

## Kasbah

### 1. What does Kasbah Resources do?

Kasbah Resources Limited is an ASX listed (ASX: KAS) resources development company. Its primary asset is the Achmmach Tin Project in Morocco which it has been developing since 2007. With \$95m spent on the project to date, with 120km of drilling undertaken to produce a 15 million tonne resource and a 6.5 million tonne reserve and with the major permits in place, the Achmmach Tin Project is one of the most advanced tin projects with global significance.

### 2. Where is the Kasbah office? Where is management based?

Kasbah's registered corporate head office and principle place of business is in Melbourne, Australia. The company has its four senior executives in Australia and also has a Moroccan team based in Meknes, in northern Morocco.

In Morocco, the company is committed to using local employees to the furthest extent possible. Whilst the senior executive is based in Australia, we expect to employ in excess of 250 Moroccan employees from the surrounding vicinity when we commence construction and eventual production at the mine.

### 3. How many shares are on issue?

There are approximately 1,045 million shares on issue (August 2018).

### 4. How many people are on the payroll?

Currently (August 2018) Kasbah has a small team of six employees in Australia and a further 9 in Morocco. In addition, we are using the expertise of a number of consultants in areas of mining engineering, metallurgy and project management.

### 5. Who is on the Kasbah Board of Directors?

The Kasbah Board is an independent board, adhering to the ASX guideline: Recommendation 2.1: "A majority of the board should be independent directors."

The directors of Kasbah are introduced on the Company's website:

<http://www.kasbahresources.com/site/About-Us/board-of-directors>

### 6. Who writes research on Kasbah?

Taylor Collison, an Australian broker, provides research on the company.

In addition, Capital Partner has also provided research. Research notes are available through the Company's website: <http://www.kasbahresources.com/site/investor-centre/broker-reports>

### 7. Who can buy shares?

Kasbah (ASX: KAS) is a public company listed on the Australian Securities Exchange (ASX). As such, anyone entitled to buy shares on the ASX or through a stock broker may do so.

## 8. Who are the major shareholders?

The major shareholders include Pala (21%) and African Lion (13%). Braham Consolidated, Traxys and Thaisarco all hold substantial parcels of the issued stock.

## 9. What is Kasbah's current priority?

Following a complete change of the directors and the executive management in 2017, Kasbah is being re-introduced to the market. The most recent priority was to complete the 2018 Definitive Feasibility Study which incorporated a healthy tin price outlook and new technology in the form of ore sorting and High Pressure Grinding Rolls (HPGR). This technology will contribute to better capital utilisation and reduced operating expenditure. Announcements on the Feasibility Study can be found on the Company's website: <http://www.kasbahresources.com/site/investor-centre/ASX-Announcements>

The current priorities are to finance the project through debt and equity, select a suitable offtake customer, an engineering company to build the project and a mining contractor to establish the underground mining operations.

## 10. Does Kasbah have any debt?

Kasbah has a A\$3m loan from Pala, repayable in December 2018. The announcement on the loan can be found on the Company's website: [http://www.kasbahresources.com/site/PDF/1706\\_0/PalaLoanUpdate](http://www.kasbahresources.com/site/PDF/1706_0/PalaLoanUpdate)

## 11. Kasbah runs the Achmmach project as a joint venture. Who are the Joint Venture partners?

Toyota Tsusho Corporation (TTC) (<http://www.toyota-tsusho.com/english/>) and Nittetsu Mining (NMC) (<http://www.nittetsukou.co.jp/eng/>) are the joint venture partners in the Achmmach project, and have a 20% and 5% ownership in the project respectively. The joint venture partners paid \$25m for their 25% share of the project.

## 12. Does TTC have a seat on the Board?

TTC does not have a seat on the Kasbah Board, but does have one on the Atlas Board – the company in which the Achmmach project is held and which is a consolidated subsidiary of Kasbah Resources.

## 13. Do you have an office in Morocco? Is that near to where the local mines department is?

Kasbah moved its Morocco office from Rabat to Meknes (population ~600,000) in 2017, situated 40km to the north of the Achmmach project site. There is a 50-man camp, with offices at the project site. Government departments associated with mining and exploration in Morocco are all nearby. Through its' Moroccan employees, Kasbah has an excellent relationship with related government departments in Morocco.

## 14. What's been the biggest change to the Company since 2017?

There have been three major changes:

1. Tin price - The tin price broke through US\$22,000 per tonne in the first quarter of 2018, a four-year high. The International Tin Association forecasts that it will remain at levels above US\$20,000, and with global demand increasing at 1-2% per annum and supply falling away amongst the major producers, the outlook for better prices is very positive.
2. Team - Board and Management has been completely changed, bring new energy and new ideas.
3. Technology – Ore sorting and High Pressure Grinding Rolls have not been considered in previous studies, but have reached the stage of industry acceptance, productivity and efficiency that they can be included in the current processing flowsheet.

## 15. What are investors wanting from an investment in Kasbah Resources?

They are looking for a good return on investment and recognise that Kasbah has one of the most advanced tin projects globally, where tin is projected to be in shortfall in the foreseeable future. The easy pickings in Myanmar have been mined and the Indonesians are reducing tin output as more mining is done offshore. Chinese production is falling as environmental controls continue to be enforced and Peruvian production is reducing as tin grades fall at the operations there. Meanwhile the demand for tin continues to rise. Kasbah's investors see opportunities in the tin space and are ultimately looking for a healthy return on their investment.



## 16. Is there an opportunity for consolidation of tin companies?

The global tin market is fragmented containing many junior companies, so there appears to be significant opportunity for consolidation.

## 17. How do you keep updated with Kasbah news?

Interested parties can subscribe for email alerts on the Kasbah website:

<http://www.kasbahresources.com/site/contact/email-alerts>

and follow us on:  

## Morocco

See the Kasbah Corporate Video: <http://www.kasbahresources.com/site/content/>

## 18. Where is Morocco and how safe is it?

Morocco is just south of Spain and can be seen from the Rock of Gibraltar. It's a safe country with a constitutional monarchy and was originally a French colony. French, Arabic and English are the primary languages. Whilst a tourist destination for many out of Europe, it has a vibrant and advanced industry focused economy.

## 19. What's the infrastructure in Morocco like?

Morocco has excellent road infrastructure, with many of the highways being dual carriageways. It has a number of international airports and ports on both the Atlantic Ocean and the Mediterranean Sea. Mobile telephone coverage throughout Morocco is excellent. Power and water are in plentiful supply. There is also a high-speed train working in Morocco.

## 20. What are the main industries in Morocco?

Mining is a big industry in Morocco. The country hosts sufficient phosphate reserves for the world for 700 years (2/3 of the world's phosphate reserves). There is an underground fluorite mine approximately 8km from Kasbah's Achmmach project, and the Government is looking to raise mining revenues threefold by 2025. The country hosts two car manufacturing plants (Nissan and Peugeot) and has one of the largest solar farms in the world. Tourism and agriculture are also big sectors with grapes, olives and wheat all major crops.

## 21. What is the level of literacy of people in Morocco?

Morocco has a high youth literacy rate of between 74% for females and 89% for males. Kasbah is committed to source a large percentage of its workforce from within Morocco.

## The Achmmach Tin Project in Morocco

### 22. How much has been spent on the project so far?

Through the establishment of the project, the drilling undertaken and the feasibility studies done, approximately A\$95m has been spent (August 2018).

### 23. What are the resources and reserves and are they JORC compliant?

Over 120km of drilling has been completed at Achmmach, which has resulted in almost 15 million tonnes of resource at a grade of 0.85% Sn and 7.0 million tonnes of reserve at a grade of 0.82% Sn. Resources and reserves have been calculated to JORC standards. The resources are drilled using drill lines 40m apart, whilst the reserves have been drilling on 20 metre line spacings (i.e. in-between the 40m lines). The ore body remains open at depth and along strike.

### 24. How deep does the resource drilling go?

Current drilling is to approximately 500m below surface and the resource remains open at depth.

### 25. In terms of the 0.82% grade – how does that compare to other tin mines and projects?

A tin grade of 0.82% Sn is a reasonable grade for an underground mine. Alluvial tin dredges can operate at significantly lower grades, but the easily accessible alluvial resources around the globe are being depleted rapidly. The number of underground tin mines in the future is likely to increase as a result. The head grade (0.82% Sn) is anticipated to increase as a result of the ore sorting technology being included in the plant, potentially to a grade of 1.1% Sn.

### 26. Does anything come with the tin? I.e. other metals?

Achmmach is a tin project, with no other associated metals.

### 27. Would it make a difference if there was more drilling along strike or at depth?

The orebody is currently open at depth and along strike, and there is also a parallel structure, the Sidi Addi trend, that has yet to be drilled out. There is good potential to expand the resources and reserve. The current mine life of 10 years is the optimum life to maximise the NPV of the project, but the actual mine life has the potential to be considerably longer.

### 28. What's the life of mine?

Current reserves will last 10 years, mining at a rate of 750,000 tonnes of ore per annum. However, the resource is open at depth and along strike, and additional drilling has the potential to extend the mine life significantly.

### 29. Are there any historic workings?

An 80m deep shaft with a 200m tunnel from the bottom of the shaft into the ore body was mined by the original owners of the project some 10 years ago. Ore from the tunnel into the orebody has been used in metallurgical test work.

### 30. Has Kasbah had a chance to see what the mining is going to be like?

The shaft and tunnel previously excavated have provided an insight into the mining conditions expected. In addition, the extensive drill core available (126km drilled) has provided significant geotechnical information. Ground conditions are expected to be excellent as the rock is both hard and competent.

**31. Is all the infrastructure in place?**

Currently there is a road from Meknes to the site, approximately two thirds of which is paved. At the site, there is a 50-man western standard camp that was originally used during the drilling campaign, a core shed, core storage area and fuelling facility. As the project is developed, grid power will be extended to the site and the road to the site will be upgraded.

**32. What would you be paying for power and who runs the power grid?**

The majority of power in Morocco is either generated through solar or hydro. Power is expected to cost ~10c cents/kWh.

**33. What's the water availability?**

The project is in an area that gets winter rainfall. The intent is to build a water storage dam that will fill during the winter months, to provide water through the summer months. Water conservation will take place where possible, so that, for example, the waste stream from the processing plant (tailings) will be deposited as a paste, reducing the amount of evaporation that would otherwise occur.

**34. Is the site remote?**

The site is located 40km south of Meknes, a town of approximately 600,000 people and as such the site is not deemed remote. The site is accessible by sealed and dirt road with the trip from Meknes taking about 1.5 hours. There is a fluorite mine about 8km from the site that has operated with 1,000 employees. The immediate area surrounding the site has rolling hills covered by pine tree forests. Local sheep herders run their flocks on the surrounding hills also. There is minimal population around or on the project site.

**35. How is it going to be mined?**

Mining will be undertaken through underground methods. Adits and declines will be used to access the ore body (as opposed to shafts) and the primary mining method will be long hole open stoping, with planned widths of up to 30m.

**36. What will the processing plant be?**

The plant will be a conventional tin processing plant, with comminution (crushing and grinding), a gravity circuit (spirals) and flotation. The plant will treat 750,000 tonnes per annum, to produce approximately 4,500 tonnes of tin in concentrate per annum. Test work undertaken in early 2018 has established that the inclusion of ore sorting and High Pressure Grinding Rolls (HPGR) will make a significant difference to capex and opex costs.

**37. Do you know what the specifications of the concentrate will be?**

Previous tests work has indicated a specification that is a saleable into the market, containing around 60% tin.

### **38. Why has it taken so long to develop the project?**

Like all mining projects, Kasbah's Achmmach project requires a commodity price that will provide an acceptable level of returns to its investors. Kasbah acquired the Achmmach project in 2008 and undertook drilling programs that resulted in a significant increase in resources and reserves. In 2011 the tin price went as high as \$31,825 per tonne. In 2014 Kasbah undertook a feasibility study that suggested the capital required was too high for the project to provide acceptable returns. In 2015 the study was revamped with lower capital expense, by removing the owner operator mining fleet (and using contractors) and by using a contract crushing facility rather than owning one outright. When this study was produced the tin price was falling, going to \$14,555 per tonne in 2015. In 2016 a study was undertaken to reduce the capital further by starting with a smaller processing plant and adding modules to increase production at a later date. In addition, this study envisaged a high-grade mining strategy to increase the tin production the beginning of the mine life, thereby increasing project NPV. At the same time Kasbah Resources entered into a Scheme of Arrangement to merge with AMR, a nickel producer in Vietnam. An error was made by the Independent Expert in the valuation work that was done for the merger and as a result the takeover panel disallowed the merger to take place. In 2017, following the failed merger, a new Board and new management was appointed to Kasbah Resources and AMC was contracted to undertake a technical review of the 2016 study. AMC determined that the 2016 study had a high element of risk with the high-grade mining strategy and some of the process plant equipment being suggested. As a result, a new study has been undertaken to reduce the implementation and execution risk and to implement new technology, namely ore sorting and high pressure grinding rolls which have significantly improved the economics of the project. In April 2018 the tin price was \$22,000 per tonne, over 60% higher than its lows in 2016 (\$13,690 per tonne), and the current study has resulted in a project that provides the acceptable returns to shareholders.

### **39. How long until production starts?**

Following the completion of the DFS in July 2018, funding is expected to take 6-9 months and the construction of the project is expected to take 18-20 months, leading to production potentially commencing in the second half of 2020.

### **40. Has the project received the necessary permits to commence mining?**

The Achmmach Tin Project is permitted for construction and commencement of mining. Morocco recently changed its mining law and the "Permit to exploit" that was in place at the Achmmach project has been successfully converted to a "License to exploit", which is effectively the permit required to build and run the tin mining operation. The Environmental Permit for the project was issued in 2014. Minor permits (e.g. for the construction of a water dam) are required and are procedural in nature.

### **41. Has Kasbah completed any offtake contracts?**

No, Kasbah has yet to enter into any offtake contracts for the tin concentrate. There will be approximately 4,500tpa of tin produced and as a 25% project owner the Joint Venture partners will have the opportunity to market 25% of production at market competitive terms, with the remaining 75% of the tin concentrate available for offtake.

### **42. Are the Joint Venture partners (TTC and NMC) interested in the offtake?**

Tin is a strategic metal. Toyota uses approximately 5,000 tonnes of tin per annum in car manufacturing and also trades tin. It's not unusual for Japanese investors to invest in resource companies to secure offtake for Japanese manufacturing, given the general lack of mineral resources within Japan.

#### 43. What will the operating costs be?

The 2018 feasibility study showed the following financial results:

<b>Tin Price</b>	<b>US\$21,000</b>
<b>Discount Rate (real)</b>	<b>8%</b>
<b>Capital Cost</b>	<b>US\$96.4m</b>
<b>NPV (real), post tax</b>	<b>US\$98.1m</b>
<b>IRR, post tax</b>	<b>23%</b>
<b>C1 cash costs</b>	<b>US\$9,176/t Sn</b>
<b>C3 cash costs</b>	<b>US\$13,695/t Sn</b>
<b>AISC</b>	<b>US\$11,435/t Sn</b>
<b>EBITDA</b>	<b>US\$444m</b>

#### 44. What are the key challenges faced with mining the Achmmach Project?

The mining of Achmmach is relatively straightforward with conventional long hole open stoping being used as the mining method. The Achmmach ore is hard rock and processing the tin in an effective cost efficient way requires considerable expertise. A lot of test work has been undertaken to ensure a full understanding of the ore in order to introduce the appropriate technology to use in the processing plant, and to better understand the specifications of the concentrate that will be produced. Hiring a suitably qualified workforce could be challenging and as part of its study work, Kasbah has included significant training resources and will also employ the workforce “early” to ensure that training has been undertaken by the time the project starts producing.

### The Tin Market

#### 45. What is the primary use of tin?

Tin’s primary use is in solder where it has replaced lead. Approximately 50% of tin used annually is used in solder.

#### 46. What’s the size of the tin market?

Annual tonnage figures are 320,000-350,000 tonnes per annum. It is apparent, however, that there has been significant underinvestment in tin and major producers are seeing production levels fall. Myanmar has become a major producer of tin in the past 3-4 years and is now seeing a reduction in production as easy to mine alluvial deposits are exhausted. China is seeing production fall as environmental management constraints are put in place by the government, Indonesia is seeing a reduction as it moves offshore to dredge deposits and as the government requires downstream processing rather than the export of concentrates. Peru is seeing its production fall as the high-grade deposits are mined out leading to lower grade mining. All of these reductions will result in a shortfall of tin compared to the demand which continues to increase at 1-2% per annum, which in turn is leading to the requirement for new tin mines to be established. Achmmach is one of the most advanced tin projects globally, with JORC compliant reserves and the necessary permitting in place. The International Tin Association (ITA <https://www.internationaltin.org/>) predicts a deficit in tin (i.e. supply is less than demand) for at least the next 4 years, putting pressure on the tin price to increase.

#### 47. Is there any recycling of tin?

A small amount of tin recycling takes place (around 60,000 tonnes per annum). The primary use of tin is in solder where it has replaced lead. Miniaturisation has taken place in the soldering of semiconductors etc and is not likely to be miniaturised further. Recycling of miniaturised componentry is very difficult, and companies focused on metal recycling tend to do so with higher value metals (gold, silver) or bulk metals (iron, copper, aluminium). Recycled tin is not seen as a new source of supply.

#### 48. How is tin used in the electric vehicle (EV) market?

Tin is the “forgotten metal” in the EV story. Lithium, nickel, graphite and cobalt are all required for the current generation of lithium ion batteries. Copper is required for the electric motors and tin is what holds it all together through solder and semiconductors. ITA (International Tin Association) has suggested that EV’s will require 5 times more tin than in traditional vehicles. With the EV market expected to grow exponentially, so will the demand for tin. Massachusetts Institute of Technology (MIT) recently identified tin as one of the key metals of the future, required to interconnect the various electric and electronic aspects of the future world.

#### 49. Is tin traded in the market?

The tin price has visibility through the London Metal Exchange (LME) where it is quoted daily. (<https://www.lme.com/en-GB/Metals/Non-ferrous/Tin#tabIndex=0>) LME stocks of tin are at historically low levels of around 2,300 tonnes.

#### 50. How has the tin price varied in the past?

In 2001, the price of tin fell to \$3,720 per tonne and has been trending upwards since then, reaching a high point of \$31,825 per tonne in March 2011. The tin price fell to a more recent low of \$13,690 per tonne in January 2016 and in April 2018 was over \$22,000 per tonne.

### Funding

#### 51. Is the updated study bankable?

The current feasibility study has been completed to a bankable level.

[http://www.kasbahresources.com/site/PDF/1730\\_0/2018AchmmachTinProjectDefinitiveFeasibilityStudy](http://www.kasbahresources.com/site/PDF/1730_0/2018AchmmachTinProjectDefinitiveFeasibilityStudy)

#### 52. What are the capex and opex likely to be?

See question 43 above.

#### 53. Who are the Joint Venture partners?

Toyota Tsusho and Nittetsu Mining are the two Japanese joint venture partners who have invested in the Achmmach project at the project level (rather than in Kasbah Resources). Toyota Tsusho (TTC) has a 20% stake in the project and Nittetsu Mining has a 5% stake in the project.

#### 54. Are the Joint Venture partners still committed to the project?

The Japanese have made a significant investment (\$25m for a 25% ownership in the project) in the project and remain committed to it.

#### 55. Can the Joint Venture partners access cheaper debt?

There may be an opportunity to access bank guarantees through a Japanese ECA, who would also require the majority of the tin to be marketed by the Japanese companies. This is one of a number of possibilities being considered in the financing strategy.



**56. What will the debt to equity ratio be?**

The feasibility study has been completed and a Debt Equity ratio of 50:50 is expected as a result.

**57. What's the indication of borrowing in terms of interest charged?**

There are a number of French, Moroccan and African banks that have expressed an interest in providing debt on good commercial terms (interest rates ranging from 4-8% spread over LIBOR).

**58. How much equity will be needed to raise to secure the project delivery?**

Kasbah has a number of strong supporters as shareholders though, as Kasbah, we cannot comment on their future intentions. The quantum of debt available, as well as support from potential offtakers has yet to be established.

**59. Does the Moroccan government have a royalty from Achmmach?**

Royalties (based on turnover generated by the deposit) are subject to agreements concluded with ONHYM (National Office of Hydrocarbons and Mines) which will see Achmmach paying a 3% royalty on net revenue.

**60. What is the Moroccan tax rate?**

The Moroccan tax rate for a mining company exporting its product is 17.5%.

**61. Who is Kasbah Resources equity broker?**

Taylor Collison helped with the 2017 rights issue and is currently the Company's broker, having also provided two pieces of research which can be found in the investor section of the Kasbah website:

<http://www.kasbahresources.com/site/investor-centre/broker-reports>

**62. Has the executive management group been to site?**

All of the Australian based executive leadership team regularly visit the site and will continue to do so as the project is developed.

**63. Are there any other associated parties that are running mines in Morocco?**

None that are associated with Kasbah, but there is plenty of mining in Morocco which has one of the biggest phosphate industries globally. Silver and Fluorite are also mined.

**64. Is Kasbah interested in investors outside of Australia?**

Kasbah is interested to engage with investors from across all markets. European investors, particularly those in London, are very familiar with Morocco as it is a popular tourist destination and is known as a safe and economically successful location to the south of Europe. As such London is a logical place to raise equity.