

## Tabba Tabba resource upgraded

### Works approval for Tabba Tabba expected soon

#### Recommendation

**BUY; High Risk**

#### Price

**4.4c**

#### Valuation

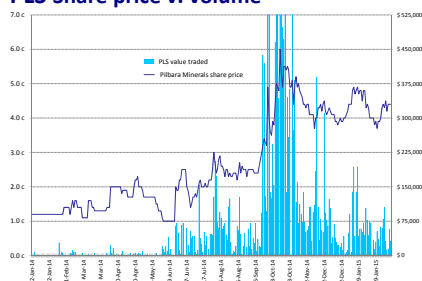
**10.8c**

- PLS has increased its Resource estimate for Tabba Tabba; the extensions are areas that are part of the plan to access the pit, but had not been assayed previously.
- PLS has been required to re-submit data for its Works Permit. Approval is expected in March. The plant is ready to shift to site and first product now expected late April.
- Pilgangoora drilling will re-start soon. An upgraded resource estimate is expected in April – May.
- The changes to Tabba Tabba reduce our formal valuation by 13%, to 10.8c. However, the grades from the drilling at Pilgangoora will cause a much more significant increase in our valuation.

#### Snapshot

Market Cap	\$27.2m
Shares on Issue	617.6m
Cash on hand (31 Dec 2014)	\$2.2m
52 Week High	6.5c
52 Week Low	1.0c
1 month / 6 month VWAP	4.2c / 4.4c

#### PLS Share price v. volume



Pilbara Minerals acquired a 50% stake in the Tabba Tabba project in October 2013.

PLS published a feasibility study on Tabba Tabba in February 2014 and has since raised equity to bring it into production.

In May 2014, PLS announced the acquisition of 100% of Pilgangoora, 55km from Tabba Tabba in the the Pilbara region.

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#### Tabba Tabba Resource upgrade

On 19 January, 2015, PLS announced an upgraded resource, from 213kt containing 572,200lb of Ta<sub>2</sub>O<sub>5</sub>, to 318kt containing 666,200lb. Of the 94,000lb increase, 73,000lb was in the Measured category.

The increased volume of Resources is due to drilling in areas that need to be mined for access to the pit. These areas were lower grades than Beer & Co's earlier estimates.

#### Tabba Tabba works approval delayed

PLS has been required to do some more work to get approval to begin work on-site. These approvals are now expected in March. The plant is ready to be installed when the pads are prepared.

#### Tabba Taba valuation down; Greater upside at Pilgangoora

The delay to the timing of first product at Tabba Tabba, plus the lower grades, leads to a downgrade of Beer & Co's valuation of PLS to 10.8c.

PLS had completed 4,812m of a 10,000m programme at Pilgangoora. Drilling is expected to re-start soon. The programme is expected to result in an upgrade and extension of Resources. The impact is expected to be much greater than the fall in in our valuation of Tabba Tabba.

#### Significant upside to Beer & Co's risked valuation of 11c/share

Beer & Co sees significant potential for our risked valuation of PLS to increase to over 20c/share from progressive de-risking and upgrade, especially to the Li<sub>2</sub>O grades at Pilgangoora.

Beer & Co confirms our BUY, High Risk recommendation.

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## Tabba Tabba Resource updated

### Tabba Tabba resource estimate updated

### Updated Resource estimate, Tabba Tabba

On 19 January 2015, PLS announced the results from its drilling at Tabba Tabba. This drilling and Resource update was carried out as prelude the start of mining at Tabba Tabba, to define the near term mine plan.

Figure 1 shows a summary of the reported results.

**Figure 1a : Updated Resource estimate**

		Ta <sub>2</sub> O <sub>5</sub> grade contained Ta <sub>2</sub> O <sub>5</sub>	
Measured	35.1 kt	1,380 ppm	107,125 lb
Indicated	187.0 kt	1,020 ppm	418,925 lb
Inferred	96.0 kt	660 ppm	140,150 lb
<b>TOTAL</b>	<b>318.1 kt</b>	<b>950 ppm</b>	<b>666,200 lb</b>

Source : PLS ASX announcement, 19 January 2015

**Figure 1b : Original Resource estimate**

		Ta <sub>2</sub> O <sub>5</sub> grade contained Ta <sub>2</sub> O <sub>5</sub>	
Measured	30.1 kt	1,610 ppm	106,960 lb
Indicated	124.4 kt	1,260 ppm	346,040 lb
Inferred	58.4 kt	925 ppm	119,200 lb
<b>TOTAL</b>	<b>212.9 kt</b>	<b>1,220 ppm</b>	<b>572,200 lb</b>

Source : PLS ASX announcement, 18 November 2013

Figure 1 shows a greater volume of Ta<sub>2</sub>O<sub>5</sub>, but at a lower grade.

**Higher classification, more mineral, but lower overall grade**

Beer & Co understands that the lower grade is NOT because there is less Ta<sub>2</sub>O<sub>5</sub> than thought, but that lower grade areas are now included in the Resource estimate.

**The near term mine plan is unchanged.**

### Change in grades in mine plan

Figure 2 shows the Reserves estimated from the November 2013 Resource.

**Figure 2 : PLS Reserves estimate, Feb. 2014**

		Ta <sub>2</sub> O <sub>5</sub> grade contained Ta <sub>2</sub> O <sub>5</sub>	
Proved	32.0 kt	1,420 ppm	100,178 lb
Probable	101.0 kt	1,249 ppm	278,111 lb
Total Reserves	133.0 kt	1,290 ppm	378,289 lb
Pit Design	162.2 kt	1,240 ppm	443,411 lb

Source : PLS ASX announcement, 19 February 2014

**The next phase is revised to a lower grade.**

However, there appears to be significant mineralisation beyond that included in resources (refer to the discussions around Figures 3 and 4 our initiation research :

[http://beerandco.com.au/wp-content/uploads/2014/09/PilbaraMinerals\\_2014Sept16\\_short.pdf](http://beerandco.com.au/wp-content/uploads/2014/09/PilbaraMinerals_2014Sept16_short.pdf))

**The long term remains speculative, but we have assumed low to marginal grades.**

Figure 3 shows the Life of Mine estimate used by Beer & Co in our initiation.

**Figure 3 : Beer & Co's assumed mine life**

		Ta <sub>2</sub> O <sub>5</sub> grade contained Ta <sub>2</sub> O <sub>5</sub>	
Reserves	133 kt	1,290 ppm	378k lb
In Pit + Resources	80 kt	1,100 ppm	195k lb
near pit	50 kt	900 ppm	99k lb
Along strike	500 kt	750 ppm	827k lb
Strelly, high grade	500 kt	600 ppm	661k lb
Strelly, balance	900 kt	450 ppm	892k lb
<b>TOTAL</b>	<b>2,162 kt</b>	<b>640 ppm</b>	<b>3,052k lb</b>

Source : Beer & Co estimates

The volume and grade referred to as "In Pit + Resources" is the difference between the volumes in the Reserves estimate and that in the total Resources, as shown in Figure 1b.

Beer & Co's estimates of the grade of the peripheral material was based on an assumption that it would be lower than that in the Resources.

Overall, we now have more material mined for less product

Beer & Co estimate that the economic cut-off grade is about 400ppm; the Strelly material, which is assumed to grade 450ppm, adds virtually zero cash due to the cost of transporting this material for processing.

Given the lower grades in the Resource estimate announced on 19 January, 2015, it is apparent that our estimate of the grade of the intermediate material has been too high.

Figure 4 shows the change Beer & Co has made to our assumed life of mine for Tabba Tabba.

**Figure 4 : Beer & Co's revised assumed mine life**

Reserves	133.0 kt	1,290 ppm	378k lb
Pit Design	29.2 kt	1,012 ppm	65k lb
Other M&I Resources	59.9 kt	626 ppm	83k lb
Inferred	96.0 kt	662 ppm	140k lb
Along strike	500 kt	600 ppm	661k lb
Strelly, high grade	500 kt	600 ppm	661k lb
Strelly, balance	900 kt	450 ppm	892k lb
<b>TOTAL</b>	<b>2,217 kt</b>	<b>589 ppm</b>	<b>2,881k lb</b>

Source : Beer & Co estimates

## PLS valuation down-graded

Our valuation is lower due to the lower grade of material in the medium term.

### Lower grades at Tabba Tabba

Comparing Figure 3 with Figure 4 shows that Beer & Co has

- Assumed an increase in the total volume of material mined, but with a lower volume of contained Ta<sub>2</sub>O<sub>5</sub>; and
- Calculated that the new inventory is at a lower grade, of 589ppm compared with 640ppm previously.

In other words, we now have an estimated grade for the material that follows the initial pit that is lower than we had previously assumed. This means that while our estimated cashflows for the first 160kt is about the same, the balance of the Tabba Tabba material, or 656kt, of which 500kt is a guess with low certainty, generates less cash.

The start has been delayed from when we expected, impacting our valuation further

### Start-Up delayed

Originally, we expected that first product would come in December, but this had been revised to February.

Final approvals have been delayed and are now expected in March.

Beer & Co's model is revised to zero product in the March quarter with first product in May and full production during the September quarter.

### Lower valuation for Tabba Tabba

Our revised valuation is now 10.8c/share

Figure 5 shows the impact of the delay in the start-up and the also the impact of the lower grades for the medium term material at Tabba Tabba.

**Figure 5 : Revised valuation**

Original	Lower grades	Delay
12.4 c	11.4 c	10.8 c

Source : Beer & Co estimates

Figure 5 shows that our base case, risked valuation has been reduced from 12.4c to 10.8c /share.

## Conclusions

Figure 6 shows the detail of our revised valuation of PLS, of 10.8c/share

The bulk of PLS's valuation is Pilgangoora

We are still using the Li<sub>2</sub>O grades from the original resource estimate, which we believe will prove to be too low after the current drill programme has been completed

**Figure 6 : Beer & Co's previous valuation of PLS**

discount rate = 12.0 %	risk :	30-Jun-14		16-Feb-15	
		100%	Product	per share	
Tabba Tabba Resources	85 %	\$ 4m	\$ 3m	0.4 c	0.5 c
Tabba Tabba Extensions	65 %	\$ 2m	\$ 1m	0.1 c	0.2 c
Strelly	45 %	\$ 1m	\$ 0m	0.0 c	0.1 c
fanking credits	50 %	\$ 1m	\$ 0m	0.0 c	0.0 c
Pilgangoora Resources	40 %	\$ 81m	\$ 33m	4 c	5 c
Pilgangoora Extension	20 %	\$ 58m	\$ 12m	1 c	2 c
fanking credits	20 %	\$ 55m	\$ 12m	1 c	2 c
Corporate	100 %	(\$6m)	(\$6m)	(0.6c)	(0.6c)
Cash / debt	100 %	(\$0m)	(\$0m)	(0.0c)	(0.0c)
cash raised	100 %	\$ 9m	\$ 9m	1.1 c	0.9 c
<b>TOTAL</b>		<b>\$ 205m</b>	<b>\$ 64m</b>	<b>7.2 c</b>	<b>10.8 c</b>
Shares on issue		330.3m	FPO shares	91.8m options	
		287.3m	issued 2014	91.8m op. ex'd	
		41.7m	CNs converted		
		146.5m	new equity		

Source : Beer & Co estimates

There is still significant upside potential to our valuation.

Figure 6 shows :

- Tabba Tabba is only a small part of our overall valuation; and
- The major part of our valuation is Pilgangoora, which is very heavily risk weighted

We retain our BUY, High Risk, recommendation

### Retain BUY, High Risk recommendation

Our base case valuation is still well above the current share price, and there is significant upside potential to our share price, as outlined in our note of 13 January 2015.



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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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