

## Low cost, high margin phosphate

First product in 2016

### Recommendation

**Strong BUY, High Risk**

### Price

**13c**

### Valuation

**34c**

### Commodity

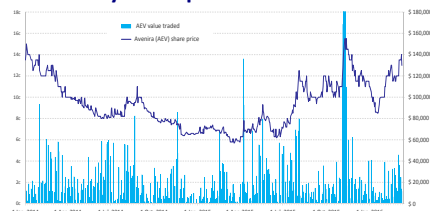
**Phosphate**

- **AEV is developing its Small Mine Permit (SMP) phosphate project in Senegal. The expected capital cost is under US\$ 15m, and is fully funded to production.**
- **First product is expected later in 2016. Beer & Co expects AEV's share of production to be about 400kt/yr of phosphate rock, at an All-In cost of US\$ 77/t FOB.**
- **AEV has a further 71Mt in Resources outside the SMP which it expects to develop within the next 2 years.**
- **Beer & Co's risked valuation for AEV's share of the SMP is greater than the current share price. We see significant further potential in Senegal and AEV's other projects and leverage from its partners / shareholders.**

### Snapshot

Market Cap	\$68m
Cash held (est'd 31 March 2016) Including AEV's 80% of Baobab Mining	\$32.7m
Shares on Issue	523.9m
52 Week High	15.5c
52 Week Low	5.7 c
1 month / 6 month VWAP	12.4c / 12.7c

### AEV : daily share price v. value traded



At the November 2015 AGM, shareholders agreed to change the company name from Minemakers (MAK.ASX) to Avenira (AEV).

AEV is now developing a mine in Senegal to produce phosphate ( $P_2O_5$ ) rock, which is a key fertiliser input, and expects to ship product later in 2016.

AEV's first project is on a Small Mine Permit, which is limited to 5km<sup>2</sup>.

AEV has 1,553km<sup>2</sup> in tenement with significant mineralisation, which can be developed under a Mining Lease.

AEV has significant further potential from applying the Improved Hard Process to its Wonarah ore and to Baobab ore.

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### AEV's 80% of Baobab Mining (BMCC) phosphate rock project, in Senegal

AEV has reported 12.6Mt grading 21%  $P_2O_5$  in Indicated Resources plus 16Mt at 20%  $P_2O_5$  in Inferred Resources within the 5km<sup>2</sup> area of the SMP.

The expected capital cost is under US\$ 15m and is fully funded.

First product is expected later in 2016. Beer & Co projects that AEV's share will be nearly 400kt/yr of  $P_2O_5$  concentrate, grading greater than 33%.

### Further Resources in Senegal

BMCC has a total of 1553km<sup>2</sup> at Baobab, surrounding the SMP, plus a further 2016km<sup>2</sup> at Gossas. AEV has reported 71Mt of Inferred Resources grading 19%  $P_2O_5$  in Baobab.

AEV will start a drill program to increase both the size and confidence in this resource estimate. Beer & Co expects BMCC to apply for a Mining Licence within 12 months and develop a project producing about 1.0Mt/yr.

### Further upside in AEV

AEV has 198Mt of Measured plus Indicated Resources, at 21.5%  $P_2O_5$ , plus a further 352Mt of Inferred Resources at 21%  $P_2O_5$  at Wonarah in NT.

AEV has an 8.6% stake in JDC Phosphate that is developing the Improved Hard Process (IHP) to produce super phosphoric acid (SPA, 65% - 70%  $P_2O_5$ ) directly from suitable ore, at a cost much lower than conventional processes.

AEV has exclusive licences to the IHP for Australia Senegal.

### AEV's partners and major shareholders add strategic value

AEV's major shareholders, with over 40%, are Agrifos, a US fertiliser group, and Mimran, a West African Agri-food group.

### AEV is cheap in the base case, with huge upside.

Beer & Co's analysis shows that, at current  $P_2O_5$  pricing, AEV's share of the SMP has a value greater than AEV's current share price.

AEV is cheap in the base case, with huge upside. Beer & Co initiates research on AEV with a Strong BUY, High Risk recommendation.

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## Avenira Limited (AEV)

### Introduction

Figure 1 shows the detail of Beer & Co's estimated valuation of AEV.

**Figure 1 :Detail of Beer & Co's valuation of AEV**

discount rate = 12.0 %	risk :	30 June 2015			9-Mar-16	
		100%	Product	per share		
	Small Mine Permit	80%	\$ 102m	\$ 82m	14.4 c	15.8 c
	Gadde Bissik East	40%	\$ 163m	\$ 65m	11.5 c	12.5 c
	Other Baobab	20%	\$ 87m	\$ 17m	3.0 c	3.3 c
	Gossas	nom	\$ 5m	\$ 5m	0.9 c	0.9 c
	Wonarah	nom	\$ 5m	\$ 5m	0.9 c	0.9 c
	I H P (Wonarah)	nom	\$ 10m	\$ 10m	1.8 c	1.8 c
	JDC Phosphate	nom	\$ 0m	\$ 0m	0.0 c	0.0 c
	Corporate	100%	(\$ 30m)	(\$ 30m)	(5.2c)	(5.2c)
	Cash / Debt, etc	100%	\$ 27m	\$ 27m	4.7 c	4.0 c
	<b>TOTAL</b>		<b>\$ 370m</b>	<b>\$ 182m</b>	<b>31.9 c</b>	<b>34.0 c</b>
	Shares on issue		247.2m	F P O shares	39.1m	Options
			276.7m	2015 - 16	6.0m	Ops. Ex'd
			40.0m	later		

Beer & Co's base case, risked, valuation of AEV is 34c/share

This valuation is dominated by phosphate in Senegal.

Source : AEV quarterly reports, Beer & Co estimates

Figure 1 shows that while AEV has a spread of assets, its value is driven by phosphate in Senegal, where AEV has an 80% stake in Baobab Mining and Chemicals Corporation (BMCC), which is at the start of a multi stage project.

AEV's Senegal interests are in a multi-stage development, starting with a modest project, that is fully funded into production.

- The first stage is the Small Mine Permit (SMP) which is confined to an area of 5km<sup>2</sup> within a total tenement area of 1,553km<sup>2</sup>, shown in Figure 2;
- The second stage is a mining project within the tenement area, referred as Gadde Bissik East, shown as the red area in Figure 2, as AEV has reported a sizeable resource for this, as shown in Figure 3;

**Figure 2 : AEV's Baobab project, Senegal**



Source : AEV presentation, February 2016

- A potential third stage is effectively a duplication of Stage 2 in another part of the Baobab permit; while
- There is further potential in the Gossas tenement, as shown in Figure 2.

Beer & Co has given a nominal valuation to AEV's other assets :

- JDC Phosphate Inc is developing a new process, the Improved Hard Process (IHP) to produce Super Phosphoric Acid (SPA, 65% - 70% P<sub>2</sub>O<sub>5</sub>) directly from phosphate rock, and has developed a pilot plant to prove the process
  - The pilot plant has had some teething difficulties that the management team has successfully solved so far and is close to be ready for scale up, although timing is not yet defined

- In previous work, (see [Minemakers 2010Oct25.pdf](#)) this author determined that the Wonarah project was potentially economic at a benchmark price of around current prices of about \$A 165/t
  - However, the ore is well suited to IHP (due to its SiO<sub>2</sub> levels), so AEV is focused on a much higher returns project while commercialisation of the IHP offers significant upside potential.

**Figure 3 : AEV's Resources, Baobab project, Senegal**

			P <sub>2</sub> O <sub>5</sub>	CaO	MgO	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>
Within SMP area	Indicated	12.6 Mt	21.0 %	28.8 %	0.08 %	2.05 %	3.30 %	41.3 %
	Inferred	16 Mt	20 %	28 %	0.13 %	2.2 %	3.9 %	42 %
Gadde Bissik East	Inferred	64 Mt	19 %	26 %	0.12 %	2.8 %	4.0 %	43 %
Gadde Bissik West	Inferred	7 Mt	18 %	26 %	0.17 %	4.8 %	6.3 %	40 %
Total Gadde Bissik	Indicated	12.6 Mt	21.0 %	28.8 %	0.08 %	2.05 %	3.30 %	41.3 %
	Inferred	87 Mt	19 %	26 %	0.13 %	2.9 %	4.2 %	43 %
<b>TOTAL GADDE BISSIK</b>		<b>100 Mt</b>	<b>19.3 %</b>	<b>26.7 %</b>	<b>0.12 %</b>	<b>2.7 %</b>	<b>4.1 %</b>	<b>42 %</b>

Source : AEV ASX announcement, 7 December 2015

## Baobab Small Mine Permit

On 12 November 2015, AEV announced that it had decided to develop a project in the 5km<sup>2</sup> SMP area, which has resources totalling 28.6Mt.

First product is expected later in 2016

In that announcement, AEV stated that the expected capital cost is under US\$ 15m.

On 31 January, 2016, AEV announced that it had concluded a deal with Mimran, a local group, for

- A share placement of \$A 12.25m in AEV; plus
- Mimran to buy a 20% stake in BMCC for US\$ 11.25m.

This means that BMCC is fully funded to bring the SMP into operation.

Figure 4 shows Beer & Co's projected operational outcomes from the SMP, while Figure 5 shows Beer & Co projected outcomes for AEV's 80% stake in the project.

**Figure 4 : Beer & Co's analysis of the SMP operations**

	Life of Mine	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2032-33	2033-34	2034-35
Ore mined	<b>25,400 kt</b>	1,190 kt	1,400 kt	1,400 kt	1,400 kt	1,400 kt	1,400 kt	1,400 kt	1,400 kt	1,400 kt	1,400 kt	410 kt
waste : ore	<b>6.2 : 1</b>	9.2 : 1	6.5 : 1	6.0 : 1	6.0 : 1	6.0 : 1	6.0 : 1	6.0 : 1	6.0 : 1	6.0 : 1	6.0 : 1	6.0 : 1
Waste moved	<b>156,915 kt</b>	10,955 kt	9,100 kt	8,400 kt	8,400 kt	8,400 kt	8,400 kt	8,400 kt	8,400 kt	8,400 kt	8,400 kt	2,460 kt
Ore Processed	<b>25,400 kt</b>	1,015 kt	1,400 kt	1,400 kt	1,400 kt	1,400 kt	1,400 kt	1,400 kt	1,400 kt	1,400 kt	1,400 kt	585 kt
P <sub>2</sub> O <sub>5</sub> grade	<b>20.5 %</b>	20.5 %	20.5 %	20.5 %	20.5 %	20.5 %	20.5 %	20.5 %	20.5 %	20.5 %	20.5 %	20.5 %
Recovery	<b>57 %</b>	55 %	57 %	57 %	57 %	57 %	57 %	57 %	57 %	57 %	57 %	57 %
P <sub>2</sub> O <sub>5</sub> recovered	<b>2,964 kt</b>	135,140 t	163,559 t	163,559 t	163,559 t	163,559 t	163,559 t	163,559 t	163,559 t	163,559 t	163,559 t	47,899 t
Conc grade	<b>33.6 %</b>	33.6 %	33.6 %	33.6 %	33.6 %	33.6 %	33.6 %	33.6 %	33.6 %	33.6 %	33.6 %	33.6 %
P <sub>2</sub> O <sub>5</sub> concentrate	<b>8,823 kt</b>	402,341 t	486,948 t	486,948 t	486,948 t	486,948 t	486,948 t	486,948 t	486,948 t	486,948 t	486,948 t	142,606 t
Mining Inventory	<b>25,400 kt</b>	24,210 kt	22,810 kt	21,410 kt	20,010 kt	18,610 kt	17,210 kt	15,810 kt	14,410 kt	1,810 kt	410 kt	0 kt
	<b>20.5 %</b>	20.5 %	20.5 %	20.5 %	20.5 %	20.5 %	20.5 %	20.5 %	20.5 %	20.5 %	20.5 %	0.0 %

Source : Beer & Co estimates

**Figure 5 : Beer & Co's projected financial outcomes for AEV's 80% share**

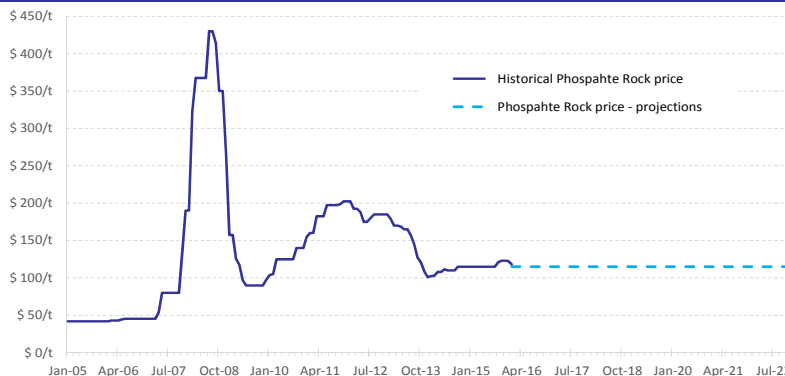
For a modest capital cost, the SMP will generate good cashflows each year

AUD m	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2030-31	2031-32	2032-33	2033-34	2034-35
AUD/USD	0.711	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700
Phos Rock, USD/t	US\$ 117/t	US\$ 115/t	US\$ 115/t	US\$ 115/t	US\$ 115/t	US\$ 115/t	US\$ 115/t	US\$ 115/t	US\$ 115/t	US\$ 115/t	US\$ 115/t	US\$ 115/t	US\$ 115/t	US\$ 115/t
Boabab v. Benchr	(US\$ 6.7/t)	(US\$ 6.5/t)	(US\$ 6.5/t)	(US\$ 6.5/t)	(US\$ 6.5/t)	(US\$ 6.5/t)	(US\$ 6.5/t)	(US\$ 6.5/t)	(US\$ 6.5/t)	(US\$ 6.5/t)	(US\$ 6.5/t)	(US\$ 6.5/t)	(US\$ 6.5/t)	(US\$ 6.5/t)
Phos Rock Concer	0 kt	322 kt	390 kt	390 kt	390 kt	390 kt	390 kt	390 kt	390 kt	390 kt	390 kt	390 kt	390 kt	114 kt
Net Revenue	0	50	64	67	67	67	67	67	67	67	67	67	67	20
Cash Costs	0	(34)	(36)	(36)	(36)	(36)	(36)	(36)	(36)	(36)	(36)	(36)	(36)	(12)
Royalties	0	(3)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(1)
Dep'cn & Amort's	0	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(1)
E B I T	0	12	21	24	24	24	24	24	24	24	24	24	24	5
Tax Expense	0	(4)	(6)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(2)
N P A T	0	9	14	17	17	17	17	17	17	17	17	17	17	4
Feasibility / perm	(2.6)	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Cap.Ex	(12.2)	0	0	0	0	0	0	0	0	0	0	0	0	0
Sus Cap. Ex	0.0	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(0.5)
<b>Net Cashflow</b>	<b>(2.6)</b>	<b>8</b>	<b>15</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>4</b>

Source : Beer & Co estimates

Figure 5 shows that Beer & Co has assumed a Long-Run benchmark phosphate rock price of US\$ 115/t. Figure 6 shows that this projection is relatively modest when compared with the average price over the last 10 years, which is US\$ 146/t.

**Figure 6 : Historical v. Projected Phosphate Rocks prices**



Beer & Co is using \$115/t, FOB, as the benchmark price, which compares with US\$ 146/t as the average over the last 10 years

Source : World bank "pink sheet", Beer & Co estimates

After starting as a discount to get into the market, Beer & Co expects the product to sell at a small premium to benchmark

The premium to benchmark shown in Figure 5 is due to the higher P<sub>2</sub>O<sub>5</sub> grade of the SMP product, at 33.6% P<sub>2</sub>O<sub>5</sub>, (Beer & Co's estimate) which is 7.9% higher than benchmark, but offset by higher Fe levels and also a discount in the first 2 years to get into the market.

The NPV of AEV's cashflows, shown in Figure 5, from 1 July 2015, using a 12% discount rate, is \$A 102m.

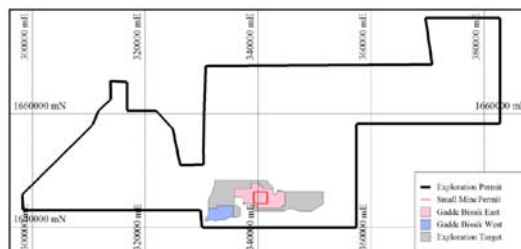
### Gadde Bissik

Figure 3 shows that AEV has reported a JORC Resource of 100Mt, of which only 28.6Mt is in the SMP area.

Most of AEV's resources are outside of the SMP area

Figure 7 shows that the SMP area is only a small part of the area explored, which itself is only a small part of the total Baobab project area.

**Figure 7 : Baobab project tenement**



Source : AEV's NI 43-101, January 2016

Beer & Co expects that BMCC Will develop at least one other project to exploit the resources it has reported.

Figure 8 shows the outcomes of Beer & Co's projections for a project to exploit the Resources not in the SMP.

**Figure 8 : Beer & Co's projections for a second project in Gadde Bissik**

	Life of Mine	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2033-34	2034-35
Ore mined	51,200 kt	909 kt	3,121 kt	3,160 kt	3,160 kt	3,160 kt	3,160 kt	3,160 kt	3,160 kt	3,160 kt	2,931 kt
waste : ore	7.5 : 1	7.5 : 1	7.5 : 1	7.5 : 1	7.5 : 1	7.5 : 1	7.5 : 1	7.5 : 1	7.5 : 1	7.5 : 1	7.5 : 1
Waste moved	384,000 kt	6,814 kt	23,404 kt	23,700 kt	23,700 kt	23,700 kt	23,700 kt	23,700 kt	23,700 kt	23,700 kt	21,983 kt
Ore Processed	51,200 kt	593 kt	3,042 kt	3,160 kt	3,160 kt	3,160 kt	3,160 kt	3,160 kt	3,160 kt	3,160 kt	3,046 kt
P <sub>2</sub> O <sub>5</sub> grade	19.0 %	19.0 %	19.0 %	19.0 %	19.0 %	19.0 %	19.0 %	19.0 %	19.0 %	19.0 %	19.0 %
Recovery	57 %	53 %	57 %	57 %	57 %	57 %	57 %	57 %	57 %	57 %	57 %
P <sub>2</sub> O <sub>5</sub> recovered	5,539 kt	92 kt	338 kt	342 kt	342 kt	342 kt	342 kt	342 kt	342 kt	342 kt	317 kt
Conc grade	34.4 %	34.4 %	34.4 %	34.4 %	34.4 %	34.4 %	34.4 %	34.4 %	34.4 %	34.4 %	34.4 %
P <sub>2</sub> O <sub>5</sub> concentrate	16,106 kt	267 kt	983 kt	995 kt	995 kt	995 kt	995 kt	995 kt	995 kt	995 kt	923 kt
Mining Inventory	51,200 kt	50,292 kt	47,171 kt	44,011 kt	40,851 kt	37,691 kt	34,531 kt	31,371 kt	28,211 kt	2,931 kt	0 kt
	19.0 %	19.0 %	19.0 %	19.0 %	19.0 %	19.0 %	19.0 %	19.0 %	19.0 %	19.0 %	0.0 %

Source : Beer & Co estimates

Figure 8 shows that Beer & Co has assumed a mining inventory of 51Mt grading 19% P<sub>2</sub>O<sub>5</sub>, producing about 1.0Mt/yr of product.

Figure 9 shows Beer & Co's projected financial outcomes for AEV's share.

**Figure 9 : Beer & Co's projected financial outcomes for AEV's share of Gadde Bissik**

AUD m	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2032-33	2033-34	2034-35
AUD/USD	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700
Low Fe v. benchmark (US\$ 1.5/t)	(US\$ 1.5/t)	(US\$ 1.5/t)	(US\$ 0.1/t)	US\$ 6 /t	US\$ 10 /t	US\$ 10 /t	US\$ 10 /t	US\$ 10 /t	US\$ 10 /t	US\$ 10 /t	US\$ 10 /t	US\$ 10 /t
Phos Rock Concentra	0 kt	214 kt	712 kt	697 kt	697 kt	697 kt	697 kt	697 kt	697 kt	697 kt	697 kt	646 kt
Net Revenue	0	35	117	120	124	124	124	124	124	124	124	115
Cash Costs	0	(21)	(66)	(66)	(66)	(66)	(66)	(66)	(66)	(66)	(66)	(63)
Royalties	0	(2)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)
Dep'cn & Amort'sn	0	(1)	(4)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
E B I T	0	11	40	41	45	45	45	45	45	45	45	40
Tax Expense	0	0	0	0	0	0	0	0	(13)	(13)	(13)	(12)
N P A T	0	11	40	41	45	45	45	45	31	31	31	28
Feasibility / permittir	(8.0)	0	0	0	0	0	0	0	0	0	0	0
Project Cap.Ex	(18.9)	0	0	0	0	0	0	0	0	0	0	0
Sus Cap. Ex	0.0	(1.8)	(3.3)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	(2.9)	0.0
<b>Net Cashflow</b>	<b>(26.9)</b>	<b>10</b>	<b>40</b>	<b>44</b>	<b>47</b>	<b>47</b>	<b>47</b>	<b>47</b>	<b>33</b>	<b>33</b>	<b>34</b>	<b>33</b>

Source : Beer & Co estimates

**Beer & Co expects a project to be developed in the Baobab area, outside of the SMP, but based on similar parameters, but at 1.0Mt/yr of product**

**There is scope for more such projects, but further drilling needs to be done to define resources**

**There are further areas of potential value in AEV**

Comparing Figure 9 with Figure 5 shows some key differences :

- Product revenue is higher as we assume a WHIMS circuit, to reduce the Fe levels in the final product, which also raises the P<sub>2</sub>O<sub>5</sub> level;
- AEV's stake in this project is 70%, with the Senegal Government taking a 10% free carried interest, as it is a Mining Lease;
- Royalties are 6.5%, comprising :
  - 3.5% paid to Agrifos, the vendor of the lease, and
  - 3.0% to the Government of Senegal
- There is a 7 year tax holiday, starting from the beginning of development, on a Mining Lease.

The NPV, using a 12% discount rate, on the cashflows shown in Figure 9 is \$A 183m, or \$A 258m at the time production starts.

## Other Value in AEV

Figure 1 shows a number of areas of further value in AEV :

- A third project in Gadde Bissik, for 1.0Mt/yr, given the area shown in Figure 7 that has still to be explored;
- A further project (or more) at Gossas (see Figure 2);
- AEV's Wonarah project, which has 550Mt in JORC Resources, grading 21% P<sub>2</sub>O<sub>5</sub>
  - while this project appears to be viable at current prices, the capital cost is high and AEV achieves much higher returns from BMCC
- Improved Hard Process (IHP), which is a new, but not yet fully commercial method, displacing the current West Acid Process, to produce phosphoric acid
  - It does not require high grade feed, but needs a high level of SiO<sub>2</sub>, making it very well suited to Wonarah; and
- AEV's 8.6% equity stake in JDC Phosphate Inc, which is developing the IHP; and
- The strategic value of the links with Mimran, a West African group, and Agrifos, a US fertiliser group, which are AEV's largest shareholders.

## Valuation of AEV

**Beer & Co's valuation of AEV is sensitive to commodity prices assumed and the risks attached.**

Figure 1 showed that Beer & Co's valuation of AEV is driven by BMCC's SMP, which is currently being developed, and the likely development of a further project, based on JORC Resources already reported.

Figure 10 shows that Beer & Co's risked, base case valuation is sensitive to the risk weighting assumed, and also to commodity prices.

It also shows that there is significant potential upside from successful execution, while success in commercialising the IHP will boost this valuation further.

**Figure 10 : Sensitivity of base case valuation**

Phosphate rock prices	US\$ 100 /t	US\$ 110 /t	US\$ 115 /t	US\$ 120 /t	US\$ 130 /t
Base	23 c	30 c	<b>34 c</b>	38 c	45 c
Higher Risk	15 c	19 c	21 c	23 c	27 c
Un-risked	45 c	61 c	68 c	76 c	92 c

Source : Beer & Co estimates

## Final Comments

**There is significant upside potential to our valuation of AEV**

AEV announced the decision to proceed to mining in November 2015. It first started work on the project in May 2014 and formally announced the intention to acquire an interest in the project in April 2015.

AEV had completed an internal assessment of the SMP, with input from external consultants, but has not published a formal feasibility study.

Instead, AEV had its own cash resources and parties related to the vendor were prepared to invest in AEV so that AEV had no need of further debt or equity capital, which would have required a formal feasibility study.

Instead, based on its own work, AEV could see the obvious value in the project and the need to proceed quickly, as required by the terms of the SMP.

**Beer & Co sees good value in the base cash for AEV with strong upside potential**

## Conclusions

In Beer & Co's view, the value proposition for AEV is based

- primarily on the Small Mine Permit project, which gives AEV a value above the current share price; and
- supported by the further, near term, potential in Gadde Bissik.

**Beer & Co initiates research on AEV with a**

In Beer & Co's view, any investment decision must be based on these two attributes.

**Strong BUY  
High Risk**

In our view, AEV is cheap because it has taken a very realistic and commercial approach to get into operation, as opposed to spending time and money analysing a project for which the economics is obvious.

**recommendation**

This is compounded by the terms of the SMP which do not allow the time required to undertake the conventional suite of studies, as development must begin within 6 months of grant.

However, AEV has significant further potential than the SMP and the first project in Gadde Bissik. While realisation of this potential is somewhat speculative, Beer & Co is confident that, over time, this value will be realised from this potential.

Beer & Co initiates research on AEV with a Strong BUY, High Risk, recommendation.



## Beer &amp; Co Research

Avenira Limited (AEV.ASX)

March 2016

Year ended June	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	
<b>Section 1 - P&amp;L</b>									
Sales revenue	\$A m	0	0	50	64	101	184	187	288
Interest revenue	\$A m	1	0	0	0	0	1	1	2
Other revenue	\$A m	0	0	0	0	0	0	0	0
<b>Total Revenue</b>	\$A m	<b>1</b>	<b>0</b>	<b>50</b>	<b>64</b>	<b>102</b>	<b>184</b>	<b>188</b>	<b>290</b>
Cost of Goods Sold	\$A m	0	0	(34)	(36)	(57)	(102)	(102)	(163)
Royalties	\$A m	0	0	(3)	(4)	(7)	(12)	(12)	(19)
Corporate Costs	\$A m	(5)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Exploration Expense	\$A m	(2)	0	0	0	0	0	0	0
Other Operating Expenses	\$A m	(3)	0	0	0	0	0	0	0
<b>Total Operating Expenses</b>	\$A m	<b>(9)</b>	<b>(4)</b>	<b>(41)</b>	<b>(44)</b>	<b>(68)</b>	<b>(118)</b>	<b>(118)</b>	<b>(185)</b>
<b>EBITDA</b>	\$A m	<b>(9)</b>	<b>(4)</b>	<b>9</b>	<b>19</b>	<b>34</b>	<b>66</b>	<b>70</b>	<b>105</b>
Dep'n & Amort'n	\$A m	(0)	0	(1)	(2)	(3)	(6)	(8)	(11)
<b>EBIT</b>	\$A m	<b>(9)</b>	<b>(4)</b>	<b>9</b>	<b>17</b>	<b>31</b>	<b>60</b>	<b>62</b>	<b>94</b>
Interest Expense	\$A m	0	0	0	0	0	0	0	0
Other	\$A m	(34)	0	0	0	0	0	0	0
<b>Pre-Tax Profit</b>	\$A m	<b>(43)</b>	<b>(4)</b>	<b>9</b>	<b>17</b>	<b>31</b>	<b>60</b>	<b>62</b>	<b>94</b>
Tax Expense	\$A m	0	0	(4)	(6)	(7)	(7)	(7)	(7)
<b>NPAT</b>	\$A m	<b>(43)</b>	<b>(4)</b>	<b>5</b>	<b>11</b>	<b>23</b>	<b>53</b>	<b>55</b>	<b>87</b>

## Section 2 - Key Data

Ordinary shares - year end	m	247	524	564	570	570	570	570	570
Fully diluted shares on issue	m	247	524	564	570	570	570	570	570
Weighted # shares	m	247	454	564	565	570	570	570	570
Earnings per Share		(17.5c)	(0.8c)	0.9 c	1.9 c	4.1 c	9.3 c	9.7 c	15.3 c
Dividends Per Share		0.0 c	0.0 c	0.0 c	0.0 c	0.0 c	0.0 c	0.0 c	0.0 c

## Section 3 - Balance Sheet

Cash	\$A m	15	21	18	3	21	75	102	191
Receivables	\$A m	0	0	15	16	34	46	47	79
Other	\$A m	0	2	2	2	6	6	6	10
<b>CURRENT ASSETS</b>	\$A m	<b>16</b>	<b>23</b>	<b>35</b>	<b>21</b>	<b>61</b>	<b>127</b>	<b>155</b>	<b>280</b>
Receivables	\$A m	1	0	0	0	0	0	0	0
P, P & E	\$A m	0	12	13	31	30	29	58	58
Mining Properties / Exploration	\$A m	16	6	12	20	25	24	22	20
Other	\$A m	0	0	0	0	0	0	0	0
<b>NON-CURRENT ASSETS</b>	\$A m	<b>18</b>	<b>17</b>	<b>25</b>	<b>51</b>	<b>54</b>	<b>53</b>	<b>80</b>	<b>78</b>
<b>TOTAL ASSETS</b>	\$A m	<b>33</b>	<b>40</b>	<b>60</b>	<b>72</b>	<b>115</b>	<b>180</b>	<b>235</b>	<b>358</b>
Payables	\$A m	2	0	4	3	7	9	9	15
Debt	\$A m	0	0	0	0	0	0	0	0
Other	\$A m	1	0	0	0	0	0	0	0
<b>CURRENT LIABILITIES</b>	\$A m	<b>3</b>	<b>0</b>	<b>4</b>	<b>3</b>	<b>7</b>	<b>9</b>	<b>9</b>	<b>15</b>
Long Term Debt	\$A m	0	0	0	0	0	0	0	0
Other	\$A m	0	0	0	0	0	0	0	0
Provisions	\$A m	1	0	0	0	0	0	0	0
<b>NON-CURRENT LIABILITIES</b>	\$A m	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>TOTAL LIABILITIES</b>	\$A m	<b>4</b>	<b>0</b>	<b>4</b>	<b>3</b>	<b>7</b>	<b>9</b>	<b>9</b>	<b>15</b>
<b>NET ASSETS</b>	\$A m	<b>29</b>	<b>40</b>	<b>56</b>	<b>69</b>	<b>108</b>	<b>171</b>	<b>226</b>	<b>343</b>
Accumulated Profit (Loss)	\$A m	(72)	(76)	(71)	(60)	(37)	17	72	159
Reserves	\$A m	12	13	25	26	42	51	51	81
Contributed Equity	\$A m	90	102	102	103	103	103	103	103
Minority Interest	\$A m	0	0	0	0	0	0	0	0
<b>Total Equity</b>	\$A m	<b>30</b>	<b>40</b>	<b>56</b>	<b>69</b>	<b>108</b>	<b>171</b>	<b>226</b>	<b>343</b>

## Section 4 - Cashflow

Net Cashflow from operations	\$A m	(6)	(4)	9	19	34	66	70	105
Net Interest Paid	\$A m	1	0	0	0	0	1	1	2
Taxes Paid	\$A m	0	0	0	(4)	(6)	(7)	(7)	(7)
Change in Working Capital	\$A m	2	(1)	(12)	(1)	(15)	(10)	(1)	(26)
<b>OPERATING CASHFLOW</b>	\$A m	<b>(3)</b>	<b>(5)</b>	<b>(2)</b>	<b>15</b>	<b>13</b>	<b>50</b>	<b>63</b>	<b>74</b>
Exploration + Feasibility	\$A m	(2)	(4)	(6)	(9)	(6)	0	0	0
Maintenance Capex	\$A m	0	0	(2)	(2)	(3)	(5)	(5)	(9)
Expansion Capex	\$A m	0	0	0	(19)	0	0	(32)	0
<b>PPE Acquisitions (Total Capex)</b>	\$A m	<b>(2)</b>	<b>(4)</b>	<b>(8)</b>	<b>(29)</b>	<b>(9)</b>	<b>(5)</b>	<b>(36)</b>	<b>(9)</b>
PPE Divestments	\$A m	0	0	0	0	0	0	0	0
<b>INVESTING CASHFLOW</b>	\$A m	<b>(2)</b>	<b>(4)</b>	<b>(8)</b>	<b>(29)</b>	<b>(9)</b>	<b>(5)</b>	<b>(36)</b>	<b>(9)</b>
Change in Equity	\$A m	0	12	0	1	0	0	0	0
Dividends Paid	\$A m	0	0	0	0	0	0	0	0
Change in Debt	\$A m	0	0	0	0	0	0	0	0
<b>FINANCING CASHFLOW</b>	\$A m	<b>0</b>	<b>12</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Free Cashflow</b>	\$A m	<b>(6)</b>	<b>(9)</b>	<b>(10)</b>	<b>(14)</b>	<b>4</b>	<b>45</b>	<b>27</b>	<b>66</b>
<b>Net Cashflow</b>	\$A m	<b>(6)</b>	<b>3</b>	<b>(10)</b>	<b>(13)</b>	<b>4</b>	<b>45</b>	<b>27</b>	<b>66</b>

## Commodity price assumptions

Year ended June	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
AUD/USD	0.700	0.700	0.700	0.700	0.700	0.700
USD/EUR	1.150	1.150	1.150	1.150	1.150	1.150
Phos Rock, USD/t	USD /t	115	115	115	115	115
Boabab v. Benchmark	(7)	(1)	5	5	5	5
Low Fe v. benchmark	(2)	(2)	(2)	(0)	6	10

## Mine Production / Sales, phosphate concentrate (AEV share)

Small Mine Permit	322	390	390	390	390	390
Gadde Bissik East	0	0	214	712	697	697
Other Baobab	0	0	0	0	0	599

## Resources, Reserves and assumed mining inventory

## Gadde Bissik Mineral Resources

		P2O5	CaO	MgO	Al2O3	Fe2O3
Within SMP area	Indicated	12.6 Mt	21.0%	28.8%	0.08%	2.05%
	Inferred	16 Mt	20%	28%	0.13%	2.2%
Gadde Bissik East	Inferred	64 Mt	19%	26%	0.12%	2.8%
Gadde Bissik West	Inferred	7 Mt	18%	26%	0.17%	4.8%
Total Gadde Bissik	Indicated	12.6 Mt	21.0%	28.8%	0.08%	2.05%
	Inferred	87.0 Mt	19.1%	26.4%	0.13%	2.85%
<b>TOTAL GADDE BISSIK</b>		<b>99.6 Mt</b>	<b>19.3%</b>	<b>26.7%</b>	<b>0.12%</b>	<b>2.75%</b>

## Beer &amp; Co estimated mining inventory, Gadde Bissik

		P2O5
Small Mine Permit	25 Mt	20%
Gadde Bissik East	51 Mt	19%
Other Baobab	40 Mt	18%

## Wonarah Mineral Resources

	P2O5	Al2O3	CaO	Fe2O3	K2O	MgO
Measured	64.9 Mt	22.4%	4.47%	30%	1.1%	0.37%
Indicated	133 Mt	21.1%	4.77%	28%	1.53%	0.47%
Sub-Total	198 Mt	21.5%	4.67%	28.7%	1.39%	0.44%
Inferred	352 Mt	21%	4.6%	28%	2.1%	0.5%
<b>TOTAL</b>	<b>550 Mt</b>	<b>21%</b>	<b>4.6%</b>	<b>28%</b>	<b>1.8%</b>	<b>0.2%</b>

## Asset based Valuation

discount rate = 12.0%	30 June 2015		9-Mar-16	
	risk :	100%	Product	per share
Small Mine Permit	80%	\$ 102m	\$ 82m	14.4 c
Gadde Bissik East	40%	\$ 163m	\$ 65m	11.5 c
Other Baobab	20%	\$ 87m	\$ 17m	3.0 c
Gossas	nom	\$ 5m	\$ 5m	0.9 c
Wonarah	nom	\$ 5m	\$ 5m	0.9 c
I H P (Wonarah)	nom	\$ 10m	\$ 10m	1.8 c
JDC Phosphate	nom	\$ 0m	\$ 0m	0.0 c
Corporate	100%	(\$ 30m)	(\$ 30m)	(5.2c)
Cash / Debt, etc	100%	\$ 27m	\$ 27m	4.7 c
<b>TOTAL</b>		<b>\$ 369m</b>	<b>\$ 182m</b>	<b>31.9 c</b>
Shares on issue	247.2m	F P O shares	39.1m	Options
	276.7m	2015 - 16	6.0m	Ops. Ex'd
	40.0m	later		

## Financial Ratios

Year ended June	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Revenue	\$A m	0	50	64	102	184
EBITDA	\$A m	(9)	(4)	9	19	34
EBIT	\$A m	(9)	(4)	9	17	31
NPAT (reported)	\$A m	(43)	(4)	5	11	23
Adjusted EPS (cps)		(17.5c)	(0.8c)	0.9 c	1.9 c	4.1 c
EPS Growth (%)			95%	202%	119%	117%
DPS (c)		0.0 c	0.0 c	0.0 c	0.0 c	0.0 c
Dividend Yield (%)		0%	0%	0%	0%	0%
PE adj. (x)	x	(0.4)	(15.4)	15.0	6.8	3.2
EV / EBITDA (x)	x	(0)	(13)	6	4	2
EV / EBIT (x)	x	(0)	(13)	6	4	2
Gearing (%)		0%	0%	0%	0%	0%
Return on Assets		(9%)	14%	23%	27%	34%
Return on Equity		(9%)	9%	16%	22%	31%
EBITDA Margin (%)		n/a	n/a	18%	31%	33%
Interest Cover (x)	x	n/a	n/a	n/a	n/a	n/a

## Major Shareholders

Current	end 2016	
Mimran Groupe	104.750m	20.0%
plus 40m further performance shares		
Vulcan / Agrifos	114.000m	21.8%
JP Morgan AM	28.152m	5.4%

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### **Analyst Certification**

The analyst responsible for this research report certifies that all of the views expressed reflect his personal views about the securities and the issuer.

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