

**31 MAY 2012**

**ASX CODE: KAS**

**OUR PRIME COMMODITY IS TIN.**

**LMETIN PRICE (29/05/12)**

**US\$20,095/T  
(CASH BUYER)**

**ABOUT KASBAH**

**KASBAH RESOURCES IS AN AUSTRALIAN LISTED MINERAL EXPLORATION AND DEVELOPMENT COMPANY ADVANCING THE ACHMMACH TIN PROJECT TOWARDS PRODUCTION**

**PROJECTS**

**ACHMMACH TIN PROJECT  
BOU EL JAJ TIN PROJECT**

**CAPITAL STRUCTURE**

**SHARES ON ISSUE: 388M  
UNLISTED OPTIONS: 17M  
CASH @ 9/5/12: \$21.9M**

**MAJOR SHAREHOLDERS**

<b>WORLD BANK (IFC)</b>	<b>16.1%</b>
<b>AFRICAN LION FUND</b>	<b>13.5%</b>
<b>MGMT &amp; DIRECTORS</b>	<b>3.3%</b>
<b>TRANSAMINE</b>	<b>3.4%</b>
<b>TRAXYS</b>	<b>3.3%</b>
<b>BOND STREET</b>	<b>3.1%</b>
<b>THAISARCO</b>	<b>2.1%</b>

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**POSITIVE PRE-FEASIBILITY STUDY  
FOR ACHMMACH**

**Definitive Feasibility Study Initiated**



**HIGHLIGHTS**

- The Pre-Feasibility Study (PFS) for the Achmmach Tin Project demonstrates the technical and economic viability of the project
- Key elements of the PFS include:
  - a 1 Mtpa underground operation;
  - highly competitive mine gate production costs of US\$65.76 / tonne of ore; and
  - project development cost of US\$167M (includes all surface infrastructure)
- Recent drilling results confirm the opportunity to extend the mine life and reduce mining costs through optimisation of the mine design
- Capital cost reductions are also anticipated from an optimised surface infrastructure layout
- Base case economic evaluation using a tin price of US\$21,961 / tonne delivers an after tax NPV of US\$79M. The NPV rises to US\$134M utilising the 2013 Consensus tin price of US\$24,407 / tonne
- The Kasbah Board has approved the commencement of the Definitive Feasibility Study (DFS)

**OVERVIEW**

Kasbah Resources Limited (“Kasbah”) is pleased to announce the completion of the PFS for the Achmmach Tin Project in Morocco.

In 2010 Kasbah completed a scoping study that contemplated an 800,000 tpa mechanised underground mine and concentrator at Achmmach, producing 5,620 tonnes of tin in concentrate per annum. The mine design contemplated the underground extraction of ore by mechanised cut and fill methods from approximately 500m of the Meknes Trend.

The 2012 PFS summarised below demonstrates the technical and financial robustness of a larger 1 Mtpa mechanised underground mine and concentrator producing 6,880 tonnes of tin in concentrate per annum, at competitive mine gate costs, for export to an Asian tin smelter. The new mine design contemplates the underground extraction of ore by long hole stoping methods across 1,320m of the Meknes Trend including extraction of proposed stoping blocks in the Eastern Zone (**refer Figure 1**).

**Appendix A** summarises the key inputs to the PFS with the key technical and economic outcomes of the PFS summarised in Tables 1 and 2 below:

**Table 1**  
**Achmmach Tin Project – PFS Technical and Economic Summary**

Parameter	Units	PFS Value
Mining inventory <sup>A</sup>	Mt	6.626
Mined ore tin grade	% Sn	0.93
Average mill throughput	Mtpa	1.0
Initial Mine Life	Years	6.6
Tin Recovery	%	74
Average tin in concentrate production	tpa	6,880
Capital expenditure to first ore delivery	US\$M	167
Mine gate costs	<b>US\$/t ore treated</b>	<b>65.76</b>

**A** – Mining inventory includes Inferred and Indicated Mineral Resources that have had mining dilution and recovery factors applied to the mine design creating an inventory of potential stope and development tonnes.

**Table 2**  
**Achmmach Tin Project - Tin Price Sensitivity**

Parameter	LME Tin Price (US\$/tonne)		
	Spot 29/5/12 \$20,095	Base Case 90-day Average <sup>(1)</sup> \$21,961	Analyst Consensus Forecast 2013 <sup>(2)</sup> \$24,407
NPV <sup>10</sup> , US\$M	36	79	134
IRR, %	16.7	23.8	32.4
Operating Margin US\$/tonne ore treated	19.6	29.2	41.8
Cash surplus, US\$M	130	194	277

1- LME 3 month sellers to 29<sup>th</sup> May, 2012

2- Consensus Economics Inc. April 16<sup>th</sup>, 2012

Kasbah Resources' Chairman Mike Spratt said:

*"The completion of the PFS marks another significant milestone for Kasbah.*

*The study indicates that Achmmach can produce tin at a very competitive mine gate cost of \$65.76 / tonne. These positive economics and the opportunities to optimise the PFS design and costs provide significant encouragement for the company to advance Achmmach to the next stage of evaluation.*

*As such the Kasbah Board has approved the initiation of the Definitive Feasibility Study (DFS) for Achmmach."*

ENDS

Kasbah Resources' Managing Director, Wayne Bramwell, said:

*"Drilling drives resource conversion and resource growth at Achmmach.*

*The March 2012 resource estimate was used to develop the PFS mine design. This design extends for 1,320 metres along strike and up to 600 metres below the surface, with mineralisation occurring within 60 vertical metres of the surface in the eastern part of the Meknes Trend (refer **Figure 1**).*

*It should be noted that Kasbah has drilled an additional 15,500 metres since AD130 (the last drill hole used in the March 2012 resource estimate). This program aims to upgrade Inferred Resources to Indicated Resources between section 2440mE and 2770mE in the current geological resource (approximately 330m of strike).*

*Based upon early success, this program will be extended from section 2400mE to 3400mE (approximately 1 kilometre of strike of the Meknes Trend). This expanded program will be completed in Quarter 1 2013, delivering an additional 30,000 metres of new data and providing a total of 85,000 diamond drill metres for the DFS resource estimate.*

Concurrently the DFS study team will investigate new opportunities to reduce capital through optimisation of the portal location, mine design and surface infrastructure layout.

All of these factors can significantly enhance the economic value of the Achmmach Tin Project”.

ENDS

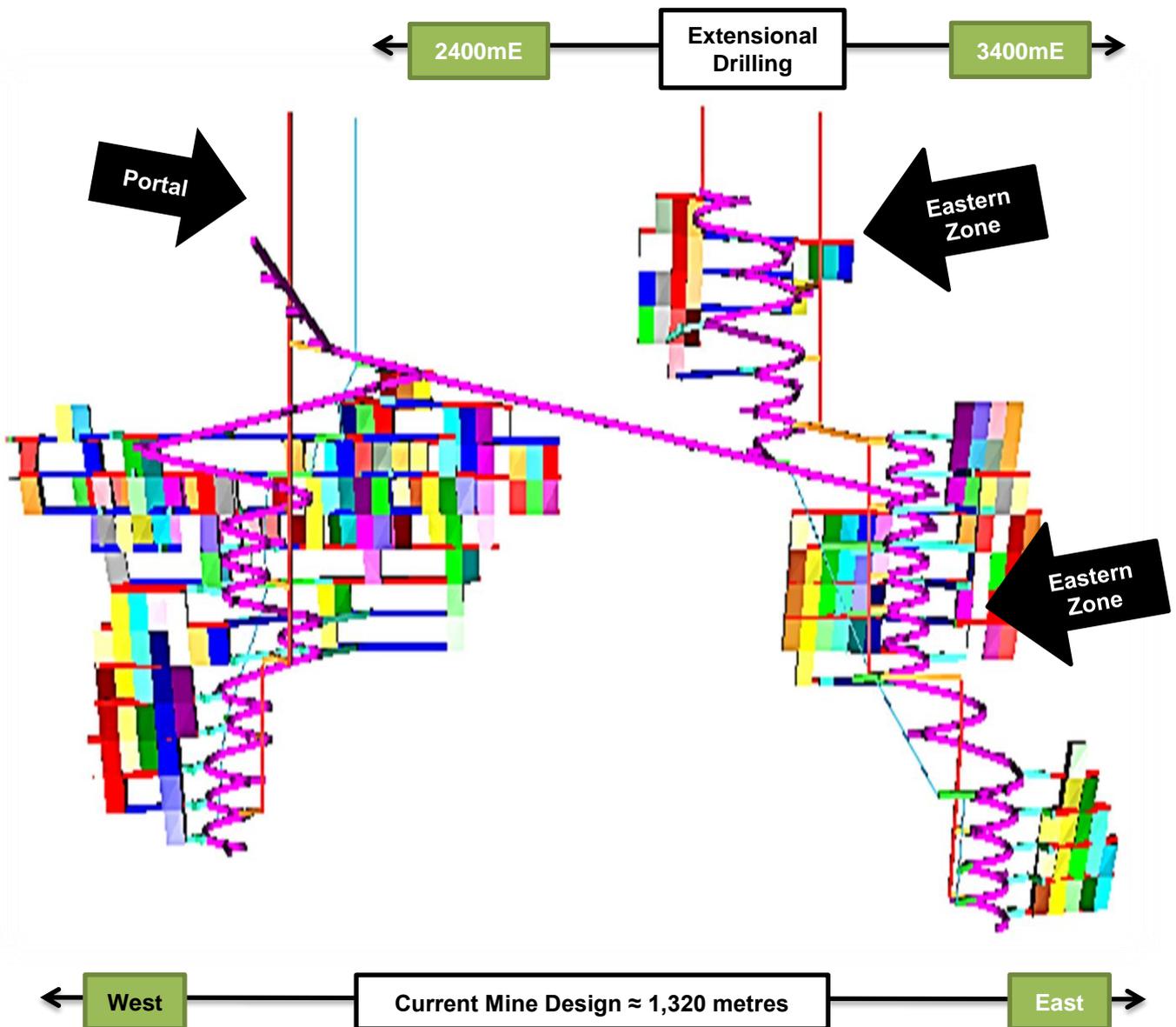


Figure 1  
 Long Section of Achmmach PFS Mine Design  
 (Looking North – proposed stop blocks in colours and decline in pink)

### **Forward Work Program and Milestones**

As outlined above the DFS will commence and the current Meknes Trend infill drill program will be extended further to the east to incorporate the Eastern Zone.

Indicative timing of the major project milestones going forward are summarised below:

- Toyota Tsusho T2 payment (\$11M) – due 60 days post release of the PFS
- DFS bulk metallurgical test work – commences Quarter 3 2012
- DFS resource upgrade – completed Quarter 1 2013
- DFS mine planning – commences Quarter 2-3 2013
- DFS – completed Quarter 4 2013 and
- Toyota Tsusho T3 Payment – due 90 days post release of the DFS



**Wayne Bramwell**  
**Managing Director**

For further information please go to:

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### **Competent Persons Statements**

*The information in this report which relates to Mineral Resources is based on information compiled by Michael V. McKeown who is a Fellow of the Australasian Institute of Mining and Metallurgy. Michael McKeown is employed by Mining One Pty Ltd and he has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). Michael McKeown consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

*The information in this report that relates to Mining Inventory is based on information reviewed by Mr Bill Frazer, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Frazer is a Director and Employee of Mining One Consultants Pty Ltd. Mr Frazer 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 2004 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code).*

*Messrs Frazer and McKeown consent to the inclusion in this report of the matters based on information provided by them and in the form and context in which it appears.*

**APPENDIX A: PFS SCOPE AND METHODOLOGY**
**1.0 SCOPE**

The PFS is based on a 1 Mtpa mechanised underground operation at Achmmach delivering ore to a 1 Mtpa conventional gravity and flotation concentrator. The Achmmach concentrator would produce an estimated 6,880 tpa of tin in concentrate at 55% Sn for export to an Asian tin smelter.

The PFS was compiled by Kasbah Resources Limited (Kasbah) and utilised input from the following consultants (**refer Table 3**).

**Table 3  
Achmmach PFS Contributors**

Section	Contributors	Cost Basis	Area
<b>Geology</b>	<ul style="list-style-type: none"> <li>▪ Mining One Pty Ltd (Mining One)</li> <li>▪ Kasbah</li> </ul>	Q1 2012	<ul style="list-style-type: none"> <li>▪ Resource estimation</li> <li>▪ Geological review</li> <li>▪ Wire- framing, interpretation, photography</li> </ul>
<b>Mining</b>	<ul style="list-style-type: none"> <li>▪ Mining One</li> </ul>	Q1 2012	<ul style="list-style-type: none"> <li>▪ Underground development capex</li> <li>▪ Underground mining opex</li> </ul>
<b>Metallurgy</b>	<ul style="list-style-type: none"> <li>▪ CPG Mineral Technologies</li> <li>▪ AMMTEC Ltd</li> <li>▪ Burnie Research Laboratory (BRL)</li> </ul>	Q2 2011 Q4 2011 Q1 2012	<ul style="list-style-type: none"> <li>▪ Heavy liquid testing</li> <li>▪ Comminution test data</li> <li>▪ Ore mineralogy &amp; liberation testing</li> </ul>
<b>Processing</b>	<ul style="list-style-type: none"> <li>▪ Ausenco Mineral Services Pty Ltd (Ausenco)</li> <li>▪ Golder Associates (UK) Ltd (Golder)</li> </ul>	Q1 2012  Q1 2012	<ul style="list-style-type: none"> <li>▪ Flow sheet drafting</li> <li>▪ Equipment requirements</li> <li>▪ Capital &amp; operating cost estimate</li> <li>▪ Tails management facility capital estimate</li> </ul>
<b>Infrastructure</b>	<ul style="list-style-type: none"> <li>▪ Best Ingenierie (Fes)</li> <li>▪ Ateliers du Foncier, Meknes (ADF)</li> </ul>	Q1 2012  Q1 2012	<ul style="list-style-type: none"> <li>▪ Power supply capital cost &amp; pricing</li> <li>▪ Building costs</li> </ul>
<b>Environment</b>	<ul style="list-style-type: none"> <li>▪ Sogreah Groupe Artelia (Sogreah)</li> </ul>	Q1 2012	<ul style="list-style-type: none"> <li>▪ SEP, EIA and EMMP</li> </ul>
<b>General Information</b>	<ul style="list-style-type: none"> <li>▪ Kasbah</li> </ul>	Q1 2012	<ul style="list-style-type: none"> <li>▪ Labour supply &amp; costs</li> <li>▪ Construction service companies &amp; unit rates</li> </ul>

## 2.0 METHODOLOGY

### 2.1 Resources

Kasbah announced a resource upgrade in March 2012. The dataset used to create the resource wireframes incorporated all drill holes up to AD130 (completed in February 2012) and was completed by Mining One (refer **Table 4**).

**Table 4**  
**Mineral Resources Achmmach Tin Project (Meknes Trend)**  
**16 March 2012 (0.5% Sn cut-off)**

Category	Tonnes (Mt)	% Tin (Sn)	Contained Sn (K Tonnes)
Indicated	5.3	0.8	42
Inferred	9.3	1.0	93
<b>Total</b>	<b>14.6</b>	<b>0.9</b>	<b>135</b>

As of 26<sup>th</sup> May 2012 15,500m of new, infill drilling had been completed post the last drill hole used in this estimate (AD130) and this infill drilling is continuing. This drilling will be included in future resource upgrades and mining studies.

### 2.2 Mining Inventory

Mining inventory includes Inferred and Indicated Mineral Resources that have had mining dilution and recovery factors applied to the mine design creating an inventory of potential stope and development tonnes. The current design extracts 6.626 million t.

### 2.3 Mining Method

The Achmmach underground mine will be accessed via a 1:7 decline with the portal located on the southern side of the Achmmach hill, approximately 350 metres south of the Meknes Trend (refer **Figure 1**). Long hole stoping with paste fill has been recommended as the most appropriate mining method for the Achmmach mine in both longitudinal (along strike) and transverse (perpendicular) stopes, depending on orebody width and proximity to adjoining mineralised structures.

Transverse stoping is recommended in the upper western (above 850mRL) and central areas of the Meknes Trend (Sections 2160-2540mE) with longitudinal stoping in remaining areas. Development for the mine has been placed as close as practicable to the stoping areas.

Cross cuts and footwall development drives are used in transverse stoping areas. Mine sequencing has been designed to retreat to the level access on multiple levels simultaneously, to ensure a steady supply of Run of Mine (ROM) ore to the processing facility from multiple stoping faces.

The current mine extends 1,320 metres along strike and 600 metres below the surface with mineralisation occurring within 60 vertical metres of the surface in the eastern part of the Meknes Trend.

### **2.3.1 Mine Development and Operations**

Mining One has developed the underground mine on the basis that initial mine establishment and subsequent production mining will be carried out by an expatriate mining contractor directly employing Moroccan mining personnel. Kasbah will provide its own supervisory team comprising expatriate and Moroccan management and selected skilled and semi-skilled Moroccan mining personnel.

Local Moroccan contractors would provide explosive handling, underground blasting and obtain all the necessary permits.

## **2.4 Metallurgy**

Metallurgical test programmes completed to date by CPG Mineral Technologies of Carrara, Queensland, AMMTEC of Perth, Western Australia and Burnie Research Laboratories of Tasmania (BRL) have confirmed the earlier qualitative assessment of the Achmmach ore.

Cassiterite is the dominant tin-bearing mineral occurring as free grains and in complex mineral composites. Cassiterite liberation generally commences at a grind of 170 microns and is largely complete at 45 microns.

CPG employed heavy liquid separation techniques to demonstrate the need to approach fine sizes to achieve liberation of cassiterite.

BRL has demonstrated in a locked cycle programme that primary grind, followed by successive application of gravity concentration methods based on spiral pre-concentration and tabling can achieve good recoveries at acceptable grades. A single middlings regrind stage is sufficient to improve upon primary gravity recovery. The gravity concentrate may be upgraded by the use of magnetic and flotation techniques to remove susceptible impurities and sulphide minerals.

Additional tin recovery from fine gravity tails can be achieved by employing flotation and enhanced gravity processes.

Based on the work undertaken by BRL, Kasbah anticipates that concentrates grading approximately 55% tin at an overall tin recovery of 74% may be obtained from the Meknes Trend ore. The testwork carried out by Ammtec confirms the comminution properties of the ore and provides an improved basis for the estimation of operating costs.

Kasbah now has in excess of 5 tonnes of material in Perth with which to execute a more detailed test programme during the DFS.

## 2.5 Processing

Based on the work completed to date by Ammtec and BRL and in consultation with Ausenco the Achmmach flowsheet (**refer Figure 2**) has been designed to include the following stages:

- 3-stage crushing;
- primary grinding using an open circuit rod mill, feeding a closed circuit ball mill;
- coarse, medium and fine gravity separation using spirals and wet tables;
- gravity middlings regrind and recycle;
- flotation of deslimed fine cassiterite followed by concentrate upgrade using centrifugal concentration; and
- gravity concentrates upgrade by sulphide flotation and magnetic separation of susceptible gangue.

The combined concentrate material will report to final product where it will be filtered prior to being packed in bulk bags and loaded into containers for export.

The process tails will be pumped to a tailings thickener to facilitate water conservation before being disposed of to a surface tailings management facility or to a paste plant for preparation of cemented underground mine backfill. Tailings water will be reclaimed for reuse in the process.

Kasbah anticipates make-up water will be available from water bores that it has developed locally. It is also likely that water will become available from the underground workings as part of the mine dewatering operation.

A limited range and quantity of flotation and flocculant chemical additives will be used in the process.

### 2.5.1 Concentrator Operations

Kasbah has developed the processing plant on the basis that processing operations will be managed by Kasbah's own supervisory team comprising expatriate and Moroccan management and selected skilled and semi-skilled Moroccan processing personnel.

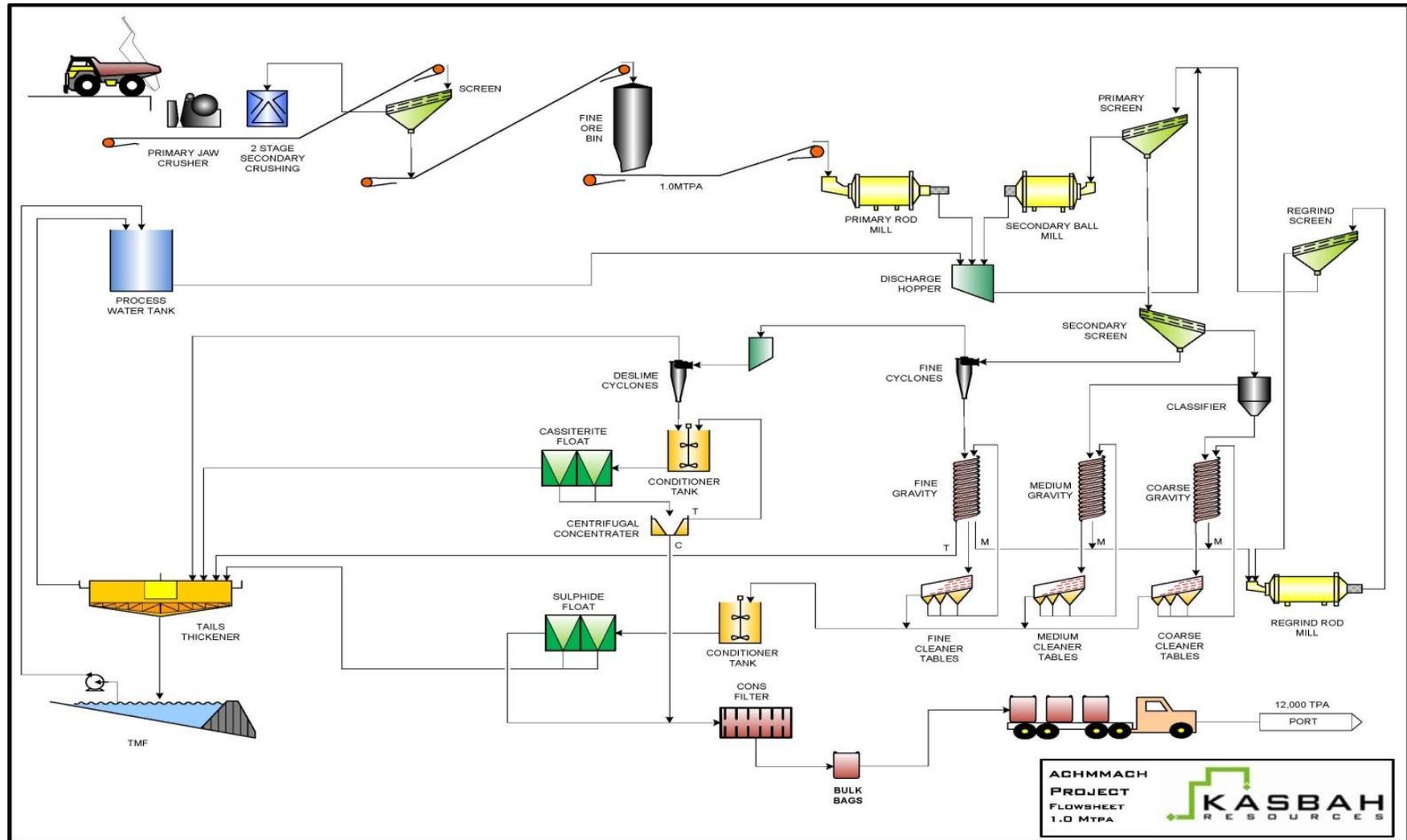


Figure 2

Achmmach 1Mtpa PFS Flowsheet

## **2.6 Infrastructure**

The project site is well situated with respect to its infrastructure needs. Access is by 18km of sealed road and 20km of unsealed road from the settlement of Ras Jerri on the sealed Oulmès – Meknes road or by 20km of sealed road from the town of Agourai to the start of the unsealed section.

Power will be obtained from the *Office National d’Energie* grid. Kasbah commissioned a local engineer to complete an engineering cost study into the provision of a 60 kV line to deliver the 13 MVA required by the project. A transformer sub-station will be established at the project site.

Kasbah has established four test water bores at locations immediately to the north and south of the deposit as a precursor to satisfying the project water requirements. This source may ultimately be supplemented by water from the underground workings or from the nearby river Oued Beht.

The project will make use of the existing Moroccan mobile telephone network as well as enhancing the existing satellite-based VPN communications link to the Perth office.

The project will establish new site buildings and key expatriate and some senior Moroccan staff will be accommodated at the project site. Other mining and operations personnel will be bussed on a daily basis from cities and towns including Khemisset, Meknes, El Hajeb, Agourai and Ras Jerri.

The project is serviced by regional hospitals in Meknes and a first aid post will be developed on site.

## **2.7 Environment and Community**

### **2.7.1 Environment**

Past exploration and forestry activity at Achmmach has left a large area of disturbed ground to the immediate south of the deposit that has been selected as the site for the establishment of a portal and ROM pad, a treatment plant, a tailings management facility (TMF) and associated infrastructure. The TMF will be located in the adjacent cleared valley.

Under this proposal, the extent to which fresh ground disturbance will be created by project development activities will be minimal.

Kasbah engaged the French-Moroccan consultancy Sogreah to prepare terms of reference for a full EIA and then prepare the EIA and an associated Environmental Monitoring and Management Plan. To date no exceptions with respect to endangered species, sacred sites or local water quality have been identified.

### **2.7.2 Community**

The Achmmach leases straddle the boundary between the Khemisset and El Hajeb provinces, with the project site overlying parts of the Ras Jerri and Ait Ouikhalfen communes. The local administrative centre responsible for Achmmach is situated in Meknes where the King’s regional representative (the Wali) is resident.

There are no substantial settlements close to the deposit and Kasbah expects to be able to draw the bulk of its non-technical staff from the wider, local region. Kasbah anticipates the community in the vicinity of the project will benefit from improvements to the access road, the supply of HT power to the site and the development of water abstraction facilities near the project site.

**3.0 COST ESTIMATES**

**3.1 Capital Cost Estimate**

Kasbah has developed the project capital cost estimate in United States dollars (US\$). The estimate comprises input from Mining One, Ausenco, Golder and Kasbah’s database. Where Australian dollars have been used in source documents, these have been converted to US\$ at the rate of US\$1.00 = A\$1.00. The order of accuracy of the capital estimate is ± 25%.

The key assumptions for the mining capital estimate are:

- contract mine development by an expatriate contractor employing Moroccan skilled and semi-skilled personnel; and
- expatriate and Moroccan mine development support team.

The key assumptions for the treatment plant estimate are:

- procurement of all new capital equipment; and
- construction labour productivity is consistent between Australia and Morocco.

The Achmmach capital cost estimate is summarised in **Table 5**.

**Table 5**  
**Achmmach PFS Capital Cost Estimate Summary**

Pre-Production Capital	US\$M
Mine	43.86
Surface facilities	110.62
TMF - starter facility	8.70
Infrastructure	1.74
First fill & spares provision	1.90
<b>Total Project</b>	<b>166.82</b>

The underground mining capital cost estimate has been developed by Mining One based on current costs experienced by Australian mining contractors operating in Africa. The costs of waste development including decline excavation, crosscut establishment and access and ventilation raises have been incorporated into the capital estimate. Mining One has also included mine service costs in its estimate.

The treatment plant capital estimate has been prepared by Ausenco based on current known equipment prices and fabrication and construction rates prevailing in Morocco. The first fill provision covers approximately two months requirements of diesel fuel and process plant consumables.

The buildings allowance includes provision for an administration office, a laboratory, mine offices and personnel accommodation facilities. Kasbah has provided estimates for site buildings based on its in-country experience.

The TMF capital cost estimate has been provided by Golder based on the construction of a single retaining embankment to create a two year starter facility. Construction costs have been based on rates for earthworks prevailing in Morocco.

**3.2 Operating Cost Estimate**

The following operating cost estimates are presented in United States dollars (US\$) and have been based on information obtained by Mining One, Ausenco and Kasbah for consumables, energy, expatriate costs and local labour rates.

Where Australian dollars have been used in source documents, these have been converted to US\$ at the rate of US\$1.00 = A\$1.00. The order of accuracy of the operating estimate is ± 25%. The key components of the operating cost estimate include:

- power supply from the national grid;
- underground mining by mining contractor;
- an operations labour workforce developed by Kasbah; and
- maintenance spares and consumables allowances based on typical mining and mineral processing plant experience.

Estimates for the operating cost components are shown in **Table 6**.

**Table 6**  
**Achmmach Operating Cost Estimates – Ore to Mill**

Cost Component	\$/t ore
Mining Cost	41.90
Processing Cost	20.33
Onsite Overhead Cost	1.65
Concentrate Freight Cost	1.06
Corporate Overhead Cost	0.82
<b>Total Operating Cost</b>	<b>65.76</b>