7 June 2024

Atlantic Tin Announces Positive Scoping Study Results for the Integrated Achmmach-SAMINE Project

Atlantic Tin Ltd ("**Atlantic Tin**" or the "**Company**") is pleased to announce the results of a new Scoping Study ("**2024 Scoping Study**") for its Achmmach Tin Project ("**Achmmach**" or the "**Project**") located near Meknes, Morocco.

The 2024 Scoping Study incorporates the benefits of combining Achmmach with the nearby El Hammam processing facility owned by SAMINE, which is to be acquired by Atlantic Tin as announced on 30th May 2024. The Scoping Study demonstrates the integrated project to be a low-cost, long-life producer of clean and high-grade tin concentrate on the doorstep of Europe. Tin is a critical mineral needed for the world's transition to clean energy and would benefit from the strong expected demand for Artificial-Intelligence-driven semiconductor applications.

The 2024 Scoping Study[1] validates the potential of Achmmach with a Base Case post-tax Net Present Value ("NPV") of US$307M and a post-tax Internal Rate of Return ("IRR") of 45%.

Key highlights of the 2024 Scoping Study include:

Attractive Project Economics

- US$307M Base Case $NPV_{8\%}$ (post-tax) and IRR of 45% (post-tax) at US$30,000/t Sn price
- Payback in 4.3 years (Base Case, post-tax)
- Pre-production capital expenditure of US$54M
- Expansionary capital expenditure in production years 2 and 3 of US$28M
- Life-of-Mine ("LOM") EBITDA of US$990M, peaking at US$88M per annum, with an average of US$66M per annum during years 2 to 16
- LOM post-tax free cash flow of US$680M, peaking at US$71M per annum, with an average of US$51M per annum during years 2 to 16

Significant Tin Production with Expansionary Potential

- Production of 63.7kt tin metal in concentrate, over a 17-year mine life
- Peak production at 5.0kt per annum of tin metal in concentrate
- Overall LOM processing tin recovery of 72%
- Tin concentrate grade of 60% Sn
- Conventional long-hole open stope mining with back fill

[1] The results of the Scoping Study, including the valuation, development cost and financial and operating performance of the Achmmach project, will be subject to further study and verification as part of the Company's Definitive Feasibility Study which is currently underway.

Atlantic Tin Ltd
ABN: 78 116 931 705
Level 2, 22 Mount Street
Perth Western Australia 6000

- Mined ore upgrade with ore sorting and dense media separation (DMS)
- Conventional crushing, gravity, HPGR milling, flotation to produce tin concentrate
- LOM tin production in the Base Case based on measured and indicated JORC resources at Achmmach deposit (see Tables 2-4)
- Additional upside potential not reflected in the Base Case economics include:
    - Additional potential mineralisation from Sidi Addi
    - Possible mineralisation extensions around existing resource
    - Potential mineralisation at Bou El Jaj
    - Exploration potential on the acquired SAMINE land along strike and between Meknes and Bou El Jaj

Sustainable Tin Production

- Average C1 cash cost of US$13,569/t Sn over the LOM
- Average AISC of US$15,368/t over the LOM
- Low capital intensity per tonne of recovered tin US$1,130/t Sn
- SAMINE acquisition reduces Achmmach's project footprint
- Reduced construction time with SAMINE process and related facilities
- Filtered tailings to be placed back underground as backfill
- Renewable energy resources in Morocco (expected to 50% renewable by 2030)

The Scoping Study referred to in this announcement has been undertaken to evaluate the potential development of the Achmmach-SAMINE tin project. The Scoping Study is a preliminary technical and economic study of the potential viability of the Achmmach-SAMINE tin project. It is based on low level technical and economic assessments that are not sufficient to support the estimation of ore reserves. The Scoping Study has been completed to a level of accuracy of +/- 35%. Further evaluation work and appropriate study is required before Atlantic Tin will be in a position to estimate any ore reserves or to provide any assurance of an economic development case.

Of the Mineral Resources scheduled for extraction in this Scoping Study's production target, 100% are classified as Measured and Indicated Mineral Resources, with 0% (zero) being Inferred Mineral Resources.

The Scoping Study is based on the material assumptions outlined below. These include assumptions about the availability of funding. While Atlantic Tin 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, additional funding will be required. Investors should note that there is no certainty that Atlantic Tin will be able to raise 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 Atlantic Tin's existing shares.

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

Simon Milroy, CEO of Atlantic Tin stated: "*This scoping study clearly demonstrates the synergies of combining the Achmmach Tin Project with SAMINE's infrastructure. Having access to the existing processing plant and infrastructure at SAMINE results in a substantial reduction in the initial capital cost required to bring the project into production when compared to a stand-alone greenfield project development at Achmmach only.*

The existing processing plant at SAMINE includes crushing, grinding, flotation, thickening and filtering equipment. The supporting infrastructure already in place includes high voltage power supply, water supply, communications and 4G mobile coverage along with accommodation, offices, warehouses, workshops, medical facilities, and a laboratory.

The SAMINE owned exploitation license is highly prospective to host additional tin mineralisation that has the potential to further enhance the production profile."

Summary Table of Scoping Study Metrics

Description	Item	Unit	Value
Production	Initial mining / milling	ktpa	500 / 250
	Expansion mining / milling	ktpa	900 / 450
	LoM tonnes mined / milled	Mt	13.4 / 6.4
	LoM	years	17
	LoM mined grade	%Sn	0.7
	LoM processed grade	%Sn	1.2
	LoM process recovery	%	72
	LoM tin in concentrate	kt	64
	LoM concentrate grade	%	60
Capital Cost	Pre-Production	US$ M	54
	Capital intensity	US$/t Sn	1,130
	Expansionary	US$ M	26
	Sustaining	US$ M	62
Operating Cost	LoM US$/t milled	US$/t	110
	LoM C1	US$/t	13,569
	LoM AISC	US$/t	15,368
Price Assumption	Tin	US$/t	30,000
Exchange Rate	MAD:US$	-	0.10
Economics	$NPV^{8\%}$ pre-tax / post-tax	US$M	397 / 307
	IRR pre-tax / post-tax	%	54 / 45
	Payback pre-tax / post-tax	years	3.8 / 4.3
	LoM Net Revenue	US$M	1,697
	LoM EBITDA	US$M	990
	LoM Cashflow post-tax	US$M	680

Table 1 Achmmach 2024 Base Case Scoping Study Project Metrics

Notes:

This 2024 Scoping Study is based on Measured and Indicated Mineral Resources for the Achmmach project[2]. Scoping Studies are based on relatively low level of technical and economic assessments and are insufficient to support the estimation of Ore Reserves or to provide assurance of economic development at this stage. Ore reserves will be estimated as part of the current feasibility study.

Project Sensitivity

[2] Atlantic Tin (formerly Kasbah Resources) news release 5 July 2021 "Achmmach Tin Project – Resource Update".

A simple analysis of the 2024 Scoping Study sensitivity indicates the project economics are most sensitive to tin price and to a lesser degree the operating cost, capital cost or discount rate.

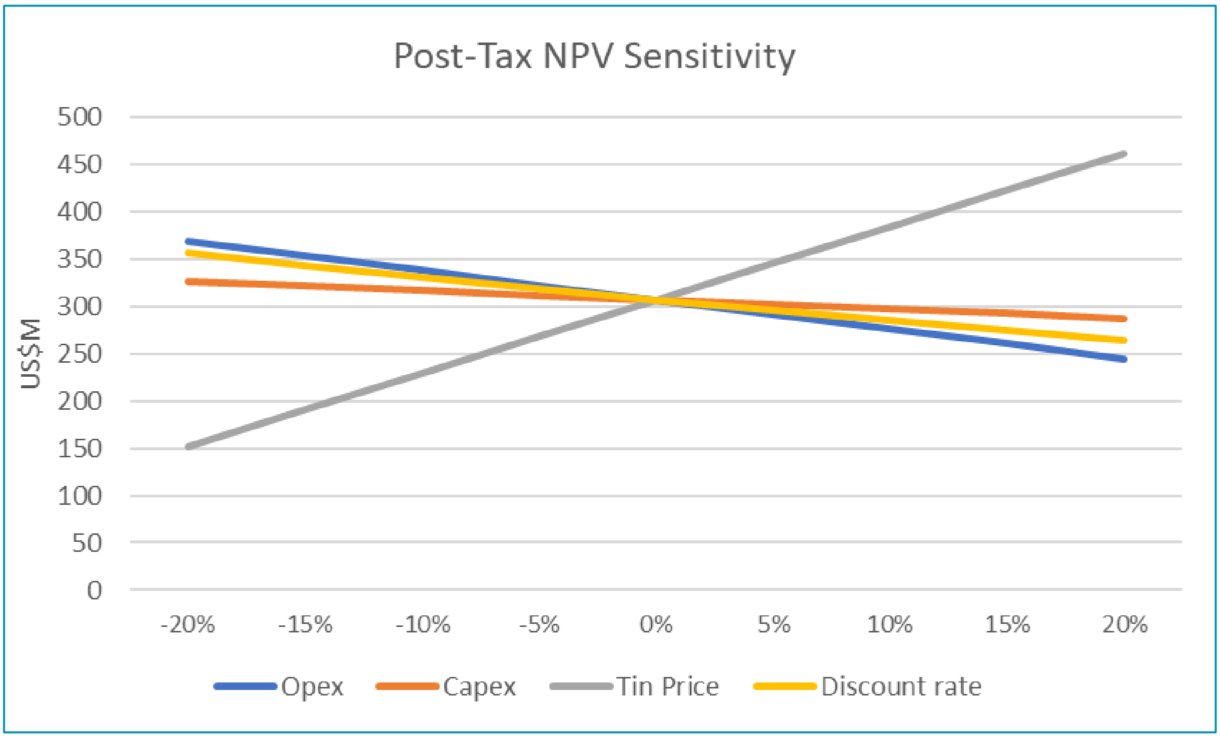


Figure 1 Achmmach 2024 Scoping Study Project Sensitivity

The table below provides additional details on tin price related sensitivity across a range of project economic metrics.

				Base Case		
Tin Price (US$/t)		**25,000**	**27,500**	**30,000**	**32,500**	**35,000**
NPV 8% (US$MM)*	US$MM	177.9	242	**307**	371	436
IRR*	%	30.7%	38.0%	**45.1%**	52.0%	58.8%
Payback*	years	4.5	4.3	**3.8**	3.5	3.3
LOM EBITDA	US$MM	680.9	835	**990**	1,144	1,298
LOM Free Cash Flow*	US$MM	432.6	556	**680**	803	927

*Unlevered, post-tax

Table 2 Tin Price Sensitivity on Project Economic Metrics

Summary Scoping Study

1. Achmmach Project General Description

The 2024 Scoping Study evaluates a staged development of the Achmmach tin project combined with processing of the ore at the existing processing facilities at the SAMINE operations site, located 7km from Achmmach.

Achmmach is a greenfield tin project located less than 40km from Meknes. Mining and associated operations will take place at this location. The SAMINE operations site is 7km drive from Achmmach. The SAMINE site was previously used to treat fluorite ores until a cessation of milling activities in 2021. The processing plant at SAMINE will be refurbished and improved to process tin ores to produce tin concentrate.

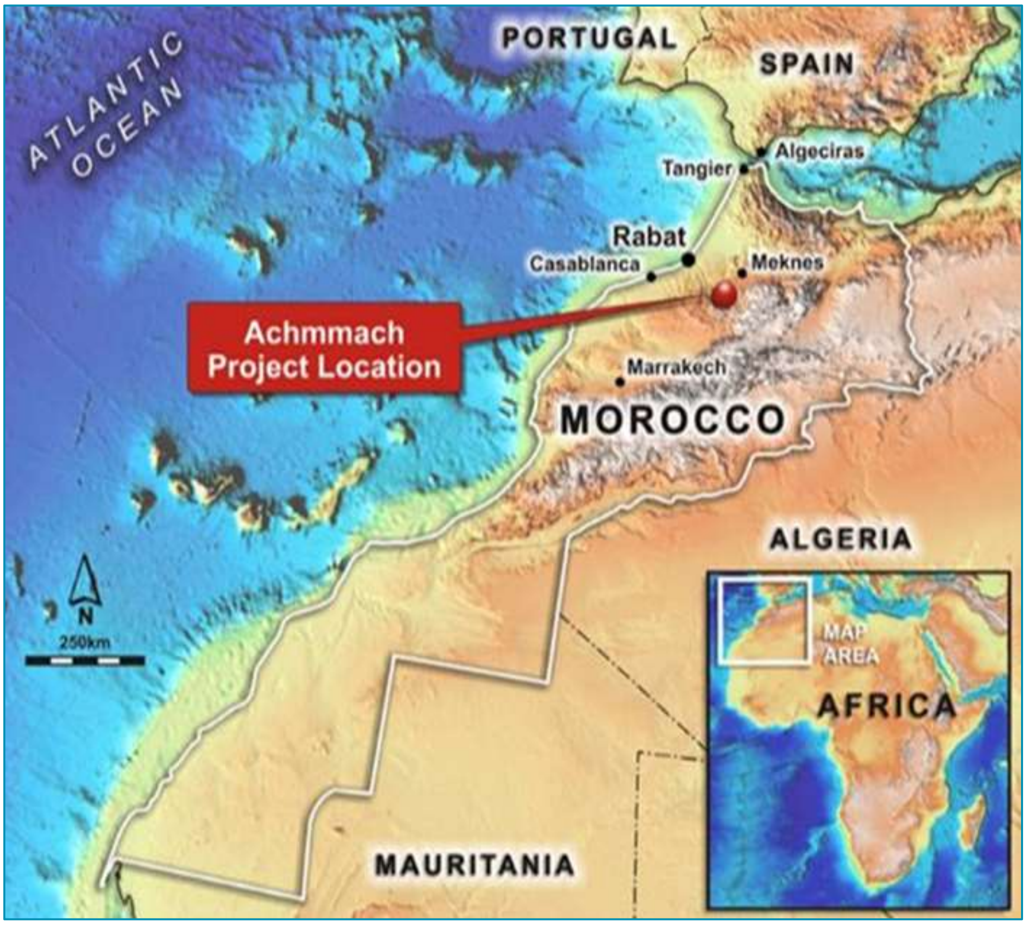


Figure 2 Achmmach Tin Project Location in Morocco

At Achmmach, only underground mining will occur, resulting in minimal surface disturbance at just the portals and ventilation rise. Existing haul roads will be utilised to transport ore to SAMINE. The Achmmach mine has been designed to use underground crushing and conveying for haulage to maximise the use of renewable energy from the Moroccan power grid.

The design of the processing circuit uses pre-concentration to reject waste from the circuit prior to the energy intensive processes such as grinding and flotation resulting in reduced total energy requirements. Utilising the existing facilities at SAMINE greatly reduces the environmental and social impacts of developing the Achmmach project.

The 2024 Scoping Study does not represent an entirely new project, as it also draws upon the extensive test work, analysis and design completed for Achmmach in various previous studies.

The Company's past studies include a Definitive Feasibility Study in 2018 evaluating the standalone Achmmach project, and a Front End Engineering Design (FEED) study completed in 2019. The project also benefits from an existing mining licence and completed Environmental & Social Impact Assessment (ESIA).

Key changes in the 2024 Scoping Study from previous project assessments include:

- Access to the mine from the North which reduces the haulage distance to SAMINE
- Underground access at the base of the zone where the bulk of tonnes are located, enabling the use of ore passes to a fixed haulage level and a simpler bottom-up mining strategy
- Use of an underground crusher and conveyor reducing trucking
- Use of dense media separation (as well as ore sorter) to reject mass prior to grinding, minimising the power, water and reagent use
- Use of filtered tailings to minimise water consumption and re-use the tailings as backfill in the mine

A staged approach to production is planned for the project in order to maximise value, while managing up-front capital required to start generating cashflow. The first stage of production achieving 500ktpa mined rate is achieved after 18 months, followed by a second stage of production expanding to 900ktpa over the following 16 months.

2. Property Description and Location

The Achmmach- Tin project is owned by Atlas Tin SAS, a joint venture company comprising Atlantic Tin Ltd (Atlantic Tin) (75%), Toyota Tsusho Corporation (20%) and Nittetsu Mining Co Limited (5%). The SAMINE project is being acquired by Titan Tin, a 100% owned subsidiary of Atlantic Tin.

The Achmmach tin deposit was first discovered by the Moroccan National Office for Mineral Exploration (BRPM) in 1985 by following stream sediment anomalies. In the early 1990's, BRPM conducted several reconnaissance programs. By late 1992, diamond drilling had commenced on targets defined by the early exploration work. Drilling was completed in 2000 with a total of 29 holes for 13,405 m drilled over the initial 1.6 km strike length of Achmmach. An 85m deep exploration shaft (to the 890mRL) and 227m of strike development was mined to obtain bulk samples for metallurgical test work. Three diamond holes were drilled from underground totalling 853m.

In 2006, Atlantic Tin entered into an agreement with the Moroccan National Office for Hydrocarbons and Mining (ONHYM) to further test the tin potential of the prospect.

The operating licence is granted for ten years (January 2032) and renewable for periods of ten years until reserves are exhausted.

In 2021, the fluorite mine of SAMINE site ceased mining operations due to low fluorite price. While the site is not in full operation, full infrastructure exists including power supply, communications, water supply, offices, warehouses, workshops, accommodation, and a processing plant consisting of crushing, milling, flotation, thickening and filtering. Atlantic Tin signed a share purchase agreement to acquire SAMINE in May 2024. The process plant is intended to be refurbished and by adding new pre-concentration and gravity equipment to the process, it will be suitable for treating the tin ores from Achmmach.

This Scoping Study examines incorporating the SAMINE process plant as part of the Achmmach project.

The Achmmach concession area for the project straddles the border of the two neighbouring provinces: Khemisset and El Hajeb and lies within the rural districts of Ras Ijerri, Sebt Jahjouh and Ait Ouikhalfen.

The operating licence LE 332912 straddles two communes: Ait Ouikhalfen and Ras Ijerri.

The land tenure system in Morocco comprises of state-owned land, collective and private land (melk). Most of the lands in the project area are collective lands. These are administered by a Jmaâ (assembly) composed of Naibs (representatives of the land right-holders), under the direct supervision of the Ministry of the Interior (through the Directorate of Rural Affairs – Direction des affaires rurales) (References: Internal DFS Report, 2014).

The project site occupies both cleared collective land and uncleared forestry land. Moroccan law states that neither of these lands can be sold. However, long term rental agreements overseen by the Ministry of the Interior have been formalised.

There are no archaeological or formal cultural sites in the project area. There are a few spiritual sites in the concession area and its vicinity, among which is the Sidi Addi peak, which has spiritual significance for the local peoples as it is considered as the mausoleum of the Saint Addi.

The SAMINE concession, with Mining License LE 343180, neighbours Achmmach, to the west and is an active operational site (rather than greenfield site as Achmmach is). A previously used haul road near the Achmmach deposit, will be reinstated to link the mine portal to the process facility at SAMINE, approximately 7km. The process plant was utilised for the life of the Fluorite mining operations at SAMINE.

SAMINE has an existing, approved EIA allowing for mining and processing activities. Amendments to both the Achmmach and SAMINE EIA's will be required as part of the permitting process.

Morocco has well developed national infrastructure including rail, road, seaports, and airports. The preferred access to the project is from Rabat, east along the A2 expressway via Meknes for 150 km and then 35 km south along a sealed road to Agourai. A sealed rural road continues for an additional 20 km southwest to the project site, where about 5km of road remains unsealed (Figure 3).

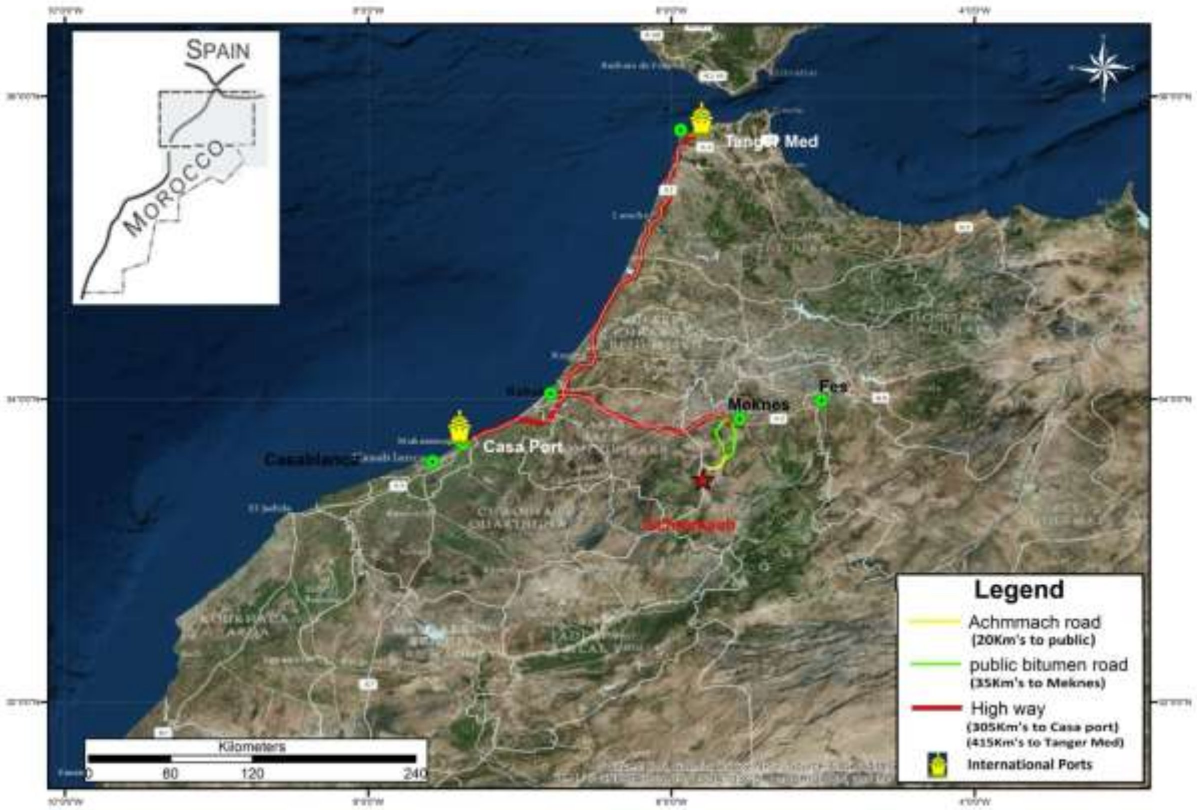


Figure 3: Achmmach Tin Project in Morocco

The region has a warm and temperate Mediterranean climate. The temperature varies from 5°C/15°C in winter to 18°C/34°C in summer. The winter months are generally much wetter than the summer months and the average annual rainfall is approximately 700 mm.

The project is located within rugged terrain of the north-eastern part of the central plateau of the Middle Atlas Mountains. The altitude is 1,085 m above mean sea level (amsl) and the nearby Sidi Addi peak has an altitude 1,230 m amsl. The area is characterised by mountain ranges, valleys and plateaus containing pine forests and oak woodland as well as cleared areas used for agriculture. This is typical for both Achmmach and the SAMINE sites.

3. Geology

Morocco is subdivided into several geological domains, demarcated by regionally extensive Palaeozoic faults (Figure 4). These domains, from south to north include the Anti-Atlas and the northern limit of the Saharan domain, the Meseta Atlasic domain and the Rif domain. The Palaeozoic basement of the Meseta Atlasic Domain (includes the Moroccan and Oran Meseta, or Western and Eastern Meseta respectively) are exposed as isolated massifs encompassed by Mesozoic – Cenozoic sediments. The Achmmach deposit is in the Central Massif of the Moroccan Meseta and hosted within the turbiditic sediments of the Serpukhovian aged Fourhal Formation.

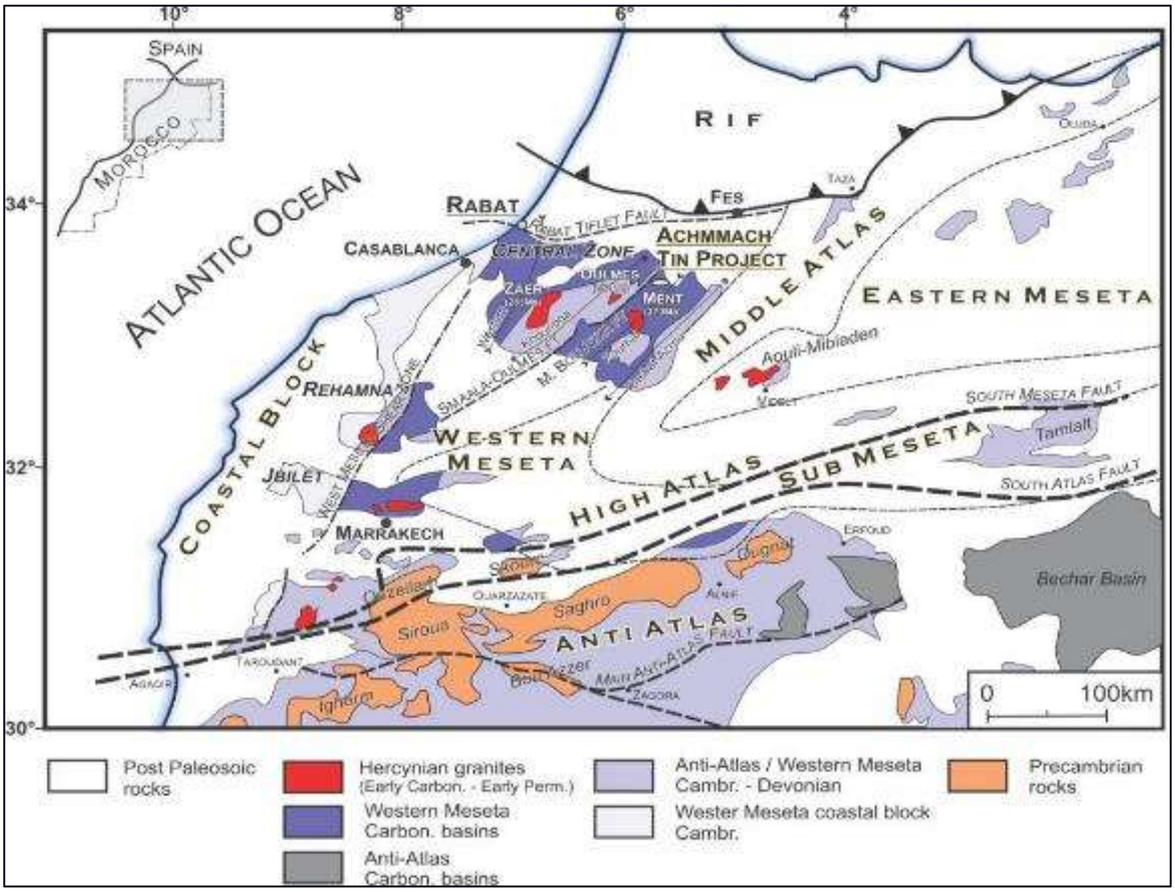


Figure 4: Regional Geological Area of Northern Morocco

Geologically, the Achmmach sector is part of the Moroccan Massif Central which constitutes the largest Paleozoic unit of the Moroccan meseta which extends from the coast of the Atlantic in the West to the foot of the Middle Atlas (Azrou-Khénifra region) in the east. To the north it is limited by the Saïs basin (Meknes basin) and to the south it disappears under the plateaus of the phosphates.

This fragment of the chain was built during several superimposed tectonic episodes. within an anchi-epizonal regional metamorphic level.

The Paleozoic terrains are intruded by numerous Hercynian granite massifs, late-tectonics, the main ones being from the West to the East: the massifs of Zaër, Oulmès and Ment as well as the granite points of Moulay Bouazza, El Hammam and J. Aouam. The general structure, produced by the major Hercynian phase, of the entire Massif Central is summarized in a succession of anticlinorium's and synclinoriums separated by mega faults which played at the basin boundary in the Carboniferous, and in shear during the late-Hercynian compressions.

The Achmmach tin deposit is an epigenetic vein-stockwork-breccia style deposit which is associated with a strongly boron enriched paleo hydrothermal system. It is comprised of fine-grained cassiterite with associated minor sulphide minerals in a tourmalinised sandstone/siltstone host. It is interpreted as being hosted by two cross-cutting swarms of tourmaline-altered zones: a series of east-west striking sub-vertical zones described as "feeders" and a stacked series of oblique gently to steeply north-dipping "branches."

Achmmach mineralisation is localized in two sub-parallel E-NE striking lodes named the Meknès and Sidi Addi trends, separated by approximately 500m (Figure 5). Meknès comprises the largest part of the Mineral Resource. Mineralisation is developed within the tourmaline-silica altered metasediments. Tin mineralisation occurs primarily as cassiterite with minor stannite. It is pure in composition and does not carry significant trace elements.

It is an epigenetic vein-stockwork-breccia style deposit. It is comprised of fine-grained cassiterite with associated minor sulphide minerals in a tourmalinised sandstone/siltstone host. The 1.6 km strike extent of the mineralisation system is hosted by sequences of folded and metamorphosed shales and sandstones. The lodes in Meknes form a 300m wide array across strike with individual lode structures ranging in width from 1m to 30m. Tin mineralisation occurs primarily as breccia infill and quartz-cassiterite veins and has been defined in diamond drill holes to a vertical depth of up to 600m below natural surface. The bulk of the known mineralisation intersected by the current drilling occurs between 1,000m RL and 700m RL. Mineralisation remains open at depth and along strike.

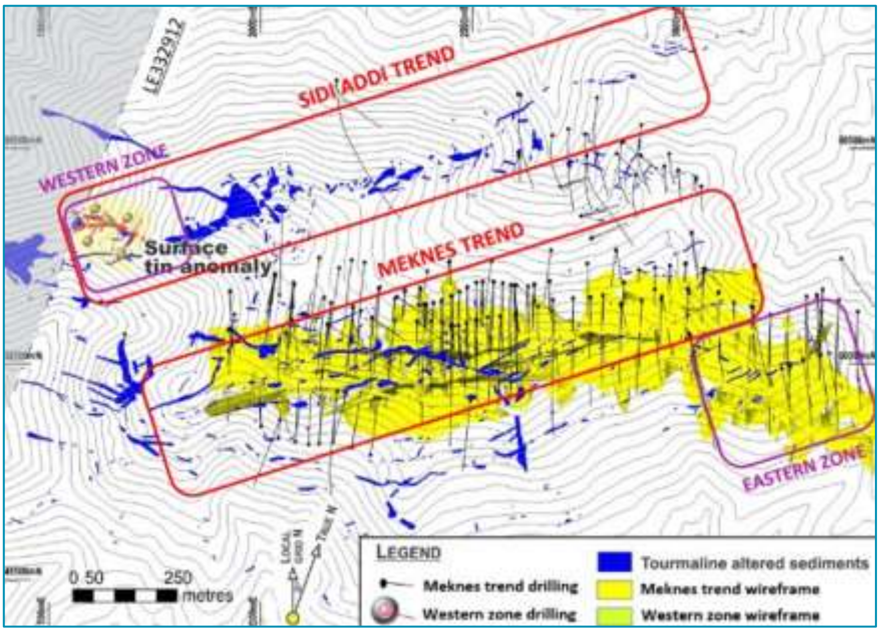


Figure 5: Mineralised Zones of the Achmmach Deposit

4. Mineral Resource Estimate

Atlantic Tin has reported its project Mineral Resource Estimates in accordance with the JORC Code (2012). Please refer announcement dated 5 July 2021"Achmmach Tin Project – Resource Update" for the Meknes deposit and 25 November 2014 - "Western Zone Resource upgrade" for the Sidi Addi deposit.

This mineralised material used in the Scoping Study is based on both the Mineral Resource Estimates for Meknes and the Western Zone (as above). A summary of which can be found below and in Atlantic Tin's previously published news releases. These are presented below for Meknes and followed by the Western Zone (of Sidi Addi).

Category	Mt	% Sn	Contained Sn (t '000)
Measured	1.9	0.89	17.5
Indicated	20.5	0.68	138.5
Measured & Indicated	22.4	0.70	156.0
Inferred	0	0	0

Table 3: 5 July 2021 Meknes Mineral Resource Estimate (undiluted)

Notes:

- 0.35% Sn cut-off grade used for reporting the resource is based on a tin price of US$21,000/tonne, total estimated operating cost of US$51/tonne (operating costs: mining US$27/tonne, processing US$13/tonne, G&A US$5/tonne and sustaining capital cost: US$6/tonne).
- Processing recovery for tin at an average head grade of 0.70% Sn will be approximately 72%.
- Bulk density was estimated by Ordinary Kriging and has an average value within the mineralised zones of 2.89t/m^3.
- Refer to relevant news release for further details.

Category	t '000	% Sn	Contained Sn (t '000)
Measured	0	0	0
Indicated	340	1.25	4.2
Measured & Indicated	340	1.25	4.2
Inferred	0	0	0

Table 4: 25 November 2014 Sidi Addi Mineral Resource Estimate (undiluted)

Notes:
- The Sn grade in this table has been rounded to the nearest 0.05% Sn.
- The 0.5% Sn cut-off grade used for reporting the resource is based on a tin price of US$23,000/tonne, total estimated operating cost of US$79/tonne (underground mining US$27/tonne, processing US$38/tonne and smelting US$14/tonne).
- Processing recovery for tin at an average head grade of 1.25% Sn will be approximately 80%.

The total combined Mineral Resource Estimate is 22.7Mt @ 0.71%Sn and is shown in the table below.

Category	t '000 000	% Sn	Contained Sn (t '000)
Measured	1.9	0.89	16.9
Indicated	20.8	0.69	143.6
Measured & Indicated	22.7	0.71	160.6
Inferred	0	0	0

Table 5: Combined Meknes and Sidi Addi Mineral Resource

5. Mining

The planned mining method to be used for the Achmmach deposit is conventional mechanized long hole stoping. As the geometry and thickness of the mining shapes vary throughout the different lodes, a combination of bottom-up stoping with use of cemented and uncemented backfill and to a limited degree top-down stoping sequence is used in some areas.

A portal and decline will provide principal mine access. A second decline will provide access to separate and relatively shallow working areas. Ventilation will be via a raise bored shaft and the decline. A secondary emergency egress route will be provided via an existing exploration adit and shaft. The northern decline is approximately 1km in length and provides access close to the bottom of the orebody. The figure below provides a schematic long-section view of the mine.

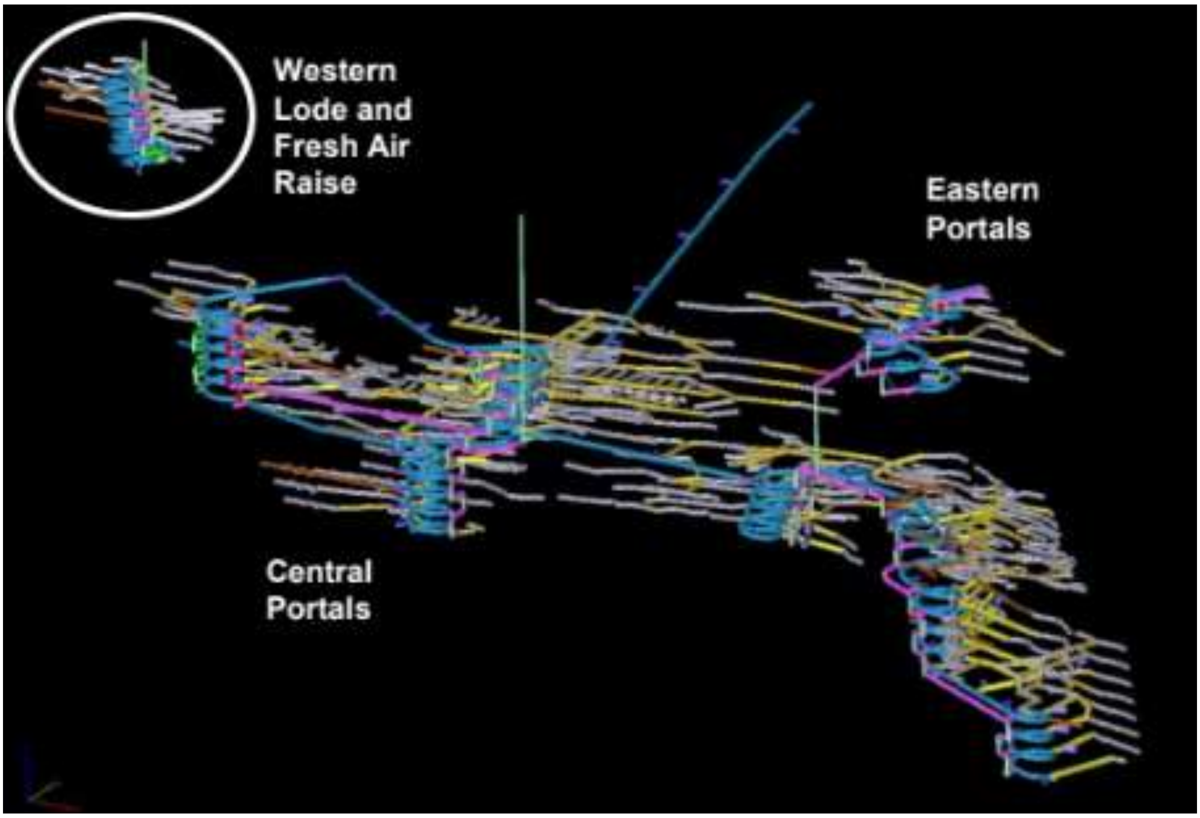


Figure 6 Long-section of Achmmach underground mine design of 2024 Scoping Study

Mining and related activities will be carried out by contractor at Achmmach for the project.

5.1 Geotechnical

Geotechnical data gathering and assessment has been completed for the 2024 Scoping Study using new data and that previously prepared for the Achmmach mine.

Previous work on the project has included:

- Core logging (for geology and geotechnical assessment)
- Rock testing (laboratory – UCS and Triaxial)
- Structural assessment
- Empirical rock mass classification (Q, RMR and MRMR)
- Design assessments for stable stopes, pillars, ground support etc.

In 2022 a geotechnical review and validation exercise of the existing drill hole data (provided by Atlantic Tin) was undertaken by an appropriate consultant. Defect orientation measurements were plotted in DIPs software for each geotechnical domain (footwall, hanging wall) comprising of 885 defects recorded in the footwall, 563 in the hanging wall and 1,719 in the orebody.

The geotechnically logged intervals of the drill hole traces were composited into 1.0m intervals, and the data on each side of the stope shapes (extending into the footwall and hanging wall) was further examined at 10m perpendicularly to each stope face. Using this data, a 3D geotechnical model was developed and reviewed against the proposed mine design to visualise spatial trends within the data sets. Boundaries between geotechnical domains were based primarily on the proximity to stoping and mining areas i.e., hanging wall, footwall, and ore.

Rock mass classification data from drill core logging utilising Barton's Q system (1974) and the modified Q' was evaluated in terms of best, worst and expected ground conditions likely to be encountered during stoping. Analysis was then undertaken to define stoping parameters, including Maximum Stable Unsupported Span (MSUS) for the stope side walls and backs, as well as Equivalent Linear Overbreak and Sloughing (ELOS) or dilution.

The table below provides a summary of empirical rock mass classification results for Achmmach And the key geotechnical domains.

Table 6: Empirical Rock Mass Classifications per Domain

Domain	Statistics	Q	Q'	RMR	GSI	MRMR
Meknes HW	25%	1.1	2.9	57	52	43
	Ave.	3.4	8.9	62	56	43
	75%	6.5	16.5	69	64	52
Meknes Mineral	25%	1.3	3.6	57	53	43
	Ave.	2.9	7.8	63	57	47
	75%	5.5	14	67	62	50
Meknes FW	25%	2.2	6.2	59	55	44
	Ave.	4.7	11.8	65	59	49
	75%	9.2	22.7	69	64	52
Eastern HW	25%	2.8	7	60	55	45
	Ave.	4.6	11.4	63	57	47
	75%	10.3	25.6	65	60	49
Eastern Mineral	25%	3.7	9.1	63	58	47
	Ave.	5.2	13.0	65	59	49
	75%	8.5	21.3	66	61	50
Eastern FW	25%	3.5	8.6	61	56	46
	Ave.	5.0	12.5	63	58	47
	75%	9.1	22.8	66	61	50

Ground conditions are anticipated to be fair/good class, with typical ground support and stope support techniques.

The ground support is anticipated to be 2.4m friction-bolts, with a 1.5m spacing and a 2.0m ring spacing. Areas requiring greater ground support are expected to be localised and may involve a combination of additional ground support such as steel mesh, shotcrete, cable bolts.

5.2 Stope Sizes

The maximum stable stope sizes for the Achmmach mine are summarised in the table below.

Table 7: Stope length and height by transverse and longitudinal

Stoping Areas	Along Strike	Height	Across Strike
Transverse Long-hole Stopes	20m	25m	10m - 50m
Longitudinal Long Hole Stopes	20m	25m	Variable, <10m

5.3 Stope Pillars

Stope pillars will be used in some cases, where stope grades are relatively low, and access limited for backfill. Empirical pillar design indicates the stable pillars are required in the Eastern Zone in Achmmach mine and sill pillars need to have a pillar/width ration of 1.3 to 2.0, depending on estimated pillar stress and strike width and rib pillars to have a pillar/width ration of 1.5 to 2.3, depending on estimated pillar stress and strike width.

5.4 Stope Dilution and Losses

Over-break assumptions have been established using hydraulic radius and modified stability number values and comparing these to dilution databases for mines with similar rock mass conditions.

As there is little variability in the rock mass characterisation across the strike of the mine the dilution has not been considered separately for different sections of the mine. Varying stope dimensions proposed for the four rock mass quality categories result in an equivalent linear overbreak/slough (ELOS) or dilution estimate less than 0.5 m to the stope hanging wall and footwall. This forms the key dilution estimate for the Achmmach mine plan.

Stopes with backfill had an additional 3% backfill dilution applied at waste grade (0%Sn).

Stope Recoveries were estimated to suit the proposed method and ground conditions. Where a sill occurs in limited cases, a simple assumption of assuming an in-situ sill pillar of half-level height is retained underneath a CRF filled stope above. It should be noted that there may be small adjustments to mining recovery in more detailed studies based on ore loss associated with mucking difficulties in wide stopes when using CRF, however these are likely to be <3% per relevant stope based on industry experience and were therefore not considered to be material for this Scoping Study.

Mineralised development had 100% mining recovery and no unplanned dilution applied.

The Scoping Study mining relating modifying factors are summarised below.

Table 8: Mining Modifying Factor Assumptions

Task	Recovery	Dilution
Filled Stope	95%	0.5m HW/FW contact + 3%
Open Stope	95%	0.5m HW/FW contact
Sill Stope	50%	0%

Development	100%	0%

5.5 Mining Method & Mine Design

The planned mining method to be used for the Achmmach deposit is conventional mechanized long hole stoping. As the geometry and thickness of the mining shapes vary throughout the different lodes, a combination of bottom-up stoping with selected use of cemented rock fill (CRF) and some use of top-down open stoping methods are planned.

CRF is a simple method of backfilling which involves placement of waste rock mixed with cement slurry into the stope void by a loader from a drive at the top of the stope. For the purposes of this scoping study an assumption of 4% cement has been used. The coarse rejects from the ore sorting and the fine rejects from the processing of materials are also available to be used as backfill if required. The cemented rock fill will be mixed by the loader in a cuddy prior to placement in the stope.

The mine design employs CRF in areas of higher grade and greater ore width to minimise metal loss to pillars, with the lower cost open stoping method and selected use of loose rock fill used in the lower value areas which are developed later in the mine life.

The 2024 Scoping Study design uses a single portal decline with a raise bored ventilation shaft. The northern portal decline from the north is approximately 1 km long to the 850 mRL close to the bottom of the orebody. This design passes through the orebody from the hanging wall and links with the footwall to connect with the overall decline design.

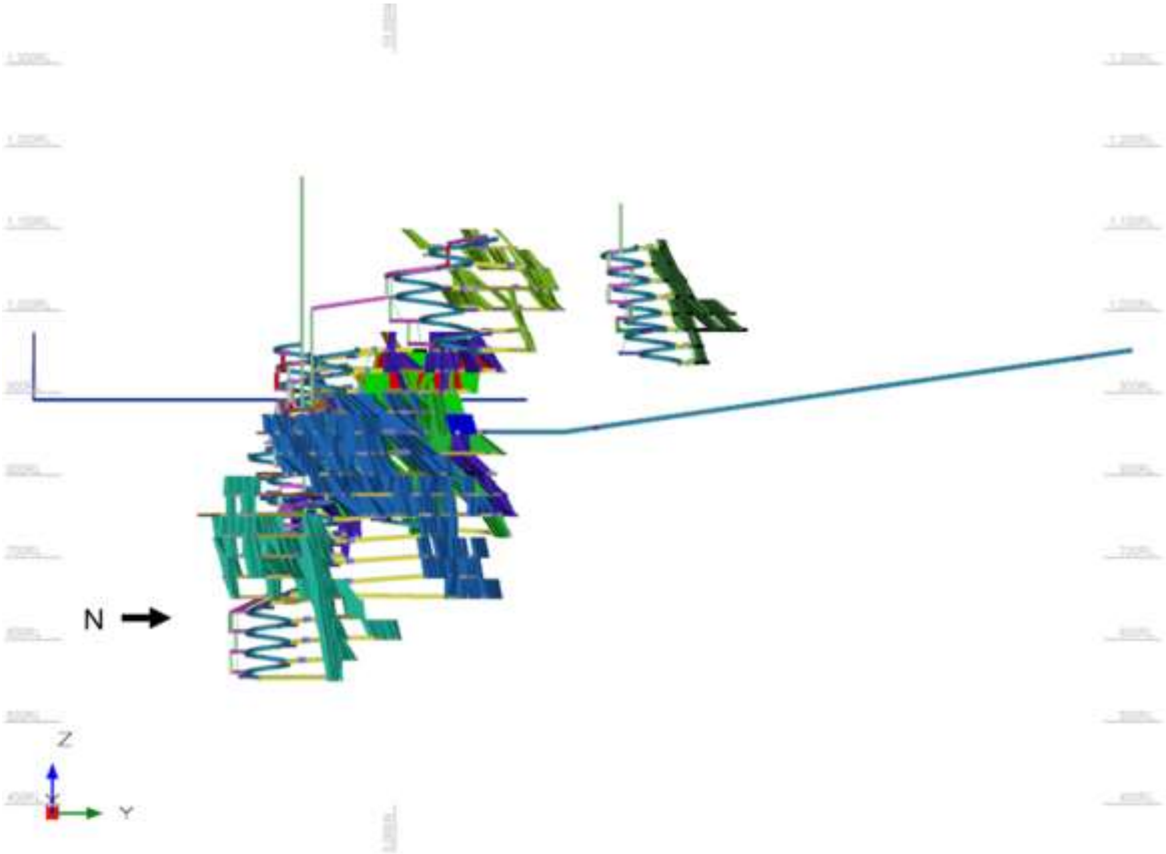


Figure 7: New decline design (Cross-section - Looking West)

The 2024 Scoping Study design caters for the following notable aspects:

- The northern portal is optimally located for trucking of ore to the SAMINE plant for processing
- The single decline aims to reduce up-front capital and provides expansion options.
- The design will allow for the introduction of un underground crusher and conveyor system that is planned for the 900 ktpa expansion phase.

5.6 Cut-off Grade

A cut-off grade of 0.4%Sn is used for all stopes in the mine plan. The 0.4%Sn cut-off grade was established from previous studies and used in the 2021 Mineral Resource Update. It is based on an operating cost of US$51/tonne, which is formed from mining US$27/tonne, processing US$13/tonne, G&A US$5/tonne and sustaining capital cost: US$6/tonne).

5.7 Mining Equipment

Mining activities will be carried out using conventional mobile equipment (Jumbos, LHDs, trucks and long hole drills etc).

The mine equipment parameters and mine schedule for the Scoping Study indicates:

- Up to five development jumbos are required assuming an average rate of 150m/month/jumbo
- Up to three long hole drill rigs are required assuming an average rate of 250m/day/drill

- Up to three trucks are required
- Up to four LHD with a capacity of 1,300t/day/LHD

Stope LHD productivity assumptions assumed 21t diesel loaders and were based on the tramming distance between the stope and the stockpile as detailed in below.

Table 9: Loader Stoping Rate Assumptions

Distance Bin	Unit	Rate
0 - 150m	t/d	2,167
150 - 250m	t/d	1,433
250 - 350m	t/d	1,100
350 - 450m	t/d	893
> 450m	t/d	574

The mining contractor will own the equipment and will maintain a mining contract for the first three years, at the end of which Atlantic Tin foresees having the option to take over the personnel and equipment from the mining contractor or extend the contract period.

It is targeted in the Scoping Study that mill feed material will be trucked up the main decline and then crushed through a single mobile jaw crusher operating in open circuit to a size of <100mm to allow for loading through the truck loading bin for transport to the SAMINE site for processing.

During Stage 2 of the project (reaching 900ktpa), the crusher will be moved underground and will feed to a conveyor running up the main decline to the portal. This will reduce the trucking requirement by 1km for each tonne of mill feed material and reduce congestion in the main decline.

5.8 Scheduling

The following scheduling parameters are used in the Scoping Study.

All decline heading advance rates were set to 5m/day and all other heading development advance rates were set at 4m/d. A maximum productivity of 5 m/day per jumbo was applied. The maximum jumbo fleet was four units in the main mining area.

Production drilling was scheduled at 250m/d. Two production drills were allowed in the main mining area with a 250 m/d capacity. Slot development was set at 4 m/d, with 20 m slots generating a final duration of 5 days.

CRF filling productivity assumptions were based on the tram distance between the stope and the stockpile as detailed in Table 15. A fleet of up to two loaders was allowed for assuming a capacity of 500 m3/d.

Table 10: Fill Productivity Assumptions

Distance Bin	Unit	Rate t/d
0 - 150m	m3/d	477
150 - 250m	m3/d	357
250 - 350m	m3/d	286
350 - 450m	m3/d	239
> 450m	m3/d	204

Ramping up of production begins once the primary ventilation system has been established (via raise bored shaft), beginning at month 14 and reaching 900 ktpa by month 36. Various mining zones with the Achmmach mine start production at differing times, depending on the development and related schedules for internal declines. For example, the Eastern Zone decline commences 28 months after commencement of the Central Zone decline and the Western Zone commences 66 months after commencement of the Central Zone decline.

A schedule summary is presented in Table 11.

Table 11:Schedule Life of Mine Physicals

Physicals	Units	Total	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17
Capital Dev	km	**23.4**	1.6	2.9	5.9	2.7	0.9	1.0	3.4	3.1	1.6	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Operating Dev	km	**30.2**	0.1	3.3	1.8	3.7	1.4	2.0	3.3	5.3	3.2	3.1	2.4	0.5	0.0	0.0	0.0	0.0	0.0
Vertical Development	km	**13.8**	0.3	0.4	0.9	1.0	0.7	0.8	1.2	1.5	0.8	1.2	1.0	1.1	0.7	0.5	0.6	0.7	0.4
Production Drilling	km	**1,373.2**	0.0	31.6	63.5	86.2	98.7	94.7	72.9	76.8	89.3	98.2	98.9	112.1	96.4	93.2	101.0	87.7	72.0
Stope Ore Tonnes	kt	**11,966**	0	91	670	747	846	806	720	652	756	759	770	868	892	893	889	887	720
Development Ore Tonnes	kt	**1,415**	14	171	61	153	54	94	180	247	144	141	130	27	0	0	0	0	0
Total Ore Tonnes	kt	**13,381**	14	262	731	900	900	900	900	899	900	900	900	894	892	893	889	887	720
Mined Sn Grade	%	**0.66%**	0.41%	0.64%	0.63%	0.70%	0.69%	0.83%	0.65%	0.66%	0.74%	0.69%	0.53%	0.67%	0.64%	0.66%	0.61%	0.63%	0.57%
Waste	kt	**2,235**	127	261	529	274	106	102	295	312	161	40	15	12	0	0	0	0	0
Total Fill	km3	**1,465**	0	17	190	231	214	208	125	10	15	57	84	75	58	102	61	17	0
Total Tkm's	Tkm (000's)	**26,694**	119	696	1,601	1,531	1,428	1,400	1,648	2,007	2,164	1,715	1,680	1,772	1,735	1,792	1,708	1,990	1,709

5.9 Production Rate

The 2024 Scoping Study targets a production rate for the Achmmach mine of 500ktpa initial rate (Stage1), followed by a quick step up to 900ktpa rate (Stage 2).

An approximate annual production target rate of 900ktpa is then maintained for the remaining Life of Mine. The results can be seen in the figure below.

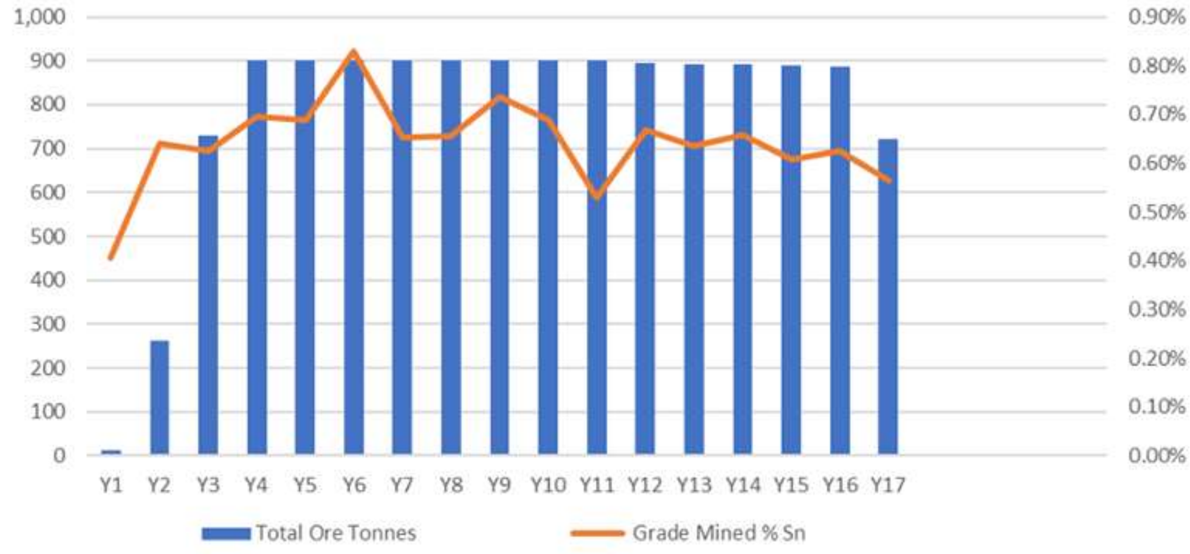


Figure 8 Life of Mine Production Rate and Mined Sn% Grade

Approximately 13.4Mt of mineralised material with an average mined grade of 0.66% Sn is mined over the Life of Mine.

6 Mineral Processing

The project will utilise the existing SAMINE process plant, with refurbishment of some items to process the stage one 500ktpa feed rate, with production later expanded to 900ktpa rate. Technical design parameters with respect to comminution, gravity and flotation have remained unchanged to those developed in previous studies for the project.

Subsequent to previous studies, dense medium separation (DMS) test work completed in 2023 demonstrated considerable pre-concentration recoveries in the feed range 1mm to 10mm and DMS has now been included as part of the pre-concentration circuit, with the larger material going direct to the ore-sorter. This removes up to 60% of the waste, with a pre-concentration recovery of approximately 87% of the tin, depending on the grade of feed. This significantly improves operating efficiencies and costs. As a result, over the life of the mine, the mills treat approximately 48% of the mineralised tonnes fed into the pre-concentration circuit (DMS and ore sorter). The pre-concentration circuit only rejects approximately 13% of the contained tin metal.

While the process flow sheet largely remains as has been previously established for the project, a number of improvements are made including:

- The current mills at SAMINE will be used for stage 1 of the project (500ktpa). Various components require refurbishing, including the following parts of the circuit: mill, flotation, and thickeners.
- Other aspects will also be upgraded to accommodate the pre-concentration equipment, including the incorporation of the wet double deck screen, ore-sorter and DMS.
- A high-pressure grinding rolls (HPGR) has been added prior to milling
- A gravity plant will be added to the process plant.

- Stage 2 (900ktpa) will require additional milling power and duplication of the gravity and pre-concentration circuits

All other infrastructure at the SAMINE site is operational and requires varying amounts of refurbishment.

Mineral processing and related activities will be carried out by Atlantic Tin as the operator for the project.

6.1 Existing Process Facilities

The acquisition of the SAMINE site and facilities is a key element of the 2024 Scoping Study and reduces the amount of the initial capital required to commence production versus a new processing and associated set of facilities and surface infrastructure that would otherwise be required to be designed and built at Achmmach mine location.

The plant stopped operating in 2022 and was placed on care and maintenance. The process plant equipment is suitable for processing tin-ore and will be refurbished and upgraded. The current facilities are to be adopted into the new Process Flow Design (PFD).

The laboratory, ROM pad, crushing plant, milling plant, flotation plant, reagents plant, product and tails management equipment, and the general facilities will be included in the general project refurbishment plan. Plant refurbishment, including improving safety and maintaining equipment has been included in the Scoping Study initial capital cost estimate. Figure 10 provides a general layout of the facilities at the SAMINE site.

Figure 9: El Hammam satellite view of process plant

The current ROM pad will be utilised as the interface between the mine and the process. The ROM pad is supplemented by a large coarse crushed stockpile, two 500t fine crushed ore storage bins and approximately 3,000t of ore storage prior to the milling circuit to improve storage capacity.

Between the crushing and milling circuit, the pre-concentration tower structure will be refurbished and upgraded to accommodate the key pre-concentration equipment, namely the wet double deck screen, ore-sorter, dense media separation, with the HPGR at the base.

A new gravity plant will be added to the process plant, and the existing milling, flotation, and thickeners will be refurbished.

All other infrastructure is operational and will require maintenance.

Figure 10 SAMINE Facilities Photographs (pre-con tower, mill, flotation, stores)

6.2 Metallurgical Test work

There has been extensive test work on the Achmmach mineralisation of interest.

The previous diamond drilling programmes have produced NQ (48mm) and HQ (63mm) core. The core has been halved with one half set aside for general reserve and metallurgical analysis. The other half of the core is normally interval cut at 1m lengths, crushed to 75% passing 2mm, split, and assayed for resource definition.

The balance of the crushed half-core from resource drilling programmes formed the basis of the bulk Meknès composite (BMC) and Eastern Zone shallow (EZS) composite (see Figure 11**Error! Reference source not found.**). Six tonnes of material was prepared for various test work programs prior to the 2024 Scoping Study.

All drill holes sampled for the BMC are located within the mineralised envelope. Figure 11 shows the spatial representativeness of the selected BMC and EZS in relation to the drilling.

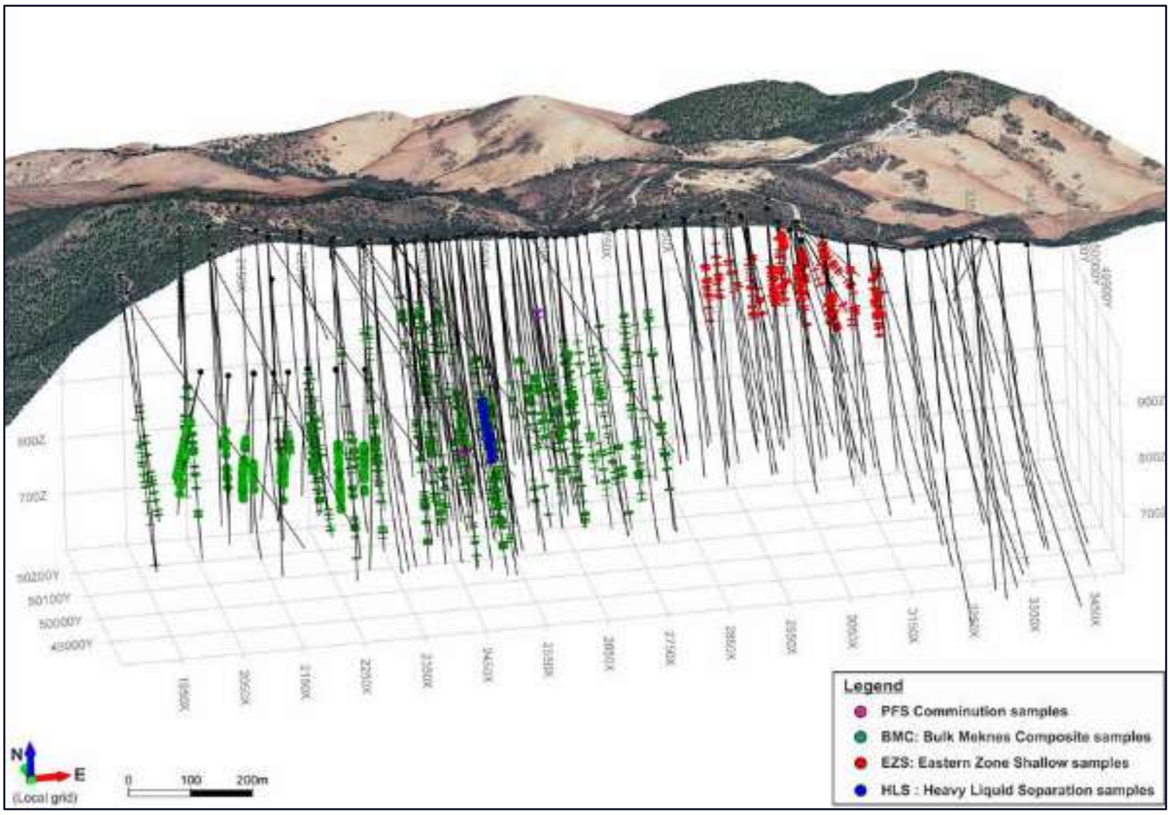


Figure 11 Meknes Metallurgical Sampling.

The two main test work composites are adequately representative of the orebody mineralogy. Additional smaller scale sampling programs have also utilised the core from the deposit drilling in test work subsequent to 2015.

In 2018 test work was undertaken to assess the power efficient comminution circuit including the new high efficiency ore sorting system, evaluation of a coarser grind size, the impact of these on the flotation circuit response and the approach to dressing of flotation concentrate. The objective of this test work was to drive down comminution risk and power draw and confirm the gravity and flotation grade recovery response and its cost structure in the context of the new comminution system.

The 2018 test program utilised four large samples of drill core (~500kg each) taken from the main ore zones along strike. Each sample was taken from the drill core intervals from inside the ore blocks and includes a mining dilution envelope. The samples combine material from 119 drill holes, and over

1,600 one metre intervals of core. The core size varied between NQ and HQ and was mainly quarter core. The details are summarised in Table 12.

Table 12: Summary of 2018 DFS test work samples

Zone	Sample #	Number of holes	Metres of core
Eastern	1+2	33	380
Middle 1	3+4	29	425
Western + Middle	5+6	36	424
Middle 2	7+8	22	376

These samples are each representative of the four mineralised zones along the strike of the orebody. The grade distribution of the key samples is shown in Figure 12. This is consistent with the grades achieved in ore sorting tests, where with 40-45% mass rejected. The rejects grade ranged between 0.1% Sn and 0.2% Sn.

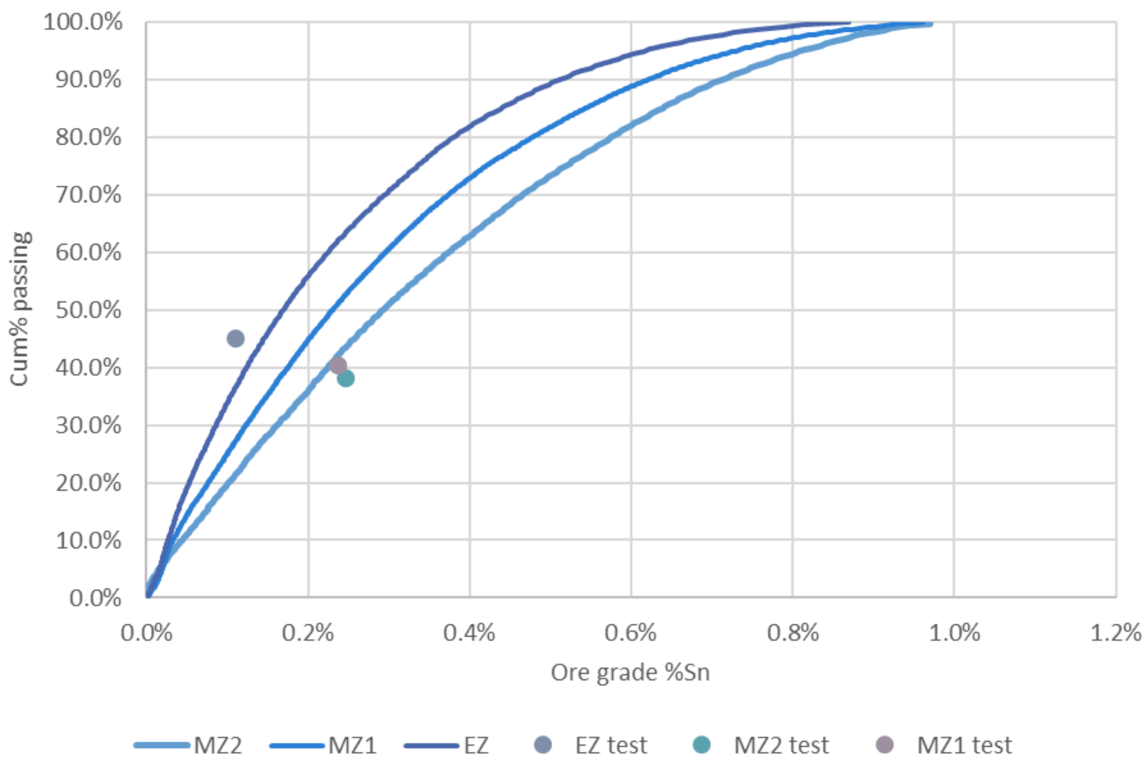


Figure 12: 2018 Sample Grade Distribution

The 2018 test work investigated a new front-end crushing and grinding regime with an ore sorting stage incorporated between conventional crushing and high-pressure grinding rolls (HPGR). The grindability testing on the HPGR product defined for each of the ore zones the impact of these changes on the primary closed circuit ball mill feeding the gravity and flotation recovery circuits.

The four samples were crushed to a P80 of 32mm, then screened at 10 mm aperture. A collection of lumps of core split into three grade ranges was analysed on a Steinert KSS ore sorter to develop an algorithm for later bulk testing. A 50 kg sample of the >8mm material from the dominant central ore zone was then tested and sampled for assay to define how the separation algorithm functioned. Based on these results the algorithm was adjusted and the four 500kg samples were separately tested and the products sampled and assayed.

A sample of <8 mm fines was tested by heavy liquid separation to provide preliminary data on jig processing of the fines to enable further reduction in mill tonnage throughput and further upgrading.

The 8 mm to 32 mm ore sorter reject material was partly re-crushed to create an adequate amount of <8mm fines and then test crushed in a 1.0 m diameter Koeppern HPGR. This test provided design data at three different pressure set points.

The four samples of accepted ore sorter product were then recombined with the respective <8mm ore fines samples and crushed in a 1.0 m diameter Koeppern HPGR at the best previous test pressure.

The accepts plus fines from the four ore zones crushed in the HPGR were then split into samples for rod and ball mill Bond Work Index testing, quantitative QemScan mineralogy, jar mill testing for the regrind duty, packed bed testing by Metso in York to provide additional HPGR design data, and flotation testing.

The other driver for the additional grinding testwork was the impact on grindability of rejecting 40% of the low-grade ore mass in the ore sorting process. Observation of drill core from the ore zones has indicated that the highly tourmalinised low grade halo around the main quartz veins bearing the high grade cassiterite could be the harder material.

The flotation testing was conducted on a 60 kg composite of the upgraded ore after recovery of gravity amenable cassiterite, where the gravity response enabled comparison of grade recovery performance for both 150 µm and 106 µm P80 grind sizes. Flotation was not used to assess this primary grind size change because the flotation is only utilised on <38 µm material, however the <8 µm slime tail mass flow created downstream of this test was used as part of the evaluation.

A second program examined a range of collector additions for a range of collector types and blends. The best results of all these tests were used in a locked cycle test using the flotation regime developed by ALS & Toyota Tsusho Co (TTC). This work collectively also defined the impact of the ore sorter upgrade and the HPGR crushing.

6.3 Work Index

The results from previous Atlantic Tin crushing work index tests conducted have been used in the study. The bond crushing work index test and UCS data in Table 13 have large scatter, and both indicate high values. The peak values have been used in design. Therefore, the crushing plant equipment selection and plant design are not considered vulnerable to variability.

Table 13: Summary of work index test results

Parameter		No. samples	Unit	Result
SG (by wax coat & immersion)	average	6		2.81
	maximum	-		2.90
SG (from CWi tests)		-		2.95
Unconfined compressive strength	average	13	MPa	115.2
	maximum	-		204.5
Strength class		Strong to very strong		
Crushing work index, CWi	average	11		9.90
	maximum	-		22.40
Abrasion index, Ai	average	2	0	0.792
	maximum			0.895
Rod mill work index, BRWi	average	2	0	30.1
	maximum			30.2
Ball mill work index, BBWi	average	2	0	24.6
	maximum			26.3

Additionally, the two-stage crushing circuit is targeting a product size of 32 mm. This size is selected primarily for the operation of the downstream HPGR. Many of the HPGR units available at the throughput required are fitted with 1.0 m diameter rolls, which requires a feed size around 30 mm to 35 mm to achieve the nip angle for effective intake of feed into the roll gap.

6.4 Ore Sorting

The ore sorting test work was successful at the 32 mm crush size after removal by screening of the <8 mm fraction. A rejection of >40% of >8 mm ore to a grade of generally <0.2% Sn was achieved, and the variation from sample to sample was minor. In a full-scale plant, the proportion of fines will be almost double the amount from this test, so the degree of upgrade will be reduced.

Table 14: Ore-sorting test results

		%Sn core assays	%Sn Test assay	Rejects %Sn	Accepts %Sn	Snd% to accepts	Rejects mass
				Test	Test	Test	Sorter
1+2	EZ	0.87	0.92	0.11%	1.60%	94.7%	51.4%
3+4	MZ1	0.96	1.10	0.24%	1.69%	91.3%	45.0%
5+6	MZ1+WZ	0.66	0.70	0.15%	1.32%	88.6%	58.9%

7+8	MZ2	0.97	0.93	0.25%	1.36%	89.9%	43.6%

These results indicate a performance with 30% of <8 mm fines bypassing the ore sorter, a plant feed grade of 1.18% Sn is anticipated from a feed grade of 0.90% Sn with a 40% rejection in the ore sorter. Although the ore sorter technology can deal with particles smaller than 8mm in size, the capacity of the ore sorter is dramatically reduced. A feature of the ore sorting tests was that sulphide minerals were also identified by the XRT system as high-density mineral phases and so sorted to accepts.

6.5 High Pressure Grinding Rolls

Four variability samples were processed through a Koeppern test high pressure grinding rolls (HPGR) unit at ALS Perth, Australia. The HPGR test results are shown in Table 15Table 15.

Table 15: HPGR test results

Description	Test number	Sp pressing force (kN/m²)	Sp throughput m- dot (ts/hm³)	Net Sp. Energy (kWh/t)	Centre P_{80} (mm)	Centre P_{50} (mm)	Passing 12mm (%)
Evaluation of pressure 1st pass	ACH001	2,500	237.4	1.53	10.46	3.14	81.67
	ACH002	3,500	231.3	2.02	8.36	2.34	86.27
	ACH003	4,500	220.5	2.57	7.66	1.9	87.93

The sorter accepts plus the <8 mm fines were crushed in the HPGR at the middle pressure setting to create fine feed for Bond Work Index testing and jar mill testing. The bulk of the crushed accepts plus fines sample was then used for the flotation test work. The ground sample from the Bond Work Index ball mill test was used for QemScan mineralogical analysis and the product of the rod mill Bond Work Index test for cassiterite grain size analysis.

The HPGR test work was successful in that nominally 32 mm feed was reduced to ~8 mm P80 at very low power draw. The reduction ratio is expected to improve given well controlled choke feeding at full scale, and potentially operating at slightly higher than test pressure for a small increase in power consumption. The power consumption of the HPGR was 1.5-2.0 kWhr/tonne ore.

The Bond Work Index testing of the HPGR crushed accepts plus fines showed that rod mill and ball mill work indices were reduced from previous values, probably due to the increased fines generated by the HPGR compared to conventional crushing. For some ores, the high compression crushing is thought to contribute to this improvement in grindability due to micro-fracturing of the rock, however this is not readily established.

Table 16: Bond Work Index testing

Test	Previous values	New values	Closing size	Design Value
Crushing Wi	16-32	-	-	27
UCS	91-274	-	-	228

Rod Mill Wi	30-34	26-30	880µm	30
Ball Mill Wi	21-26	22-25	106µm	24
Abrasion Index	0.42-0.81	-	-	0.73

6.6 Jar Mill Testing

Jar milling test data indicates that:

- ore variability in terms of grindability is low
- that a stirred milling regrind stage would be power efficient
- that ore hardness for grinding remains reasonably consistent down to fine sizes

These results add confidence to the selection of regrind mill power and enables the selection of a stirred mill for the regrind duty.

Table 17: Jar mill predicted specific energy

Sample Id	F80 (µm)	Jar mill specific energy (kWh/mt) P_{80} 106 µm	Jar mill specific energy (kWh/mt) P_{80} 45 µm
Lot 1-2	628.4	7.55	14.03
Lot 3-4	618.2	8.29	14.49
Lot 5-6	614.8	6.59	12.18
Lot 7-8	563.4	7.77	13.94

Table 18: Jar mill test data interpretation

Test	~600 to 45µm	~600 to 106µm	106 to 45µm
Lot 1+2	14.03	7.55	6.48
Lot 3+4	14.49	8.28	6.21
Lot 5+6	12.18	6.59	5.59
Lot 7+8	13.94	7.77	6.17
Mean	13.66	7.54	6.11

The variability of results of the four mill feed types in comminution testing was very small. This is consistent with both geotechnical data, and with the geological model and its observation of relatively uniform tourmalinisation of the ore zones.

6.7 Gravity Processing

Sufficient gravity test work has been conducted over several study phases, including pilot scale test work in Australia and in South Africa, to fully define gravity separation response on spirals and tables.

The results of the 2018 test work are shown Figure 13. This shows the response to gravity processing was almost identical for the 106 µm and 150 µm grind sizes. A lower concentrate grade was generated for the 150 µm grind, however the recoveries were the same. This concentrate in subsequent tests improved with regrind of the rougher and cleaner table tail. Mineralogy by QemScan indicates that the liberation is similar at these sizes, confirming the batch gravity outcome above and supporting the view that both significant primary grinding energy can be saved, and generating a lower mass of slimes.

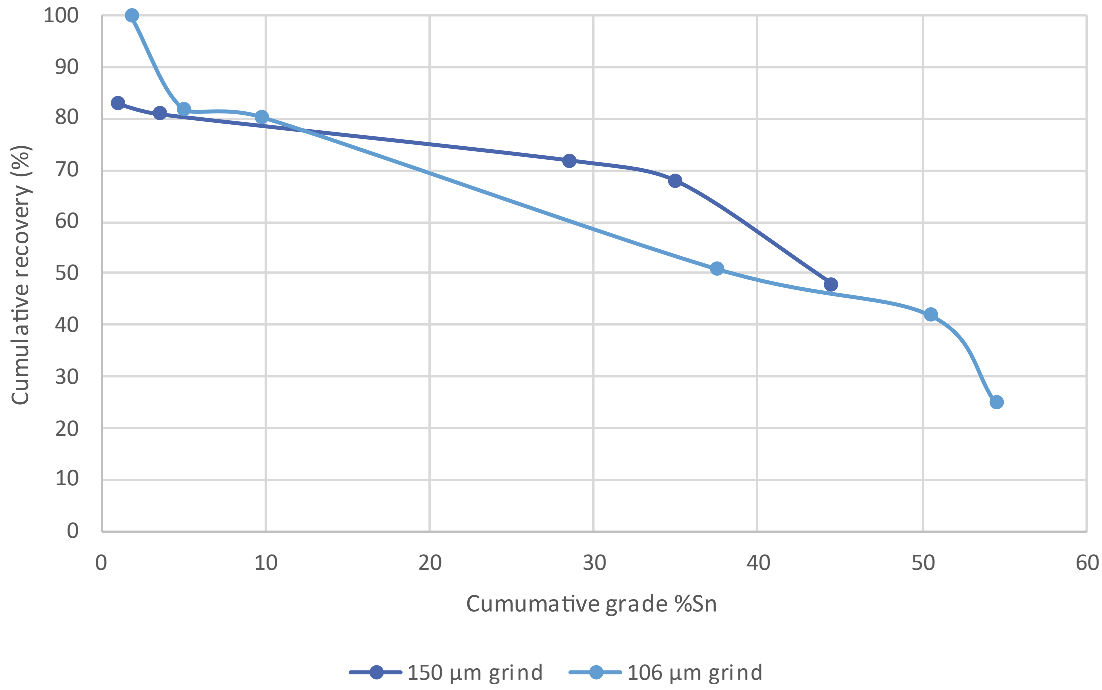


Figure 13: Grade recovery comparison for grind size

6.8 Flotation Circuit

Four different collectors were tested and found to be less effective than SPA-a styryl (2-phenylethyl) phosphonic acid which is also the preferred collector used at the Renison tin mine in Tasmania and historically in other tin flotation operations in UK and Canada. The lower cost OPS30 is a phosphate-based collector which demonstrated some selectivity. However, to achieve 88% rougher recovery, approximately 50% of the mass was floated compared with 36% for SPA. The Renison mine has successfully plant tested a blend of OPS30 and SPA and this approach is recommended for future test work on the Achmmach ore.

A locked cycle flotation test has been completed on a composite of the four ore zone samples. This confirms the performance obtained in previous testing using the new feed preparation technique.

6.9 Falcon Dressing

The Falcon centrifugal gravity concentrator was analysed in previous test work program to determine the applicability of these machines to the Achmmach mineralisation. This work included a large-scale test on concentrates from a bulk flotation test. The outcome of this test was that:

- At a pilot scale the UF Falcon concentrator was able to upgrade 10% Sn concentrates to >40% Sn concentrate. However, to achieve this result a complex and high capital cost circuit was required, which was not accounted for in previous work.
- The Falcon concentrator did not reject tourmaline effectively and the upgraded concentrates were high in iron, which incurs significant smelter penalties.

With the ability to generate high grade cassiterite flotation concentrates, and a high-grade gravity concentrate from ore sorter accepts, it is anticipated that the WHIMS iron removal process will provide sufficient upgrade of tin in flotation concentrate due to the mass of iron bearing mineral removed.

A basic UF Falcon circuit like one successfully operated at the Renison mine has been adopted as the baseline dressing approach for flotation concentrate. This comprises three units in a rougher, cleaner and scavenger cleaner circuit. The rougher tail is recycled to the float circuit, and the scavenger tail is currently disposable to final tail. This may in practice also be recycled to flotation via the deslime circuit.

6.10 High Intensity Magnetic Separation Circuit

The Slon high intensity magnetic separator is an attractive innovation over the traditional carousel style WHIMS machines. Previous test work indicated high efficiency removal of iron in the region of 75%, presumably in sulphides and tourmaline, for a small tin loss.

6.11 Concentrate Filtration

The quantity of concentrate produced from the dressed gravity and dressed flotation processes is small at 1.2 t/hr. The split is roughly 65/35; gravity to flotation concentrate. The gravity concentrate is relatively coarse particle size (>45 µm) and there are no slimes in the flotation concentrate having had <8 µm material removed.

Only very small quantities of concentrate are available from test work. The concentrate will be dewatered in a plate and frame pressure filter which will readily deliver moisture levels in the range 7% to 11%. Consequently, no specific filtration test work has been carried out.

6.12 Mineralogy and Optical Microscopy

Core and milled samples from the bulk Meknès composite (BMC), which is the composite used in previous test work, were examined by optical microscopy. This analysis indicated that liberation commenced at 200 µm and that cassiterite whilst well liberated at 106 µm grind size to a limited extent remained partially or completely locked with tourmaline and quartz.

Mineralogical investigation of various middling and tail streams from gravity processing of the BMC sample indicated that middlings streams contained locked cassiterite and so required regrinding, and that tails streams contained fine locked cassiterite of grain size ranging from 5–25 µm.

6.13 QemScan Analysis

A QemScan analysis of four variability samples was completed in 2018 to provide a quantitative analysis of cassiterite liberation by size. This material was a combination of ore sorting accepts and fines, and therefore the consequences of rejecting ~0.20% Sn material on the locking of cassiterite in the plant feed was of primary interest.

The QemScan analysis showed that the liberation of cassiterite was very similar for both <150 µm and <106 µm material, indicating that grinding to less than 150 µm may not be necessary.

The analysis of the finer size range showed it consistently comprised 70% to 80% of liberated cassiterite or high-grade middlings. It also showed that the fully locked (i.e. unrecoverable) cassiterite was less than 5%.

The summary findings are:

- The four variability samples showed quite consistent cassiterite liberation characteristics.
- Between 55% and 60% of the cassiterite is fully liberated, with another 15% to 20% present as high-grade composites in the size range finer than 150 µm. This is consistent with the high gravity recovery achieved in test work and provides a basis for a high-grade final product when gravity concentrates are dressed and combined with lower grade flotation concentrates.
- The fine gravity circuit incorporating a regrind stage is justified by the consistent ~30-40% of cassiterite in composites in the 38 µm to 150 µm size range where gravity separation is efficient.
- The population of low-grade composites and fully locked cassiterite finer than 38 µm, which is the size range for flotation, is negligible at ~5% to 10% of the total.

6.14 Metallurgical Recovery Modelling

The basis of the recovery model remains unchanged from the 2018 metallurgical work and the recovery model has been refined to include the SAMINE process plant for this 2024 Scoping Study. The grade-based recovery curve applied in the 2018 work has been used in this 2024 Scoping Study monthly feed grades in the milling schedule.

Grades below about 0.25% Sn have limited availability of fine, free, or partially locked cassiterite grains and recovery at this grade may be in the range 40% to 48% at best. Above the 0.25% Sn grade threshold, the incremental recovery may tend towards 85% as the cassiterite becomes increasingly responsive to conventional gravity separation techniques. Ore sorter rejection rates will also influence overall recovery. Further detailed optimisation within the limits of the test work data will be undertaken.

6.15 Process Flow Sheet Development

The potentially economic mill feed mineralisation in the Achmmach deposit is cassiterite SnO2 (95%) with very minor amounts of stannite. Cassiterite is the primary ore of tin and a range of extraction methods have been developed that are suited to its characteristics. The metallurgical characteristics of cassiterite are:

- Being an oxide, it is friable and excessive grinding will create fine particles (slimes) which are more difficult to concentrate than coarse particles.
- It has a specific gravity of approximately 7 which makes it suited to gravity separation techniques.
- It is not as amenable to flotation as other base metals. Flotation tends not to be as selective and is only effective for a small particle size range thus producing a lower grade concentrate (<30% Sn)

The result of these characteristics is that cassiterite requires a comparatively more complex process flow sheet than many typical base metals (e.g., Cu, Ni, Zn, Pb).

Previous studies of the Achmmach mineralogy and metallurgical testing have been extensive and underpinned a range of project studies over the last ten years. The previous flow sheet, recovery model, was based on metallurgical test work and reviewed by an independent technical expert. The technical design parameters around, comminution, gravity, flotation, and overall recovery have remained unchanged to those developed and the same parameters were applied to the revised Scoping Study.

Various work streams since the projects last study have identified a number of aspects which are incorporated into the 2024 Scoping Study process flow sheet.

In 2023, DMS test work results demonstrated considerable pre-concentration recoveries for the 1mm to 10mm graded portion of the crusher ore.

The preconcentration improvements places a wet double deck screen ahead of the ore-sorter and DMS, separating the -1mm fraction directly to the ball mill discharge sump. The 1 – 10mm fraction feeds the DMS, while the 10 – 40mm fraction feeds the Ore-Sorter. The resulting arrangement removes approximately 55% of the gangue with a pre-concentration recovery of 87 to 90% depending on the head grade from the ROM ore. This significantly improves operating efficiencies and costs by reducing energy and reagent requirements. In essence the remainder of the process plant only processes approximately 45% of the ore, with the balance being removed during the pre-concentration stage.

A modular construction methodology (staged construction) will be applied to the HPGR, DMS and gravity sections of the process plant.

Use of a filtered tailings process provides water efficiencies and best practice for tailings management. As 55% of the rock is removed via ore-sorter and DMS, the filtered tailings will form 45% of the rock that was extracted from the mine and are anticipated to all go back underground as cemented backfill.

The use of a STM mill (instead of Stage 1 ball mill) is intended for the expansion (Stage 2). The STM mill will increase the grinding capacity and improve the energy efficiency. The main change to the overall flow sheet is the consideration of the STM mill in Stage 2. The current ball mills at SAMINE will be utilised for the start-up (Stage 1, 500ktpa).

The use of SAMINE site reduces the surface footprint impact versus a new process, associated facilities, tailings, and water dams at the Achmmach mine site.

6.16 Process Description

Mineralised material from the Achmmach mine will be hauled approximately 7 km to the SAMINE site process plant and dumped on the crusher ROM pad stockpile. The crusher feed bin is kept full utilising a front-end loader.

The -400mm feed (Mining static grizzly product) is crushed in a jaw crusher at ~67 t/hr (85% utilisation) reducing the size to -100mm (100% passing). The jaw crusher product is screened at 40mm aperture, with the oversize, +40mm material, diverted to a secondary cone crusher for further size reduction and the product is again screened at 40mm. The -40mm is transferred and stored in a 500t silo.

The -40mm feed is conveyed to the pre-concentration tower above the main plant at approximately 67 t/h. A wet double deck screen, with 8mm and 1mm screens, should produce ~47 t/h of +8mm, ~18 t/hr of +1>8mm and ~2 t/hr of -1mm streams. The +8mm feed stream is fed to a single ore-sorter at ~47 t/hr, although depending on sizing two smaller ore-sorters is an option, where typically 55% of the mass (~26 t/hr) is rejected and expected to vary between 50-60%. The rejects will be diverted to a stockpile for future use as road base, concrete, and other applications. In addition, the balance of the material may be backhauled to Achmmach to be used for haul road and decline maintenance, and as back fill in the mine stopes. All backfill materials will be combined with filtered tails reducing the need for tailings storage management. The -8+1mm fines stream processed through a pressure -jig (or separated by DMS, generating ~15 t/hr of reject material and ~5 t/hr of high-grade material that is combined with the ~21 t/hr of the ore-sorter product.

The ~26 t/hr of product is fed to the HPGR (High Pressure Grinding Rolls), reducing the size from nominally +1<40mm to ~3mm.

The -1mm stream from the wet double deck screen will be diverted to the mill discharge sump.

Under gravity, the HPGR product feeds the primary mill feed conveyor via a feed chute (that acts as a buffer) to the primary mill feed conveyor. The primary mill discharges, combined with the -1mm material from the double deck screen at the top of the tower, will be pumped from the primary mill discharge sump to the primary classifying cyclones.

The primary cyclone underflow returns to the primary mill feed and the primary cyclone overflow feeds to the secondary mills discharge hopper. This is pumped to the secondary cyclones and the underflow is split between the two secondary mills [250kW and 132 kW] in 3 to 1 parts mass ratio, respectively. The secondary cyclone overflow, at a P80 size of 150 µm, is fed to the coarse gravity cyclone to cut at 75um such that the densified +75 µm material is distributed to the coarse rougher spirals feed. The rougher concentrate feeds the cleaner spirals, and the rougher middlings feed the scavenger spirals.

The scavenger concentrate is sent to the cleaner spirals. The rougher spiral tail is classified with a final cyclone, with the cyclone overflow diverted to the scavenger spiral feed.

The final cyclone (or Falcon) underflow is discarded to the tailings thickener.

The cleaner spiral concentrate is concentrated utilising vibrating tables, and all the middlings are fed to the regrind mill discharge sump.

The -75 µm coarse gravity cyclone overflow advances to the fine gravity cyclone feed via the regrind mill discharge sump for further classification at 38µm. The +38µm milled ore is beneficiated in the fine gravity circuit like the coarse circuit using spirals and shaking tables to produce a 20-25% tin gravity concentrate. The spiral and table middling will be reground in the gravity regrind ball mill.

The gravity concentrate will be further upgraded in the gravity dressing circuit to 60% tin using magnetic separation, sulphide flotation and final cleaning shaking tables.

The minus 38µm regrind mills cyclone overflow will be scavenged for scrap steel in a magnetic separator drum with magnetics returned to the regrind mill. The non-magnetic stream is then de-slimed at nominally 8µm in two stages of high-pressure cyclones. The first deslime cyclone underflow is diluted and fed to a sulphide scavenging circuit which uses a single cleaning stage to make a discardable concentrate. The sulphide rougher tail is fed to the second deslime cyclone cluster and the second deslime cyclone underflow is fed to the tin flotation feed attritioner. Deslime cyclone overflows are sent to the tails thickener.

The -38+8 µm fraction will be beneficiated using attritioning conditioning to prepare for the cassiterite flotation. After two stages of conditioning of reagents the rougher concentrate is cleaned and the cleaner tail returns to the attritioning stage. The first cleaner concentrate is cleaned in a third cleaner flotation stage, with the concentrate product fed to UF Falcon centrifugal gravity concentrators to achieve a 60% tin grade concentrate.

The dressed gravity concentrates and UF Falcon flotation concentrate combined for a total 0.54 t/hr, is filtered and bagged for transportation to an offshore smelter.

The tailings thickener is fed at 26.5 t/h.

The thickener underflow is fed to the drum vacuum filters which form a cake of ~16% moisture.

Water is returned to the process water tank from the tails thickener overflow and the concentrate holding thickener overflow. Clean water is added back into the process at the dilution of attritioner discharge into the first reagent conditioner.

A summary of the key process flow specifications is presented in Table 19 and a simplified process flow sheet in Figure 14.

Table 19: Summary Process Specifications at 500 ktpa feed

	Hrs	tpa	t/hr	%Sn	Sn Units
Ore feed Crushing	5957	500000	83.9	0.70	
Ore feed Milling	7490	500000	66.8	0.70	46.73
Ore Sort rejects for roads & backfill		192500	25.7	0.15	3.8
DMS rejects		105000	14.0	0.28	3.9
Gravity tail cyclone underflow		96581	12.9	0.15	2.0
Float prep magnetics		946	0.1	0.59	0.1
Float prep sulphide conc		751	0.10	0.20	0.02
Slime tail -8um		28685	3.83	1.00	3.83
Tin float tail		71060	9.5	0.08	0.7
Gravity conc dressing magnetics		27	0.0036	5.51	0.0200
Dressing sulphide conc		403	0.05	2.00	0.11
Plant tail thickener feed			26.5	0.25	6.7
Total Tail			66.2	0.22	14.5
Total Concentrate			0.54	59.7	32.26

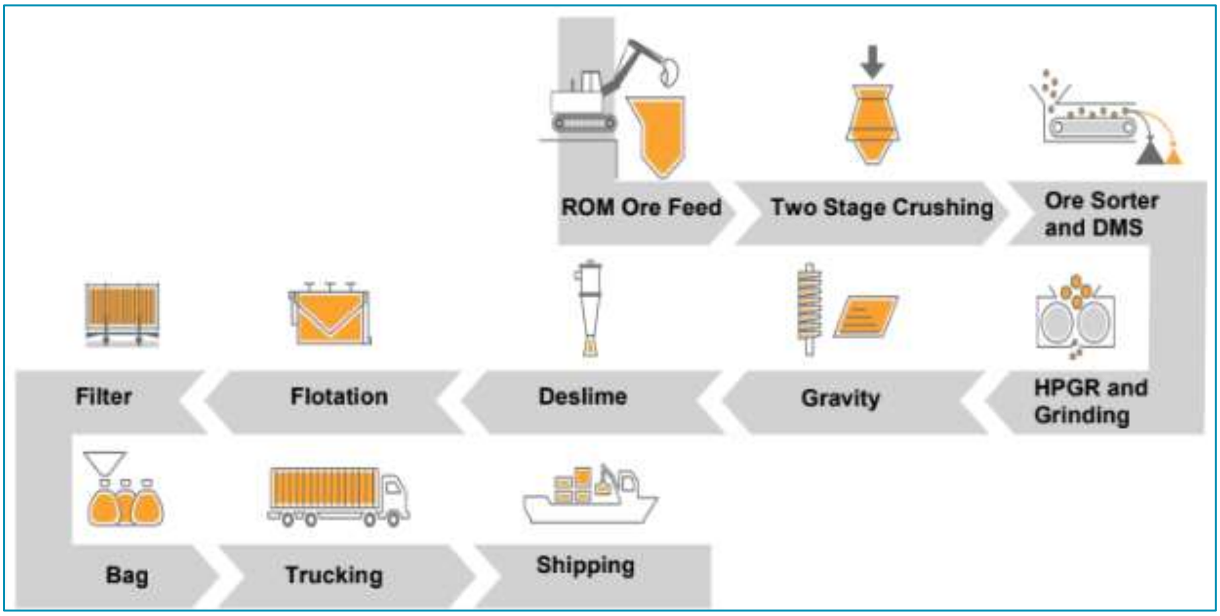


Figure 14: Simplified Process Flow Sheet

7 Life of Mine Production Target

After an approximate 18-month construction period, production begins and ramps-up to the first stage capacity of 500ktpa. The second expansionary stage of production follows soon after to expand the mine and processing to an annual rate of 900ktpa.

All production target mineralisation feed to the mill is classified as Measured and Indicated Mineral Resource. The Scoping Study includes zero Inferred Mineral Resource.

The LOM tonnes mined and tonnes of mill feed post pre-concentration are shown in the Figure 15.

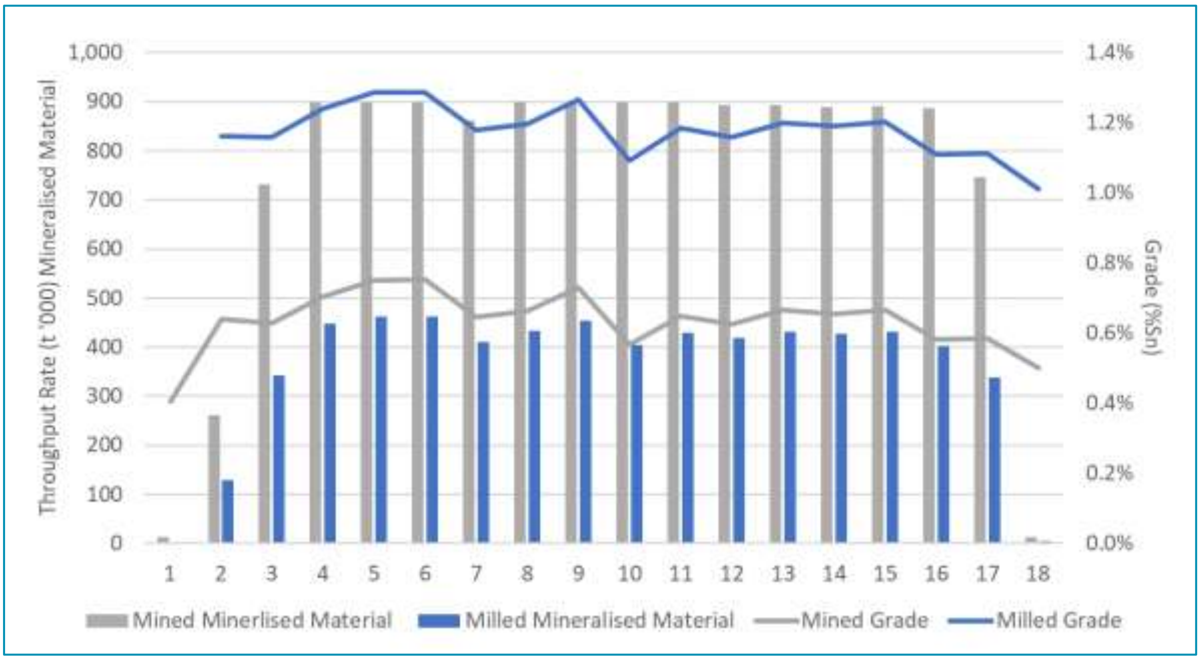


Figure 15: 2024 Scoping Study LoM Production Mined and Milled Mineralised Material

64kt of tin metal in concentrate is produced over the 17-year LoM. Production peaks at 5ktpa as shown in Figure 16.

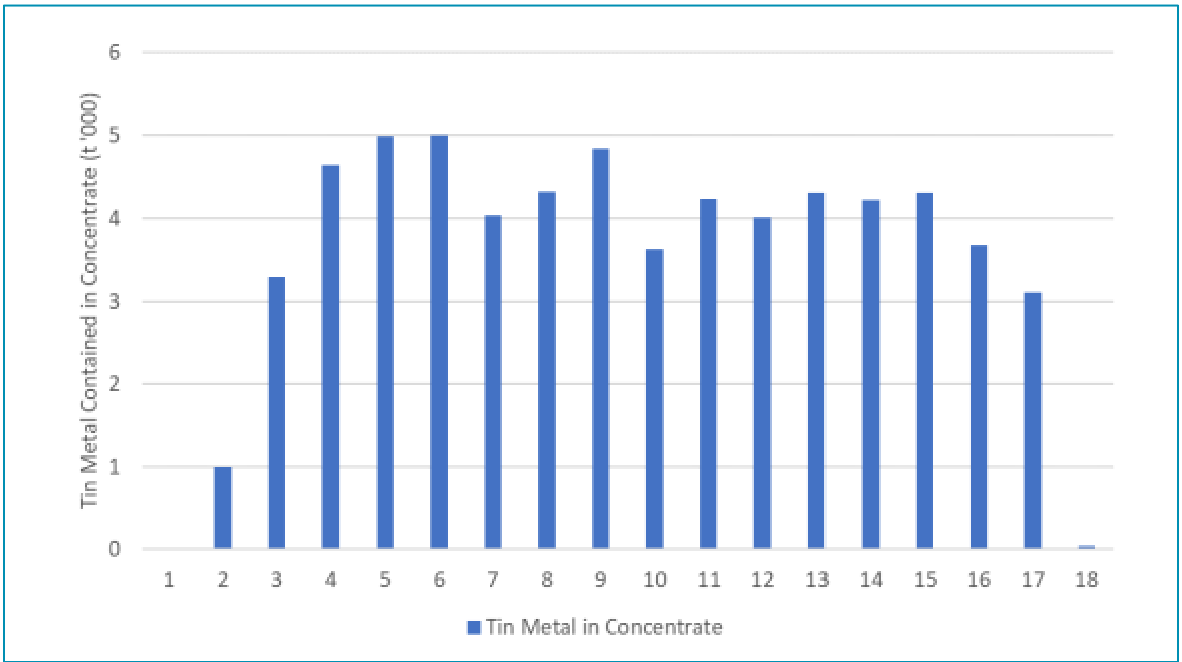


Figure 16: 2024 Scoping Study LoM Production of Tin Metal in Concentrate

8 Infrastructure

At the SAMINE site, the pre-concentration tower structure will be adjusted to accommodate the new equipment, and to the south of the mills the new gravity circuit will be installed. The remainder of the infrastructure at the site will remain unchanged. The existing tailings facilities are being re-mined as a by-product material and sold separately currently supplying to the cement industry in Morocco. Once depleted, the TSF will continue to be rehabilitated.

The SAMINE site has the following facilities in place:

- Offices
- Change house
- Workshop
- Stores
- Fuel storage

At Achmmach, existing offices, accommodation, water, and power at the camp are sufficient for the initial start-up, although a new power supply to the underground mining facility will be required. The 22kV power line that feeds the SAMINE site runs past the site of the Northern portal at Achmmach and a tower is located approximately 100 m from the mine portal. Achmmach will also need the construction of new facilities including:

- Offices
- Change house
- Fuel storage

The mine contractor will also provide facilities of a similar nature, as well as stores, workshop, etc.

The existing access roads to both the mines are in good order and maintenance will be applied over time. Approximately 15% of the haul road between Achmmach and the SAMINE site will be upgraded.

The existing transport routes from the SAMINE site to various ports are in place and in good condition, and mostly sealed roads. No costs are required initially for the upkeep of this road.

The SAMINE site is operational and connected to the national power grid.

The process plant at SAMINE is currently connected to the national power grid managed by ONEE (National Office for Electricity and Potable Water). The feed from ONEE is 22kV and while step-down infrastructure is required for Achmmach. The current power allocation to the SAMINE process plant is 3.5 MW. The Scoping Study estimates a requirement within this allocation, at 2.7MW.

Achmmach electrical power will be supplied as 11kV feed to each portal and reticulated through the main decline to 11 kV/1 kV step-down transformers in working areas. All low voltage (< 1,000V) equipment and reticulation (including distribution boards and starter boxes) will be provided by the mining contractor and included in the provided rates. The Scoping Study estimates a requirement of 1.9MW for the Achmmach site.

Previous studies have incorporated design and infrastructure based on 14ltr/sec of water. This assumption was retained in the 2024 Scoping Study. Several hydrological data gathering, and assessments have been conducted at Achmmach since 2010 by consultants and more recently assessments made of the SAMINE site.

Process make-up water is fed from the local river near SAMINE and other water sources from the former underground mine at SAMINE. Achmmach will use borehole water and ground water encountered during its operations.

A small medical facility will be added at Achmmach. The SAMINE site has a fully functional facility, and a doctor will service both sites which will be staffed 24 hours a day by a nurse/paramedic as required by Moroccan regulations.

All personnel will be transported by busses running between Meknes and the two sites. The existing accommodation on site will be used for visitors and shift personnel on stand-by. The existing camp at Achmmach will be utilised by the mining contractor as required. No further additions to the accommodation are planned.

9 Social, Community, Environmental and Permitting

The Achmmach ESIA assessment was carried out during the period May 2011 to June 2013. This included completion of a two-season environmental baseline survey, the first being in May 2011 and the second in October 2011. The ESIA approval was granted in 2014.

On the 27 August 2019, the ESIA approval was renewed on the basis that project execution or construction commenced within 5 years. MEM was notified in May 2024 that the Achmmach project is going ahead, and minor construction activities have commenced.

The SAMINE site has an existing ESIA approval.

Both the SAMINE ESIA and the Achmmach ESIA will be amended as further studies are advanced in the Feasibility Study for the combined project.

All landowner and community agreements under the current permits for both Achmmach and the SAMINE site have been implemented and are valid.

No resettlement will be required.

The project does not involve any direct land acquisition. The current land tenure associated with the project area is a combination of collective (common) land for the cleared areas and forestry land for the wooded areas. Rent will be paid for the use of both land categories and existing agreements are in place.

Household consultations have shown a positive perception of the project among the local population. The project is seen as an opportunity for local development. The inhabitants and local authorities expect the project to be a source of job creation (especially for young people) and poverty reduction (through social infrastructures such as schools, health centres and access roads).

It is expected that a number of positions at the mine will be offered to residents within the vicinity of the project, these being the communes of Jahjouh, Ras Ijerri and Ait Ouikhalfen.

With the mining practices being predominantly underground, there will be a minimum environmental impact on the local community, although, the local community will be a source of local labour.

Mining activities were previously a source of local employment, particularly at the SAMINE site, and hence there is strong local support to re-commence mining operations in the region.

Closure planning has been undertaken to a conceptual level for Achmmach and will be continually updated throughout the project life. Prior to the start of production activities, the conceptual mine rehabilitation and closure plan will be detailed based on the planned Feasibility Study. The application of the final closure plan will include the international standards.

At SAMINE basic mine closure rehabilitation has been underway, with the underground facilities being closed and sealed, landscaping waste areas and planting of trees.

The tailings are being remined, with the material being sold within Morocco to cement manufacturers. The tailings facility will be reworked and made safe for closure. Going forward, the final rehabilitation of plant and other infrastructure will be included in the detailed closure plan.

Mining Permits are in place for Achmmach and El Hammam.

10 Capital Cost

Pre-production capital cost includes all upfront expenditure associated with the refurbishing and modifications to the processing plant, non-process infrastructure and the initial underground mine infrastructure such as portals, decline access and further initial development before production commences at the processing plant commissioning, ventilation fans and substations.

Processing plant and non-process infrastructure estimates, as well as all mining costs have been developed by Atlantic Tin and its consultants. The capital cost estimates are presented in Q1 2024 US$ terms, to an accuracy of +/- 35%. A contingency of 13% has been applied to the estimates. The basis for the estimates is primarily factored cost estimates from databases, quotes from equipment manufacturers, from similar operations and benchmarks.

Pre-production capital cost of Stage 1 is US$54M and the expansionary Stage 2 cost is US$28M. Sustaining capital cost for the remainder of the LOM amounts to US$62M.

A breakdown of the major areas of cost is shown in Table 20.

Capital	US$ M
Mine Development	23
Haul Roads	1
Process & Associated Infrastructure	20
General	5
Contingency	6
Total Pre-Production Capital (Stage 1 500ktpa)	**54**
Expansionary Capital (Stage 2 900ktpa)	26
Sustaining Capital (17 years of production)	62

Table 20: Capital Cost 2024 Scoping Study

11 Operating Cost

The mining cost estimate is +/- 35% accuracy. The operating cost estimates are presented in Q1 2024 US$ terms, to an accuracy of +/- 35%. The basis for the estimates is primarily factored cost estimates from databases, quotes from equipment manufacturers, from similar operations and benchmarks.

The LOM operating cost for the Achmmach project is US$110/t mill feed (after pre-concentration) resulting in a C1 cost of US$13,569/t Sn. The operating cost is in the lower end of industry operating costs for tin operations.

A breakdown of the major areas of cost is shown in Table 21.

Operating Cost	US$/ Sn	US$/t milled
Mining	6,033	64
Processing	3,498	35
General & Administrative	1,067	11
Total	10,598	110
Commercial Charges & Transport	2,970	
C1 Cash Cost	13,569	

Table 21: Operating Cost 2024 Scoping Study

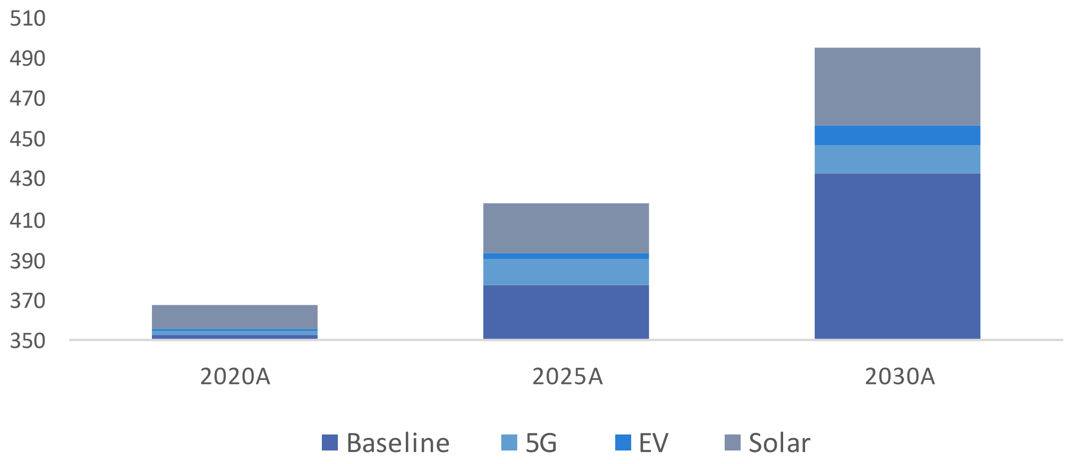
12 Commercial & Marketing

Achmmach mine will produce a clean 60% tin concentrate. At peak production, the mine will produce up to 5,000tpa, dependent on the average run-of-mine head grade for the year. The tin concentrate will be dried to a moisture content of <5% and placed in 1 tonne Bulk-bags. The bags in turn will be containerised and sealed for shipment, transported by truck to port and then shipped to destination.

Tin market analysis by the International Tin Association (ITA) indicates a positive outlook for the tin industry. A summary of which is provided below.

Demand is expected to grow 35% by 2030 with new technology applications added on top of traditional solder- and electronics-driven baseline growth:

- Driven by "net zero emission" targets where International Energy Agency (IEA) estimates growth of 9x in solar installations and 18x in EV sales between 2020-30 in its scenario
- The increase in 5G network and data centres capacity, all of which require increased demand for tin in electronics
- Solar ribbon technologies will be the largest new use for tin with ITA forecasting demand CAGR of 13% from 2020 to 2030, followed by EV and 5G technologies with CAGR forecasts of 22% and 26% respectively.

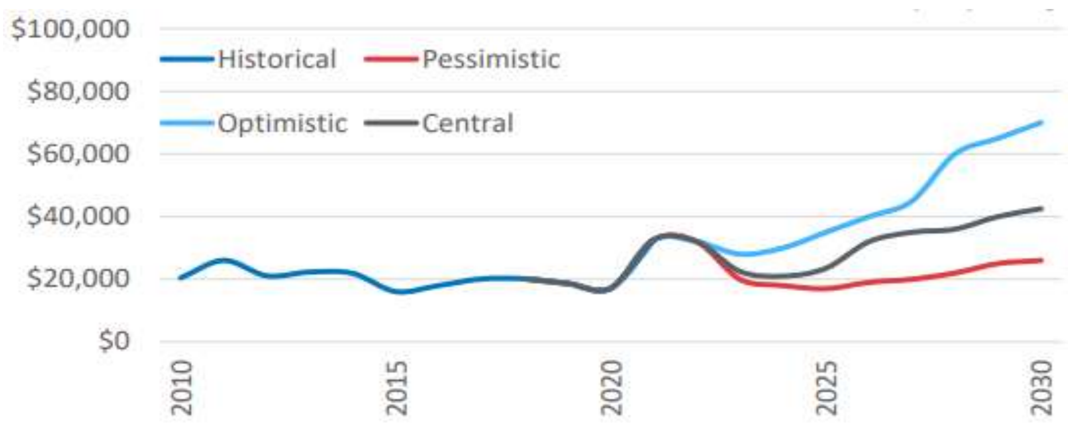


Source: International Tin Association (ITA), Tin Industry Review 2022

Figure 17: Tin demand forecasts by technology (kt Sn)

Maintaining world tin production over the next decade will require a strong and stable market environment. According to ITA forecast, only a handful of tin projects under development are likely to become operating mines over the next few years given the challenges related to cost of funding: new capacity that is expected to enter the market until 2030 is limited to 30 ktpa, creating a tight market environment on supply side. Secondary (recycled) tin production is expected to grow slowly with increasing tin demand and improving feedstock availability, however, its contribution to overall refined tin supply is expected to be limited and insufficient to meet demand.

According to ITA, the global tin market is forecasted to experience major tightness in Q2'24, especially due to the ongoing ban in Wa State and the issues surrounding Indonesian export licences and reduced output. Resumption in mining in Wa State could potentially balance the market again in 2025, however, beyond which it begins to move into shortages with significant supply risks. This leads to a rapid transition in 2026 with accelerating demand and stagnant tin production. After 2025, mines entering the market will only replace decreasing production from existing players, keeping production levels steady. By 2030, ITA expects supply deficit to reach 46 ktpa – corresponding to almost 10% of the market. As a result of this market tightness expected to continue over next decade, ITA and consensus forecasts setting the price at around US$30,000/tonne in the medium term, reaching US$40,000/tonne by 2030. In an optimistic scenario ITA expects demand for tin continues to rise with rapid adoption of solar power, 5G, electric vehicles and in lithium-ion batteries. This creates wide deficits throughout the next decade, pushing prices up to record levels of US$70,000/t by 2030.



Source: International Tin Association (ITA), Tin Industry Review 2022

Figure 18: ITA tin price scenarios (US$/tonne, yearly average)

The Project is expected to produce a 60% Sn grade concentrate for sale to smelters and traders.

General offtake terms for its tin concentrate have been used to indicate net smelter returns (NSR) and average metal commercial terms, including unit deduction and treatment charges. These are summarised below.

- Payability is 100%
- Minimum unit deduction and penalty US$866/t dry concentrate
- Treatment charges US$507/t dry concentrate
- Site to port $1,200/20ft container
- Shipping $1,120/20ft container

The concentrate specification based on project testwork completed to date is shown below.

Element / Compound	**Assay**
Sn	60.00%
Fe	4.01%
Mn	0.02%
WO3	0.03%
Pb	0.03%
Zn	0.02%
Ni	0.00%
Co	0.00%

Ag	1.92ppm
Cu	0.00%
As	0.08%
Bi	0.00%
Sb	0.04%
S	1.73%
ThO2+U3O8	0.00%
F	0.09%

Table 22: Concentrate Specification

13 Economic Analysis

13.1 Key Assumptions

Key economic assumptions in the 2024 Scoping Study include:

- Tin price $30,000/t
- Moroccan corporate tax 20.0%
- Discount Rate 8.0%
- Exchange Rate MAD:US$ 0.10
- Moroccan royalty 3.0%
- Commercial terms as in relevant section
- Capital and operating costs as in the relevant section

13.2 Scoping Study Cashflow

At a tin price of US$30,000/t, the Achmmach tin project generates a LOM post-tax free cash flow of US$680M, peaking at US$71M per annum, with an average of US$51M per annum during years 2 to 16.

Figure 19 shows the annual and cumulative cashflow post-tax for the 2024 Scoping Study.

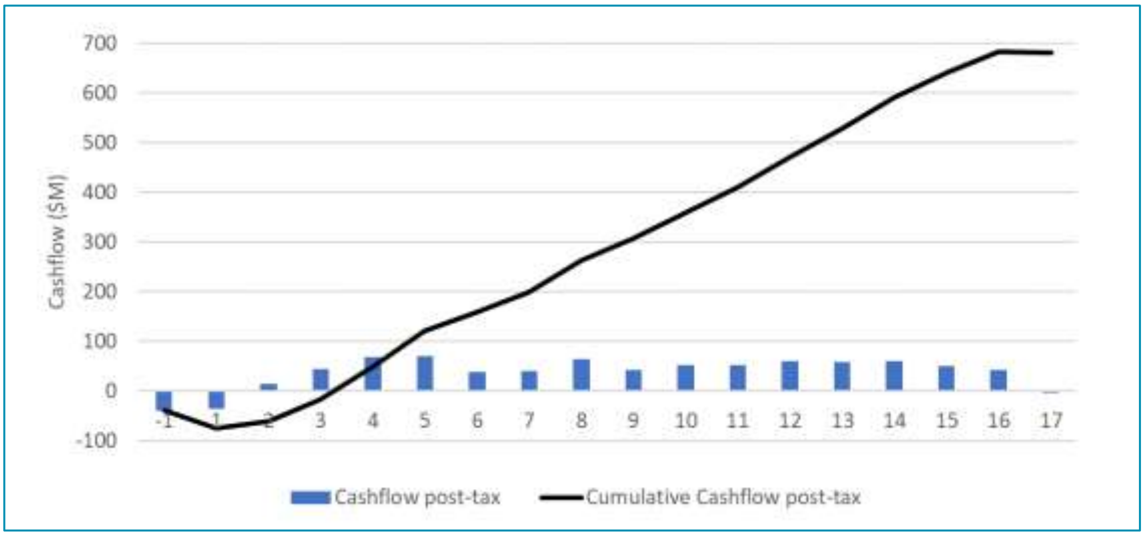


Figure 19: 2024 Scoping Study LoM Annual and Cumulative Project Cashflow Post-tax

The table below provides a summary of the Scoping Study economic metrics and key assumptions.

Description	Item	Unit	Value
Production	Initial mining / milling	ktpa	500 / 250
	Expansion mining / milling	ktpa	900 / 450
	LoM tonnes mined / milled	Mt	13.4 / 6.4
	LoM	years	17
	LoM mined grade	%Sn	0.7
	LoM processed grade	%Sn	1.2
	LoM process recovery	%	72
	LoM tin in concentrate	kt	64
	LoM concentrate grade	%	60
Capital Cost	Pre-Production	US$ M	54
	Capital intensity	US$/t Sn	1,130
	Expansionary	US$ M	26
	Sustaining	US$ M	62
Operating Cost	LoM US$/t milled	US$/t	110
	LoM C1	US$/t	13,569
	LoM AISC	US$/t	15,368
Price Assumption	Tin	US$/t	30,000
Exchange Rate	MAD:US$	-	0.10
Economics	NPV $^{8\%}$ pre-tax / post-tax	US$M	397 / 307
	IRR pre-tax / post-tax	%	54 / 45
	Payback pre-tax / post-tax	years	3.8 / 4.3
	LoM Net Revenue	US$M	1,697
	LoM EBITDA	US$M	990
	LoM Cashflow post-tax	US$M	680

Table 23: Achmmach 2024 Base Case Scoping Study Project Metrics

13.3 Sensitivity Analysis

A simple analysis of the 2024 Scoping Study sensitivity indicates the project economics are most sensitive to tin price and to a lesser degree the operating cost, capital cost or discount rate.

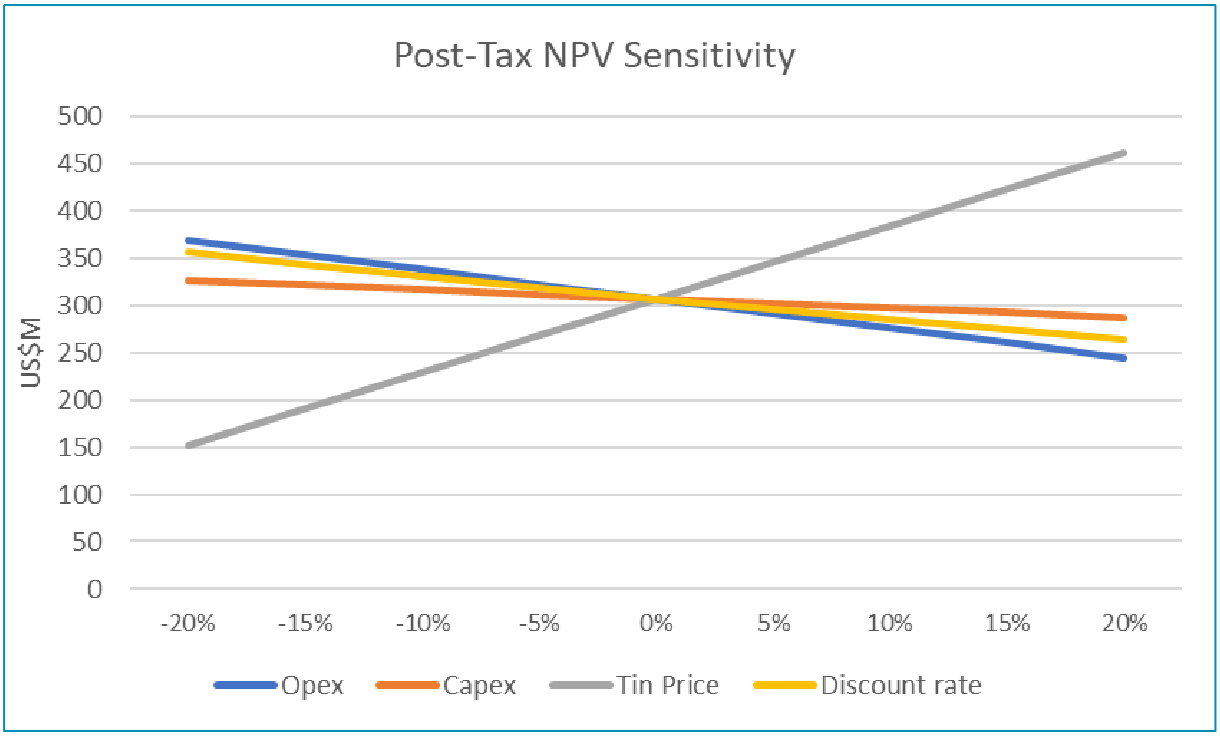


Figure 20: Achmmach 2024 Scoping Study Project Sensitivity

The table below provides additional details on tin price related sensitivity across a range of project economic metrics.

				Base Case		
Tin Price (US$/t)		**25,000**	**27,500**	**30,000**	**32,500**	**35,000**
NPV 8% (US$MM)*	US$MM	177.9	242	**307**	371	436
IRR*	%	30.7%	38.0%	**45.1%**	52.0%	58.8%
Payback*	years	4.5	4.3	**3.8**	3.5	3.3
LOM EBITDA	US$MM	680.9	835	**990**	1,144	1,298
LOM Free Cash Flow*	US$MM	432.6	556	**680**	803	927

*Unlevered, Post-Tax

Table 24: Tin Price Sensitivity on Project Economic Metrics

14 Project Development

Atlantic Tin is commencing a Feasibility Study to follow this 2024 Scoping Study.

It is anticipated that the Feasibility Study will be completed by the end of 2024 at which point the full project funding will be sought.

Based on this Scoping Study, it is anticipated that the project will reach first tin production 18-months after the full construction commences.

15 Funding Strategy

Estimated pre-production funding of US$54M is required to achieve the of outcomes indicated in the Scoping Study. Atlantic Tin is of the view that there is a reasonable basis to believe that the requisite funding amount for the Project will be available when required. The grounds on which this reasonable basis is established include:

- The Project has strong technical and economic fundamentals which provide an attractive return on capital and generate strong cashflows under a range of commodity price assumptions. This provides a strong platform for attracting potential equity, debt and offtake funding.
- The Achmmach Tin project is located in Morroco, which is a country of broad mining experience and a significant resource industry, a stable government and regulatory environment, and in close proximity to Europe

There can be no certainty that the Atlantic Tin will be able to source funding as and when required. Common project development financing would involve a combination of debt and equity. It is possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Atlantic Tin's existing shares.

16 Opportunities

The 2024 Scoping Study for the Achmmach tin project demonstrates a superior project (ie. tin production, economic metrics, years of production) to previous studies for the project. Further opportunities have been identified that have the potential to enhance the project and its value. These include:

- Meknes and Sidi Addi deposits are both open at depth and strike
- The SAMINE acquisition opens up opportunities to evaluate the 5km between the Achmmach and Bou El Jaj deposits, where surface samples exhibit tin mineralisation
- Potential to mine Meknes and Sidi Addi deposits concurrently, increasing production

This announcement is provided for and on behalf of the Board of Directors.

For further information, contact Andrea Betti, Company Secretary at info@atlantictin.com.au

Competent Persons Statement

Compilation of exploration and drilling data, along with assay validation and geological interpretations was coordinated by Michael Job, who was a consultant to the Company in 2021. Michael Job has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is 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". The Company confirms that they are not aware of any new information or data that materially affects the information contained in the reports and releases referred to in this report.

Previously Reported Information

The information in this report that references previously reported exploration results is extracted from the Company's previous reports and announcements released on the date noted in the body of the text where that reference appears. The previous market announcements are available to view on the Company's website or on the ASX website (www.asx.com.au, historic announcements are available under the ticker code KAS). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

Disclaimer

This report contains certain forward-looking statements and forecasts, including possible or assumed reserves and resources, production levels and rates, development and operating costs, prices, future financial and operating performance and valuation of the Achmmach project and/or Atlantic Tin Limited, industry growth or other trend projections. Such statements are not a guarantee of future performance and involve unknown risks and uncertainties, as well as other factors which are beyond the control of Atlantic Tin Limited, and may be based on assumptions and judgements of management regarding future events and results. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors. Nothing in this announcement should be construed as either an offer to sell or a solicitation of an offer to buy or sell securities.

This document has been prepared in accordance with the requirements of Australian securities laws, which may differ from the requirements of United States and other country securities laws. Unless otherwise indicated, all ore reserve and mineral resource estimates included or incorporated by reference in this document have been, and will be, prepared in accordance with the JORC classification system of the Australasian Institute of Mining, and Metallurgy and Australian Institute of Geoscientists.