin (Sn) and 0.22% copper (Cu) and 1.7 Mt at 0.31% tungsten oxide (WO₃).
- Underground ore production peaks at 650,000 tonnes per annum, with potential capacity up to 900,000 tonnes per annum.
- The capital requirements are fully funded by cash flow from stages 1 and 2; as such, **stage 3 will not require additional equity**.
- The integrated tailings-pit-underground operation is projected to generate a revenue of **A\$638 million over the 15-year mine life**, with exploration potential yet to be tested.

¹ A mining inventory is not an Ore Reserve. Refer to Cautionary Statements attached to this announcement.

This latest study, by leading consultancy AMC Consultants Pty Ltd (AMC), follows the completion of a pre-feasibility study² on reprocessing the tin-copper tailings from historical mining operations (stage 1) and an independent open pit scoping study³, also by AMC, on mining the near-surface, high-grade tin-copper resource (stage 2).

Cleveland development strategy

Stage	Project	Commodities	Status (August 2015)	Production commences ^a
1	Cleveland Tailings	Sn-Cu	Pre-feasibility completed	FY2017
2	Cleveland Open Pit	Sn-Cu	Scoping study completed	FY2018
3	Cleveland Underground	Sn-Cu-WO ₃	Scoping study completed	FY2021

Sn = tin, Cu = copper, WO₃ = tungsten.

^a Subject to completion of technical studies and obtaining necessary approvals.

The underground study examined the technical and economic viability of mining and processing the previously developed tin-copper deposit and a separate tungsten deposit. As such, the viability of the underground operation was assessed as an extension to the proposed tailings and open-pit operations with shared services, plant and infrastructure.

The AMC study provides a high-level mine design, mining inventory, production schedule, process plant flowsheet, and cost estimate for the potential underground operation. Based on the previously announced Mineral Resource⁴ (reproduced below), the study identified a mining inventory¹ of 1.9 Mt of tin-copper ore grading 0.61% Sn and 0.22% Cu and 1.7 Mt of tungsten ore grading 0.31% WO₃.

Underground Tin-Copper Mineral Resource (at 0.35% Sn cut-off)

Category	Tonnage	Sn Grade	Cu Grade
Indicated	4.2 Mt	0.67%	0.28%
Inferred	2.4 Mt	0.56%	0.19%

Table subject to rounding errors; Sn = tin, Cu = copper, Mt = million tonnes

Underground Tungsten Mineral Resource (at 0.20% WO₃ cut-off)

Category	Tonnage	WO ₃ Grade
Inferred	4 Mt	0.30%

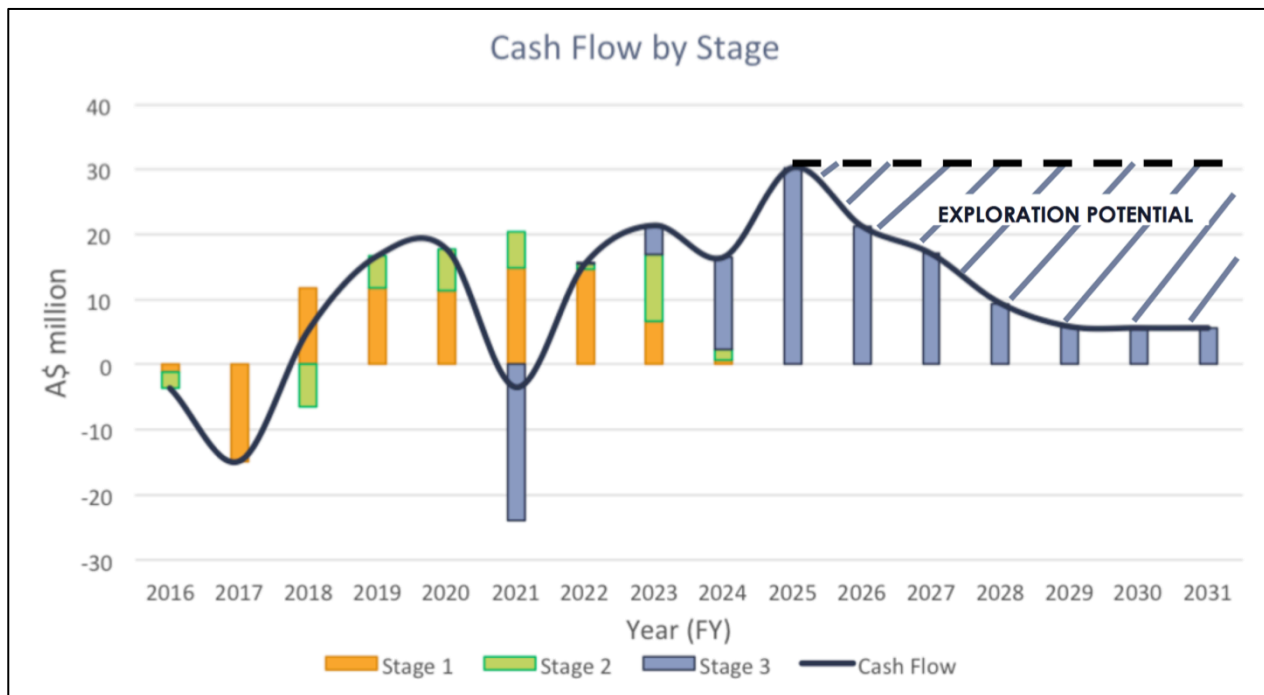
Table subject to rounding errors; WO₃ = tungsten oxide; Mt = million tonnes

² Refer to announcement to the ASX on 3 August 2015, "Cleveland Tailings PFS"

³ Refer to announcement to the ASX on 20 August 2015, "Cleveland Open Pit study adds \$21m to cash flow"

⁴ Refer to announcement to the ASX on 3 March 2015, "High Grade Open Pit Resource Defined"

Using the results of this study and the previous studies, Elementos completed an integrated financial analysis of the combined tailings reprocessing, open-pit and underground mining operation. As shown in the accompanying chart, **the positive cash flow from stage 1 funds the investment in stage 2 in 2018, and then the positive cash flows from both stages 1 and 2 fund the investment in stage 3 in 2021.**



"The integrated financial analysis clearly demonstrates how our staged development strategy reduces up-front capital and maximises shareholder value. The integration of all three stages extends the projected mine life to over 15 years, and we have barely started exploring the potential of the Cleveland deposits. I am very confident that the drilling program planned to for early next year will add to our resource base, underpinning a long-life, globally significant tin deposit." Mr McManus said.

"In addition to Cleveland's significant tin potential, we also believe that Elementos has a globally significant tungsten asset in its own right. The 4 million tonnes of Inferred resources applied to the underground study is only a small part of a large porphyry of unknown extent. With multiple historical drill intersections of greater than 150 metres grading 0.3% WO₃, and open in all directions, we are eager to further explore and test the limits of this tungsten mineralisation."

For more information, please contact:

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Elementos is an Australian, ASX-listed metals company, focused on the staged, low cost development of Cleveland, an advanced stage tin-copper and tungsten project in Tasmania. Please visit us at: www.elementos.com.au

CAUTIONARY STATEMENTS

Elementos has concluded it has a reasonable basis for providing the forward-looking statements included in this announcement. The detailed reasons for that conclusion are outlined throughout this announcement and the attached Appendix.

Forward-looking statements

This document may contain certain forward-looking statements. Such statements are only predictions, based on certain assumptions and involve known and unknown risks, uncertainties and other factors, many of which are beyond the company's control. Actual events or results may differ materially from the events or results expected or implied in any forward-looking statement.

The inclusion of such statements should not be regarded as a representation, warranty or prediction with respect to the accuracy of the underlying assumptions or that any forward-looking statements will be or are likely to be fulfilled.

Elementos undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date of this document (subject to securities exchange disclosure requirements).

The information in this document does not take into account the objectives, financial situation or particular needs of any person or organisation. Nothing contained in this document constitutes investment, legal, tax or other advice.

Mineral Resource

Elementos confirms that Mineral Resource estimates used in this document were estimated, reported and reviewed in accordance with the guidelines of the Australian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code) 2012 edition.

Elementos confirms that it is not aware of any new information or data that materially affects the Underground Mineral Resource information included in the "Cleveland Open Pit - High-Grade Mineral Resource Defined" released on 3 March 2015 and that all material assumptions and technical parameters underpinning the estimates in the Cleveland Underground Mineral Resource continue to apply and have not materially changed. Elementos also confirms the form and context in which the Competent Person's findings are presented have not been materially modified from the 3 March 2015 announcement.

No Ore Reserve has been determined

The scoping study referred to in this announcement is based on a low-level technical and economic assessment, which is insufficient to support 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.

Elementos advises that the scoping study results are partly drawn from Inferred Resources. There is a low level of geological confidence associated with these estimates and there is no certainty that further exploration work will result in the conversion of the estimate to an Indicated Mineral Resources or that the production target itself will be realised.

The term "mining inventory" is used to describe the Indicated and Inferred Mineral Resource within the mine design. Whereas an Ore Reserve, as defined by the JORC code (2012 Edition), must be based on a study at pre-feasibility study level or better and must not include Inferred Mineral Resources or Exploration Targets. As such, no Ore Reserve can be stated on the basis of this scoping study.

APPENDIX: SCOPING STUDY PARAMETERS

The following information is adapted from the Cleveland Underground Scoping Study report dated 30 July 2015, prepared for Elementos by AMC Consultants Pty Ltd (AMC).

The study assumed that the proposed tailings reprocessing and open-pit mining projects will be operating at their planned capacities at the commencement of underground mining.

Unless otherwise stated, all cash flows are pre-tax, in Australian dollars, are undiscounted, and are not subject to inflation or escalation factors. All years are financial years (FY) ending 30 June.

Background

The Cleveland Mine is situated at Luina, approximately 60 km from the port of Burnie (population approximately 20,000). North-west Tasmania has well-developed infrastructure and a strong mining culture. The site is linked to the port of Burnie and other major population centres on the north-west coast by sealed all-weather roads. Accessible power runs through the Cleveland mine site, and there is abundant water available for use. The Burnie region has a large pool of available and experienced workforce.

Cleveland was an underground tin and copper mine operated by Aberfoyle Limited (Aberfoyle) between 1968 and 1986. During the life of the Cleveland operations, Aberfoyle mined and treated 5.7 million tonnes of ore, producing approximately 24,000 tonnes of tin and 10,000 tonnes of copper in concentrate. The mine closed in 1986 due to falling metal prices, leaving a fully developed and partially mined tin-copper deposit, an undeveloped tungsten deposit, and both deposits open at depth and along strike.

Figure 1: Mining Lease Application Map



Scope

Elementos has completed a pre-feasibility study on reprocessing the tin-copper tailings from historical mining operations, which are stored within the boundaries of the Cleveland lease. And AMC has completed an independent open-pit mining scoping study on the in situ, high-grade tin-copper deposit. This latest study, also by AMC, looked at the technical and economic viability of mining and processing the deeper extensions to the tin-copper deposit and a separate tungsten

deposit. As such, the viability of the underground operation was assessed as an extension to the proposed tailings and open-pit operations with shared services, plant and infrastructure.

This independent study provides a high-level mine design, mining inventory, production schedule, process plant flowsheet, and cost estimate for the potential underground operation. Using the results of this study and the previous studies, Elementos then completed an integrated financial analysis of the combined tailings reprocessing, open-pit and underground mining operation.

Geology

The Cleveland deposits are divided into two styles: tin-copper-bearing, semi-massive sulfide lenses and a tungsten-bearing porphyry and quartz stockwork. Both lie within a series of sedimentary rocks belonging to the Hall's Formation of Cambrian age. The primary minerals in the semi-massive sulfide lenses are pyrrhotite and cassiterite with lesser stannite and chalcopyrite. Wolframite is the primary tungsten mineral in the porphyry and quartz stockwork.

The semi-massive sulfide mineralisation was formed by the hydrothermal replacement of limestone beds by mineralising solutions associated with the emplacement of the Devonian-Carboniferous Meredith granite. Having undergone intense deformation from thrust faulting, the tin and copper lenses are steeply dipping and have strike lengths of up to 500 metres, across-strike thicknesses of up to 30 metres, and known down-dip extents of up to 800 metres. The deposit is geologically similar to the tin-bearing semi-massive and massive sulfide stratiform mineralisation at Renison.

The tungsten-bearing porphyry and quartz stockwork, known as the Foley Zone, was formed by intense quartz veining forming a halo around a vertical quartz porphyry dyke. The deposit has a known strike length of 300 metres, across strike thickness of up to 300 metres, and a known depth of at least 900 metres, but is open at in all directions.

Resource estimates

The Scoping Study was based on the Underground Mineral Resources, classified in accordance with the JORC Code 2012, announced to the ASX on 3 March 2015⁵. The study excluded the Open Pit Mineral Resource, which was the subject of a separate study⁶, and any reported Exploration Targets.

Underground Tin-Copper Mineral Resource (at 0.35% Sn cut-off)

Category	Tonnage	Sn Grade	Cu Grade
Indicated Mineral Resource	4.2 Mt	0.67%	0.28%
Inferred Mineral Resource	2.4 Mt	0.56%	0.19%

Table subject to rounding errors; Sn = tin, Cu = copper, Mt = million tonnes

Underground Tungsten Mineral Resource (at 0.20% WO₃ cut-off)

Category	Tonnage	WO ₃ Grade
Inferred Mineral Resource	4 Mt	0.30%

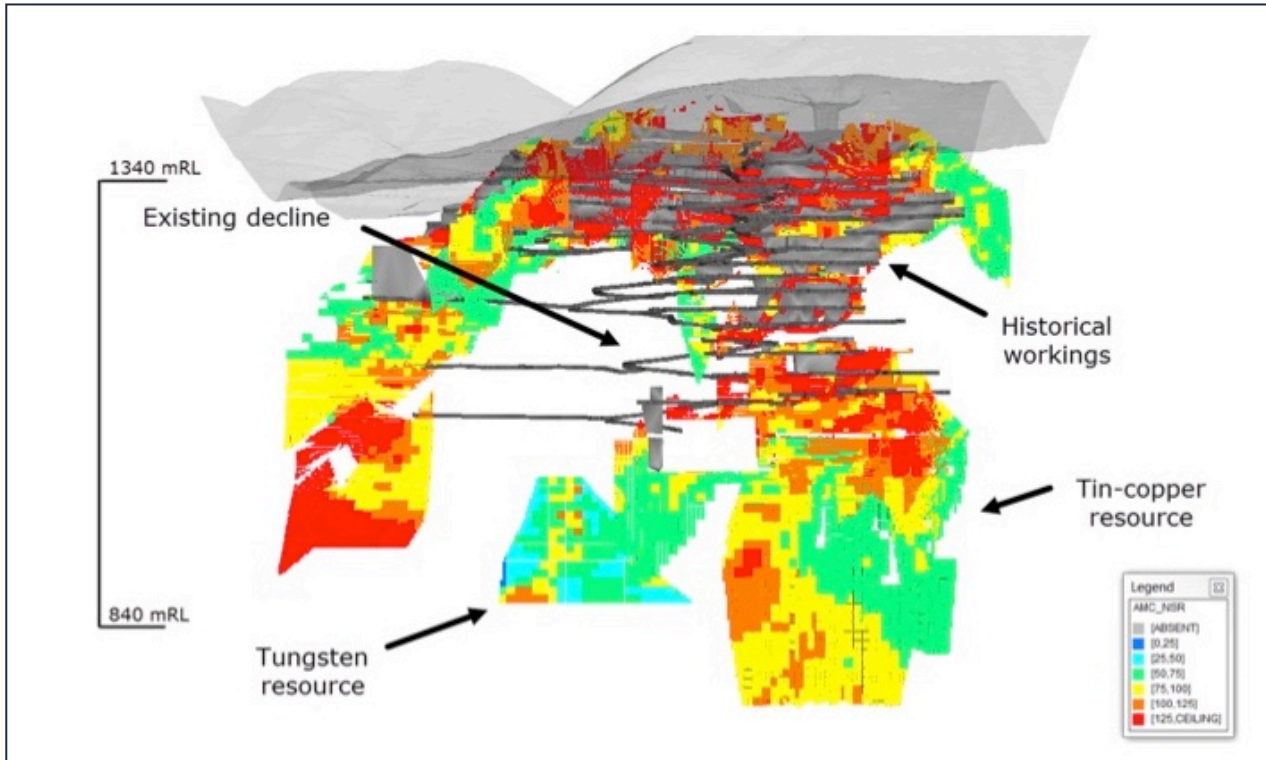
Table subject to rounding errors; WO₃ = tungsten oxide; Mt = million tonnes

AMC reviewed the geological resource model and considered it suitable for use at a scoping study level for underground mining. No material deficiencies were identified in the review. AMC noted that additional resource definition and exploration drilling would increase confidence in the Mineral Resource estimate and allow a significant portion of the Inferred Resource to be upgraded to an Indicated classification.

⁵ Refer to announcement to the ASX on 3 March 2015, "High Grade Open Pit Resource Defined"

⁶ Refer to announcement to the ASX on 20 August 2015, "Cleveland Open Pit study adds \$21m to cash flow"

Figure 2: Cleveland Underground Mineral Resource (classified by net smelter return)



Geotechnical

Historical accounts and core photographs indicate that geotechnical conditions in the tin-copper sulfide orebodies are good, with large, unsupported, stable wall exposures consistently achieved. As such, the stability of stope walls and backs can be expected to be maintained by selective placement of rib pillars without systematic ground support.

There is limited information about the Foley's tungsten orebody, but the available core photographs indicate that conditions are also expected to be good, similar to the tin-copper orebodies.

The footwalls and hangingwalls are also in competent rock units—drive and decline openings were also, typically, unsupported. Changes in industry practice since the mine last operated would, however, require that limited support is installed in most travelways, especially the main decline and access drives.

Mine design

Due to the different geometries of the tin-copper orebodies (lenticular) and tungsten orebody (massive domed structure), different mining methods have been adopted for these areas.

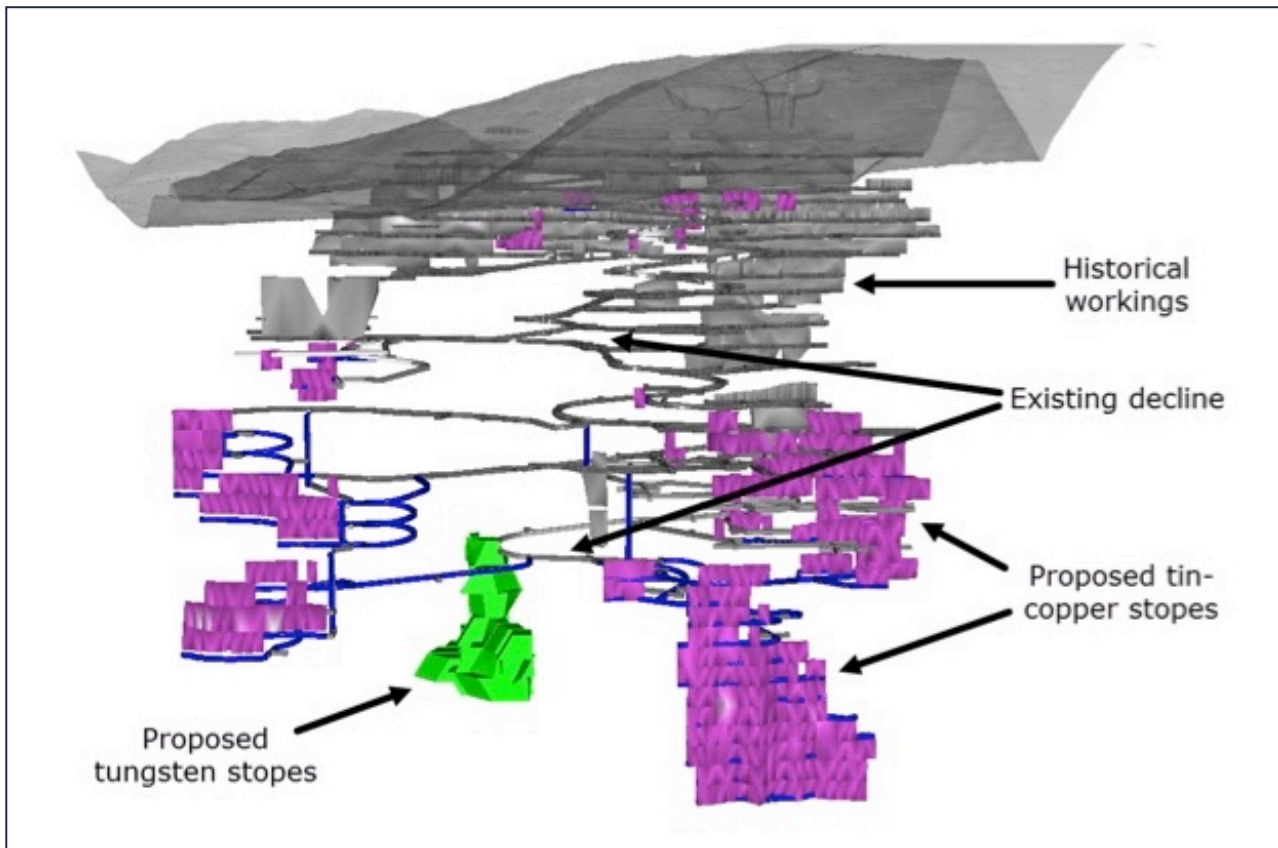
Tin-copper orebodies

The study recommends that the historical mechanised sublevel overhead benching (top-down open stoping) method is adopted in the tin-copper orebodies. Non-recoverable pillars used by this method were considered economically more attractive than backfilling. A mining recovery of 80% was applied to new stoping areas, which allows for a 5-metre rib pillar every 40 metres of strike length and a 5-metre crown pillar every third lift. A mining recovery of 50% was applied to old stoping areas. Dilution of 5% at zero grade was applied to all stoping areas.

Tungsten orebody

The study recommends that the sublevel open stoping method is adopted in the tungsten orebody. The geotechnical conditions and orebody geometry will permit the excavation of large stopes with consequentially lower costs and higher efficiencies than the benching method adopted in the tin-copper orebodies. A mining recovery of 80% and dilution of 5% at zero grade was applied.

Figure 3: Cleveland underground mine design (determined by stope optimisation)



Access and haulage

Materials handling will be by rubber-tyred loaders and trucks with a single decline used for access and haulage. The mine design assumes that an existing 9.7 kilometres of lateral access is refurbished and an additional 9.6 kilometres is developed to access the new mining areas. The 300 kt of waste generated from mine development will be disposed of in the stope voids. The new decline will be positioned to service production from both the tin-copper and tungsten orebodies.

Ventilation

The decline will act as the main intake airway. The two existing southern ventilation shafts, extending from the surface to the 1130 m RL, will act as return airways. Exhaust fans will be mounted at the surface with a capacity of extracting exhaust at the rate of 150 m³/s. Additional return airways will be required to take exhaust from the deeper levels to the main exhaust shafts.

Refurbishment

The existing 3.5 kilometre long decline, which extends 384 metres below the 7 Level portal, will be refurbished. Approximately another 9.7 kilometres of the 25 kilometres of mostly inaccessible development will be refurbished. Dewatering the underground workings is expected to take 15 months. On closure of the mine in 1986, 220,000 tonnes of tailings was discharged into the underground workings. The location of these tailings is unknown and might require removal if deposited in the decline or adjacent to planned stoping areas.

Mining operations

For the purpose of the study, AMC assumed that underground mining would be undertaken by an experienced mining contractor with technical support provided by the contractor (short-term planning, drill-and-blast design, geotechnical monitoring, environmental monitoring, sampling, and surveying) and Elementos (long-term planning, mine design, resource modelling, geology, grade control, and resource reconciliation).

Mining inventory

A net smelter return (NSR) algorithm was developed to rank the realisable value of each ore block for each potential product stream. Three cut-off criteria were then applied. The first criterion established the extent of the mine workings at a fully costed breakeven NSR value. The second criterion identified ore blocks that could be incrementally mined at no additional development cost. And the third criterion identified marginal ore blocks mined in access development. Mining recovery and dilution factors were then applied to determine the mining inventory, which is summarised below.

Underground mining inventory				
Category	Tonnage	Sn Grade	Cu Grade	WO ₃ Grade
Tin-Copper				
Indicated Mineral Resource	0.8 Mt	0.67	0.28	–
Inferred Mineral Resource	0.9 Mt	0.57	0.17	–
Unclassified ^a	0.2 Mt	0.46	0.18	–
Total Mining Inventory ^b	1.9 Mt	0.61	0.22	–
Tungsten				
Inferred Mineral Resource	1.7 Mt	–	–	0.31
Total Mining Inventory ^b	1.7 Mt	–	–	0.31

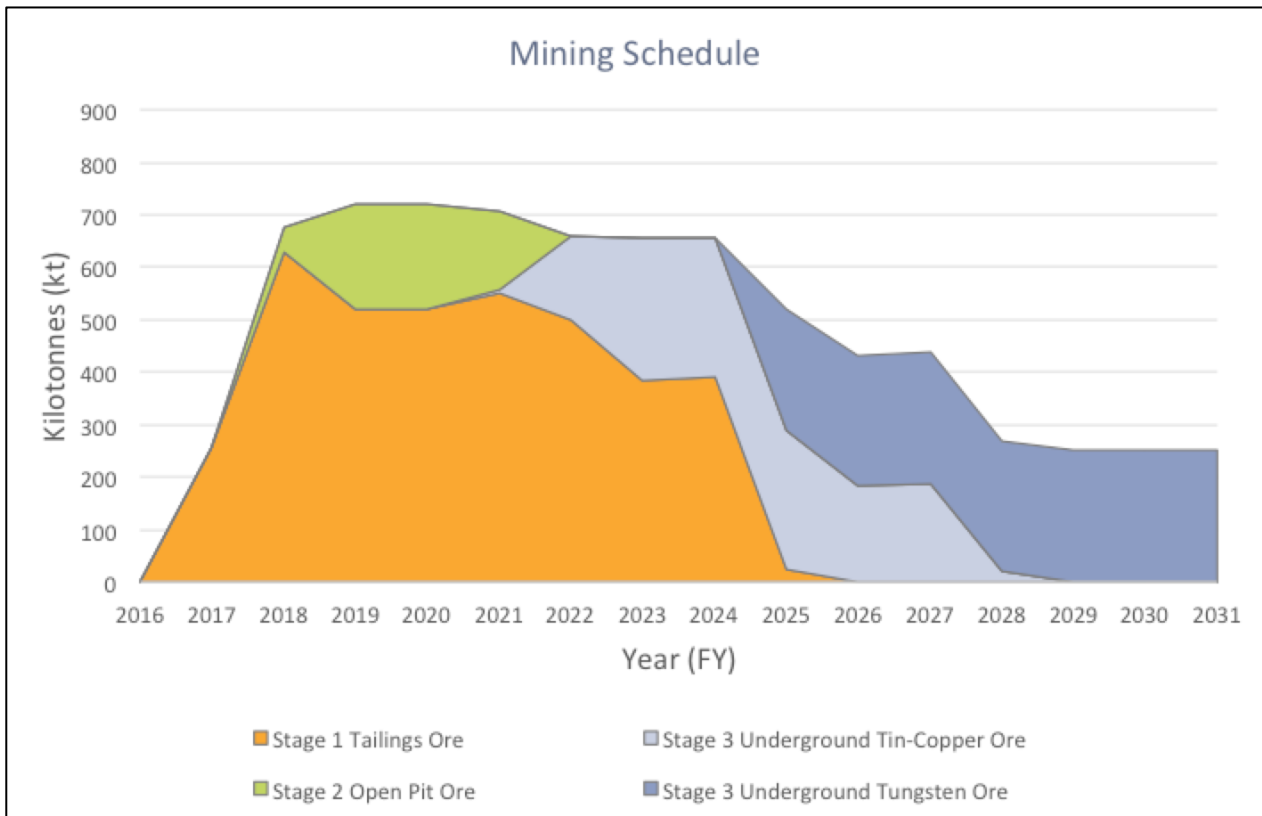
Table subject to rounding errors; Sn = tin, Cu = copper, WO₃ = tungsten oxide; Mt = million tonnes

^a Planned dilution and development mineralisation.

^b A mining inventory is not an Ore Reserve.

Mining schedule

The mine design has a theoretical production limit of 900 thousand tonnes per annum (ktpa). The Company aims to produce at 650 ktpa with three production crews, two development crews, and five trucks, peaking in year 2 after the ramp-up. Equipment sizes were matched to the design and scheduling parameters. The resulting integrated mining schedule is summarised below.

Figure 4: Cleveland integrated mining schedule

Mineral processing

The underground operation will supplement the feed from the proposed tailings reprocessing and open-pit operations, providing additional high-grade feed into the 650 ktpa tin-copper ore process plant. The stage 1 tailings process plant, which was the subject of a recently completed pre-feasibility study⁷, will be upgraded to allow the treatment of fresh ore from the open pit. The required upgrades include a conventional three-stage crushing plant with closed-circuit screening, heavy-media separation circuit, and ball mill and classifier circuit. No additional upgrades are required to process tin-copper ore from the underground operation.

Based on historical performance data from the historical Cleveland mill, the upgraded process plant is expected to achieve tin recovery of 70% at a concentrate grade of 60% Sn and copper recovery of 60% at a concentrate grade of 20% Cu.

No metallurgical test work has been performed on the tungsten ore. Tungsten ore will be produced concurrently with the tin-copper ore. An additional circuit is required to produce the ammonium paratungstate (APT) concentrate, which will include an APT hydrometallurgical upgrade process. In the absence of detailed test work and a flowsheet design, a WO₃ recovery of 70% was assumed for the study.

⁷ Refer to announcement to the ASX on 3 August 2015, "Cleveland Tailings PFS"

Figure 5: Cleveland plant integrated production schedule

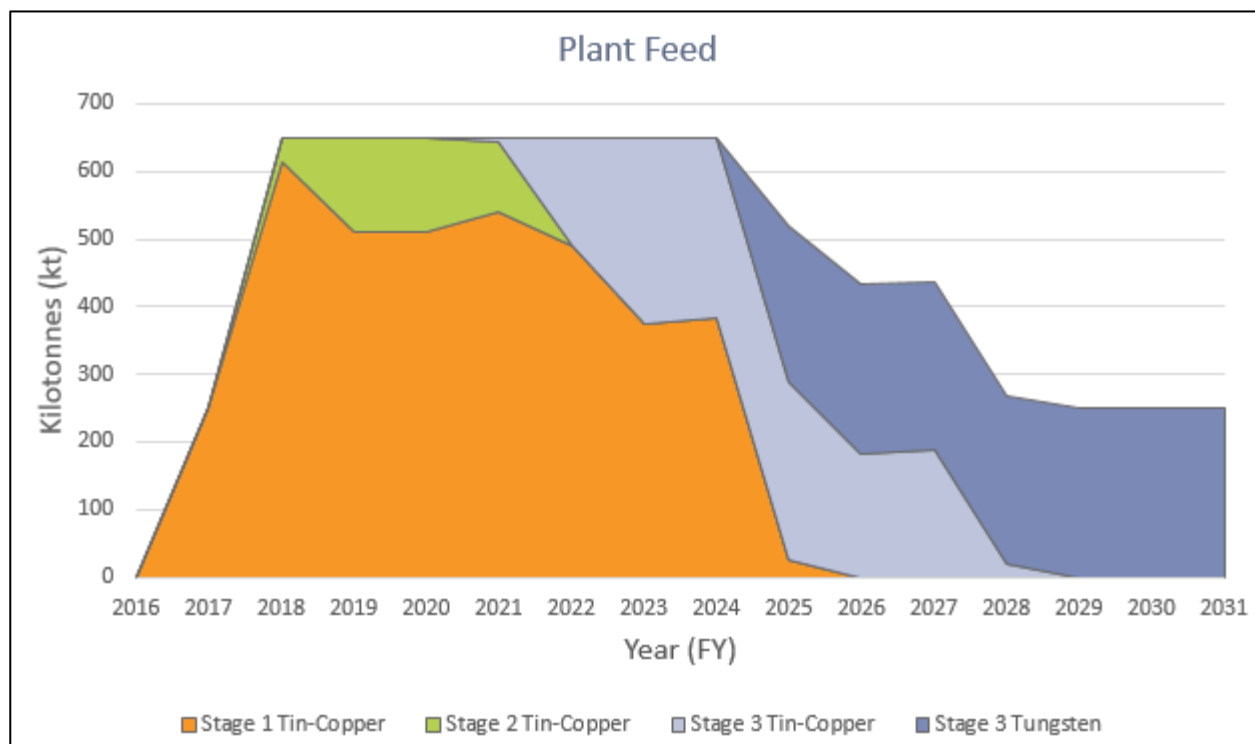


Figure 6: Recovered metal in concentrate

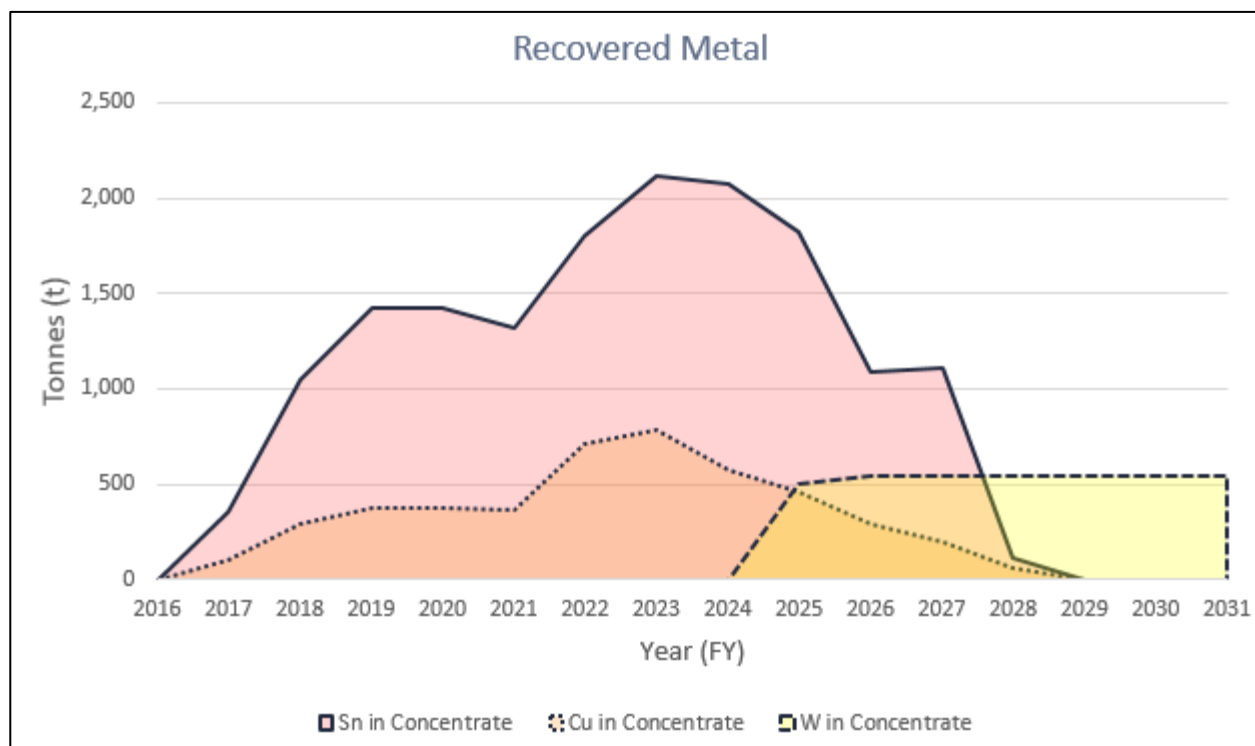
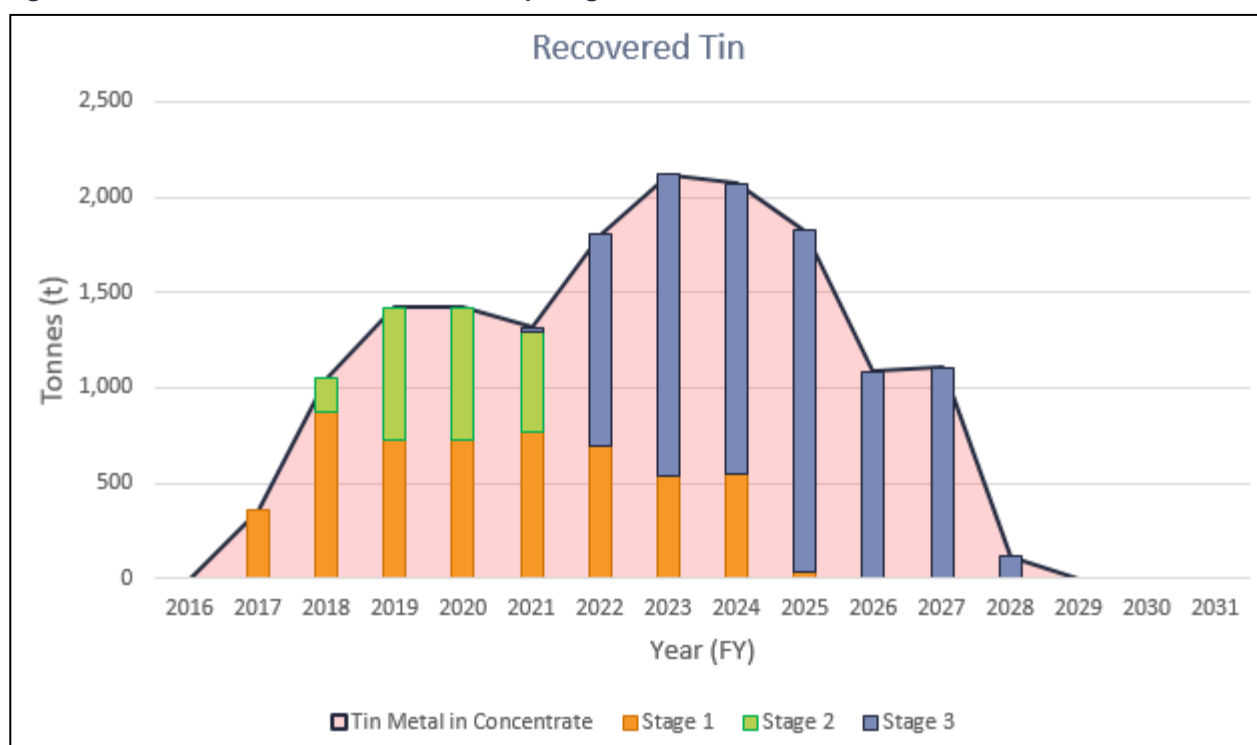


Figure 7: Recovered tin in concentrate by stage

Operating cost estimate

Using benchmark data from similar underground operations, AMC estimated the average life-of-mine mining costs at A\$55 per tonne of tin-copper ore and A\$50 per tonne of tungsten ore. Development costs were estimated at A\$3,000 per metre for new development and A\$1,000 per metre for refurbishing existing development. AMC considers that these costs are conservative, based on the expected geotechnical conditions and the depressed mining contractor market.

The processing and product costs used in the study were based on the preliminary plant design and costings prepared for the Cleveland Tailings Project Pre-feasibility Study. These costs were adjusted to account for the modifications required to process fresh ore. Modifying factors based on AMC's experience were also applied.

The processing operating cost for fresh tin-copper ore was estimated at A\$12.55 per tonne. This compares with A\$9.95 per tonne estimated for treating the reclaimed tailings. The processing operating cost for fresh tungsten ore was estimated at A\$14.55 per tonne. An additional A\$1.00 per tonne of ore processed was applied for general and administration costs attributable to the underground operation.

Capital cost estimate

The total capital cost for development of the underground operation was estimated at A\$28.3 million, comprising A\$10.8 million for establishing the underground mine, A\$7.5 million for the APT plant upgrade, and A\$10 million for a new tailings storage facility. No contingency was included in this estimate.

The mining establishment estimate assumes that, under a contract mining operating model, the major capital items, including mobile equipment fleet, construction of site mining facilities, and pre-production site works, will be the responsibility of the mining contractor, and repaid in unit mining rates.

A tailings storage facility with a capacity of 2.1 Mt has been designed and costed for storage of stage 1 and 2 tailings. An additional 2.1 Mt of tailings storage capacity is required to handle the stage 3 (underground) tailings. The cost of the stage 3 storage facility is the same (A\$10m) as the estimated cost of the stage 1+2 storage facility. Elementos is currently reviewing alternative sites to combine tailings from all three stages into the one facility to further reduce the capital cost.

The capital cost of the tin-copper plant upgrade, including the crushing plant, heavy-media separation circuit, and ball mill and classifier circuit, is included in the stage 2 open pit capital estimate.

All capital items required for underground mining are expected to be internally funded from the stage 1 tailings reprocessing and stage 2 open-pit operations. As such, Elementos does not envisage the need for an equity based capital raising.

Sales

Three saleable products will be produced: a tin concentrate, a copper concentrate, and an ammonium paratungstate (APT) concentrate. Due to their concurrent operation, the tin and copper concentrates can contain revenue contributions from the stage 1 tailings operation, the stage 2 open-pit operation, and the stage 3 underground operation.

Tin prices and exchange rates used in the study were independently supplied by Roskill⁸. The copper price forecast is derived from Citi Research⁹. And the price for the APT concentrate was estimated at US\$350 per MTU (metric tonne unit), based on industry benchmarking and reporting.

Roskill expects tin prices to gradually recover to 2019 but, from 2020, expects prices to show considerable upside potential because an increasing supply deficit will require much higher prices to encourage new development.

Citi Research expects copper prices to increase over the life of the project due to slowing growth in copper production and a supply deficit in 2016.

Financial analysis

The stage 3 financial analysis was integrated with the previously completed stage 1+2 analysis, with financial inputs, including metal prices and discount rate, provided by Elementos, and physical inputs and costs provided by AMC. The analysis separated the revenue and capital of each stage to identify the incremental effect the underground operation would have on an existing tailings reprocessing (stage 1) and open-pit (stage 2) operation.

The analysis showed that the underground operation makes a positive contribution to the combined cash flow. The cumulative pre-tax cash flow for the underground project is estimated at A\$90 million. The combined stage 1+2+3 project is projected to generate a gross income of A\$638 million and a combined cash flow of A\$166 million.

⁸ Roskill, *Roskill Market Outlook Report; Tin*, ninth edition, 2015 premium version, April 2015

⁹ Citi Research, *Commodities 2Q'15 Outlook*, April 2015

Figure 8: Cleveland project integrated cash flow

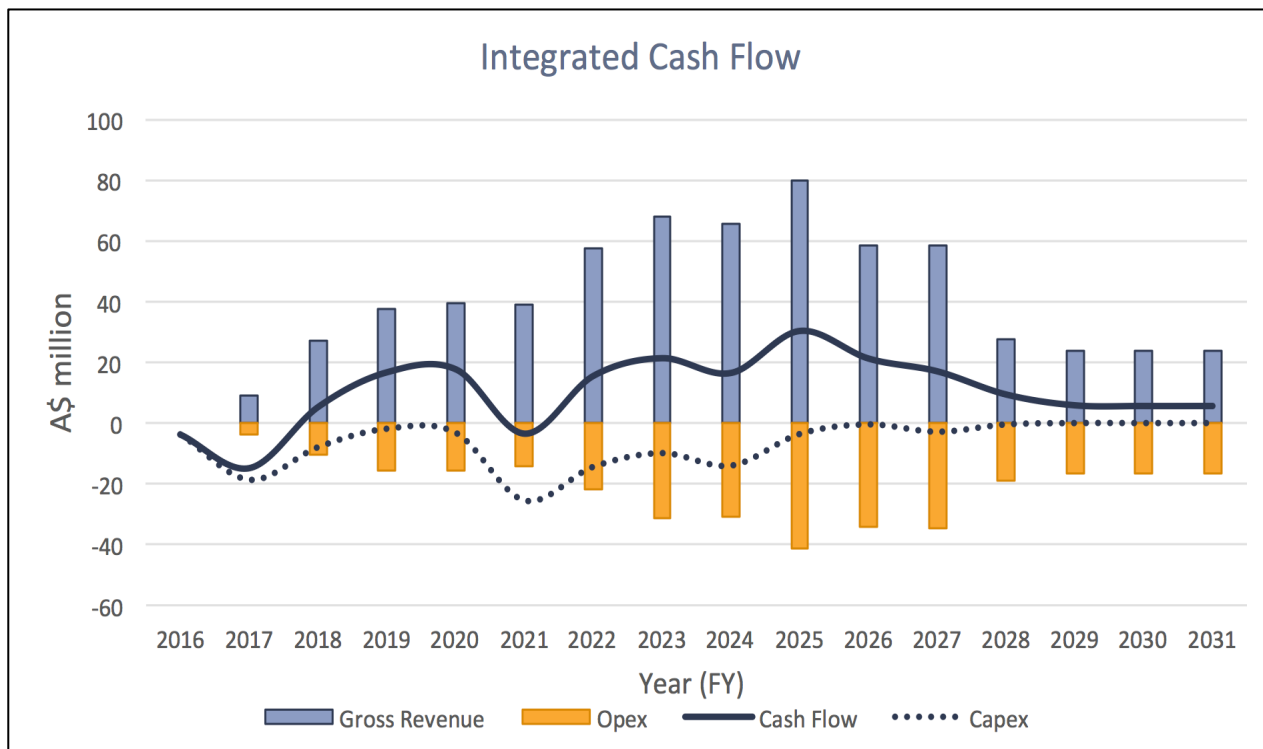
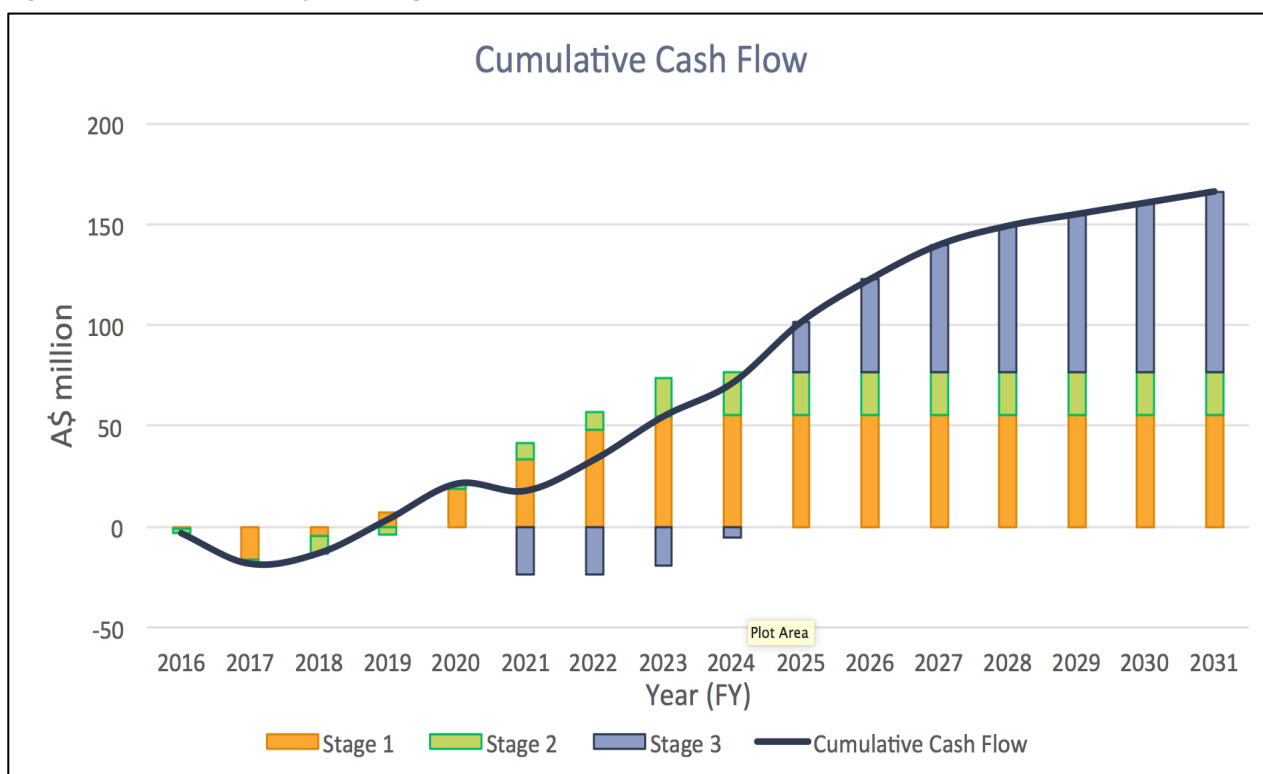


Figure 9: Cleveland project integrated cumulative cash flow



Forward work plan

Based on the positive results of this scoping study and the recently completed tailings pre-feasibility and open pit scoping studies, Elementos intends to progress the open pit and underground projects to the pre-feasibility level to improve the accuracy of the estimates obtained.

Pre-feasibility work will concentrate on:

- a drilling program to upgrade and expand the resource estimate and to obtain rock quality data for new mining areas,
- metallurgical testwork on the combined tailings–fresh ore feed to confirm assumptions in the process flowsheet design,
- metallurgical testwork on the tungsten ore and flowsheet design for the APT concentrate circuit, and
- waste rock and tailings characterisation to determine the potential for acid mine drainage.

The pre-feasibility study will also include a first-principles cost build-up informed by recent quotations to improve the confidence in mining, processing, and general and administration costs. Integration studies for a combined tailings reprocessing, open-pit mining, and underground mining operation will also be performed as part of the pre-feasibility study.

Concurrent with the open pit – underground pre-feasibility study, Elementos will advance the tailings project to a definitive feasibility study level. And, subject to obtaining all the necessary approvals, production from the tailings operation is scheduled to commence in FY2017.

Open-pit mining is scheduled for FY2018 with underground mining due to commence in FY2021.